

**Final Comprehensive
Remedial Investigation Report
Part I of IV
Volume 4 of 7**

**For Philip Services Corporation's
Georgetown Facility
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Seattle, Washington
WAD 00081 2909**

Submitted to:
Washington State Department of Ecology

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APPENDIX 3A
SOIL BORING LOGS

RECORD OF SUBSURFACE EXPLORATION

HA-101

PROJECT NAME: Chempro Georgetown PROJECT NO: 623/88
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lignite GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 1012 11/23/91 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	AIR MONITORING UNITS <u>NDL</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
						BZ	BH	S	
				sand, SD, very dark gray, med grain, moist loose	SP	0 2 1' 3.2	89 @ 2' -	661 @ 2'	
				sand, ^{SP} very dark gray, med grain, moist (product?) loose. sticky	SP	27 @ 7'	1072 @ 7'	927 @ 7'	masses of stringy material whitish gray, rubbery

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-10Z

PROJECT NAME: Chempro Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 1029 11/22/91 DATE/TIME COMPLETION (S): 1120 11/22/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>ADU</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				Sand, SP, Very dark gray, fine to med. grain, moist, loose		8.7 @ 1'	2' 2'	724 @ 2'		Dark color from staining?
				Sand, SP, Very dark gray, Med grain, moist, loose (product?)		17 @ 7'	7'	1221 @ 7' 1192 @ 7'		Masses of strings of rubbery material, whitish gray in color very stretchy

COMMENTS: _____

GEOLOGIST SIGNATURE Ken Walter

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempro Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajda GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 11/20/91 1215 DATE/TIME COMPLETION (S): 11/20/91 1250
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5	HA-1035	1.5 - 2.5	11	sand, dark gray, fine to med. moist	SP	11 @ 1'	562 @ 2'	588 @ 2'		
		3.5 - 5.5	3	Sand ^{SP} , very dark gray, fine to med, moist	SP	3 @ 7'	143 @ 7'	1365 @ 7'	soil seems sticky @ 7'	
		7		T.D 7'						

COMMENTS: Highly contaminated
soil is coated w/ some type of chemical
 GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-16
Well No.

PROJECT NAME: chempro PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: 11/20/91 1155 DATE/TIME COMPLETION (S): 11/20/91 1215
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDLA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5		2 3.5		Sand, SW, dark grayish brown and reddish brown oxidation, fine to coarse grain Refusal @ 4' T.D. 4'	SW		6 0 1' 0	794 2 2'	1262 2 2'	

COMMENTS: Highly contaminated

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-106

PROJECT NAME: Chempco Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Water GWL: depth _____ date/time _____
 DRILLED BY: Arvon Lafont GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: hand auger
 DATE/TIME STARTED: 11/20/91 1230 DATE/TIME COMPLETION (S): 11/20/91 1300
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>NDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5	HA-106 S	2		sand sw, very dark gray. fine to coarse grain. moist		14 @	328	40		
		5.5			1' @					
	HA-106 D	7		sand sp, very dark gray fine to med.		1375 @	765	71	soil seems sticky @ 7'	
			7' @							
				T.D. 7'						

COMMENTS: soil is coated with sticky substance

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-107

PROJECT NAME: Chempco Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Arson Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: hand auger
 DATE/TIME STARTED: 1021 11/22/01 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>ADDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		2 3 4 5 6 7		Sand, SP, very dark gray, med grain, moist loose		18 @ 1'	1047 @ 2'	979 @ 2'		
		7		sand, SP, very dark gray med grain, moist (product?) sticky loose		29 @ 7'	1330 @ 7'	1203 @ 7'	masses of stringy material whitish gray sticky, rubbery	

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: CHEMPRO PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T. Smith GWL: depth _____ date/time _____
 DRILLED BY: W. Hough GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 1540 10/31/91 DATE/TIME COMPLETION (S): 1630 10/31/91
 AIR MONITORING TYPE: YS BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM <u>ASTM</u>	USCS SYMBOL	DEPTH CLING (feet)	AIR MONITORING UNITS BZ BH S	DRILLING CONDITIONS AND (BLOW COUNTS)
5		A		0 - 5 - CONCRETE 5" - DARK GREY - BLACK FINE GRAINED SAND. MED MOISTURE CONTENT LOW DENSITY SAMPLE @ 2' - 3.5' SAMPLE TIME 1552 SAMPLE DESCRIPTION SAME AS ABOVE 3.5' - 7' SAME AS ABOVE SAMPLE @ 7' - 7.5' SAMPLE TIME 1614 DARK GREY - BLACK FINE GRAINED SAND HOLE PLUGGED w/ Bentonite 1650 TD - 7.5'	SW SP			PD 1 - INOPERABLE, LEVEL "C" THROUGHOUT ALL WORK

COMMENTS: VOH - JADS FILLED FIRST

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Clemens - Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T. Smith GWL: depth _____ date/time _____
 DRILLED BY: W. Hough GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 11/6/91 (1210) DATE/TIME COMPLETION (S): 11/6/91 (1240)
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS (PM)			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
0 - 4"				CONCRETE		5		1000 ⁺		10"
4 - 12'				DARK GREY - BLACK W/ARGE GRAVEL w/ SAND - LOW DENSITY - MED MOISTURE STAINED		10	995	1000		2'
12" - 2'				DARK GREY BLACK FINE GRAINED SAND - MED. MOIST LOW DENSITY STAINED						
				SAMPLE 2' - 2.5' SAME AS ABOVE SAMPLE TIME 1215		6		1000		5 - 5'
				SAMPLE 7' - 7.5' SAME AS ABOVE SAMPLE TIME 1240		12	350	1900		7' - 7.5'
				TWB w/ BENTONITE 1250						

COMMENTS: ~~Full~~ ~~THAN~~

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: clamped Georgetown PROJECT NO: 623178
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ted Smith GWL: depth _____ date/time _____
 DRILLED BY: W. H. Smith GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND DRILL
 DATE/TIME STARTED: (1415) 10/31/91 DATE/TIME COMPLETION (S): (1520) 10/31/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	AIR MONITORING UNITS: <u>ppm</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
						BZ	BH	S	
				0-9" concrete	sp				
				9" - Dark grey black fine sand of calc med to h. low density					
				1435		34	120	10/31/91	11"
				Grey black sand		34	120		
				1505 - TIME		38			
				Back Fill hole w/ Bentonite 10-19-20 TO 7.5					

COMMENTS: _____

GEOLOGIST SIGNATURE Ted Smith

RECORD OF SUBSURFACE EXPLORATION

11/22/91

PROJECT NAME: Chempco Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Asan Lajore GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 11/20/91 1424 DATE/TIME COMPLETION (S): 11/20/91 1448
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>NDU</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5		2'		Sand, ^{SP} Dark gray, fine grain, damp, loose	SP	13 @ 1'	33 @ 2'	118 @ 2'		
		3.5'		Sand, ^{veril} Dark gray, med grain, moist, loose	SP	797 @ 7'	835 @ 7'		glistens with oily substance	

COMMENTS: oily sludge under cased concrete. bentonite seal was in place around core

GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

HA-112

11/22/91

Page 1 of 2
Borehole No. HA-11
Well No.

PROJECT NAME: Chemford Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 11/22/91 1413 DATE/TIME COMPLETION (S): 1448
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>ASTM</u>			BZ	BH	S	
5		3		Sand, SP, Dark gray, fine grain, damp, loose to med	SP	2.0 1'	130	65		
		3.5 5.5					2'	2'	2'	
		7.0		Sand, SP, Dark grayish brown, fine to med grain, moist Loose			135	99		
							2'	7'		

COMMENTS: _____

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-11
Well No.

PROJECT NAME: Chempro GT PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: KGW GWL: depth _____ date/time _____
 DRILLED BY: KBW GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 11/26/91 11:25 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS ASIM</u>			BZ	BH	S	
			2.0	Sand, very dark gray to black, fine to med grain #1013T ↓ T.D. 7. ft.	SP					PID inoperable
			3.5							
			5.5							
			7.0							

COMMENTS: PID not operating

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-114

Page 1 of 2
Borehole No. **HA-1**
Well No.

PROJECT NAME: Chempro Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Laron Lajoci GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 11/22/91 1435hrs DATE/TIME COMPLETION (S): 11/22/91 1448
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	AIR MONITORING UNITS <u>MDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
						BZ	BH	S	
5		2 1 35 55 7		Sand SP, dark grayish brown and reddish brown oxidation. fine to med. grain Sand, SW, dark grayish brown, fine to med grain, moist, loose	SP	1' 6	2' 94	2' 126 96 147 71	

COMMENTS: _____

GEOLOGIST SIGNATURE *Ken Walter*

RECORD OF SUBSURFACE EXPLORATION

007

Borehole No. _____

Well No. HA) 115

PROJECT NAME: CHEMPRO. 6T PROJECT NO: 623148

ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____

LOGGED BY: T. SMITH GWL: depth _____ date/time _____

DRILLED BY: W. HOUGH GWL: depth _____ date/time _____

DRILLING/RIG METHODS: HAND AUGER

DATE/TIME STARTED: 11/19/91 (11:30) DATE/TIME COMPLETION (S): 11/19/91 (12:48)

AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>PPM</u> BZ, BH, S	DRILLING CONDITIONS AND (BLOW COUNTS)
				0-8" CONCRETE	RGW		13 106 N/A	BACK GROUND - 10 PPM 9" (@ 1132)
				8" - DARK GREY - BLACK COARSE GRAVEL W/ SAND (SOIL BASE-FILL) STAINED MEDIUM DENSITY, MEDIUM-HIGH MOISTURE CONTENT LARGEST GRAVEL (1.5" DIA.) (GRAVEL-DIORITE - FLUVIAL)				
				18" - 22" WOOD FRAGMENTS NOTED - IN MATRIX-AS ABOVE - (ALSO CONCRETE AND BRICK FRAGMENTS)			10 60 N/A	18" (@ 1143) LOW PENETRATION RATE DUE TO FILL
				22" - 24" (SEE 2' SAMPLE DESCRIPTION)				
				SAMPLE AT 2' DARK GREY - BLACK WELL GRADED SAND MED. MOIST, MED. DENSE.	SP		105	@ 2'
				2' - 7' - SAME				
				SAMPLE @ 7' SAME AS 3' SAMPLE SAMPLE TIME (12:38)			190	@ 7' (1238) * FIBEROUS MATERIAL THROUGHOUT SOIL MATRIX
				PLUG HOLE W/ BENTONITE TO BASE OF CONCRETE (1248)				

COMMENTS: ASH LEVEL "C" @ 11:33 / PRY-BAR USED AT 16" TO EXTRACT LARGE GRAVEL

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-
Well No. 116

PROJECT NAME: CHEMPIO GEORGETOWN PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T Smith GWL: depth _____ date/time _____
 DRILLED BY: T Smith ~~Ken Waters~~ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 11/6/91 1015 DATE/TIME COMPLETION (S): 11/6/91 1045
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>P/m</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0-3" CONCRETE						@ 6" - 12"
				8" - 24" 16" DARK - BROWN BLACK SANDY GRAVEL w/ TRACE CLAY - WOOD FRAG'S - SUB BASE MED. MOIST. LOW DENSITY						
				24" (2') SAMPLE						
				16" - 24" BROWN BLACK DARK GREY FINE SAND. MOD. MOISTURE MOD-LOW DENSITY						24"
				SAMPLE 24" - 30" SAME AS ABOVE SAMPLE TIME 1020						
				24" - 4.5' SAME						36" (3')
				4.5' - 7.5' DARK GREY TO BLACK FINE, WELL GRADED SAND MED MOISTURE, LOW DENSITY						4'
				SAMPLE						
				7' - 7.5' - SAMPLE SAME AS ABOVE. SAMPLE TIME 1045						5.5'
				PLUG HOLE w/ BENTONITE 1055						7' - 7.5'

COMMENTS: VOC, TCLP, EP TOX, TOT METALS, OAG CONTENT PLG

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempco Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hollow stem auger
 DATE/TIME STARTED: 11/5/91 @ 1045 hrs DATE/TIME COMPLETION (S): 11/5/91 1130
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>MDIN</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5	HA-1175	2'		- sand, very dark gray, fine to coarse, moist	SP	22	6	48		10/9/9/14
		4'					75			
10		7'		sand, very dark gray, fine to med, wet, saturated, med. dense T.P. 8.5'	SP		7	56		7/9/9
	9.5'		8.5							

COMMENTS: Skreen on water in boring

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: CHEM 220 - GEORGETOWN PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T. SMITH GWL: depth _____ date/time 11/5/91
 DRILLED BY: T. SMITH GWL: depth _____ date/time 11/5/91
 DRILLING/RIG METHODS: HAND AUGER (NOTE: HOLLOW STEM AUGER TRV. ASPHALT)
 DATE/TIME STARTED: 11/5/91 DATE/TIME COMPLETION (S): 11/5/91
 AIR MONITORING TYPE: PLD BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>PPM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0 - 1" - ASPHALT						
				1" - 4" - CONCRETE						
				4" - 16" - COARSE GRAVEL - WELL ROUNDED DARK GREY - BLACK - LOW DENSITY - MED HIGH MOISTURE - STAIN - FILL			120 3' 270			14" - WATER GREEN W/ WATER
				16" - 24" WELL GRADED FINE SAND DARK GREY BLACK, LOW TO MED DENSITY, HIGH MOISTURE	SP					
				SAMPLE 24" - 30" SAME AS 16" - 24" INTERVAL (LOWER MOISTURE)						24"
				30" - 7' SAME AS 16" - 24" INTERVAL						1570 - 7'
				SAMPLE 7' - 7.5' SAME AS ABOVE, W/ FIBROUS MATERIAL IN SAND MATRIX						
				SAMPLE TIME 1340						

COMMENTS: PLD HOLE W/ DENTONITE 1350
FEAR PERCHED WATER AT GRAVEL/SAND INTERFACE

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. AA-11
Well No.

PROJECT NAME: Chempro Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATTON/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 11/24/91 1240 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (10)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>N/A</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		20 30 35 55		sand, sp, Dark gray, fine to med. moist, loose			64	174		
							3 2 1	@ 2' 2'	@ 2' 2'	
						6 7 7	@ 7' 7'	102 @ 7'		

COMMENTS: _____

GEOLOGIST SIGNATURE Ken Walter

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. 11A-11
Well No. 11A-11

PROJECT NAME: Chempso Georgetown PROJECT NO: 633188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Parrel Wright GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 11/24/91 1240 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>N/A</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		<u>2</u>		<u>z1</u> <u>sand, Dark gray, med grain, loose</u> <u>Moist</u>			<u>6.0</u>	<u>133</u>	<u>148</u>	
		<u>3.5</u>					<u>2</u>	<u>2</u>	<u>2</u>	
		<u>5.5</u>					<u>3.2</u>	<u>105</u>	<u>109</u>	
		<u>7</u>					<u>7</u>	<u>7</u>	<u>7</u>	

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Champo Becquetown PROJECT NO: D2318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Parrot Wright GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 12:40 11/24/91 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PIP BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				<u>2' Sand^{sw}, light brown fine to coarse, moist loose</u>	<u>sw</u>		<u>8</u> @ <u>1'</u>	<u>93</u> @ <u>2'</u>	<u>120</u> @ <u>2'</u>	
							<u>65</u> @ <u>7'</u>	<u>104</u> @ <u>7'</u>	<u>560</u> @ <u>7'</u>	

COMMENTS: _____

GEOLOGIST SIGNATURE Ken Walter

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-12
Well No. _____

PROJECT NAME: _____ PROJECT NO: _____
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: _____ GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
							@	@	132	
							1'	2'	2'	
									24	
									@	
									7'	

COMMENTS: _____

GEOLOGIST SIGNATURE _____

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: <u>CHEMERO GEORGE TOWNS</u>				PROJECT NO: <u>62318</u>			
ELEVATION: _____				BOREHOLE LOCATION/COORDINATES: _____			
LOGGED BY: <u>T. Smith</u>				GWL: depth _____		date/time _____	
DRILLED BY: <u>T. Smith</u>				GWL: depth _____		date/time _____	
DRILLING/RIG METHODS: <u>HAND AUGER</u>							
DATE/TIME STARTED: <u>11/6/91 1520</u>				DATE/TIME COMPLETION (S): <u>11/6/91 1600</u>			
AIR MONITORING TYPE: <u>PID</u>				BZ = Breathing Zone; BH = Borehole; S = Sample			

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CING (feet)	AIR MONITORING UNITS <u>PPM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0 - 12" - CONCRETE						
				12" - 15" - ASPHALT - PARTIALLY BROKEN DOWN - DUST		2	35	15		13' = ASPHALT AGGREGATE
				15" - 22" - LARGE GRAVEL BROKEN DIRT w/ SAND DARK BROWN - BLACK. MED MOISTURE. MED DENSITY						
				22 - 24 - DARK BROWN SAND BLACK SAND MED MOISTURE, MED DENSITY - SOME BRICK FRAGMENTS		2	40	140		
				2 - 2.5 SAMPLE - SAME SAMPLE TIME <u>1550</u>						
				2.5' - 3.3' - DARK BROWN - BLACK SAND w/ BRICK AN WOOD RAILROAD TIES			25			
				3.3' - AUGER REFUSAL @ 1600						

COMMENTS: BROWN-BLACK OILY STAINING ON AUGER 2.5' - 3.3'
WOLE PLUGGED w/ BENTONITE 1615

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: 1020200 PROJECT NO: 3185
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T. Smith GWL: depth _____ date/time _____
 DRILLED BY: T. Smith / K. Walker GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 11/8/91 (1012) DATE/TIME COMPLETION (S): 11/8/91 (1045)
 AIR MONITORING TYPE: R/D BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION ASTM CLASSIFICATION SYSTEM <u>ASTM 1519</u>	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS <u>PPM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0 - .8' CONCRETE						
				.9 - 1.0 - ASPHALT - PARTIALLY BROKEN DOWN			0	125		1.1'
				1.0 - 1.8 DARK GREY-BLACK GRAVEL w/ SAND - BRICK MED-DENSITY MED MOISTURE - WOOD FRAG (Fib)						1.6 - 1.8 WOOD FRAG'S MISC RAIL ROAD TIES
				1.8 - DARK BROWN BLACK FINE SAND - LOW-MED DENSITY, - MED MOIST.			0	45	36	2'
				2' - 2.5' SAMPLE SAME SAMPLE TIME 1034						
				2.5 - 2.9 SAME						
				2.9 - 7.0 - DARK GREY- BLACK FINE SAND LOW DENSITY, MED-LOW MOISTURE.			0	86	55	7'
				7.0 - 7.5' - SAMPLE SAME SAMPLE TIME 1045 PLUG HOVE w/ BENTONITE 1130 ST.D. 7.5'						

COMMENTS: LEVEL C THROUGHOUT ALL WORK

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: CHEMERO - GEORGETOWN PROJECT NO: 623 EG
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T Smith GWL: depth _____ date/time _____
 DRILLED BY: T Smith GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 11/6/91 1415 DATE/TIME COMPLETION (S): 11/6/91 1440
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>PPM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0 - 12" CONCR ETC						
				12" - 2' DARK BROWN BRACK GRAVEL WITH SAND. CONTAINS BROKEN BRICK. MED MOISTURE MED DENSITY - WOOD FRAGMENTS. (RAIL ROAD TIES)			0	88	35	10"
				2' - 2.5' SAMPLE DARK GRAY FINE GRAINED SAND MED MOIST. MED LW DENSITY SAMPLE TIME (1429)			2	45	97	2'
				2.5' - 7' - SAME						
				7' - 7.5' SAMPLE SAME SAMPLE TIME 1440			2	18	100	7' - 7.5'
				PLUG HOLE w/ DENTONITE 1450						

COMMENTS: _____

GEOLOGIST SIGNATURE T. Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempco Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Keyl Walter GWL: depth _____ date/time _____
 DRILLED BY: Ed Smith GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: hand auger
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PIP BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>MDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		2		Sand, very dark gray fine to med grain wet ↓		@		150		
		4				@	2'	@		
		7				@		163		


COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA 12
Well No.

PROJECT NAME: Cempro Georgetown PROJECT NO: 60315
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: A. W. G. H. S. GWL: depth _____ date/time _____
 DRILLED BY: Ted Smith GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDL</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		3		Sand, very dark gray med gr, moist  <u>T.D. Borings</u> <u>7.5'</u>			@ 1'	@ 2'	10 ³ @ 2'	
		4								
		6								
		7.5								57 @ 7'

COMMENTS: _____

GEOLOGIST SIGNATURE _____

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Champo (recess tower) PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: Cyanide Area
 LOGGED BY: Ken Walter GWL: depth NA date/time _____
 DRILLED BY: Wade Hough GWL: depth NA date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 10/30/91 1100hrs DATE/TIME COMPLETION (S): 10/30/91 1200hrs
 AIR MONITORING TYPE: PID (TIP) BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
1	H1Z1S	0-1.5	N	SW/SM	sw/SM	1.5	2'	42	42	yellowish white encrustations on brick masonry
		1.5-3.0	N	sand, very dark brown, fine to coarse, trace silt,	sw/SM	3.0	5'	NDM	NDM	
		3.0-7.5	N	sand sp, very dark brown, fine to med.		3.0	5'	58'	7'	
				T.D. 7.5'						

COMMENTS: at 2' the soil looks very contaminated with staining and encrustations

GEOLOGIST SIGNATURE Ken Walter

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: clamped Georgetown PROJECT NO: 623185
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Hough GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 10/30/91 1500 DATE/TIME COMPLETION (S): 10/30 1525
 AIR MONITORING TYPE: FID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
	<u>HA-1285</u>	<u>1-2'</u> <u>3'</u>		<u>sand, SW, very dark brown</u> <u>fine to med grain, moist</u>	<u>su</u>		<u>0</u>	<u>0</u>	<u>0</u>	
				<u>T.D. 3'</u>						

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Georgetown Campground Facility PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken White GWL: depth _____ date/time _____
 DRILLED BY: John DeLany (Mathes) GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA D-Drill P-50
 DATE/TIME STARTED: 10/24/91 1230 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: FID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5	HA 124-S	12 15		sand, fine to coarse, w/ rounded very dark gray (54 3/1) (MET needed) med. dense TRACE GRAVEL @ 3'	SW	49		91	Blow Count 10/10/3 24" sampler oil stained	
10	HA 124-D	7 85		sand, fine to med, very dark gray med. dense T.D. 8.5'	SP	14		379	Blow Count 6/6/5 18"	

Start
12.3.10

End
14.10 hrs

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempro Georgetown PROJECT NO: 62318'
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: hand auger
 DATE/TIME STARTED: 11/26/91 DATE/TIME COMPLETION (S): 11/26/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
5	S	2-4		Sand, some ^{fine} gravel, fine to med grain sand, very dark gray, saturated			821100			water with product @ 12" product is dark oily substance
	D			sand, med grain, very dark gray, saturated			572152			

COMMENTS: Very strong odor, soil stained

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chemco Georgetown PROJECT NO: 623/88
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 11/26/91 DATE/TIME COMPLETION (S): 11/26/91
 AIR MONITORING TYPE: P/D BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
2 5	S	7 8.5		sand, trace fine gravel, med grain sand, saturated ↓ T.D. Boring 8.5'		13 15		970 1215	water @ ~12" with oil/emulsion very strong odor	

COMMENTS: Very strong odor soil stained

GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempro Georgetown PROJECT NO: 623199
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: V. Walter GWL: depth _____ date/time _____
 DRILLED BY: Arac Lapaire GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: 11/26/91 DATE/TIME COMPLETION (S): 11/26/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS <u>ppm</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		2		sand, trace fine gravel med grain sand, very dark gray ↓ T.D. 8.5'						
		4					4		350	water @ 12" with emulsion oil on surface
		8.5					9		592	

COMMENTS: very strong odor

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chimney PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: HA 133
 LOGGED BY: Ted Smith GWL: depth 4 date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 0945 10/3/91 DATE/TIME COMPLETION (S): 10:20 10/3/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0 - 4" - CONCRETE			0	0	N/A	0' - 9'
				4" - 8" - GRAVEL-COARSE (SUBDRAIN F. 11) DARK GREY TO BLACK, HIGH MOISTURE CONTENT			4.4	275		WATER 12" PRODUCT ON WATER (SCREEN + EMULSION)
				8" - 12" DARK GREY TO BLACK FINE SAND - w/ GRAVEL FROM OVER LYING STRATA. SATURATED			4.0	532		SAMPLE TAKEN (COMPOSITE - 10" 12")
				12" - 18" - SAME AS 8"-12" HOLE COMPLETE AT 13"						
				HOLE TERMINATED AT 18" - DUE TO PRODUCT CONTENT ON WATER AND CONCERN FOR INTEGRITY OF LOWER WATER BEARING ZONE						
				HOLE PLUGGED w/ BENTONITE 1030						

COMMENTS: LIGHT RAIN - HIGH HUMIDITY TEMP. 50°F

GEOLOGIST SIGNATURE Ted Smith

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempco Georgetown Facility PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken D. Hedgesmith GWL: depth _____ date/time _____
 DRILLED BY: Mathes/John D. GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA D-50
 DATE/TIME STARTED: 10/29/91 1400 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>NDIA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				0-8" - CONCRETE						5-4-2-1 BLOW COUNT
		12"		8"-11" COARSE GRAINED MED DENSITY - MED-MOIST SAND	GW	6.5		517		2'-4' - STAINING EVIDENT ON WORKER SAMPLE TIME 14:30
		4.5"		12"-15" MED COARSE SAND W/ GRAVEL						
		15"		15" 2'-11" DARK GREY-BLACK FINE SAND - WELL ZONATED - W/ 2.5" COARSE LENS AT 2' MED-LOW DENSITY - MED-MOIST (POSSIBLE SOLVENT LEAK - 2' - 7') (LEAK AT 5.5')	SW					7-4-8.5' BLOW COUNT 7-7-7 STAINING EVIDENT SAMPLE TIME 14:40
				7'-8.5" GREY-BLACK FINE SAND - WELL GRADED - UNIFORM MED MOIST LOW-MED DENSITY	SW					
				HOLE PLUGGED W/ BENTONITE						
				END 2' 8.5"						

START
PUMP
1425
↓
HP
COVER
1440

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

006
Page 1 of 2
Borehole No. HA-135
Well No.

PROJECT NAME: Champs Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: TED SMITH GWL: depth _____ date/time _____
 DRILLED BY: WARR HAVEN GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAUG auger
 DATE/TIME STARTED: 10:25 10/3/91 DATE/TIME COMPLETION (S): 11:05
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		2 3.5		1'-2' DARK BROWN SAND WITH GRAINED SAND BASE TILL		5.8				
		6.5 7.5		4'-6' DARK GREY SAND - K SAND - GOOD FRAGMENT FINE GRAIN LOW DENSITY		6.0				
				SAMPLE AT 2' DARK GREY FINE GRAINED SAND (SAMPLE TIME 10:32) MED. MOISTURE LOW DENSITY (HA-135-3)						
				4'-6' SAME						
				6'-7' MED. BROWN clay-sand, low density med-high moisture content sample @ 7' TIME 11:04						
				END - 11:05 - HOLE PLUGGED W/ BENTONITE						

COMMENTS: _____

GEOLOGIST SIGNATURE Ted Smith

RECORD OF SUBSURFACE EXPLORATION

HA-137

PROJECT NAME: Chempro GT PROJECT NO: 623148
 ELEVATION: _____ BOREHOLE LOCATTON/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: John Dolan GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 8-27-92 1500 DATE/TIME COMPLETION (S): 8-27-92 1545
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS <u>ppm</u>		DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH S	
				mod to coarse sand, dark gray		9.6 @ 1'	312 @ 1'	1990 @ 2'	
				<u>T.D. 7'</u>		16 @ 3'	2275 @ 2.5'		
						41 @ 4'		1937 @ 6'	

COMMENTS: very strong odor
Level C' PPE

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-139

PROJECT NAME: Clampro GT PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: John Dolan GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 8-28-92 1110 DATE/TIME COMPLETION (S): 8-28-92 1155
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				<u>Asphalt & rubble</u> <u>Sand, med to coarse, damp to moist dark gray to black</u>						<u>Surface: 0</u>
						<u>26</u>	<u>181</u>			
						<u>6"</u>	<u>6"</u>	<u>1117</u>		
						<u>36</u>	<u>469</u>	<u>2'</u>		
						<u>2'</u>	<u>2'</u>	<u>2'</u>		
				<u>76' T.D</u>				<u>1346</u>		
						<u>17</u>	<u>760</u>	<u>6'</u>		
						<u>6'</u>	<u>6'</u>			

COMMENTS: Very strong odor
Level 'C' PPE

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-140

PROJECT NAME: Chempro GT PROJECT NO: 622188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: John Dolan GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: 8-28-92 1022 DATE/TIME COMPLETION (S): 8-28-92 1055
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS <u>ppm</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				sand, med to coarse moist, dark gray <hr style="width: 50%; margin: 10px auto;"/> T.D 6.5'		0 @ 6"	12.9 @ 6"			surface - 0
						166 @ 1'	240 @ 1'	1550 @ 2'		
						178 @ 2'	180 @ 5'			
						176 @ 5'		1388 @ 6'		

COMMENTS: level 'C' @ 1022

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. _____
Well No. _____

4A-140 (HAC14 S, D)

PROJECT NAME: Chempro Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: James Peale GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 8-25-92 0835 DATE/TIME COMPLETION (S): 0930
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>APL</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				Sand, med grain, Very dark gray to black moist ↓ T.D. 6.5'		0.9		← 348	surface 1.7	
						2		2		
						1		1		
							410	130		
						2	2	2		
							220			
						47	850			
						5	5	6		
									2#1375 HEADSPACE	

COMMENTS: Very strong odor Level 'C'

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-141 (HAC 14 SID)

PROJECT NAME: chempro GT PROJECT NO: 623/88
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Weather GWL: depth _____ date/time _____
 DRILLED BY: James Keate GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 8-25-92 0935 DATE/TIME COMPLETION (S): 8-25-92 0930
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>AASIM</u>	USCS SYMBOL	DEPTH CRG (feet)	AIR MONITORING UNITS <u>ADIA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				sand, red grain, very dark gray to black, ↓ 6.5' T.D.		17.8 @ 1' 17.2 @ 6'	1080 @ 1' 1040 @ 2' 1120 @ 6'	2300 @ 6'	surface 2.8	

COMMENTS: 1.25 C Very strong odor
Level C PPE
 GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. _____
Well No. _____

HA-142

PROJECT NAME: dempro GT PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: John Dahan GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 8-27-92 1310 DATE/TIME COMPLETION (S): 8-27-92 @ 1410
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS <u>PPE</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				<u>Debris</u> <u>sand, med to coarse,</u> <u>Dark gray to black,</u> <u>clumps of bright green</u> <u>debris.</u>		<u>9.1</u> <u>@</u> <u>6"</u> <u>11.1</u> <u>@</u> <u>1'</u> <u>2.6</u> <u>@</u> <u>2'</u>	<u>47</u> <u>@</u> <u>6"</u> <u>950</u> <u>@</u> <u>1'</u> <u>488</u> <u>@</u> <u>2'</u>	<u>313</u> <u>@</u> <u>2'</u>	<u>Surface</u> ; <u>⊙</u>	
				<u>T.D. 7'</u>		<u>73</u> <u>@</u> <u>4'</u>	<u>990</u> <u>@</u> <u>6'</u>			

COMMENTS: very strong odor
Level C PPE

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No.
Well No.

HA-144

PROJECT NAME: Chempro GT PROJECT NO: 623/98
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: John Dolan GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 8-27-92 1145 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CING (feet)	AIR MONITORING UNITS BZ <u>ppm</u> BH <u>ppm</u> S	DRILLING CONDITIONS AND (BLOW COUNTS)
				rubble (bricks concrete sand, med to coarse Dark gray to black moist I.D. 6'				surface PID @ 1' 343 ppm 4' - 492 ppm Headspace 2' - 744 6' 720

COMMENTS: Very strong odor
Level 'C' PPE

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-14
Well No.

PROJECT NAME: Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 4-30-93 1300 DATE/TIME COMPLETION (S): 1330 4-30-93
 AIR MONITORING TYPE: HNU BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDU</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				sand, trace fine gravel mod yellowish brown damp	SP	0	10	13		
2.5	1			mod brown, med to coarse		0	20	13		
5.0				gray brown	SP	0	30	6		
	2			dark gray, med grain		3.5	50	12		
				7.0 TD						

COMMENTS: Strong odor → level C work

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-14
Well No.

PROJECT NAME: Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND AUGER
 DATE/TIME STARTED: 4-30-93 1305 DATE/TIME COMPLETION (S): 4-30-93 1340
 AIR MONITORING TYPE: HNU BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				sand, trace ^{fine} gravel, mod. brown damp				50		
2.5	1			sand trace silt, staining dark gray, med grain to coarse trace gravel, damp			2	150	150	
				Dark brownish gray sand, to med grain, dark gray moist			5	300	400	
5.0	2						7	300		
				7.0 T.D						

COMMENTS: strong odor → level C work

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-1c
Well No.

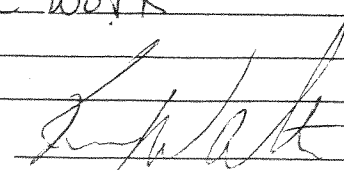
PROJECT NAME: Georgetown PROJECT NO: 623188
ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
LOGGED BY: K. Walter GWL: depth _____ date/time _____
DRILLED BY: Aaron Lajoie GWL: depth _____ date/time _____
DRILLING/RIG METHODS: HAND Auger
DATE/TIME STARTED: 4-30-93 1308 DATE/TIME COMPLETION (S): 4-30-93 1340
AIR MONITORING TYPE: HNU BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
0				Gravel fill			0	40		
2.5	1			sand, med grain, Dark gray brown			0	18	40	
				oil staining? dark gray trace gravel			1	30	50	
5.0	2						2	180	300	
				7.0 T.D						

COMMENTS:

Strong odor → Level C work

GEOLOGIST SIGNATURE



RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K Walter GWL: depth _____ date/time _____
 DRILLED BY: Aaron Lapore GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HAND Auger
 DATE/TIME STARTED: 4-30-93 1320 DATE/TIME COMPLETION (S): 4-30-93 1355
 AIR MONITORING TYPE: HNA BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>ADDN</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
2.5	1			Sand, trace ^{fine} gravel reddish brown, med to coarse grain,			0	2	3	
5.0	2			Dark gray brown med to coarse, trace gravel, moist dark gray, med grain			0	30	8	
				7.0 T.D			1.5	49	35	

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. HA-15
Well No.

PROJECT NAME: Champion Georgetown PROJECT NO: 023179
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Joey Dow GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 10:00 hrs 11/21/91 DATE/TIME COMPLETION (S): 11:16 11/21/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		<u>2</u>		<u>sand sw, ML Dark brown trace silt, fine to med. med. moist</u>				<u>1.2</u>	<u>0</u>	
		<u>3.5</u>						<u>0</u>	<u>0</u>	
		<u>5.5</u>		<u>sand, sw, Dark brown fine to coarse, moist loose</u>				<u>7.5</u>	<u>0</u>	
		<u>7</u>						<u>11</u>	<u>0</u>	

COMMENTS: west Field Along west fence line

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempco Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Joel Dow GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand Auger
 DATE/TIME STARTED: 1025 11/21/91 DATE/TIME COMPLETION (S): 11/21/91 1106
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS: <u>ND14</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5		2 3.5		Sand, SW, Grayish olive-brown, fine to coarse, moist		A	18.6 2'	13 @ @ @		
				Sand, SW, Dark brown, fine to coarse grain, moist, loose			2.7 @ 7'			

COMMENTS: West Field along West Peace line

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-156

Page 1 of 2
Borehole No. HA-15
Well No.

PROJECT NAME: Chimpo Georgetown PROJECT NO: 623132
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Jay Daw GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 11/21/91 1145 DATE/TIME COMPLETION (S): 11/21/91 1223
 AIR MONITORING TYPE: P/D BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>ASTM</u>			BZ	BH	S	
		2		Sand SP Grayish brown Med grain, moist, loose	SP		0	0	0	
		3.5								
		5.5								
		7		Sand, sw, Grayish brown, fine to coarse, moist, loose						
				T.D. 7'						

COMMENTS: No subjective evidence of contamination
west field along west fence line
 GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-157

PROJECT NAME: Chempro Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Joey Dow GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 11/21/91 1200 DATE/TIME COMPLETION (S): 11/21/91 1223
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>MDV</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		<u>2</u>		<u>Sand, SP, Dark brown, Fine grain, moist, loose</u>	<u>SP</u>		<u>3</u>	<u>8</u>	<u>18</u>	
		<u>3.5</u>		<u>Sand SP, Dark brown, Med grain, moist, loose</u>			<u>0</u>	<u>0</u>	<u>0</u>	
		<u>5.5</u>								
		<u>7</u>		<u>T.D. 7'</u>						

COMMENTS: West Field along West Fence line

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

HA-158

PROJECT NAME: Champion Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Joey Dow GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand auger
 DATE/TIME STARTED: 1405 11/21/91 DATE/TIME COMPLETION (S): 1430 11/21/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S' = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>NPU</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
		<u>2.0</u>		<u>Sand, SW, Dark grayish brown. fine to med grain, moist loose</u>			<u>5.5</u>	<u>5.3</u>		
		<u>3.5</u>					<u>2.1</u>	<u>2.1</u>		
		<u>5.5</u>		<u>Sand, SW, Dark grayish brown. fine to coarse, moist, loose</u>			<u>0</u>	<u>5.3</u>		
		<u>7</u>					<u>0</u>	<u>7.1</u>		

COMMENTS: West Field along west Fence line

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: Chempro Georgetown PROJECT NO: 4318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Whittier GWL: depth _____ date/time _____
 DRILLED BY: Joey Daw GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Hand augers
 DATE/TIME STARTED: 11/21/91 1415 DATE/TIME COMPLETION (S): 1430 11/21/91
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>ASTM</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>N₂O₂</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5		3.0 3.5		Sand ^{SP} , Dark grayish brown fine grain moist, loose	SP	0 2 2	0 21 21	0 21 21		
		5.5 7		Sand ^{SP} , Dark gray, fine to med, moist, loose		0	0	0 21 71		

COMMENTS: No subjective evidence of contamination
West Field along West Fence line

GEOLOGIST SIGNATURE [Signature]

**PHASE 1, 2, AND 3 BORING LOGS
FOR MONITORING WELLS**



PROJECT Chempro, Georgetown

Page 1 of 2

Location See Figure 2.1

Boring No. CG-1

Surface Elevation Unknown

Drilling Method Cable Tool

Total Depth 109'

Drilled By Holt Drilling Company

Date Completed 11/28/87

Logged By R. Bunker

Hydrated Bentonite Powder
(placed in dry lifts)

WELL DETAILS	PENE-TRATION TIME/RATE	DEPTH (FEET)	SOIL SAMPLE	WATER SAMPLE	SYMBOL	LITHOLOGIC DESCRIPTION	GEOLOGIC UNIT
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%; border: 1px solid black; padding: 2px;">Bentonite Slurry</div> <div style="width: 45%; border: 1px solid black; padding: 2px;">Bentonite Slurry</div> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;">2" Sch 80 PVC Casing</div>						0-2' Concrete slabs separated by 1-2" of fine gravel.	
		10	S1A,B	W1A,B	SM	2-25' SAND, 20% medium sand, 60% fine sand, 20% silt, gray, saturated below about 3', medium dense to dense, massive, strong sweet solvent-like odor.	
		20	S2A,B	W2A,B			
		30	S3A,B	W3A,B	SM/ SC/ ML	2-74' INTERBEDDED SILT, 5-30% fine sand, 5-30% clay, and SAND, 5-15% clay. gray to gray black, saturated, silts firm to stiff. Sands medium dense to dense, thinly (0.3 to greater than 1') bedded.	
		40	S4A,B	W4B,B			
		50	S5A,B	W5A,B			
		60	S6A,B	W6A,B			
		70	S7A,B				



WELL DETAILS	PENE-TRATION TIME/RATE	DEPTH (FEET)	SOIL SAMPLE	WATER SAMPLE	SYMBOL	LITHOLOGIC DESCRIPTION	FIELD SCREEN
2-in. Sch. 80 PVC Screen 0.010-in. slots PVC End Plug (0.45' long) #8x12 Colorado Silica Sand 2-in. Sch. 80 PVC Casing Bentonite Pellets Bentonite Slurry		70				See page 1 for description	
		80	S3A,B	W7A,B	ML/CL, MH	74-88' SILT, 5-10% fine sand in local layers, 60-80% silt, 10-30% clay, gray-black, saturated, soft to stiff, massive, scattered wood fragments	
				W8A,B			
		90	S9A,B	W9A,B	SM	88-92' SAND 15-20% medium sand, 40% fine sand, 5-20% silt, 5-10% clay, gray - green, saturated, wood fragments, clam shells.	
		100	S10A,B		GM	92-106' FINE TO COARSE GRAVEL AND SMALL COBBLES, 15-20% fine to coarse sand, 5-20% silt, gray - green, saturated, clam shells.	
		110			SM/GM	106-109' SILTY FINE TO COARSE SAND, gray - green, saturated.	
						Terminate boring at 109' 11/28/87	



PROJECT Chempro, Georgetown

Page 1 of 2

Location See Figure 2.1

Boring No. CG-2

Surface Elevation Unknown

Drilling Method Cable Tool

Total Depth 128.5'

Drilled By Holt Drilling Company

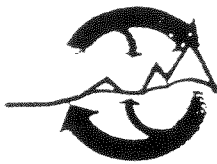
Date Completed 12/2/87

Logged By R. Bunker

WELL DETAILS	PENE-TRATION TIME/RATE	DEPTH (FEET)	SOIL SAMPLE	WATER SAMPLE	SYMBOL	LITHOLOGIC DESCRIPTION	FIELD SCREEN
Hydrated Bentonite Powder (placed in dry lifts) Bentonite Slurry 2-in. Sch. 80 PVC Casing		0-10			SM	0-28' SAND, 5-10% medium sand, 80% fine sand, 5-20% silt, black, saturated below about 5', medium dense to dense, massive.	
		10-20	S1A,B	W1A,B		crushed rock fill top 14".	
		20-30					
		30-40	S2A,B	W2A,B	SM/SC/ML	28-78' INTERBEDDED SILT, 5-30% fine sand, 5-30% clay and FINE SAND, 10-30% clay, gray - black. All saturated, silt firm to stiff, sands medium dense to dense. Beds of sand are less than 1' thick, and capped by thin 1-2" clayey silts. Broken coarse-sand-size shell fragments.	
		40-50					
		50-60	S3A,B	W3A,B			
		60-70					



WELL DETAILS	PENE-TRATION TIME/RATE	DEPTH (FEET)	SOIL SAMPLE	WATER SAMPLE	SYMBOL	LITHOLOGIC DESCRIPTION	FIELD SCREEN
<p>Stainless Steel Centralizer at Center of Screen</p> <p>2-inch PVC Well Screen w/0.010-inch Slots</p> <p>Bentonite Slurry</p> <p>2-in. Sch. 80 PVC Casing</p> <p>#8x12 Colorado Silica Sand</p> <p>Bentonite Pellets</p> <p>PVC End Plug (0.45' long)</p> <p>Slough</p>		70				See page 1 for description	
		80	S4A,B	W4A,B	ML/CL	78-108' <u>SILT</u> , 5-20% fine sand, 60% 5-30% dry, brown to brown black, saturated, firm to very stiff, vague clay - rich layers 0.5 to 2 inches thick. Drilled open hole.	
		110			ML/CL	108-128.5' <u>SILT</u> , less than 5% to 20% fine sand, 60-80% silt, 10-30% clay, saturated, firm to very stiff, common broken and whole clam shells,	
		130				Terminate boring at 128.5' 12/2/87	



PROJECT CHEMPRO, Georgetown

Page 1 of 1

Location See Figure 2.1

Boring No. CG-3

Surface Elevation Unknown

Drilling Method HSA

Total Depth 31.5

Drilled By Tacoma Pump and Drilling

Date Completed 12/23/87

Logged By S.R. Sagstad

WELL DETAILS	PENETRATION TIME/RATE	DEPTH (FEET)	SAMPLE		PERMEABILITY TESTING	SYMBOL	LITHOLOGIC DESCRIPTION	WATER QUALITY
			NO.	TYPE				
Flush-looking security casing Bentonite Slurry Bentonite Chips Bentonite Chips 1/2" x #12 Colorado Silver Sand 2-inch schedule screen 1/4" screen 1/4" slot Bottom plug: .33' long							0-1.5' <u>Asphalt</u> 1.5-5.5 <u>Sand</u> , black, fine to coarse, trace silt; slightly moist; no odor.	
		5	S-1	2		SW		
		10	S-3			SP	5.5-30.2' <u>Sand</u> , gray brown, fine, scattered medium, saturated below 10 feet; no odor.	
		15	S-4					
		20	S-5				----- with interbeds of fibrous organic material (bark)	
		25	S-6					
		30	S-7			ML	30.2-31.5' <u>Silt</u> , gray, with trace fine sand.	
		35					BOTTOM of Boring at 31.5' 12/23/87	

RECORD OF SUBSURFACE EXPLORATION

SB-101

PROJECT NAME: Champion Geosystem PROJECT NO: 623158
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Watter GWL: depth _____ date/time _____
 DRILLED BY: White/Western GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 6/24/92 0815 DATE/TIME COMPLETION (S): 6/26/92 1230
 AIR MONITORING TYPE: PD BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CING (feet)	AIR MONITORING UNITS <u>ADU</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5				med to coarse sand, dark greyish brown, moist dense. Sheen strong odor		0	130	NA		
10				sand, med to coarse, dark grayish brown wet, dense Sheen		4	21	83		6-13-19
15										
20						1.3	15	87		
25						2.3				
30						1.0	14	125		6-5-12 @ 30

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

SB-101

PROJECT NAME: Chempro GI PROJECT NO: 62315
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iversen GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable tool
 DATE/TIME STARTED: 6/24/97 0815 DATE/TIME COMPLETION (S): 6/26/97
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
30				sandy, med grain, dark gray, wet						
35				sand w/ silt interbeds						
40				↓						Heaving sands
45										
50				Silt with sandy silt interbeds. trace clay throughout						4-5-13
55										
60										3-3-10 260

COMMENTS: _____

GEOLOGIST SIGNATURE

[Handwritten Signature]

RECORD OF SUBSURFACE EXPLORATION

SB-101

PROJECT NAME: Champion Geosystems PROJECT NO: 623178
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: R. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Gibson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 6/24/92 0815 DATE/TIME COMPLETION (S): 6/26/92
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS BZ BH S	DRILLING CONDITIONS AND (BLOW COUNTS)
60				Silt w/ trace fine sand and trace clay, gray, wet, gray stiff				
65								
70								
75								
80				Silt w/ trace clay gray. 4" clay zone in middle of sample showing mud cracks (fine) rare shells, moist C.D. 80'				8/8/9

COMMENTS: _____

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

63-102

PROJECT NAME: Chempro Georgetown PROJECT NO: 62315
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: R. Water GWL: depth _____ date/time _____
 DRILLED BY: W. A. S. S. S. GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 6/18/92 1343 DATE/TIME COMPLETION (S): 6/22/92
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHRG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
5				sand, med to coarse, dark gray brown, moist		0	25	72		4-8-11
10				sand, med to coarse, Dark gray to black, wet dense		17	350	904		8-18-24 @ 17 Very strong chemical odor when bringing out bailer
20				↓						
25										
30										

COMMENTS: _____

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

SB-102

PROJECT NAME: Chempad George town PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. J. Jeter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: cable tool
 DATE/TIME STARTED: 6/18/97 1343 DATE/TIME COMPLETION (S): 6/22/97
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
30										
35										
40				sand - med grain, Dark gray silt silt 1" silt and 4" silt gray			1.0	12	3.0	heaving sand 7-20-23
45										
50				sand, dark gray, med grain thin silt beds (~15% silt beds)						12-14-16 @ 50
55				silt sand silt 40% silt beds						5-10-10 @ 55
60				sand silt						7-10-13 @ 60

COMMENTS: PID 61'
Note: 2' of 100% coarse sand

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

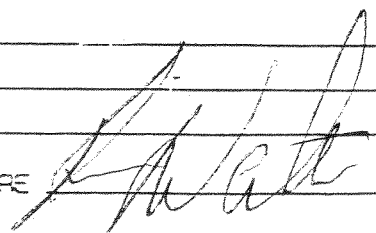
SB-103

PROJECT NAME: Chempro Georgetown PROJECT NO: 62314
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 6/29/92 1245 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>N/A</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5				Sand, med to coarse grain. Dark gray, moist Med dense wet			200	217	163	Log L contact markers levels
10							30	200	150	
15										
20										
25										
30				abundant wood particles			1	713	6-12-20 @ 30	

COMMENTS: _____

GEOLOGIST SIGNATURE



RECORD OF SUBSURFACE EXPLORATION

SB-103

PROJECT NAME: Chempco Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: R. Walker GWL: depth _____ date/time _____
 DRILLED BY: Wade Eversor GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 6/29/92 1243 DATE/TIME COMPLETION (S): 7/1/92 1130
 AIR MONITORING TYPE: PIP BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CORR (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
30				<u>sand</u> <u>silt and sand interbeds</u> <u>silt, grey</u>			1	7	13	
40				<u>slough</u> <u>silt w/ med sand interbeds</u> <u>< 3mm</u>			3	12		<u>6/10/15 @ 40</u>
50				<u>slough silt</u> <u>silt w med sand interbeds</u> <u>~50% silt</u> <u>sand dark gray</u> <u>silt grey, wood chips</u>			2	7		<u>6/6/7 @ 50</u>
55				<u>silt w/ sand interbeds</u> <u>20% sand beds, trace</u> <u>clay fine sand</u>			1	15		<u>5/15/32 @ 60</u> <u>15 T.D. 60'</u>

COMMENTS: Sail Boring -> grouted up with
cement 5% bentonite slurry

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

CG-101-5-1

PROJECT NAME: Chempro Georgetown PROJECT NO: 6231
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: James Peate GWL: depth 7.23' date/time 5-5-92 1500hrs
 DRILLED BY: Gary Gault GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA Dietrich D-30
 DATE/TIME STARTED: 5-5-92 1400 DATE/TIME COMPLETION (S): 5-6-92 1115
 AIR MONITORING TYPE: HNu BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>ppm</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
	1	18		SAND AND SOME COARSE GRAVEL, FINE TO MED SAND, LOOSE, BLACK/DARK GRAY	SP					20/24/18/6
	2	18		SAND, FINE TO COARSE, MOIST, (MAY BE WATER) BLACK	SW					5/2/18
	3	0		NONE RETRIEVED						9/12/92
	4	18		SAND, FINE TO COARSE, MOIST, BLACK TD. 17.5'	SW					8/25/92/10

COMMENTS: _____

GEOLOGIST SIGNATURE J Peate

12-1000000/0000
623188

CG-101-S-2

RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No.
Well No.

PROJECT NAME: BET Georgetown Facility PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: JAMES PLATE GWL: depth 5-6-92 date/time 5:00 1990
 DRILLED BY: GARY GAUF GWL: depth 7.40 date/time _____
 DRILLING/RIG METHODS: HSA Dreditch D-50
 DATE/TIME STARTED: 5-6-92 1300 DATE/TIME COMPLETION (S): 5-7-92 1990
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>UGCI</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>ALPM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5										
10	1	14"		SAND, FINE TO MEDIUM, VERY DARK GRAY-BROWN, MOIST AND DENSE ^{JP}	SP	0	0	0	8/12/20/6	
15	2	18"		SAND, TRACE ^{JP} SOME SILT, TRACE CLAY, FINE TO MEDIUM SAND, VERY DARK GRAYISH BROWN, MOIST, dense	SP				6/11/23	
20				↓ Two 3/8" highly organic zones (mostly wood)						
25				AS ABOVE, LESS ORGANIC MAT'L.	SP				5/8/26	
30				T.P. 32'	SP				SPoon PUSHED BY HAND	

32 COMMENTS: NO SUBJECTIVE EVIDENCE OF CONTAMINATION.

GEOLOGIST SIGNATURE J. Plate

B7 INFORMATION
62318

RECORD OF SUBSURFACE EXPLORATION

CG-101-S-2
Page 2 of 2
Borehole No.
Well No.

PROJECT NAME: Clamp 0 GT PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: T. Peake GWL: depth _____ date/time _____
 DRILLED BY: Gary Gant GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HST
 DATE/TIME STARTED: 5-6-92 1300 DATE/TIME COMPLETION (S): 5-7-92 1440
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>ppm</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
25										
30				SAND, LITTLE SILT, FINE TO MED 10M SAND, DARK GRAY-BROWN MOIST 10052	SP	30	φ	φ	φ	SPOON PUSHED 18" BY HAND
				BOTTOM 6": SILT, SOME CLAY, DARK DARK GRAY, MOIST SOFT	CL	31.5				
				T.D. 32'						

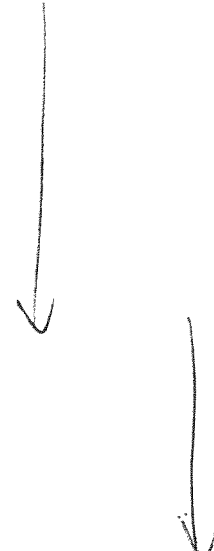
COMMENTS: NO SUBJECTIVE EVIDENCE OF (AIR) CONTAMINATION

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

CG-101-3-I

PROJECT NAME: B31 MEMPHIS GEORGETOWN PROJECT NO: 62318f
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: J. D. SALE GWL: depth 7.35 date/time 5-26-97 1400
 DRILLED BY: HOLT DRILL / MADE VERSION GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: CT
 DATE/TIME STARTED: 5-26 / 1200 DATE/TIME COMPLETION (S): 5-29-97 1500
 AIR MONITORING TYPE: HNU BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
<p style="margin-top: 50px;">5</p> <p style="margin-top: 100px;">10</p> <p style="margin-top: 100px;">15</p> <p style="margin-top: 100px;">20</p> <p style="margin-top: 100px;">25</p> <p style="margin-top: 100px;">30</p>				<p>SAND, FINE TO MEDIUM VERY DARK GRAY BROWN, WET.</p> <div style="text-align: center;">  </div> <p>TO SILT INCREASING WITH DEPTH</p> <p>- VERY PLASTIC ^{SILT} CLAY, GRAY</p>						

COMMENTS: _____

GEOLOGIST SIGNATURE *J. D. Sale*

RECORD OF SUBSURFACE EXPLORATION

CG-101-I

PROJECT NAME: Chempro BT PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: J. Peale GWL: depth _____ date/time _____
 DRILLED BY: Wade Weaver GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 5-26-92 1200 DATE/TIME COMPLETION (S): 5-29-92 1500
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>N/A</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
35				SILT, TRACE CLAY, TRACE FINE SAND, MEDIUM GRAY, VERY MOIST, MED. PLASTICITY, SOFT, NO ODOR. WOOD & SHELL DEBRIS	ML		φ	φ		4 4 4
38				AS ABOVE, SOFT TO VERY SOFT	ML					
40							φ	φ		3 2 1
45				SILTY SAND, FINE TO MEDIUM SAND, TRACE CLAY, DARK GRAY-GREEN, VERY MOIST, SLIGHTLY PLASTIC, MEDIUM STIFF, NO ODOR. HIGH SHELL CONTENT	SM			φ		3 5 9
50				SANDY GRAVEL, FINE GRAVEL, MEDIUM TO COARSE SAND, MED. DARK GRAY, MOIST, NONPLASTIC + STIFF, NO ODOR. <u>cobbles</u>	SW			φ		33 50-4"
55				COARSE GRAVEL & COBBLES - SILTSTONE/MUDSTONE (BEDDED w) SANDSTONE gray						50-4"
				<u>Sandstone/siltstone</u>						

COMMENTS: 50' - COARSE GRAVEL IN BAILER. 55' - GREEN-GRAY GRAVEL IN BAILER

GEOLOGIST SIGNATURE Peale

RECORD OF SUBSURFACE EXPLORATION

(6-101-I)

PROJECT NAME: Chempco GT PROJECT NO: 675185
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: _____ GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable tool
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
60'				<p style="text-align: center;">sandstone/siltstone</p> <p>FRACTURED ROCK (MUDSTONE), SLIGHTLY DAMP</p> <p>BAILER SHOWS MORE FRACTURED ROCK gray interbeds of sandstone and siltstone very well indurated T.D. 65'</p>						<p style="text-align: center;">50-3"</p> <p>DRILLING IS SLOWED BY ROCK</p> <p style="text-align: center;">50 - 1/2"</p>

COMMENTS: Bedrock @ ~56-60 ft.

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

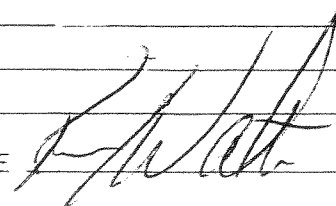
CG-102-S-1

PROJECT NAME: chempro Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth 10.03 date/time 5/20/92 1300
 DRILLED BY: Gary Gauf GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA
 DATE/TIME STARTED: 5-20-92 1020 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDL</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
6		12"		sand, med, ^{gray} dark gray, wet						5/5/6
10		18"		sand, med to coarse, dark gray and brown orange wet, medium dense						2/3/3/4
15				T.D. 18'						4/8/12
20										3/9/10

COMMENTS: _____

GEOLOGIST SIGNATURE



CG 102-5-2

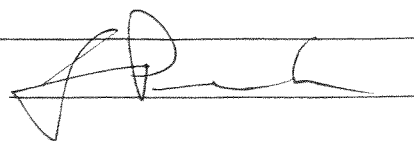
RECORD OF SUBSURFACE EXPLORATION

PROJECT NAME: BET CHEMPRO GEORGETOWN PROJECT NO: 625188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: J. PALE GWL: depth 9.82 date/time 5-22-97 W/2002
 DRILLED BY: GARY GAVE - BET GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA
 DATE/TIME STARTED: 5-22/1100 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: HNO BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>NOV</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
0										
20'				SAND, FINE TO MEDIUM, SATURATED, VERY DARK GRAY-BROWN, WITH A 2-INCH LAYER OF BROWN SILT	SP		0	0	0	5/14/24
25'				SAND, FINE TO MEDIUM, WET, VERY DARK GRAY-BROWN BOTTOM 3/4" RED SILT-CLAY, MODERATE GRAY	SP		0	0	0	4-10/16
30'				SAND, MOSTLY FINE, SOME MEDIUM, WET, VERY DARK GRAY, THIN (2 cm) CLAY/SILT LAMINATIONS/STRATA. BOTTOM 6-8" WASHED OUT, BELIEVED TO BE SILTY CLAY	SP		0	0	0	3-7-11
				T.D - 32'						

COMMENTS: _____

GEOLOGIST SIGNATURE



RECORD OF SUBSURFACE EXPLORATION

Page 1 of 2
Borehole No. _____
Well No. _____

CG-102-I

PROJECT NAME: Clampco Georgetown PROJECT NO: 623185
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Z. Walter GWL: depth 9.72 date/time 6-15-92 1300
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable tool
 DATE/TIME STARTED: 6-15-92 1000 DATE/TIME COMPLETION (S): 6-17-92 1600
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>N/A</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
10				▽ sand, med grain Dark gray, wood particles			○ ○			
20				↓			○ ○			
30							○ ○			
35				silt w/ sand interbeds 60-70% silt beds silt-gray, hard hard sand - med grain, dark gray			○ ○		9-9-19	
40				<u>slough</u> sand w/ silt interbeds ~ 3-6 mm 85% sand sand, med grain, dark gray, wet, dense, organic material			○ ○		14-24-30 240'	

COMMENTS: _____

GEOLOGIST SIGNATURE _____

RECORD OF SUBSURFACE EXPLORATION

CG-102-I

PROJECT NAME: Champo Georgetown PROJECT NO: 623178
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Sable tool
 DATE/TIME STARTED: 6-15-02 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>AD24</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
45				sand, med grain, dark gray, wet dense. Two silt interbeds approx 4-8 mm						10-18-18
50				sand (as above) with <10% silt interbeds						-Heaving sands
55				silt and sand interbeds ~50-50 with one silty sand bed						-15-23-23 @ 55'
60				silt, gray, wet, med dense. no visible bedding. poss bioturbation structure						8-5-5
65				silt w/ thin sand interbeds (2-3 mm) <30%. one 1mm light gray clay layer						3-3-3 @ 65'
				silt, no visible bedding, some bioturbation? -shelby tube drilled T.D - 65'						

COMMENTS: _____

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

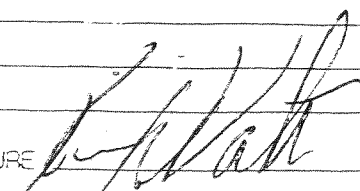
CG-102-D

PROJECT NAME: Chempas Georgetown PROJECT NO: 623/88
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: R. Waizer GWL: depth 24 0-5 date/time 7-13-92 0900
 DRILLED BY: Wade Iversen GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: cable tool
 DATE/TIME STARTED: 7-7-92 @ 1230 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (In)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
20				▽ Sand, Dark med grain, dark gray, wet, med. dense abundant wood particles Sand w/ 3 to 6 mm silt interbeds			0	0		
40							0	0		
60				↓ silt beds increasing in thickness						
70				silt, trace clay, trace fine sand, gray			0	0	0	4-4-11 @ 70'
75				silt, trace clay, trace fine sand, gray, moist, hard, worm casts, abundant fine organic material; no bedding			0	0	0	5-4-4 @ 75'

COMMENTS:

GEOLOGIST SIGNATURE



RECORD OF SUBSURFACE EXPLORATION

Page 2 of 4
Borehole No. _____
Well No. _____

CG-107-D

PROJECT NAME: Chempco GT PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 7-7-92 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECVY. (1in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>MDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
80				Silt, trace clay, gray, wet, med stiff clay and silt, gray to dark gray, moist, slightly plastic			0	0	0	3-3-3 @ 80
85				Silty clay, dark olive gray wet, med stiff, slight plast Silt, trace clay, gray, wet, med stiff clay and silty sand beds, fine grain, dark olive gray and gray, wet, med stiff, clay shows slight plasticity, abundant organic material			0	0	0	3-4-5 @ 85
90				shelly silt, some clay, moist, gray to dark gray, stiff, no visible bedding, blocky appearance			0	0	0	4-6-8 @ 92
95				silt, trace clay, gray, moist, stiff, some visible bedding, blocky appearance			0	0	0	3-6-7 @ 97
100				Gravel and silt and sand gravels well rounded 4" clam shells shells make up 40% of coarse materials						barter sample

COMMENTS: _____
 Major lithology change at ~100' gray silt to green sands and silt

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

CG-102-D

PROJECT NAME: _____ PROJECT NO: 623184
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth 17.5' date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
105				sand, trace silt trace sand greenish olive clay, med. abundant small shells						no water
110				same as above						2-2-2 no water
115				catche? whitish, grainy calcium carbonate sand, trace clay, med grain. Greenish gray, moist to wet loose, abundant shells						4-4-4
120				silt w/ some clay trace fine sand, greenish olive, moist, very stiff, slight plasticity, abundant organic material, visible bedding						5-7-13 @120
125				~4-6 mm						7-7-12 @125
130				silt, trace clay trace fine sand, greenish olive, moist stiff, trace to some organic material (shells)						6-5-9 @130 T.D 130'

COMMENTS: _____

GEOLOGIST SIGNATURE _____

RECORD OF SUBSURFACE EXPLORATION

CG-103-S-1

PROJECT NAME: BFI Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth 10.5 date/time 0930 5-8-92
 DRILLED BY: Gary Gant GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA Diedrich D-50
 DATE/TIME STARTED: 0845 5-8-92 DATE/TIME COMPLETION (S): 1400 5-8-92
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)	
							BZ	BH	S		
5 10 15 20	1			sand, trace silt. Fine grain light yellowish brown, moist, med dense	SM/ML		⊖	395	3/4/10	- probable error in instrument	
	2			sand, med grain, grayish brown, moist, med dense	SP		⊖	2.3	8/9/22		
	3			sand, med to coarse, dark grayish brown, moist med dense			⊖	1.9	4/10/20		
	4			sand, med grain, dark gray wet, dense, abundant wood.			⊖		2/18/24		
				T.D. Boring 20'							

COMMENTS: _____

 GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

CG-103-S-2

PROJECT NAME: Chempco Georgetown PROJECT NO: 628188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: J. Peale GWL: depth 1063 date/time _____
 DRILLED BY: Gary Swart GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA Diebold -D-50
 DATE/TIME STARTED: 5-11-92 0950 DATE/TIME COMPLETION (S): 5-11-92 1815
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
				SAMPLING STARTS AT 20'						
				SAND						
10				WATER						
15				HEAVE						
20				SAND, FINE TO MEDIUM, MOIST, BLACK, ORGANIC MATERIAL (WOOD) WITH 2 OR 3 CLAY NODULES/CLASTS!	SP ¹ SM					5/8/15/22
25				AS ABOVE, NO CLAY, LESS ORGANICS						5/14/16

COMMENTS: NO OBSERVABLE CONTAMINATION

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

CG-103-S-2

PROJECT NAME: Chemgro ST PROJECT NO: 623194
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: _____ GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM _____	USCS SYMBOL	DEPTH CHANG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
30				SAND, FINE TO MEDIUM, BLACK, MOIST SATURATED, 2 OR 3 THIN (2cm) CLAY BED	SP					6/17/19
				16 ABOVE, NO CLAY	SP					
35				SAND, FINE TO MEDIUM, BLACK, SATURATED (BOTTOM 6") SAND, SOME SILTY CLAY, FINE TO MEDIUM SAND, VERY VERY THIN (2cm MAX) BEDS OF SILTY CLAY, BLACK, SATURATED	SP					

COMMENTS: NO OBSERVABLE CONTAMINATION (VISUAL, OLFACTORY).

GEOLOGIST SIGNATURE J. Peale

RECORD OF SUBSURFACE EXPLORATION

CG-103-I

PROJECT NAME: BET - CHAMPAGNE LODGETOWN PROJECT NO: 6231
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: J. P. Smith GWL: depth _____ date/time _____
 DRILLED BY: WADSWORTH (HIO) GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: CABLE TOOL
 DATE/TIME STARTED: 6-1-92 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: N/A BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5				Sand, fine to med grain, Dark gray, wet, abundant wood particles						
10										
15										
20										
25										
30	(31)			SPOON SHOWS SAND, FINE TO MEDIUM, WITH NARROW SILT STRATA (2cm)						

COMMENTS: _____

GEOLOGIST SIGNATURE J.P. Smith

RECORD OF SUBSURFACE EXPLORATION

16-103-1

PROJECT NAME: BURLINGTON ENVIRONMENTAL - CHAMPLAIN GEORGETOWN PROJECT NO: 625188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: JAMES PAUL GWL: depth _____ date/time _____
 DRILLED BY: HOLT DRUG / W. EVERTSON GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: CABLE-TOOL
 DATE/TIME STARTED: 6-1-92 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: HNV BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
30				(See previous pg)						- NO HEAVE
35										- SILT CLUMPS IN BAILER
40										- HEAVE PROBLEMS
45				SAND, TRACE SILT, FINE TO MEDIUM SAND, VERY DARK GRAY BROWN, WET, NON PLASTIC, MEDIUM STIFF, NO ODOR, THIN SILT LAMINATIONS (0.5 cm)	SM					2/3/8 MORE HEAVE
50				AS ABOVE - NO SILT LAMINATION	SM					6/9/8
				AS ABOVE - 1 LAMINATION, ~ 1 cm						4/9/20
60				AS ABOVE - SEVERAL THIN (< .5 cm) LAMINATIONS						6/4/7

COMMENTS: 44' SAMPLE - MOSTLY CUTTINGS / SLURRY - ONLY BOTTOM 6" REPRESENTATIVE

GEOLOGIST SIGNATURE [Signature]

RECORD OF SUBSURFACE EXPLORATION

3 105-I

PROJECT NAME: _____ PROJECT NO: _____
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: _____ GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: _____
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
65				AS ABOVE - BOTTOM 6" SILT						5 7 1
70				SAND SILTY SAND, FINE TO MEDIUM SAND, VERY DARK GRAY, VERY MOIST, MEDIUM STIFF, NONPLASTIC, NO ODR	SM					1 6 9 - SOME FLARE ENCOUNTERED
75				(SAND) SILT, SOME SAND, FINE SAND, DARK GRAY SILT, VERY MOIST, NON PLASTIC, LOFT, NO ODR	ML					3 3 4
80				BOTTOM 12" OF SPON ARE SILT, TRACE FINE SAND SILT						4 5 7

COMMENTS: 75' - MOST OF SAMPLE IS SILT 80' - ALL SILT, TRACE SAND

GEOLOGIST SIGNATURE _____

RECORD OF SUBSURFACE EXPLORATION

CG-104-S-1

PROJECT NAME: Chempro PROJECT NO: 623/98
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Gary Gant GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA D-50
 DATE/TIME STARTED: 5/12/92 0950 DATE/TIME COMPLETION (S): 5/12/92 1420
 AIR MONITORING TYPE: RID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS <u>NDM</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5 10 15 20	1	9"		silt, trace sand fine sand, wet brown, moist, no plast. dense	ML		0	0	0	12/25/35
	2			sand, trace clay, very dark brown, wet very dense	SM		0	0	0	4/12
	3			silt, trace fine sand, wet brown moist, stiff	SP		0	0	0	4/12 4/12/18
	4			sand, med grain, dark gray, moist, med dense	SP		0	0	0	5/8/9
				sand, fine to med grain, very dark gray, wet, dense. abundant wood particles	SP		0	0	0	7/20/32
				T.D. boring 20'						

COMMENTS: No subjective evidence of contamination

GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

CG-104-S-2

PROJECT NAME: Chempco Georgetown PROJECT NO: 6231
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Gary Gault GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA Dredrich D-50
 DATE/TIME STARTED: 5-13-92 DATE/TIME COMPLETION (S): 5-13-92 1600
 AIR MONITORING TYPE: P/D BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHANG (feet)	AIR MONITORING UNITS <u>MDA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
10				sand, Med grain, Dark gray, moist, Med dense	SP					
20	1	18"		light yellowish brown silt sand, med grain, dark gray, wet,						1) 2/11/18
25	2	18"		Mostly wood particles sand, med grain, dark gray wet dense wood particles sand, trace gravel, coarse sandy silt						2) 11/28/34
30	3			sand, some silt, trace clay, fine grain dark gray, wet dense						
35	4			lost sample sand, med grain, dark gray, wet dense						3) 5/18/36 12/20/30
40										

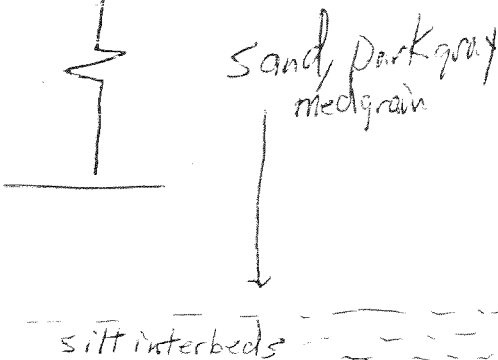
COMMENTS: _____

 GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

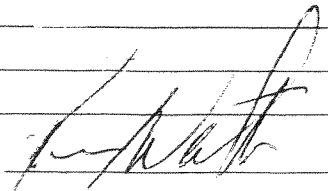
CG-104-I

PROJECT NAME: Chempro Georgetown PROJECT NO: 623/53
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool Bolt Drilling
 DATE/TIME STARTED: 6-11-92 1300 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
30 30				 <p style="text-align: center;">Sandy, dark gray med grain</p>	SP				no heave @ 33' 7-19-23	
35				<p style="text-align: center;">Abundant wood particles and branches</p>					13' of heave wood clogging casing	
45									no sample because of dogged casing	
50				<p style="text-align: center;">sand, med to coarse, dark gray wet, dense Trace fine gravel silt, gray, hard</p>					11-17-28	

COMMENTS: _____

GEOLOGIST SIGNATURE _____



RECORD OF SUBSURFACE EXPLORATION

CG-104-I

PROJECT NAME: Chempro Georgetown PROJECT NO: _____
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: R. L. Walter GWL: depth _____ date/time _____
 DRILLED BY: John - [unclear] GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Circle 1001
 DATE/TIME STARTED: 6-14-72 1500 DATE/TIME COMPLETION (S): 6-14-72 1150
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
55				sample fell out						
60				silt, with thin sand interbeds.						12-25-32 @ 60 strong chemical odor
65				silt, gray (trace clay) organic material.						7-8-15 @ 65 strong, chemical odor
				sand, dark gray fine grain						
				silt w/ sand interbeds 30% sand beds						
70				silt, <10% sand interbeds						13-15-20 @ 70 no odor
				silt - trace clay, gray						
				T.P. boring 70'						

COMMENTS: _____

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

CG-104-D

PROJECT NAME: Chempco Geosystem PROJECT NO: 623/55
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walker GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 7-19 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: P/D BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
75		8"		Silt, trace clay, gray, wet, soft, no plasticity, fine organic material (< 2%) no bedding	ML		○	○	○	2-2-2 @ 75'
80		24"		Silt, trace clay, gray, wet, med stiff 2" sand, fine to med grain, silty gray, wet						3-4-8 @ 80'
85		24"		Silt w/ 1/2 mm fine sand interbeds, gray and silt w some clay / dk gray, sand < 5% gray, wet, stiff slightly plastic fine mud cracks						3-7-10 @ 85'
90		18"		Silt, trace clay, dark gray mottled w/ light gray, wet stiff, no plasticity, mud cracks. no bedding some horizontal breaks (bedding surfaces?)						5-7-7 @ 90

COMMENTS: _____

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

CB-124-B

PROJECT NAME: Clamp GT PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Jensen GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable tool
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM	USCS SYMBOL	DEPTH CORRECT (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
100				Silt w/ fines sand interbeds ML/CL dark gray, moist, stiff, sand beds 2 mm. bedding plane breaks on sand beds			0	0	0	7-7-7 @ 100'
102.5				silt, trace clay w/ 2 to 3 mm clay interbeds throughout. moist, stiff, slightly plastic						3-3-4 @ 102.5
105				Silty clay, gray/dark gray, moist, sligh med stiff, slightly plastic, mud cracks no bedding						
105				trace to silt, some clay, dark gray mottled with black, moist very stiff, slightly plastic in black zones, non plastic in lighter colored zones, no bedding, blocky appearance throughout, mud cracks						4-7-9
107.5				silt, 22% fines sand, grey to greyish olive, moist, stiff, non plastic, mud cracks, greyish olive gradational change to silt, some fine sand, partings of thin sand layers, some visible beds 3 mm						* color change rare fine gravel and shells 3-5-9 @ 110

COMMENTS: _____

GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

CG-104-D

PROJECT NAME: Chempura GT PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: _____ GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: cable tool
 DATE/TIME STARTED: _____ DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: _____ BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)	
							BZ	BH	S		
110				Silt, trace sand, trace clay ^{fine} interbedded, dark greenish gray, moist to wet, stiff, silt plasticity in silt/clay zones						3-5-9 @110	
112.5				sand w silt ^{and clay} interbeds, fine to med grain sand dk greenish gray sand, fine to med grain dark grayish green, wet							
115				sand, trace silt, trace clay, fine to med grain sand, dark grayish green, wet, bedding and cross bedding, stiff, shells 4-6 mm							2-3-9 @115 seive sample dark olive gray
117.5											
120				sand, trace silt, trace clay, fine grain, wet, med stiff, slightly plastic dark olive gray <u>saturated</u> sand, medium grainy dark olive gray, no bedding, stiff dk fine grain, dark olive gray, wet med stiff, no plast, shells							2-3-4 @120
122.5											
125				silt, trace clay trace sand							10-17-17 @125 TID boring 127

COMMENTS: _____

GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

CG-105-S-1

PROJECT NAME: Chempro Georgetown PROJECT NO: 623/9
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Gary Gant GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA D-50
 DATE/TIME STARTED: 0850 5/14/92 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHANG (feet)	AIR MONITORING UNITS <u>UDU</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5 10	1			sand, trace silt, fine grain, Dark gray to Black. damp, loose	SP		0	0	2.9	2/4/5
	2			sand, med grain, Dark gray moist, med dense,	SP		0	0	1.6	4/12/17
	3			<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 15px; height: 15px; margin-right: 5px;"></div> wood particles </div>	SP		0	43 57	4/15/15	
	4			sand med grain as above	SP		0	21.2	6/7/12	

COMMENTS: Strong odor below water surface

GEOLOGIST SIGNATURE K. Walter

RECORD OF SUBSURFACE EXPLORATION

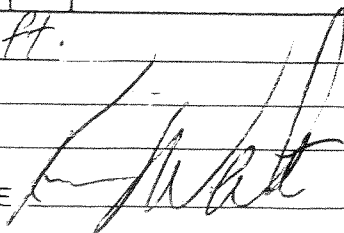
CG-105-S-2

PROJECT NAME: Chempro Georgetown PROJECT NO: 623/88
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: A. Walter GWL: depth _____ date/time _____
 DRILLED BY: Gary Gant GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: HSA D-50
 DATE/TIME STARTED: 5-15-92 0930 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION	USCS SYMBOL	DEPTH (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM: <u>USCS</u>			BZ	BH	S	
0				sand, med grain, Dark gray to black, ∇ 10ft.						
20	1	12"		sand, med to coarse grain Dark gray to black, wet dense						12/22/28
25	2	12"		sand, med to coarse dark gray to black, wet, dense 1cm silty clay bed zone K6w						15/26/31
30	3			sample fed out						18/27/35
35	4	13"		sand, fine to med grain, very dark gray to black, dense wet trace silt at bottom T.D. Boring 35'						17/30/32

COMMENTS: strong chemical odor @ 10ft. odor decreasing downward

GEOLOGIST SIGNATURE _____



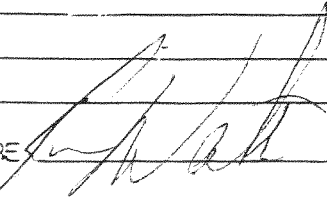
RECORD OF SUBSURFACE EXPLORATION

CG-105-I

PROJECT NAME: Chempco Georgetown PROJECT NO: 62318
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 6-5-1500 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: FID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>N/A</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
10				Sand, med grain, Dark gray						casing advances as boring is baited
20										
30										at 33' no heave 5/9/11
40				Sand (Probably slough) silt interbeds with wood particles. gray, 5mm to 4cm thick						
50				MED GRAIN - FINE GRAIN DARK GREY SAND w/ SMALL SILT SEAMS & ORGANICS						B/c 10/19/23.

COMMENTS: Moderate chemical odor

GEOLOGIST SIGNATURE 

RECORD OF SUBSURFACE EXPLORATION

CG-105-1

PROJECT NAME: Chempco Georgetown PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Watter GWL: depth _____ date/time _____
 DRILLED BY: Wade Pursson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: cable tool
 DATE/TIME STARTED: 6-5-92 1500 DATE/TIME COMPLETION (S): _____
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (1in)	SAMPLE DESCRIPTION	USCS SYMBO	DEPTH CHRG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
				CLASSIFICATION SYSTEM <u>USCS</u>			BZ	BH	S	
55'				MED-FINE GRAINED SAND, DARK GREY w/ ORGANICS						AC 925-38
60'				↓						-10-17-26
65'				silt, light gray, wet, dense sand and silt interbeds.	ML					8-9-11 @ 65'
70'				sand-med grain, dark gray silt-light gray trace clay abundant fine organic material 4" silty clay						2-5-7 @ 67.5'
75'				Silt and sand interbeds sand decreasing only 10-20%						3-3-4 @ 70'
75'				silt, trace clay, trace fine sand, gray, wet, med stiff some fine organic material						3-4-5 @ 75'

COMMENTS: _____

GEOLOGIST SIGNATURE

RECORD OF SUBSURFACE EXPLORATION

Page 1 of
Borehole No.
Well No.

CG-111-I-20

PROJECT NAME: Chempro PROJECT NO: 623188
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: Ken Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Swensen GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 7-2-92 @ 0815 DATE/TIME COMPLETION (S): 7/6/92 @ 1500
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: <u>USCS</u>	USCS SYMBOL	DEPTH CHNG (feet)	AIR MONITORING UNITS			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
5				sand, med to coarse, Dark brownish gray, moist						7-14-17
10				Dark gray, wet med dense						11/5/8 @ 4-6-6 @ 10
15				↓						
20				sand ↓ Silty Gray, wet, med stiff Sand, trace fine gravel, med to coarse sand, Dark gray,			⊖ ⊖ 2			11/5/8 @ 20
25				abundant wood particles			⊖ ⊖ ⊖			Heaving sand until ~30ft.
30										

COMMENTS: _____

GEOLOGIST SIGNATURE Ken Walter

RECORD OF SUBSURFACE EXPLORATION

CG-III-I

PROJECT NAME: Chempco Georgetown PROJECT NO: 623/88
 ELEVATION: _____ BOREHOLE LOCATION/COORDINATES: _____
 LOGGED BY: K. Walter GWL: depth _____ date/time _____
 DRILLED BY: Wade Iverson GWL: depth _____ date/time _____
 DRILLING/RIG METHODS: Cable Tool
 DATE/TIME STARTED: 7/2/92 @ 0815 DATE/TIME COMPLETION (S): 7/6/92 @ 1500
 AIR MONITORING TYPE: PID BZ = Breathing Zone; BH = Borehole; S = Sample

DEPTH (feet)	SAMPLE NUMBER	SAMPLE INTERVAL	SAMP TYPE RECOV. (in)	SAMPLE DESCRIPTION CLASSIFICATION SYSTEM: _____	USCS SYMBOL	DEPTH CHG (feet)	AIR MONITORING UNITS <u>ADIA</u>			DRILLING CONDITIONS AND (BLOW COUNTS)
							BZ	BH	S	
30				<u>Sand, med gray, dk. gray; Dense silt gray</u> <u>sand (as above)</u> <u>abundant wood shells</u>			0	12	95	<u>7-13-15</u> <u>@ 30 ft.</u> <u>no chemical odor</u> <u>but high PID reading</u>
35										
40				<u>silt, gray, wet, soft</u> <u>sand, trace silt, med to fine</u> <u>sand, dark gray; loose, abundant</u> <u>wood material</u>			0	0	3	<u>2-2-2 @ 40</u>
45				<u>as above</u>						<u>2-3-5 @ 49</u>
50				<u>silt with trace clay</u> <u>sand, trace silt, med gray, dark gray</u>			0	0	0	<u>2-3-3</u>
55				<u>silt, trace clay, light gray, wet</u> <u>med stiff. shells, bioturbation?</u> <u>no bedding visible</u> <u>silt, trace clay</u>						<u>3-3-5</u>
60				<u>Silt, trace fine sand, trace clay</u>						<u>6-12-16</u>

COMMENTS: _____

GEOLOGIST SIGNATURE K. Walter

Table 2-8

MONITOR WELL DETAILS

Well Location	Well Name	Total Depth of Well (ft bgs)	Elevation (TOC) *	Well Screen Depth (ft bgs)	Filter Pack Interval (ft bgs)	Annular Seal Interval (ft bgs)
TB-13	CG-1-S-1	17.5	7.38	5.5-15.5	4.5-17.5	1.5-4.5
	CG-1-S-2	30.5	7.53	10.5-29.5	17.5-30.5	1.5-17.5
	CG-1-I	66	7.28	53-63	51-66	1.5-51
TB-7	CG-2-S-1	20.5	11.32	8.5-18.5	6.5-20.5	1.5-6.5
	CG-2-S-2	51.5	10.98	30.5-40.5	4-28.5	21.5-28.5
	CG-2-I	70.5	11.36	55-65	48-66	1.5-48
TB-1	CG-4-D	109.5	7.13	95-105	90.5-108	1.5-90.5
TB-5	CG-5-S-1	17	10.19	5-15	4-17	1.5-4
	CG-5-S-2	45	10.06	34-44	32-45	1.5-32
	CG-5-I	64.5	9.86	53.5-63.5	48-64.5	1.5-48
	CG-5-D	123	10.33	98-108	95-110	1.5-95
TB-3	CG-6-S-1	16.8	7.86	5-15	4.5-17	1.5-4
	CG-6-S-2	38.5	7.91	25-35	22.5-35.5	1.5-22.5
TB-4	CG-7-S-1	17.5	8.25	5.5-15.5	5.5-17.5	1.5-5.5
	CG-7-S-2	38.5	8.14	21-31	18-31.5	1.5-18
TB-8	CG-8-S-1	20	11.47	8-18	6-20	1.5-6
	CG-8-S-2	41.5	10.99	30.5-40.5	28.5-41.5	1.5-28.5
TB-10	CG-9-S-1	19	11.16	7-17	5-19	1.5-5
	CG-9-S-2	41.5	11.04	31-41	28-41.5	1.5-28
	CG-9-I	75	11.01	63-73	60.5-75	1.5-60.5
TB-11	CG-10-S-1	17.5	8.84	5.5-15.5	4.5-17.5	2.0-4.5
	CG-10-S-2	28.5	8.54	15-25	13-26.5	1.5-13
TB-14	CG-11-S-1	17	7.11	5-15	4-17	1.5-4
	CG-11-S-2	41.5	7.14	26-36	23-37	1.5-23

* = Top of casing
bgs = Below ground surface

LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill Corp.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-1-S1
 PAGE 1 OF 1
 REFERENCE ELEV. 7.38' TOC
 TOTAL DEPTH 17.50'
 DATE COMPLETED 7/18/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	3/9		5				Geologic details are similar to those recorded for boring CG-1-D, located 6 feet south.
2	SS	3/10	▽					
3	SS	4/11						
4	SS	3/14		10				
				15				Boring completed at 17.5 ft bgs July 18, 1989.
				20				
				25				
				30				
				35				
				40				



REMARKS
 Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.

LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill Corp.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-1-S2
 PAGE 1 OF 1
 REFERENCE ELEV. 7.53' TOC
 TOTAL DEPTH 30.50'
 DATE COMPLETED 7/19/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
			▽	5				Geologic details are similar to those recorded for boring CG- 1D, located 10 feet south.
1	SS	2/10		15	■			
2	SS	3/12		20	■			
3	SS	5/20		25	■			
4	SS	5/22		25	■			
5	SS	3/6		30	■			Boring completed at 30.5 feet BGS on 7-19-89.
				35				
				40				

REMARKS

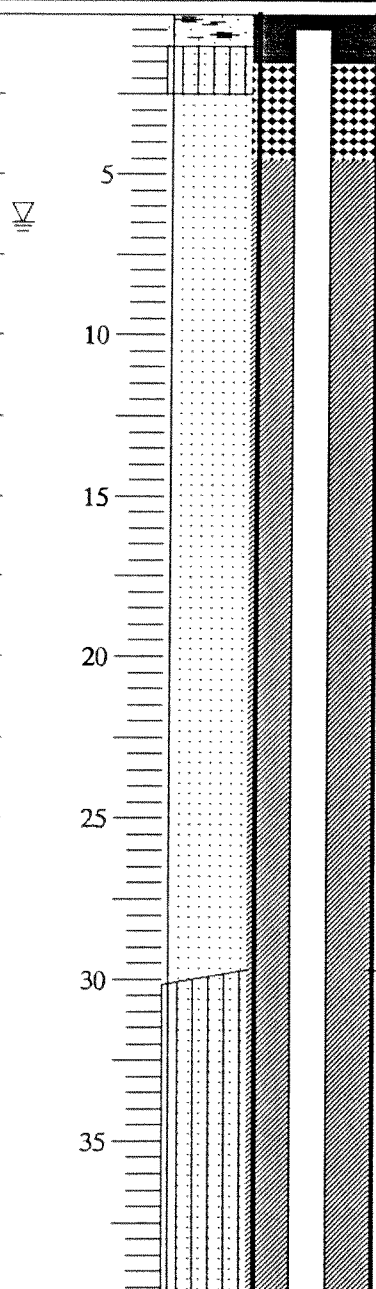
Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill Corp.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-1-I
 PAGE 1 OF 2
 REFERENCE ELEV. 7.28' TOC
 TOTAL DEPTH 66.00'
 DATE COMPLETED 8/30/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
			▽	5 10 15 20 25 30 35 40			<p>0 - 1 foot: CONCRETE</p> <p>1 - 2.5 feet: SILTY SAND, brownish olive, fine to medium, loose, dry. (FILL) (SM)</p> <p>2.5 - 29.8 feet: SAND, brownish olive to dark gray olive, fine to medium, trace fine gravel, medium, wet below 6.5 feet. (SP)</p> <p>29.8 - 63 feet: SILTY SAND, olive gray, fine, and SANDY SILT, olive gray, low plasticity fines, fine sand, trace wood debris, medium, wet. Stratified layers 1/2 to 6 inches thick. (SP-SM)</p>

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch LD./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
LOCATION Georgetown
DRILLED BY Hokkaido Drill Corp.
DRILL METHOD H.S. Auger
LOGGED BY S. Nelson

BORING NO. CG-1-I
PAGE 2 OF 2
REFERENCE ELEV. 7.28' TOC
TOTAL DEPTH 66.00'
DATE COMPLETED 8/30/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	4/29		45				
2	ST			50				
3	SS	2/5		60				
4	SS	4/10		65				63 - 66 feet: SILT, brown, low plasticity fines, some very fine sand, trace wood debris, firm, wet. (ML)
				70				Boring completed at 66 feet BGS on 8-30-89.
				75				
				80				



REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.

LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-2-S1
 PAGE 1 OF 1
 REFERENCE ELEV. 11.32' TOC
 TOTAL DEPTH 20.50'
 DATE COMPLETED 7/31/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	5/11		5				<p>Geologic information is similar to that recorded on boring log for CG-2-I, located 16 feet north.</p>
2	SS	4/12						
3	SS	3/12						
4	SS	6/16	▽	10				
				15				
				20				<p>Boring completed at 20.5 feet BGS on 7-31-89.</p>
				25				
				30				
				35				
				40				

REMARKS

Elevations are City of Seattle Datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
LOCATION Georgetown
DRILLED BY Hokkaido Drill, Inc.
DRILL METHOD H.S. Auger
LOGGED BY S. Nelson

BORING NO. CG-2-S2
PAGE 1 OF 2
REFERENCE ELEV. 10.98' TOC
TOTAL DEPTH 51.50'
DATE COMPLETED 7/28/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	3/25		15				Geological details are similar to those recorded on boring log for CG-2-I, located 12 feet north.
2	SS	3/7		20				
3	SS	3/15		25				
4	SS	5/22		30				
5	SS	3/7		35				
				40				



REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.

LOG OF EXPLORATORY BORING

PROJECT NAME **Chemical Processors, Inc.**
 LOCATION **Georgetown**
 DRILLED BY **Hokkaido Drill, Inc.**
 DRILL METHOD **H.S. Auger**
 LOGGED BY **S. Nelson**

BORING NO. **CG-2-S2**
 PAGE **2 OF 2**
 REFERENCE ELEV. **10.98' TOC**
 TOTAL DEPTH **51.50'**
 DATE COMPLETED **7/28/89**

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
6	SS	10/37					[Symbol]	
7	SS	1/29						
8	SS	7/20		45				
9	SS	3/15						
10	SS	3/19		50				
				55				Boring completed at 51.5 feet BGS on 7-28-89.
				60				
				65				
				70				
				75				
				80				

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch LD./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY Steve Nelson

BORING NO. CG-2-I
 PAGE 1 OF 2
 REFERENCE ELEV. 11.36' TOC
 TOTAL DEPTH 70.50'
 DATE COMPLETED 8/22/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
			▽	5				0 - 0.5 foot: ASPHALT
				5				0.5 - 4 feet: SAND, olive brown, fine to medium, fine gravel, loose, dry. (FILL) (SP)
				10				4 - 30 feet: SAND, dark olive gray, fine to medium, trace fine gravel, medium, wet below 10 feet. (SP)
				15				
				20				
				25				
				30				30 - 70.5 feet: SILTY SAND, gray olive, fine to medium and sandy silt olive gray, low plasticity fines, fine sand; trace wood debris; medium wet. Stratified in layers 1 inch to several feet thick. (SP-SM)
				35				
				40				

REMARKS
 Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY Steve Nelson

BORING NO. CG-2-I
 PAGE 2 OF 2
 REFERENCE ELEV. 11.36' TOC
 TOTAL DEPTH 70.50'
 DATE COMPLETED 8/22/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	ST			45				
2	SS	7/18		50	55			
3	SS	3/7		60	65			
				70				
				75				
				80				
Boring completed at 70.5 feet BGS on 8-22-89.								

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch LD./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-4-D
 PAGE 1 OF 3
 REFERENCE ELEV. 7.13' TOC
 TOTAL DEPTH 109.50'
 DATE COMPLETED 6/16/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
			▽	5				0 - 0.8 foot: CONCRETE
1	SS	8/33		10				0.8 - 35 feet: SAND, olive gray, fine to medium, some coarse sand, trace fine subrounded gravel, trace wood debris, medium, wet below 7 feet. (SP)
2	SS	4/20		15				
3	SS	7/37		20				
4	SS	7/27		25				
5	SS	6/32		30				
6	SS	8/30		35				
7	SS	4/25		35				
				40				35 - 64 feet: SAND, olive gray, fine, SILTY SAND and SANDY SILT, olive gray, low plasticity fines, fine sand, scattered wood debris, medium, wet. Stratified in layers 1/4 to 3 inches thick. (SP-SM)

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch LD./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-4-D
 PAGE 2 OF 3
 REFERENCE ELEV. 7.13' TOC
 TOTAL DEPTH 109.50'
 DATE COMPLETED 6/16/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
8	SS	10/25						
9	SS	14/41		45				
10	SS	9/18		50				
11	SS	8/21		55				
12	SS	5/14		60				
13	SS	5/10		65				64 - 84 feet: SILT, brown olive, low plasticity fines, fine to very fine sand, trace wood debris, firm, wet. (ML)
14	SS	3/4		70				
15	ST			75				
				80				

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-4-D
 PAGE 3 OF 3
 REFERENCE ELEV. 7.13' TOC
 TOTAL DEPTH 109.50'
 DATE COMPLETED 6/16/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
16	SS	3/11						
17	SS	4/14		85				84 - 94 feet: SILTY SAND, olive gray, low plasticity fines, fine to medium, trace fine gravel and shell debris, dense, wet. (SM)
18	SS	17/71		90				
19	SS	7/26		95				94 - 106 feet: SILTY SAND with GRAVEL, olive green to gray, medium to coarse, fine gravel, dense, wet. (SW-SM)
20	SS	34 50/4		100				
21	SS	30 50/3		105				106 - 108 feet: SANDY SILT with GRAVEL, olive grayish green, medium plasticity fines, fine to medium, medium gravel, dense, wet. (ML)
22	SS	3/49		110				
				115				
				120				

Boring completed at 109.5 feet BGS on 6-16-89.



REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.

LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-S1
 PAGE 1 OF 1
 REFERENCE ELEV. 10.06' TOC
 TOTAL DEPTH 17.00'
 DATE COMPLETED 7/5/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	1/9		5				Geological information is similar to that recorded on boring log for CG-5-D, located 10 feet south.
2	SS	1/8	▽					
3	SS	1/8						
4	SS	1/9		10				
				15				Boring completed at 17 feet BGS on 7-5-89.
				20				
				25				
				30				
				35				
				40				



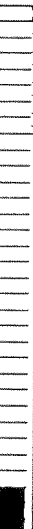
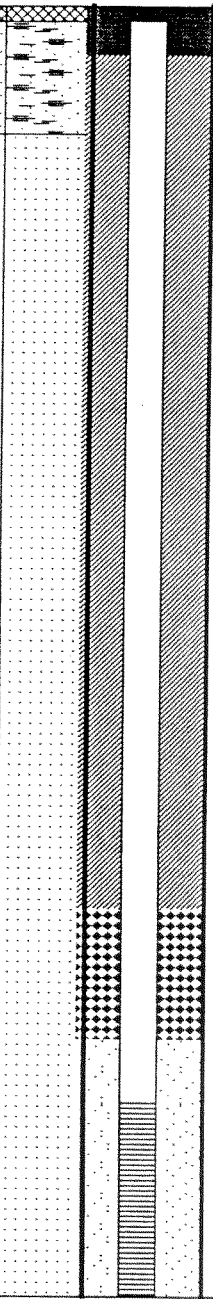
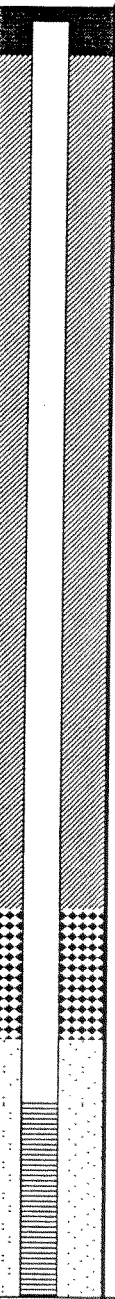


REMARKS
 Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing, 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.

LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
LOCATION Georgetown
DRILLED BY Hokkaido Drill, Inc.
DRILL METHOD H.S. Auger
LOGGED BY S. Nelson

BORING NO. CG-5-S2
PAGE 1 OF 2
REFERENCE ELEV. 10.19' TOC
TOTAL DEPTH 45.00'
DATE COMPLETED 7/7/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	1/11						<p>Geological information is similar to that recorded on boring log for CG-5-D, located 6 feet south.</p>

REMARKS

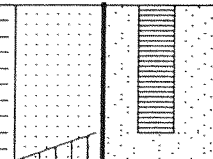
Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing, 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-S2
 PAGE 2 OF 2
 REFERENCE ELEV. 10.19' TOC
 TOTAL DEPTH 45.00'
 DATE COMPLETED 7/7/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				45			<p>Boring completed at 45 feet BGS on 7-7-89.</p>
				50			
				55			
				60			
				65			
				70			
				75			
				80			

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
LOCATION Georgetown
DRILLED BY Hokkaido Drill, Inc.
DRILL METHOD H.S. Auger
LOGGED BY S. Nelson

BORING NO. CG-5-I
PAGE 1 OF 2
REFERENCE ELEV. 9.86' TOC
TOTAL DEPTH 64.50'
DATE COMPLETED 8/17/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5 10 15 20 25 30 35 40				Geological information similar to that recorded on boring log for CG-5-D, located 15 feet south.

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-I
 PAGE 2 OF 2
 REFERENCE ELEV. 9.86' TOC
 TOTAL DEPTH 64.50'
 DATE COMPLETED 8/17/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	ST						<p>Boring completed at 64.5 feet BGS on 8-17-89.</p>

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-D
 PAGE 1 OF 4
 REFERENCE ELEV. 10.33' TOC
 TOTAL DEPTH 123.00'
 DATE COMPLETED 6/29/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5				0 - 0.4 foot: CONCRETE
				10				0.4 - 0.7 foot: ASPHALT
				15				0.7 - 4 feet: SAND, oliv brown, fine to medium, fine gravel, medium dry. (FILL) (SP)
				20				4 - 44 feet: SAND, dark gray olive, fine to medium, trace fine gravel, medium, wet below 7 feet. (SP)
1	SS	5/13		25	[Sample]			
2	SS	4/16		30	[Sample]			
3	SS	6/10		35	[Sample]			
4	SS	8/29		40	[Sample]			

REMARKS
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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-D
 PAGE 2 OF 4
 REFERENCE ELEV. 10.33' TOC
 TOTAL DEPTH 123.00'
 DATE COMPLETED 6/29/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION	
7	SS	5/19							
8	SS	6/49							
9	SS	1/3		45				44 - 69 feet: SANDY SILT, olive gray, low plasticity fines, fine sand; and SILTY SAND, olive gray, fine, trace wood debris, medium, wet. Stratified lenses 1 to 3 inches thick. (SM-ML)	
10	SS	2/2		50					
11	SS	2/3		55					
12	SS	6/16		60					
13	SS	6/22		65					
14	SS	5/13		70					
15	SS	3/5		75					
16	ST			80					
									69 - 89 feet: SILT, olive brown, low plasticity fines, some fine to very fine sand, trace shell and wood debris, firm, wet. (ML)

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-D
 PAGE 3 OF 4
 REFERENCE ELEV. 10.33' TOC
 TOTAL DEPTH 123.00'
 DATE COMPLETED 6/29/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
17	SS	6/14						
18	SS	5/12		85				
19	SS	3/8		90				89 - 118 feet: SANDY SILT, greenish to brownish olive, low plasticity fines, fine sand, trace shell debris; and SILTY SAND, fine, medium, wet. Stratified in layers of 1 to 6 inches. (SM-SP)
20	SS	3/8		95				
21	SS	3/7		100				
22	SS	5/31		105				
23	SS	2/10		110				
24	SS	6/28		115				
				120				118 - 123 feet: SILTY SAND, olive gray, fine to coarse, fine gravel, hard, wet to moist. (SM)

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-5-D
 PAGE 4 OF 4
 REFERENCE ELEV. 10.33' TOC
 TOTAL DEPTH 123.00'
 DATE COMPLETED 6/29/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION				
25	SS	15 50/6		125	130	135	140	145	150	155	160	<p style="text-align: right;">Boring completed at 123 feet BGS on 6-29-89.</p>

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-6-S1
 PAGE 1 OF 1
 REFERENCE ELEV. 7.86' TOC
 TOTAL DEPTH 16.80'
 DATE COMPLETED 7/12/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	3/11		5				Geological information similar to that recorded on boring log for CG-S-2, located 6 feet northwest.
2	SS	2/9	▽					
3	SS	2/7						
4	SS	4/11		10				
				15				Boring completed at 16.8 feet BGS on 7-12-89.
				20				
				25				
				30				
				35				
				40				

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-6-S2
 PAGE 1 OF 1
 REFERENCE ELEV. 7.91' TOC
 TOTAL DEPTH 38.50'
 DATE COMPLETED 7/10/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLER	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				0				0 - 0.25 feet: ASPHALT
				5				0.25 - 1 foot: GRAVELLY SAND, olive black, fine to medium, some medium gravel, loose, moist. (SP)
				10				1 - 35.5 feet: SAND, gray olive, fine to medium, trace fine gravel, medium, wet below 6.5 feet. (SP)
1	SS	1/4		15				
2	SS	2/10		20				
3	SS	5/14		25				
4	SS	6/42		30				
5	SS	6/32		35				35.5 - 38.5 feet: SILTY SAND, gray olive, fine, and SANDY SILT, gray olive, low plasticity fines, fine sand, dense, wet. Stratified lenses 1/2 to 3 inches thick. (SP-SM)
6	SS	13/55		40				
								Boring completed at 38.5 feet BGS on 7-10-89.

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-7-S1
 PAGE 1 OF 1
 REFERENCE ELEV. 8.25' TOC
 TOTAL DEPTH 17.50'
 DATE COMPLETED 7/14/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	5/17		5			Geologic information similar to that recorded on boring log for CG-7-S2, located 6 feet southeast.
2	SS	3/12	▽				
3	SS	2/12					
4	SS	3/16		10			
				15			Boring completed at 17.5 feet BGS on 7-14-89.
				20			
				25			
				30			
				35			
				40			

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-7-S2
 PAGE 1 OF 1
 REFERENCE ELEV. 8.14' TOC
 TOTAL DEPTH 38.50'
 DATE COMPLETED 7/13/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5				0 - 0.33 foot: CONCRETE
				10				0.33 - 1.0 foot: GRAVELLY SAND, brownish dark olive, fine to medium, some medium gravel, loose, moist. (FILL) (SP)
				15				1 - 31 feet: SAND, dark olive, fine to medium, trace fine to medium gravel, medium, wet. (SP)
1	SS	2/18		15	■			
2	SS	4/25		20	■			
3	SS	5/24		25	■			
4	SS	1/10		30	■			
5	SS	6/25		35	■			31 - 38.5 feet: SAND, dark olive, fine, SILTY SAND and SANDY SILT, olive gray low plasticity fines, fine sand, scattered wood debris, medium, wet, stratified lenses of 1/2 inch to 6 inches thick.
6	SS	14/58		35	■			
7	SS	19/52		40	■			
								Boring completed at 38.5 feet BGS on 7-13-89.

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME: Chemical Processors, Inc.
 LOCATION: Georgetown
 DRILLED BY: Hokkaido Drill, Inc.
 DRILL METHOD: H.S. Auger
 LOGGED BY: S. Nelson

BORING NO.: CG-8-S1
 PAGE: 1 OF 1
 REFERENCE ELEV.: 11.47' TOC
 TOTAL DEPTH: 20.00'
 DATE COMPLETED: 7/27/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	2/4		5				Geologic information similar to that recorded in boring log for CG-8-S2, located 6 feet north.
2	SS	1/11						
3	SS	3/10						
4	SS	4/13	▽	10				
								Boring completed on 7-27-89.

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-8-S2
 PAGE 1 OF 2
 REFERENCE ELEV. 10.99' TOC
 TOTAL DEPTH 41.50'
 DATE COMPLETED 7/26/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5				0 - 0.5 foot: ASPHALT
				10				0.5 - 4 feet: SAND, brown olive, fine to medium, fine gravel, wood debris, medium, dry.
				15				4 - 40.5 feet: SAND, dark brown olive to dark gray olive, fine to medium, trace fine gravel, trace scattered wood debris, medium, wet below 10 feet. (SP)
1	SS	5/32		20	15			
2	SS	1/14		25	20			
3	SS	4/27		30	25			
4	SS	7/33		35	30			
6	SS	4/14		40	35			

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-8-S2
 PAGE 2 OF 2
 REFERENCE ELEV. 10.99' TOC
 TOTAL DEPTH 41.50'
 DATE COMPLETED 7/26/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
7	SS	5/16		45 50 55 60 65 70 75 80				<p>40.5 - 41.5 feet: SILTY SAND, olive gray, fine, and SANDY SILT, olive gray to brown olive, low plasticity fines, fine sand, trace wood debris, medium wet, stratified layers 1 to 3 inches thick. (SP-SM)</p> <p>Boring completed at 41.5 feet BGS on 7-26-89.</p>

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-9-S1
 PAGE 1 OF 1
 REFERENCE ELEV. 11.16' TOC
 TOTAL DEPTH 19.00'
 DATE COMPLETED 7/25/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	3/6		5				Geologic information similar to that recorded on boring log for CG-9-I, located 6 feet south.
2	SS	4/8						
3	SS	3/11						
4	SS	2/4	▽	10				
				15				Boring completed at 19 feet BGS on 7-25-89.
				20				
				25				
				30				
				35				
				40				

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-9-S2
 PAGE 1 OF 2
 REFERENCE ELEV. 11.04' TOC
 TOTAL DEPTH 41.50'
 DATE COMPLETED 7/24/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	3/21		15				Geologic information similar to that recorded on boring log for CG-9-I, located 10 feet south.
2	SS	4/20		20				
4	SS	1/7		25				
3	SS	1/13		30				
5	SS	5/24		35				
				40				

REMARKS
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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-9-S2
 PAGE 2 OF 2
 REFERENCE ELEV. 11.04' TOC
 TOTAL DEPTH 41.50'
 DATE COMPLETED 7/24/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
6	SS	1/5		45	46	47		Boring completed at 41.5 feet BGS on 7-24-89.
				50				
				55				
				60				
				65				
				70				
				75				
				80				

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-9-1
 PAGE 1 OF 2
 REFERENCE ELEV. 11.01' TOC
 TOTAL DEPTH 75.00'
 DATE COMPLETED 8/25/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
								<p>0 - 1 foot: SILTY SAND, dark brown, fine to medium, trace medium to coarse gravel, loose, dry. (SM) (Topsoil)</p> <p>1 - 4.7 feet: SAND, dark gray brown, fine to medium, loose, dry. (SP) (FILL)</p> <p>4.7 - 9.2 feet: SANDY SILT, brown, low plasticity fines, fine to medium; with SAND, olive brown, fine to medium, firm, dry. Stratified layers to 2 inches. (ML-SP) (FILL)</p> <p>9.2 - 41 feet: SAND, dark gray olive, fine to medium, trace gravel, trace wood debris, medium, wet below 9 feet. (SP)</p>

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-9-1
 PAGE 2 OF 2
 REFERENCE ELEV. 11.01' TOC
 TOTAL DEPTH 75.00'
 DATE COMPLETED 8/25/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	10/34		45	48			41 - 74 feet: SILTY SAND, olive gray, fine, and SANDY SILT, olive gray, low plasticity fines, fine sand, scattered wood debris, medium, wet, stratified layers 1 to 6 inches thick. (SP-SM)
2	ST			50	53			
3	SS	7/17		55	58			
4	SS	3/7		60	63			
				65				
				70				
				75				74 - 75 feet: SILT, olive brown, low plasticity fines, some fine to very fine sand, firm, wet.
				80				Boring completed at 75 feet BGS on 8-25-89.

REMARKS

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LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill Corp.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-10S1
 PAGE 1 OF 1
 REFERENCE ELEV. 8.84' TOC
 TOTAL DEPTH 17.50'
 DATE COMPLETED 7/18/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	2/6		5				Geological information similar to that recorded on boring log for CG-10S2, located 4 feet north.
2	SS	3/10						
3	SS	5/13						
4	SS	5/14		10				
				15				Boring completed at 17.5 feet BGS on 7-18-89.
				20				
				25				
				30				
				35				
				40				

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing, 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill Corp.
 DRILL METHOD H.S. Auger
 LOGGED BY S. Nelson

BORING NO. CG-10S2
 PAGE 1 OF 1
 REFERENCE ELEV. 8.54' TOC
 TOTAL DEPTH 28.50'
 DATE COMPLETED 7/15/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHOLOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5				0 - 1 foot: CONCRETE
				10				1 - 3 feet: SAND, brown, fine to medium, trace fine gravel, trace organic debris, loose, dry. (SP) (FILL)
				15				3 - 25 feet: SAND, dark grayish olive, fine to medium, trace fine gravel, medium, wet below 7 feet. (SP)
1	SS	3/15		15	1			
				20				
2	SS	9/59		20	2			
				25				
3	SS	1/3		25	3			25 - 28.5 feet: SILTY SAND, olive gray, fine, and SANDY SILT, light grayish olive, low plasticity fines, fine sand, trace wood debris, medium, wet. Stratified 1-6 inch layers. (SP-SM)
4	SS	4/17		28.5	4			
				30				
				35				
				40				
								Boring completed at 28.5 feet BGS on 7-15-89.

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY Steve Nelson

BORING NO. CG-11S1
 PAGE 1 OF 1
 REFERENCE ELEV. 7.11' TOC
 TOTAL DEPTH 17.00'
 DATE COMPLETED 7/21/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
1	SS	4/11		5				Geologic information similar to that recorded on boring log for CG-11S2, located 5 feet north.
2	SS	3/13						
3	SS	4/22						
4	SS	6/23		10				
				15				Boring completed at 17 feet BGS on 7-21-89.
				20				
				25				
				30				
				35				
				40				

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY Steve Nelson

BORING NO. CG-11S2
 PAGE 1 OF 2
 REFERENCE ELEV. 7.14' TOC
 TOTAL DEPTH 41.50'
 DATE COMPLETED 7/20/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
				5				0 - 1 foot: CONCRETE
				10				1 - 2.5 feet: SILTY SAND, dark brown, fine to medium, medium gravel, abundant organic debris, loose, dry. (FILL) (SM)
				15				2.5 - 36 feet: SAND, dark brownish olive to olive gray, fine to medium, trace fine gravel, medium, wet below 6.5 feet. (SP)
1	SS	4/24		15	■			
				20				
2	SS	5/22		20	■			
				25				
3	SS	4/21		25	■			
				30				
4	SS	3/32		30	■			
				35				
5	SS	5/27		35	■			
				40				
6	SS	6/51		35	■			
				40				
7	SS	5/21		40	■			36 - 41.5 feet: SILTY SAND dark olive gray, fine, and SANDY SILT, olive gray, low plasticity fines, fine sand, medium, wet, stratified 1/2 to 4 inch lenses. (SP-SM)

REMARKS

Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.



LOG OF EXPLORATORY BORING

PROJECT NAME Chemical Processors, Inc.
 LOCATION Georgetown
 DRILLED BY Hokkaido Drill, Inc.
 DRILL METHOD H.S. Auger
 LOGGED BY Steve Nelson

BORING NO. CG-11S2
 PAGE 2 OF 2
 REFERENCE ELEV. 7.14' TOC
 TOTAL DEPTH 41.50'
 DATE COMPLETED 7/20/89

SAMPLE NUMBER	SAMPLE TYPE	BLOWS PER FOOT	GROUND WATER LEVELS	DEPTH IN FT.	SAMPLES	LITHO-LOGIC COLUMN	WELL DETAILS	LITHOLOGIC DESCRIPTION
8	SS	7/14		45 50 55 60 65 70 75 80	█			Boring completed at 41.5 feet BGS on 7-20-89.

REMARKS
 Elevations are City of Seattle datum (-6.05 feet MSL). TOC = Top of Casing. 6 inch I.D./12 inch O.D. Hollow Stem Auger. BGS = Below Ground Surface.





Soil Stratigraphy Field Log

Location ID CG-11-I
 Facility GT
 Project ON-SITE - Phase III RFI

Date 9/3/98 - 9/5/98 Field Geologist (CM) C. Mayer, C. Minton (CCBM)
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Hollow-stem Auger w/ 1.5' core barrels Sampling Method Split core barrel 3" x 1.5' Total Depth 68

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'		8 10			Breathing Zone: In-Spoon: Headspace: Concrete
3	MAX KADOSE SOIL SAMPLE CG-11-I-545 3-4.5' 2-4.5' Moisture Guide	8 8 10	B2 - 0.0 15 - 713 HS - 72000	12"	0-12" [SP] 10YR 2/2 Dusky yellowish brown, well sorted sand, slightly moist, loose, solvent odor is slight.
5	INTERFACE SOIL SAMPLE CG-11-I-56 4.5-6' Voc	12 18 18	15 - 1028 HS - 72000	12"	0-9" [SP] Same as above 9-12" [SM] light olive gray 5YR 6/1, poorly sorted sand, small gravel w/ silt, moist, med. dense, odor
6		9 10 10	15 - >2000 HS - >2000	12"	0-12" [SP] 10YR 2/2 Dusky yellowish brown, well sorted sand, wet, loose, odor
8		30 25 29	15 - >2000 HS >2000	12"	0-12" [SP] Same as above
9		19 20 24	15 - 975 HS >2000	12"	0-12" [SP] Black M1, well sorted sand, wet, loose, odor
10					
10.5					

5

Geologist's Signature [Signature] Date 9/3/98 Reviewer _____ Date _____ Pg 1 of 7

All SWS were mislabeled, should be SP



Soil Stratigraphy Field Log

Location ID CG-11-I
 Facility GT
 Project On Site - Phase III RF-1

Date 9/3/98 - 9/5/98
 Field Geologist CM CBM
C. Mayer C. Minton
 Location Type: Soil Boring Only Well Test Pit

Drilling Method HSA
 Sampling Method 1.5' x 3" Core Barrel
 Total Depth 68

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
10.5		28 21	15 - 118	12	0-7 [SP] Same as above
11		28 26	HS - 1646		7-12 [SP] Same as above but much finer grained
11.5		50 28			
12					
12.5		28	15 - 573	12	0-12 [SP] Same as 10.5-12' (0-7")
13		32	HS - 318		
13.5		50			
14		18	15 - 156	12	0-12 [SP] Same as above
14.5		26	HS - 279		
15		35			
15.5		18	15 - 31.9	12"	0-12" [SP] Same as above
16		28	HS - 128		
16.5		35			
17		28	15 - 0.0	12"	0-12 [SP] Same as above but with more fines
17.5		39			
18		50			
18.5		18	15 - 0.0	12"	0-12 [SP] Same as above - but fine grained
19		35			
19.5		50			
20		21	15 - 0.0	12"	0-9" [SP] NI Black, well sorted fine sand w/ trace silt, wet, dense, odor slight
20.5		39			9-12" [SP] WML lenses] NI Black well sorted sands w/ packets of MC silty sand, dense, moist
20.5		50			

Geologist's Signature [Signature] Date 9/3/98 Reviewer _____ Date _____ Pg 2 of 7



Soil Stratigraphy Field Log

Location ID CG-11-I
 Facility GT
 Project On-Site Phase III RFI

Date 9/3-9/5/98

Field Geologist C. Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA

Sampling Method Core Barrel

Total Depth 68

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
21		28	15-0	12"	0-12" [SP] NI Black, well-sorted fine black sand, wet dense, slight odor
21.5		33	HS-0		
22		39			
22.5		26	15-0	12"	0-12" [SP] Same as Above
23		29	HS-0		
23.5		35			
24		22	15-0	12"	0-12" [SP] Same as Above w/more trace silt no odor
24.5		40	HS-0		
25		50			
25.5		18	15-0	0"	Sand ran out of catcher - no sample.
26		27	HS-0		
26.5		39			
27					
27.5		30 24	15-0	12"	0-10" [SP] Same as 24-25.5' interval 10-12" Same as above w/wood chips 10.5-12" CM
28		37 33	HS-0		
28.5		40 41			
29		30	15-0		0-5" [SP] NI, fine well sorted sand w/trace silt, dense, wet 5-8.5" [MC] 5YR 2/1, Brownish black dense silt, moist, no odor 8.5-12" [SP] NI, fine well sorted sand w/trace silt, dense, wet
29.5		39	HS-0		
30		50			
30.5		26			
31		29			
		47 can			

Geologist's Signature [Signature] Date 9/5/98 Reviewer _____ Date _____ Pg 3 of 7



Soil Stratigraphy Field Log

Location ID CG-11-I
 Facility GT
 Project On-Site - Phase III RFI

Date 9/3/98 - 9/5/98 Field Geologist C. Mayer, C. Minton Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA Sampling Method Core Barrel Total Depth 68

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
30.5		26	15-0	12"	0-12" [SP] N1 Black, well sorted fine sand w/ trace silt, moist, dense, no odor
31		39	HS-0		
31.5		47	HS-0		
32					
32.5		18	15-0	12"	0-12" [SP] N1 w/ SYR 2/1 specks same as above w/ more fines and wood chips throughout
33		29	HS-0		
33.5		35	HS-0		
34		30	15-0	12"	0-12" [SP] N1 w/ SYR 2/1 specks well sorted sand w/ trace fines, moist, dense, no odor.
34.5		30	HS-0		
35		40	HS-0		
35		18	15-0	12"	0-5" [SP] Same as above
35.5	INT/SHL INTERFACE	36	HS-0		5-14" [SM] N3 Dark Gray, Fine silt w/ some sand, dense, moist no odor
36	SOIL SAMPLE	42			
36.5	CG-11-I-S36.5	42			
36.5	35-36.5				
36.5	VOL SWOL	14	15-0	12"	0-12" [SM] N1 Black w/ red + white specks, well sorted fine silty sand, medium dense, wet, no odor, some organic wood + roots. (especially from 5-9")
37	WATER	28	HS-0		
37.5	Journal	33	HS-0		
38		33	15-0	12"	0-12" [SM] Same as above wood from 2"-5"
38.5		42	HS-0		
39		50	HS-0		
39.5					
40		24	15-0	12"	0-12" [SM] same as above wood intermittent
40.5		40	HS-0		
40.5		49	HS-0		
41					

7/5/98

Geologist's Signature [Signature] Date 9/3/98 Reviewer _____ Date _____ Pg 4 of 7
9/5/98



Soil Stratigraphy Field Log

Location ID CG-11-I
 Facility GT
 Project RFI-Phase III

Date 9/5/98 Field Geologist C. Mayer Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA Sampling Method Core Barrel Total Depth 68

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
41					
41.5		18	15-0	12"	0-3" [SC] Black NI w/red + white specks, clayey sand w/some silt, dense, well sorted, wet
42		22	HS-0		
42		29			3-5.5" [SC] same, but more clayey
42.5					5.5-12" [ML] N3 Gray, very fine clayey silt, dense, wet, no odor
43		18	15-0	12"	0-7.5 [SM] Black NI w/white + red specks, fine silty sand w/ML lenses, dense, wet
43.5		30	HS-0		
43.5		34			7.5-12" [ML] N3 gray, very fine dense silt, moist
44					
44.5		21	15-0	12"	0-8" [SM] Black NI w/red + white specks, fine silty sand w/organics, med dense, well sorted
45		32	HS-0		
45		40			8-10" [ML] N3 gray, very fine dense silt, moist
45.5					10-12" [SM] same as 0-8"
46		20	15-0	12"	0-12" [SM] Black NI w/red + white specks, fine silty sand w/organics, med. dense, well sorted, small (.25") ML lenses.
46.5		27	HS-0		
46.5		35			
47					
47.5		35	15-0	12"	0-12" [SM/ML lenses] same descriptions as above.
48		40	HS-0		
48		43			0-1" SM 1-3.5" ML 3.5-8" SM w/then 0.25" ML lenses 8-12" ML
48.5					
49		10	15-0	12"	0-4" [ML] w/ SM lenses from 2-4" N3 Gray, very fine dense silt
49.5		15	HS-0		
49.5		22			4-12" [SM] Black NI w/red + white specks, fine silty sand w/organic material, med dense, well sorted, moist
50					
50.5		17	15-0	12"	0-12" [SM/ML] lenses of 0.5" to 1" of SM/ML - same descriptions as above
51		35	HS-0		
51		41			
51.5					

Geologist's Signature [Signature] Date 9/5/98 Reviewer _____ Date _____ Pg 5 of 7



Soil Stratigraphy Field Log

Location ID CG-11-J
 Facility GT
 Project RFI-Phase III

Date 9/5/98

Field Geologist C. Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA

Sampling Method Core Barrel

Total Depth 68

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
51.5		16	15-0	12"	0-2" [SM] 11-12" [SM]
52		45	HS-0		2-3" [ML] Same descriptions as above
52.5		50			3-5" [SM]
53					5-5.5" [ML]
53.5		14	15-0	12"	5.5-10.5" [SM]
54		26	HS-0		10.5-11" [ML]
54.5		30			0-12" [SM] w/ patches of [ML] N1 Block w/ specks of red and white, well sorted, dense very fine grained silty sand, wet, no odor
55		28	15-0	12"	0-12" [SM] w/ patches of [ML]
55.5		35	HS-0		same as above
56		50			
56		5	15-0	12"	0-12" [ML] N3 gray, loose wet silt (fill out of attempted Shelby tube 2-59')
56.5		7	HS-		
57		10			
57.5					
58		25	15-0	12"	0-12" [ML] N2 gray, sandy silt, fine grained, wet, very dense no odor
58.5		30	HS-		
59		36			
59.5		26	15-0		0-6" [ML/SM] lenses ML w/ 1/2" lenses of SW
60		30	HS-		6-12" [SM] Block, well sorted, dense fine grained silty sand, wet.
60.5		31			
61			NOT SAMPLED		
61.5		61-63.5 SHELBY TUBE for Geotechnical Analysis Hydraulic Conductivity = 5.2×10^{-7} (cm/s)			

Geologist's Signature [Signature] Date 9/5/98 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID CG-11-I
 Facility GT
 Project RFI-Phase III

Date 9/5/98

Field Geologist C. Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA

Sampling Method Core Barrel

Total Depth 68

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: Ends of Shelby are silty ML Very dense at bottom
61.5					
62					
62.5					
63					
63.5					
64	TOP OF SILT BOTTOM I	7	15-0	12"	0-12" [SM] Black ML w/red+white specks, very fine silty sand, loose, wet, no odor (well sorted)
64.5	CG-11-I-S65	11	HS-0		
65	VOC, SVOC, Metals	14			
65.5		23	15-0	12"	0-12" CSM w/ML lenses] 6.5" lenses of ML intermittent w/SM Very dense, wet, no odor
66		35	HS-0		
66.5		50			
67		13	15-0	12"	0-12" [ML] N3 Gray, very fine silt, wet, stiff, no odor
67.5		15	HS-0		
68		17			
			Bottom of Borehole		

61 - 63.5' SHELBY TUBE
 CG-11-I-S63.5
 collected for Triaxial Permeability and Grain Size Analysis.

Geologist's Signature [Signature] Date 9/5/98 Reviewer _____ Date _____ Pg 7 of 7



Soil Stratigraphy Field Log

Location ID CG-12-I
 Facility GT
 Project Phase III RFI

Date 9/4/98 Field Geologist C. Mayer, C. Minton Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Hollow-Stem Auger Sampling Method 1.5' x 3" Core Barrell Sampler Total Depth Boring 65' Well 63'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
0.5'					Concrete
1'					
1.5'					
2'					
2.5'					
3'					
3.5'	<u>CG-12-I-S45</u>	<u>9</u>	<u>IS 72000</u>	<u>12"</u>	<u>0-12" [ESP] 10YR 2/2 Dusky Yellowish Brown, fine, well sorted sand, moist, loose, odor (some organic material in sample - roots)</u>
4'	<u>3-4.5' VOC SOCs METALS</u>	<u>12</u>	<u>HS 72000</u>		
4.5'		<u>13</u>			
5'		<u>19</u>	<u>IS 72000</u>	<u>12"</u>	<u>0-12" [SP] Same as above</u>
5.5'		<u>25</u>	<u>HS 72000</u>		
6'		<u>31</u>			
6.5'	<u>CG-12-I-S7</u>	<u>16</u>	<u>IS 72000</u>	<u>12"</u>	<u>0-12" [SP] Same as above, more coarse sand</u>
7'	<u>CG-12-I-S7</u>	<u>23</u>	<u>HS 72000</u>		
7.5'	<u>5.5-7' VOC METALS</u>	<u>29</u>			
8'		<u>25</u>	<u>IS 1164</u>	<u>12"</u>	<u>0-12" [ESP] Black NI w/very dark red + white specks, coarse sand, medium dense, wet, odor</u>
8.5'		<u>27</u>	<u>HS 1805</u>		
9'		<u>31</u>			
9.5'		<u>25</u>	<u>IS 643</u>	<u>12"</u>	<u>0-12" [ESP] Same as above, even more well sorted, slightly less coarse</u>
10'		<u>27</u>	<u>HS 1312</u>		
10.5'		<u>32</u>			

Geologist's Signature [Signature] Date 9/4/98 Reviewer _____ Date _____ Pg 1 of 7



Soil Stratigraphy Field Log

Location ID CG-12-1
 Facility GT
 Project RFI-Phase III

Date 9/4/98 Field Geologist C. Mayer Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Hollow Stem Auger Sampling Method Core Barrell 1.5' x 3" Total Depth Boring 65' Well 63'

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
10.5		15		12"	Breathing Zone: In-Spoon: 1647 Headspace: 1210 0-6" [SW] NI w/specks of red+white coarse, poorly sorted sand with patches of gray [ML] silt, wet, odor, low
11		28			
11.5		37			
12					6-12" [SP] NI w/specks of red and white well sorted fine grained sand, medium dense, wet, odor.
12.5		24	15 148	12"	
13		37 49	45 78		
13.5					0-12" [SP] NI w/specks red+white well sorted, very fine sand, dense, moist, no odor
14	CG-12-I-WIS HPSample 0850 15-19' VCC Fe/Res+ TPH Metals	22 40 45	15 57 45 72	12"	
14.5					
15					Hydropunch screened from 15-19' then overdrilled to 19'
15.5					
16					
16.5					
17					
17.5					0-12" [SP] Same as 13.5-15' interval above
18					
18.5					
19					19-20.5'
19.5		17	15-0	12"	
20		27 35	45-0		
20.5					
21					

Geologist's Signature [Signature] Date 9/4/98 Reviewer _____ Date _____ Pg 2 of 7



Soil Stratigraphy Field Log

Location ID CG-12-I
 Facility GT
 Project Phase III RFI

Date 9/4/98 Field Geologist C. Mayer Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA Sampling Method Core Barrel Total Depth Boring 65' Well 63'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Breathing Zone: In-Spoon: Headspace:
20.5'		17	15-0	12"	0-4" [ML] U3 Dark gray, fine silt dense, moist, no odor
21'		27	HS-2.1		4-9" [ML] U3 Dark gray, fine silt w/ wood chunks, dense, moist, no odor
21.5'		35			9-12" [SP] Black w/ red + white, well sorted fine sand, med
22'					
22.5'		12	15-0	12"	0-12" [SP] NI Black w/ red + white specks, fine, well sorted, wet, medium dense, no odor.
23'		18	HS-0		
23'		29			
23.5'					
24'		28	15-0.6	12"	0-12" [SP] Same as above
24'		32	HS-0		
24.5'		35			
25'					
25.5'					
26'	CG-12-I-W29				
26.5'	Hydropunch groundwater sample				
27'	25-29' bgs				
27'	Vec				
27.5'	SIOC				
28'					
28.5'					
29'					
29.5'	29-30.5	22	15-0	12"	0-12" [SM] NI black w/ red and white specks, silty sand, dense, well sorted, wet, no odor
30'		41	HS-0		
30.5'		50			

Hydropunch Sample
 Screened from 25-29'
 Drilled out to 29'
 (lot of silty sand in screen and water sample.)



Soil Stratigraphy Field Log

Location ID CG-12-I
 Facility GT
 Project Phase III RFI

Date 9/14/98 Field Geologist C. Mayer Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA Sampling Method Core Barrel Total Depth Boring 65' Well 63'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Inside 12" casing

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Breathing Zone: In-Spoon: Headspace:
30.5		16	IS - 0	12"	0-6" [SM] Same as above
31		18	HS - 0		6-12" [ML] N3 Gray, silt, dense, wet, no odor
31.5		32			
32					
32.5	CG-12-I-5385	12	IS - 0	12"	0-8" [SM] N1 black + red specks, silty sand, dense, well sorted, wet, no odor
33	MSMSD 32-33.5 VOC Metals	32	HS - 0		8-12" [ML] N3 Gray, silt, very dense, wet, no odor
33.5		35			
34					
34.5					bentonite seal
35					Bottom of Temporary Conductor Casing
35.5		13	IS - 0	12"	Bentonite slough
36		20	HS - NA		
36.5		28			
37		16	IS - 0	12"	0-2" Bentonite 0-12" [SM] N1 Black w/red and white specks, silty sand, dense, well sorted, wet, no odor
37.5		32	HS - 0		
38		35			
38.5		28	IS - 0	12"	0-12" [SM] Same as above w/woody organic material.
39		3940	HS - 0		
39.5		5049			
40		22	IS - 0	12"	0-6" [SM] Same as above
40.5		35	HS - 0		6-12" [ML] N3 Gray, silt, very dense, wet, no odor
41		37			

Geologist's Signature [Signature] Date 9/14/98 Reviewer _____ Date _____ Pg 4 of 7



Soil Stratigraphy Field Log

Location ID CG-12-1
 Facility BT
 Project RPI - Phase II

Date 9/14/98

Field Geologist C. Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA

Sampling Method Core Barrel

Total Depth Boring Well
63' 63'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
41					
41.5		16	15-0	12"	0-12" [SM w/ML patches] N1 Black w/white + red specks, very fine silty sand, medium dense, well sorted, wet, wood organic material present.
42		22	HS-0		
42.5		30			
43		26	15-0	12"	0-3.5" [SM] same as above 3.5-5.5" [ML] gray, dense silt, moist 5.5-12" [SM] same as 0-3.5" interval but finer
43.5		38	HS-0		
44		31			
44.5		16	15-0	12"	0-12" [SM w/ML lenses] N1 Black w/red and white specs, very fine silty sand, medium dense, well sorted, wet, slight bit of organic material
45		29	HS-0		
45.5		32			
46		25	15-0	12"	0-12" [SM w/ML lenses] same as above, lenses ~.2" and separated by ~.2" of SM.
46.5		30	HS-0		
47		32			
47.5		N/A	15-0	12"	0-12" [SM w/ML lenses] same as above
48		22	HS-0		
48.5		31			
49		25	15-0	12"	0-12" [SM w/ML lenses] same as above
49.5		29	HS-0		
50		33			
50.5		18	15-0	12"	0-2" [SM] Black w/red + white specks, well sorted fine silty sand, dense, wet 2-12" [ML] N3 gray, fine silt, trace sand, dense, wet
51		22	HS-0		
51.5		27			

Geologist's Signature [Signature] Date 9/14/98 Reviewer _____ Date _____ Pg 5 of 7



Soil Stratigraphy Field Log

Location ID CG-12-I
 Facility GT
 Project RFI-Phase III

Date 9/4/98

Field Geologist C. Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA

Sampling Method Core Barrel

Total Depth Borehole 65' Well 63'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
51		1			
51.5		6	15-0	12"	0-12" [ML] N2 gray, fine silt dense, wet
52		10	18-0		
52.5		12			
53			15-0	12"	0-12" [ML] N2 gray, clayey silt, dense, wet, slight plasticity.
53.5		15	18-0		
54		29			
54.5		30			
55		15	15-0	9.5"	0-7.5" slough [Sw] 7.5-9.5" [ML] same as 53-54.5 interval above.
55.5		26	18-0		
56		30			
56.5		13	15-0	12"	0-12" [ML] N2 gray, clayey silt, dense, wet, slight plasticity.
57		16	18-0		
57.5		17			
58		22	15-0	12"	0-12" [Sw w/ML lenses] like 50-51.5' interval
58.5		39	18-0		
59		50			
59.5		20	15-0	12"	0-8" [Sw w/ML lenses] same as above
60		39	18-0		
60.5		44			8-12" [ML] N2 gray, clayey silt, dense, wet, slight plasticity
61					

Geologist's Signature [Signature] Date 9/4/98 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID CG-12-I
 Facility GT
 Project RF1 - Phase III

Date 9/4/98

Field Geologist C. Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method HSA

Sampling Method Core-Barrell

Total Depth 65' well 63'

Depth of Sample (ft bgs) | Sample ID | Blow Counts (per 6") | Total Organics (ppm) | Sample Recovery (inches) | Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0.0'					Breathing Zone: In-Spoon: Headspace:
60.5	TOP OF SILT, BOTTOM OF I AP CG-12-I-562 60.5-62' 14/5 S.V.O.C. (M&T&B)	22	15-0	12"	0-12" [ML w/ SW lenses] like 0-8" above
61		33	HS-0		
61.5		37			
62					
62.5		2F	15-0	12"	0-5" [SW] Blackish gray w/red + white specs, fine silty sand, well sorted, dense, wet
63		2F	HS-0		5-12" [ML] NB gray, clayey silt, with slight plasticity, dense, wet
63.5		33			
64		15	15-0	12"	0-12" [ML] same as 5-12" above
64.5		17	HS-0		
65		23			

Bottom of Borehole

HCIM BORING LOGS

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-2-G

Sheet 1 of 3

Date(s) Drilled	6/25/02	Logged By	C. Castro	Checked By	D. Hawk
Drilling Method	Mud Rotary	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (FT BGS)	81.5
Drill Rig Type	CME 75	Sampler Type(s)	Split Spoon, Shelby Tube (Osterberg sampler)	Surface Elevation	20.38 MSL
Groundwater Level		Drill Bit Size/Type	4.25" HSE	Top of PVC Elevation	NA
Diameter of Hole (inches)	Diameter of Well (inches)	NA	Hammer Weight/Drop	140 lb/ 30"/ Auto-hammer	Screen Perforation
Type of Sand Pack			Type and Depth of Seal(s)		
Comments					

Report RP: I:\PROJECTS\WCIAD153-010-4\GINTBO-1\GINTF1-1\G_TOWN.GPJ; Data Template WC_CORP1.GDT Printed 11/18/02

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
20	0					Asphalt						
	1					Sandy GRAVEL (GW) - wood debris						
	2											
	3											
	4											
-15	5	X	1	1325	14	Dark brown SAND (SP) - dry, wood debris		0.2	0.2	0.1		
	6	X										
	7											
	8											
	9											
-10	10	X	2	1400	14	Dark brown SAND (SP) - medium grain, moist, wood debris			0.2			
	11	X										
	12											
	13											
	14											
5	15	X	3	1410	16	Same as above - trace rounded gravel				0.1		
	16	X										
	17											
	18											
	19											
0	20	X	4	1415	24	Same as above - trace rounded gravel				0.1		
	21	X										
	22											
	23											
	24											
-5	25	X	5	1420	18	Same as above - trace rounded gravel				0.1		
	26	X										
	27											
	28											
	29											
	30											

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-2-G

Sheet 2 of 3

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
-10	30	X	6	1445	27	[Pattern]	Same as above - trace rounded gravel		0.1	0.1		
	31											
	32											
	33	X	7	1455	23	[Pattern]	Same as above - trace rounded gravel, trace shells		0.0			
	34											
	35											
-15	36	X	8	1505	29	[Pattern]	Dark brown slightly silty SAND (SM) - moist, fine sand		0.1			
	37											
	38											
	39	X	9	1510	34	[Pattern]	Same as above - wood debris		0.1			
	40											
	41											
	42	X	10	1520	7	[Pattern]	Brown Clayey SILT (ML) - wet, medium plasticity		0.1			
	43											
	44											
	45	X	11	1530	32	[Pattern]	Same as above		0.1		55' - Driller says heaving may cause for high blow counts	
	46											
	47											
	48	X	12	1540	10	[Pattern]	Silty SAND.		0.2			
	49											
	50											
	51	X	13	1550	9	[Pattern]	Brown clayey SILT (ML).		0.1			
	52											
	53											
	54											
	55											
	56											
	57											
	58											
	59											
-40	60											
	61											
	62											
	63											
	64											
	65											
-45	66											
	67											
	68											
	69											
	70											

Report 1 \project\SWCIA0153-010-4\GINTBO-1\GINTFI-1\G_TOWN.GPJ Data Template:WC_COI Printed 11/18/02

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-2-G

Sheet 3 of 3

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
-50	70	X	14	1605	5		Same as above			0.1		70' - possible top of aquitard
	71	X										
	72											
-55	75		15	1615	NR		Same as above			NR		
	76											
	77											
	78											
-60	80	X	16	1650	WoR					NR		
	81	X										
	82						Boring Terminated @ 81.5 ft bgs on 6/25/02 @ 1705					
	83											
	84											
-65	85											
	86											
	87											
	88											
	89											
-70	90											
	91											
	92											
	93											
	94											
-75	95											
	96											
	97											
	98											
	99											
-80	100											
	101											
	102											
	103											
	104											
-85	105											
	106											
	107											
	108											
	109											
	110											

Report RP: I:\PROJECTS\WCA\0153-010-4\GINTBO-1\GINTFI-1\G_TOWN.GPJ: Data Template\WC_CORP1.GDT Printed: 11/19/02

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-5-G

Sheet 1 of 3

Date(s) Drilled	7/19/02	Logged By	C. Castro	Checked By	D. Hawk
Drilling Method	Mud Rotary	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (FT BGS)	78.0
Drill Rig Type	CME 75	Sampler Type(s)	Split Spoon, Shelby Tube (Osterberg sampler)	Surface Elevation	19.84 MSL
Groundwater Level	9 feet bgs 7/19/02	Drill Bit Size/Type	4.25" HSE	Top of PVC Elevation	NA
Diameter of Hole (inches)	Diameter of Well (inches)	NA	Hammer Weight/Drop	140 lb/ 30"/ Auto-hammer	Screen Perforation
Type of Sand Pack	Type and Depth of Seal(s)				
Comments					

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count						
0						Asphalt					
1						Dark gray to black SAND (SP)					
2											
3											
4											
5											
6						Brown SAND (SP-SC) - trace gravel, slightly clayey		0.0	0.0	0.0	
7											
8											
9											
10											
11						Dark brown SAND (SP) - wet to moist, fine to medium sand		0.0	0.0	0.0	
12											
13											
14											
15											
16						Same as above		0.0	0.0	0.0	
17											
18											
19											
20											
21						Dark brown SAND (SP) - wet, fine to medium sand, 15% wood debris		0.0	0.0	0.0	
22											
23											
24											
25											
26						Same as above - Trace vegetation		0.0	0.2	0.0	
27											
28											
29											
30											

File: I:\PROJECTS\WC\A0153-010-4\GINTBO-1\GINTF1-1\G_TOWN_GP-I_Data Template\WC_CORP1.GI

Report: RP, F

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-5-G

Sheet 2 of 3

Report: RP; Project File: I:\PROJECTS\WCA\10153-010-4\GINTBO-1\GINTFI-1\G_TOWN GP.J; Data Template: WC_CORP1.GDT; Printed: 11/18/02

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count						
30											
31		X	6	0935	24	Same as above - trace of shells		0.0	0.4	0.0	
32											
33											
34											
-15											
35		X	7	0945	25	Same as above - moist, trace woody debris		0.0	0.2	0.0	
36		X									
37											
38											
39											
-20											
40		X	8	1000	23	Silty fine SAND - wet, mostly fine sand, 30% medium sand		0.4	0.8	0.9	
41		X									
42											
43											
44											
-25											
45		X	9	1015	10			0.6	0.7	0.6	
46		X									
47											
48											
49											
-30											
50			10	1118	NA	Brown silty SAND to sandy SILT (SM-ML) - wet, low plasticity, mostly fine sand			NR		
51											
52											
53											
54											
-35											
55		X	11	1120	12	Same as above			0.5		
56		X									
57											
58											
59											
-40											
60		X	12	1135	10	Brown SILT (ML) - moist			0.6	3.0	
61		X									
62											
63											
64											
-45											
65		X	13	1140	2	Same as above - slightly clayey			0.8		
66		X									
67											65' - possible top of aquitard formation
68											
69											
-50											
70											

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-5-G

Sheet 3 of 3

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
70		X	14	1200	Wt. of Rod		Same as above.			0.6	1.0	
71		X										
72												
73												
74												
-55			15	1210	NA		Same as above.					
76												
77												
78												
-60							Boring Terminated @ 78 ft bgs on 7/19/02 @ 1215					
79												
80												
81												
82												
83												
84												
-65												
85												
86												
87												
88												
89												
-70												
90												
91												
92												
93												
94												
-75												
95												
96												
97												
98												
99												
-80												
100												
101												
102												
103												
104												
-85												
105												
106												
107												
108												
109												
-90												
110												

Project: PSC - Georgetown Facility
 Project Location: Seattle, WA
 Project Number: 53-01000424.00

Log of Boring HC-9-G

Sheet 1 of 2

Date(s) Drilled	6/25/02	Logged By	C. Castro	Checked By	D. Hawk
Drilling Method	Mud Rotary	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (FT BGS)	66.5
Drill Rig Type	CME 75	Sampler Type(s)	Split Spoon, Shelby Tube (Osterberg sampler)	Surface Elevation	19.56 MSL
Groundwater Level	9 feet bgs 6/24/02	Drill Bit Size/Type	4.25" HSE	Top of PVC Elevation	NA
Diameter of Hole (inches)	Diameter of Well (inches)	NA	Hammer Weight/Drop	140 lb/ 30"/ Auto-hammer	Screen Perforation
Type of Sand Pack	Type and Depth of Seal(s)				
Comments					

Elevation, feet (MSL)	Depth, feet	SAMPLES			Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock							
0					Asphalt						
1					Concrete						
2					Gray silty SAND w/ gravel (SP) - dry						
3											
4					Brown to dark brown sandy SILT w/ gravel (ML) - dry						
5											
6		X	1	0840	7	Dark brown SAND (SP)			0.3		
7											
8											
9											
10		X	2	0850	7	Dark brown SAND (SP) - wet, rounded grains, trace yellowish-red silt			0.0		
11											
12											
13											
14											
15		X	3	0910	19	Same as above - trace rounded small gravel			0.0		
16											
17											
18											
19											
20		X	4	0920	30	Same as above - trace rounded gravel			0.0		
21											
22											
23											
24											
25		X	5	0940	35	Same as above - trace rounded gravel			0.0		
26											
27											
28											
29											
30											

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-9-G

Sheet 2 of 2

Elevation, feet (MSL)	Depth, feet	SAMPLES				MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count						
30			6	0950	19	Silty SAND.			0.1		
31											
32											
33											
34											
-15			7	1000	21	Brown sandy SILT (ML) - fine, wet, trace shells			0.1		
35											
36											
37											
38											
39											
-20			8	1010	NR	Same as above			NR		
40											
41											
42											
43											
44											
-25			9	1020	13	Brown silty SAND (SM) - moist, fine grained sand, trace wood debris			0.0		
45											
46											
47											
48											
49											
-30			10	1030	18	Same as above - trace shells			0.0		
50											
51											
52											
53											
54											
-35			11	1040	3	Dark gray sandy SILT (ML) - fine sand, saturated			0.0		55' - possible top of aquitard
55											
56											
57											
58											
59											
-40			12	1050	NR	Same as above			NR		
60											
61											
62											
63											
64											
-45			13	1105	1				0.0		
65											
66											
67						Boring Terminated @ 66.5 ft bgs on 6/25/02 @ 1110					
68											
69											
-50											
70											

Report: RP, Project File: I:\PROJECTS\WCI\0153-010-4\GINTBO-1\GINTFI-1\G_TOWN GP.J, Data Template: WC_CORP1.GDT, Printed: 11/18/02

Project: PSC - Georgetown Facility
 Project Location: Seattle, WA
 Project Number: 53-01000424.00

Log of Boring HC-12-G

Sheet 1 of 2

Date(s) Drilled	6/24/02	Logged By	C. Castro	Checked By	D. Hawk
Drilling Method	Mud Rotary	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (FT BGS)	61.5
Drill Rig Type	CME 75	Sampler Type(s)	Split Spoon, Shelby Tube (Osterberg sampler)	Surface Elevation	19.45 MSL
Groundwater Level	9 feet bgs 6/24/02	Drill Bit Size/Type	4.25" HSE	Top of PVC Elevation	NA
Diameter of Hole (inches)		Diameter of Well (inches)	NA	Hammer Weight/Drop	140 lb/ 30"/ Auto-hammer
Type of Sand Pack	NA	Type and Depth of Seal(s)	NA	Screen Perforation	NA
Comments					

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
0						Asphalt						
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

Report RP: I:\PROJECTS\WCIA\0153-010-4\GINTBO-1\GINTFI-1\G_TOWN GP.J; Data Template WC_CDRP1.GDT Printed: 11/18/02

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-12-G

Sheet 2 of 2

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
30	31	X	6	1115	23	[Stippled pattern]	Same as above - orange, fine to medium, sand grains		0.0			
32	33											
34	35	X	7	1120	17							Same as above - wood chip debris
36	37	X										
38	39											
40	41	X	8	1135	26	[Stippled pattern]	Same as above - wood debris		0.0			
42	43											
44	45	X	9	1145	18							Dark gray silty fine sand grading to dark gray medium sand, orange medium sand grains throughout sample
46	47	X										
48	49											
50	51	X	10	1150	4	[Vertical lines pattern]	Dark sandy SILT (ML) - wet		0.0		50' - possible top of upper aquitard formation	
52	53											
54	55											
56	57											
58	59											
60	61	■	11	1205	NR				NR			
62	63						Boring Terminated @ 61.5 ft bgs on 6/24/02 @ 1345					
64	65											
66	67											
68	69											
70												

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-14-G

Sheet 1 of 2

Date(s) Drilled	6/28/02	Logged By	C. Castro	Checked By	D. Hawk
Drilling Method	Mud Rotary	Drilling Contractor	Cascade Drilling Inc.	Total Depth Drilled (FT BGS)	68.0
Drill Rig Type	CME 75	Sampler Type(s)	Split Spoon, Shelby Tube (Osterberg sampler)	Surface Elevation	20.35 MSL
Groundwater Level	8 feet bgs 6/28/02	Drill Bit Size/Type	4.25" HSE	Top of PVC Elevation	NA
Diameter of Hole (inches)	Diameter of Well (inches)	NA	Hammer Weight/Drop	140 lb/ 30"/ Auto-hammer	Screen Perforation
Type of Sand Pack	Type and Depth of Seal(s)				
Comments					

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
20	0					Asphalt						
	1					Dark brown gravelly silty SAND (SW) - dry, round to sub-angular gravel to 1". FILL						
	2					Brown to dark brown SAND (SP) - dry, fine to medium grained		0.9	1.3			
	3											
	4											
15	5	X	1	0840	8	Same as above		0.1	0.4			
	6	X										
	7											
	8											
	9											
10	10	X	2	0845	11	Same as above - moist, reddish-yellow weathered gravel		0.1	0.2			
	11	X										
	12											
	13											
5	15	X	3	0920	23	Dark gray SAND (SP) - wet, fine to medium grained			0.4			
	16	X										
	17											
	18											
0	20	X	4	0930	21	Same as above			0.2			
	21	X										
	22											
	23											
	24											
-5	25	X	5	0935	18	Brown fine SAND (SP) - moist			0.2			
	26	X										
	27											
	28											
	29											
	30											

Report RP, Project File: I:\PROJECTS\WCA\1153-010-4\GINTF\1-10-TOWN GP.J, Data Template WC_CORP1.GDT Printed: 11/19/02

Project: PSC - Georgetown Facility

Project Location: Seattle, WA

Project Number: 53-01000424.00

Log of Boring HC-14-G

Sheet 2 of 2

Elevation, feet (MSL)	Depth, feet	SAMPLES				Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID Readings (Auger)	PID Readings (Sample)	PID Readings (Cuttings)	REMARKS
		Type	Number	Time 24-hr clock	Blow Count							
-10	30		6	0945	20	[Stippled pattern]	Same as above - .5" interbed of fine sandy silt		0.3			
	31											
	32											
	33					[Stippled pattern]	Same as above		0.4			
-15	35		7	0955	22							
	36											
	37					[Stippled pattern]	Same as above		0.8			
-20	40		8	1010	42							
	41											
	42					[Stippled pattern]	Same as above - trace rounded gravel, trace wood debris, slightly silty		NR			
-25	45		9	1035	19							
	46											
	47					[Vertical lines pattern]	Dark gray sandy SILT (ML) - wet, fine sand, medium plasticity		0.1	50' - possible top of aquitard formation		
-30	50		10	1050	9							
	51											
	52					[Vertical lines pattern]	Same as above		NR			
-35	55		11	1100	NA							
	56											
	57					[Stippled pattern]	Dark gray SAND (SP) - wet, fine to medium		0.2			
-40	60		12	1115	12							
	61											
	62					[Stippled pattern]	Same as above		NR			
-45	65		13	1135	NA							
	66											
	67					[Stippled pattern]	Boring Terminated @ 68 ft bgs on 6/28/02 @ 1140					
	68											
	69											
	70											

Report Path: I:\PROJECT\SWCIA\0153-010-4\GIN\TBO-1\GIN\TFL-1\G_TOWN.GPJ, Data Template WC_CORP 1.GDT Printed 11/10/02





Soil Stratigraphy Field Log

Location ID HC-7-W
 Facility Georgetown
 Project ~~XXXXXXXXXXXXXXXXXXXX~~ Hydraulic Control

Date 6/4/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Beeprobe

Sampling Method 2"x1" Acetate liner

Total Depth 58'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	No sample collected				Breathing Zone: In-Spoon: Headspace:
50'			PID=0.0 FID=300	24"	0-24" sp Hue 5Y 2.5/1 black, fine sand with some ^{some} fines, moderately well sorted, wet, loose, black ^{black} red and white specks
52'			PID=NA FID=NA	0.0	Krinkled liner, sandy silty sand residue in liner, very wet and soupy
54'			PID=0.0 FID=300	22"	0-22" sm 5Y 2.5/1 black, fine sand with fines, pockets of ml silt mixed throughout sand, poor moderately sorted, very ^{very} wet, fines increasing with depth
56'			PID=0.0 FID=1000+	24"	0-24" ml 5Y 2.5/1 black, silt with few fine sand, very well sorted, moist, medium stiff
58'					



Soil Stratigraphy Field Log

Location ID HC-8-W
Facility Georgetown
Project Hydraulic Control

Date 6/3/02

Field Geologist
Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2' x 1" Acetate Liner

Total Depth
60'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0
58

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)
0.0'	No samples collected			

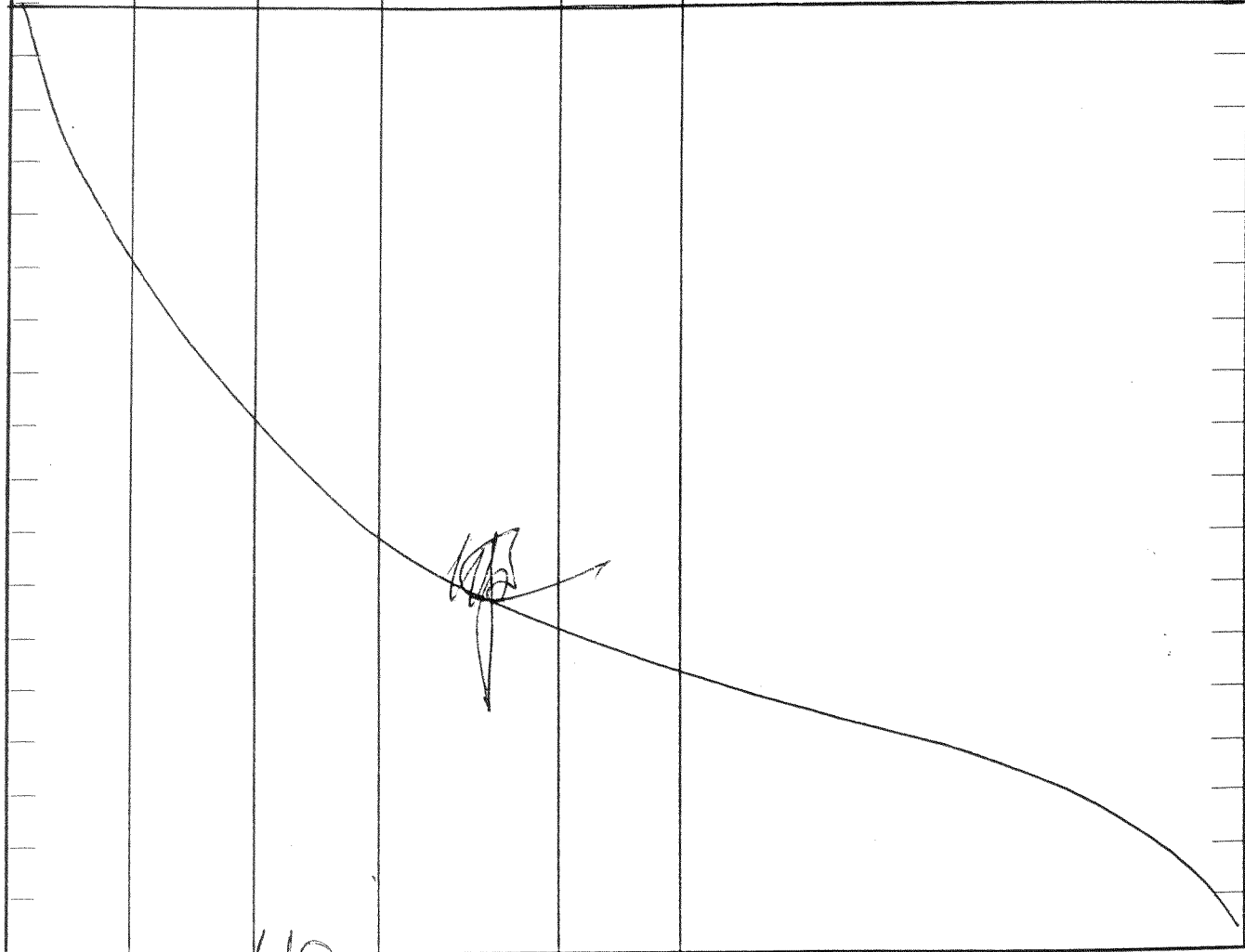
Breathing Zone:
In-Spoon:
Headspace:

PID = 0.0
FID = 10004

23"

0-23"
ML Hue 2.5Y 2.5/3/ Very dark gray silt with some fine sand, well sorted, moist, soft - medium st. of organic odor

60'



Geologist's Signature [Signature] Date 6/3/02 Reviewer _____ Date _____ Pg 1 of 1



Soil Stratigraphy Field Log

Location ID HC-22-W

Facility Georgetown

Project ~~XXXXXXXXXXXXXXXXXXXX~~

Hydraulic
Cont.

Date 7/31/02

Field Geologist
Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method
Beeprobe

Sampling Method
2' x 1" Acetate liner

Total Depth
72'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24"	0-24" SM Hue 5Y 2.5/1 Black, fine grain sand with sand silt mixtures throughout, moderately sorted, loose, wet, red specks
66'				6"	0-6" same as above 66-68' 0-24"
68'				24"	0-24" ml Hue 5Y 2.5/1 Black, silt with few fine grain sand, very well sorted, moist, soft,
70'					
72'					

Geologist's Signature _____

Date 7/31/02 Reviewer _____

Date _____

Pg 1 of 1

68'-70' liner broken in several pieces, 6" represents composite sample

**GIVF STUDY (IPIM)
BORING LOGS**

651 J. Findlay St.
 next to C6-126 637F



Soil Stratigraphy Field Log

Location ID 5 Findlay / May road A-15
 Facility Georgetown
 Project REDACTED

610F ID in

Date 8/22/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe Sampling Method 2' x 1" Acetate lined Total Depth 8'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0'
1'
2'
3'
4'
5'
6'
7'
8'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			0.0	17"	0-3" SW Hue 2.5Y 5/1 gray, medium and coarse grain sand with fine gravel, poorly sorted, dry, loose, probably fill material 3-5 SW Hue 2.5Y 5/4 dark gray, coarse grain sand with fine gravel, some medium sand, poorly sorted, dry, loose, fill material 5-17" SW Hue 2.5Y 4/3 olive brown fine grain sand with fines, moderately well sorted, moist, loose
			0.0	16"	0-4" same as above 0-2' 5-17" 4-16" SP Hue 2.5Y 5/2 grayish brown, fine grain sand with few fines, moderately well sorted, dry, loose
				17"	0-17" SP Hue 2.5Y 3/1 very dark gray, fine grain sand with few medium grains, moderately well sorted, moist
				18"	0-18" same as above, 4-6' 0-17" moist to wet last 2"

Geologist's Signature [Signature] Date 8/22/02 Reviewer _____ Date _____ Pg 1 of 1



Soil Stratigraphy Field Log

Location ID 5419 Maryland
Facility Georgetown
Project MTA 2001/2002

5419M

612F

Date 8/22/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Ecoprobe

Sampling Method 2"x1" Acetate lined

Total Depth

0'
1'
2'

3'
4'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	18"	0-4" Sm Hue 2.5Y 3/1 very dark gray fine grain sand with fines, moderately well sorted, moist, loose, root debris 4-18" Sm Hue 2.5Y 4/4 olive brown, fine grain sand with fines, well sorted, moist, loose, spots of dark yellowish brown throughout
			0.0	12"	0-12" Sm Hue 2.5Y 4/1 dark gray, fine grain sand with patches of silt throughout, poorly sorted, spots of dark yellowish brown throughout silty patches,
			0.0	18"	0-4" Same as above 2'-4' 0"-12" 4-18" Hue 5Y 2.5/1 black, fine and medium grain sand, moderately sorted, moist, loose
			0.0	18"	0-18 Same as above 4'-6' 4"-18"

Geologist's Signature

Date 8/22/02

Reviewer

Date

Pg 1 of 1



Soil Stratigraphy Field Log

Location ID 5602 6th Ave S
 Facility Georgetown
 Project ~~XXXXXXXXXXXXXXXXXXXX~~

610F

Date 8/23/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2"x1" Acetate lined

Total Depth 8'

0'
2'
4'
6'
8'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	18"	0-3" SW Hue 5Y 2.5/1 black, small medium and coarse gravel with few fine gravels, poorly sorted, moist, loose 3-14" SP Hue 5Y 2.5/1 black, fine grain sand with some fines, moderately well sorted, moist, loose 14-18" SM Hue 5Y 4/2 olive gray, fine grain sand with silt, moderately sorted, moist/wet, loose/soft,
			0.0	15"	0-12" Same as above 0-2' 14-18" 12-15" SM Hue 5Y 4/2 olive gray, silty sand, dark yellowish brown streaks throughout, moderately well sorted, moist - wet, medium stiff
			0.0	19"	0-4" Same as above 2-4' 12-15" 4-16" SM Hue 2.5Y 4/1 dark gray, fine grain sand with several layers of silt throughout, moderately sorted, moist, loose
			0.0	14"	0-6" Same as above 4-6' 4-16" 6-14" SP Hue 5Y 2.5/1 black, fine grain sand with few medium grains, few fins, moderately well sorted, moist, loose

Geologist's Signature _____

Date 8/23/02

Reviewer _____

Date _____

Pg 1 of _____

5403M



Soil Stratigraphy Field Log

Location ID 5403 Maynard Ave S.
Facility Georgetown
Project [Redacted]

61UF

Date 8/23/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Beeprobe

Sampling Method 2x1" Acetate Liner

Total Depth 8'

0'
2'
4'
6'
8'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	14"	0-3" grass with root debris 3-14" SM Hue 2.5Y 5/2 grayish brown, fine grain sand with some silt, well sorted, dry, loose, root debris throughout.
			0.0	18"	0-5" same as above 0-2' 3-14" no root debris 5-16" SM Hue 2.5Y 5/2 grayish brown / Hue 2.5Y 4/1 dark gray, medium grain sand with fine grain sand few fines, moderately sorted, moist, loose 16-18" SM Hue 2.5Y 4/1 dark gray, medium grain sand with fine grain sand, few fines, moderately sorted, moist, loose
				22"	0-5" Stough material 5-22" SP Hue 5Y 2.5/1 black, fine grain sand with few fines, well sorted, moist, loose.
				20"	0-20" SP Hue 5Y 3/2 dark olive gray fine and medium grain sands, moderately sorted, moist to wet with depth, loose

507B



Soil Stratigraphy Field Log

Location ID 507 Brandon
 Facility Georgetown
 Project RFI Well Installation

Date _____ Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe Sampling Method 2' x 1" Acetate lined Total Depth 8'


0'
1'
2'
3'
4'
5'
6'
7'
8'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				11"	0-2" <u>grass</u> 2-7" <u>SP Hue 5Y 4/3 olive, fine grain sand with some medium grains, few coarse grains, few fines, moderately sorted, moist, loose</u> 7-11" <u>cl? Hue 5Y 5/1 gray, gassed clumps of clay, well sorted, dry, loose</u>
			0.0	18"	0-12" <u>sp Hue 5Y 4/1 dark gray, fine grain sand with few medium grains, few fines, well sorted, moist, loose</u> 12-18" <u>sm Hue 5Y 3/1 very dark gray, fine grain sand with some fines, few medium grains, moderately well sorted, moist, loose</u>
			0.0	21"	0-7" <u>same as above 2-4' 0-12"</u> 7-21" <u>sm Hue 5Y 3/1 very dark gray with streaks of Hue 10YR 4/3 brown, fine grain sand with patches of silt throughout, moderately sorted, moist, medium dense</u>
			0.0	19"	0-14" <u>sm Hue 10YR 4/1 dark gray, fine grain sand with silt, moderately sorted, moist to wet, loose-medium dense</u> 14-19" <u>sm Hue 10YR 2/1 black, medium grain sand with some fine grains, some silt, poor-moderately sorted, wet, loose-medium dense/medium stiff</u>

Geologist's Signature [Signature] Date 8/23/02 Reviewer _____ Date _____ Pg 1 of 1

54120th

	Soil Stratigraphy Field Log	Location ID <u>5412 6th Ave S</u>
		Facility <u>Georgetown</u>
		Project <u>PHILIP SERVICES 6T</u>

GLUF

Date <u>8/23/02</u>	Field Geologist <u>Corey Johnson</u>	Location Type: <u>Temporary</u> <input checked="" type="checkbox"/> Soil Boring Only <input type="checkbox"/> Well <input type="checkbox"/> Test Pit
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Drilling Method <u>beeprobe</u>	Sampling Method <u>2' x 1" Acetate Liner</u>	Total Depth <u>8'</u>
---------------------------------	--	-----------------------

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	18"	Breathing Zone: In-Spoon: Headspace: 0-4" SW Hue 2.5Y 4/1 olive brown, medium grain sand with fine grain and coarse grain sand, some fine gravel, poorly sorted, dry, loose, probably fill. 4-14" SP Hue 2.5Y 4/2 dark grayish brown, fine grain sand with some medium grains, few fines, moderately sorted, dry, loose 14-18" SP Hue 10YR 4/6 dark yellowish brown, fine grain sand with some medium grains, few fines, moderately sorted, dry, loose
			0.0	17"	0-2" Slough 2-6" Same as above 0-2' 14"-18" 6-17" SP Hue 5Y 5/1 gray, fine grain sand with medium grains, few fines, moderately sorted, moist, loose,
			0.0	18"	0-2" Slough 2-18" SP Hue 5Y 4/1 dark gray, fine grain sand with some medium and some coarse grain sand with few coarse fines, moderately sorted, moist, loose
			0.0	19"	0-18" SP Hue 5Y 4/1 dark gray, medium grain sand with some fine grains and some coarse grains, few fines, moderately sorted, moist to wet with depth, loose.

0'
1'
2'
4'
6'
8'

**RFI WELL INSTALLATION
BORING LOGS**



Soil Stratigraphy Field Log

Location ID C6-129
 Facility Georgetown
 Project RFI Well Installation

Date 2/15/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe


Sampling Method 2"x1" Acetate liner

Total Depth 8'

0'
1'
2'
4'
6'
8'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				22"	Breathing Zone: In-Spoon: Headspace: 0.0 0-6" SW Hue 10YR 4/3 (brown) medium and coarse grain sand with few fine gravels, poorly sorted, dry, loose 6-9" SM Hue 10YR 4/3 (brown) fine grain sands with few fines, very well sorted, moist, loose 9-13" SM Hue 10YR 2/1 (black) fine sand with fines, very well sorted, moist, loose 13-22" SM Hue 10YR 4/3 (brown) fine sand with fines, well sorted, moist, loose
			0.0	23"	0-23 SM Hue 10YR 4/3 to Hue 10YR 5/2 (greyish brown) with depth, fine sand and silt, well sorted, moist, loose, tiny organic fibers at 14-16"
			0.0	17"	0-3" same as above 2'-4' 0"-23" 3-17" SM Hue 10YR 2/1 (black) fine grain sand with few fines, well sorted, moist, loose, red and white specks
			0.0	16"	0-13" SM same as above 4' 6' 3' 17" 0-13" SM Hue 10YR 2/1 (black) fine grain sand with some medium silt, few fines, moderately sorted, wet, loose, yellowish brown specks throughout 13"-16" SM Hue 10YR 4/1 (dark gray) fine grain sand with some medium grain, with silt, poor-moderately sorted, wet, loose

Geologist's Signature [Signature] Date 2/15/02 Reviewer [Signature] Date 6/1/02 Pg 1 of 1

	Soil Stratigraphy Field Log	Location ID <u>G33</u>
		Facility <u>GT</u>
		Project <u>Tech Memo VIII</u>

Date <u>2/21/02</u>	Field Geologist <u>Tasya Gray / Corey Johnson</u>	Location Type: <input checked="" type="checkbox"/> Soil Boring Only <input type="checkbox"/> Well <input type="checkbox"/> Test Pit
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Drilling Method <u>Geoprobe</u>	Sampling Method <u>2' x 1" acetate liner</u>	Total Depth <u>70'</u>
---------------------------------	--	------------------------

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0'			Breathing Zone: In-Spoon: Headspace: <u>NA</u>	0	asphalt/concrete material, unable to sample
4'			0 1.7	20	0-20" SW poorly sorted sand, hue 5Y value 2/1 (black), fine-medium grained, moist loose, mostly medium
6'			0 0.5	11	0-11" SW same sand as above (4-6')
8'			0 5.8	16	0-16" SW same sand as above (4-6')
10'			6.7 8.0	13	0-13" SW same sand as above (4-6')
12'			3.9 17.8	17	0-13" SW same sand as above (4-6') but becoming more black hue 2.5Y 2.5/1 (black) 13-17" ML silt + moist, soft, very well sorted, little to no sand, hue 2.5y value 3/1 (very dark grey)
14'			10.8 11.2	18	0-14" ML same as above (12-14', 13-17") silt 14-18" SW moderately sorted sand, wet, medium dense, hue 2.5y value 2.5/1 (black) fine with some medium grains, red & white specks

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer [Signature] Date 2/21/02 Pg 1 of 7



Soil Stratigraphy Field Log

Location ID G33
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" ~~to~~ acetate liner

Total Depth: 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
16 0.0'			Breathing Zone: In-Spoon: Headspace: 4.9 6.3	18 6.34	SW sand, fine-medium grained, 0-18" wet moderately sorted, medium dense, red & white specks, hue 2.5Y, value 2.5/1 (black)
18			3.4 10.4	20	0-4" SW same as above sand (16-18', 0-18") 4-18" SW sand same as above but becoming coarser, mostly medium grained, wet, medium dense, red & white specks, poorly sorted, hue 2.5Y value 2.5/1 (black) silt lens at 8" & 14" 18-20" ML soft silt, wet, very well sorted, hue 10YR value 4/1 (dark grey)
20			11.5 6.3	17	0-7" SW sand, mostly fine with a few medium grains, moderately sorted, medium dense, red & white specks, hue 2.5Y value 2.5/1 (black), wet 7-15" SW sand, mostly medium grains with some fine, poorly sorted, medium dense red & white specks, hue 2.5Y value 2.5/1 (black) silt lens at 13", wet 15-17" ML soft silt, wet, very well sorted, hue 10YR value 4/1 (dark grey)
22					

Geologist's Signature [Signature] Date 2/21/02 Reviewer [Signature] Date 2/21/02 Pg 2 of 7



Soil Stratigraphy Field Log

Location ID G33
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

22'
24'
26'
28'
30'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			Breathing Zone: In-Spoon: Headspace: 3.7 4.2	22	0-6" SM silty sand, poorly sorted fine-medium sand with silt, wet, medium dense, hue 2.5Y value 3/1 (very dark grey) 6-12" ML soft silt with a little sand, wet, hue 2.5Y value 3/1 (very dark grey) well sorted 12-18" SW moderately sorted sand, very little silt, wet, medium dense, hue 2.5Y value 2.5/1 (black) 18-22" ML soft silt, well sorted, wet, hue 10YR value 4/1 (dark grey)
			1.1 11.3	17	0-17" SW poorly sorted sand, mostly medium grained with a few fine grains, wet, medium dense, red & white specks, hue 2.5Y value 2.5/1 (black)
			6.7 5.5	12 (26-27') (27-28 no recovery)	0-12" SW same as above (24-26')
			4.4 27.2	21	0-21" SW/S _P fine-medium sand, moderately sorted, wet, medium dense, hue 2.5Y value 2.5/1 (black) red & white specks

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer [Signature] Date 2/21/02 Pg 3 of 7



Soil Stratigraphy Field Log

Location ID G33
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray/ Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30 0.0'			Breathing Zone: In-Spoon: Headspace: 10.4 6.4	16	0-16" SP/SW fine-medium sand, moderately sorted, wet, medium dense, hue 2.5Y, value 2.5/1 (black) red & white specks
32			8.3 5.4	19	0-19" SW medium sand with some fine sand, poorly sorted, wet, medium dense, hue 2.5Y, value 2.5/1 (black) red & white specks
34			17.1 10.0	22	0-22" SW same as above (32-34')
36			7.4 10.6	24	0-24" SW same as above (32-34')
38			0.7 9.0	18	0-10" SW medium-coarse sand, poorly sorted, wet, medium dense-loose, hue 2.5Y, value 2.5/1 (black) red & white specks 10-10.5" silt lens 10.5-18" SP fine sand with very few medium grains, moderately sorted, wet, medium dense hue 2.5Y, value 2.5/1 (black) red & white specks
40					

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer [Signature] Date [Signature] Pg 34 of 7



Soil Stratigraphy Field Log

Location ID G33
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

40'
42'
44'
46'
48'
50'
52'
54'
56'
58'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 7.6 13.4	22	0-22" SP/SM mostly fine sand with a little silt, wet, moderately well sorted, loose-medium dense, hue 2.5Y value 2.5/1 (black)
			10.7 6.3	19	0-19" SP/SW fine sand with some medium grains, wet, medium dense, moderately sorted, hue 2.5Y value 2.5/1 (black red & white specks)
			2.8 1.2	22	0-22" SP/SW same as above (42-44')
			4.5 6.3	24	0-24" SP/SW same as above (42-44')
			0 4.3	16	0-16" SP/SW same as above (42-44')
			5.1 8.3	24	0-24" SP/SW same as above (42-44')
			2.9 14.7	22	0-22" SP/SW same black sand as above (42-44')
			18.4 15.1	21	0-21" SP/SW same black sand as above (42-44')
			7.4 9.3	24	0-21" SP/SW same as above (42-44') 21-23" ML stiff silt, wet very well sorted, hue 10YR value 4/1 (dark grey) 23-24" SP well sorted fine-very fine sand, wet, medium dense, hue 2.5Y value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer [Signature] Date 2/21/02 Pg 5 of 7



Soil Stratigraphy Field Log

Location ID G33
 Facility GT
 Project Tech Memo VII

Date 2/21/02
 Field Geologist Tasya Gray/ Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2' x 1" acetate liner

Total Depth 70'

58'
60'
62'
64'
66'
68'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: <u>8.6</u> <u>24.3</u>	<u>24</u>	0-24" SM silty sand going to a slightly sandy silt then back to a silty sand at bottom, very wet, soft/loose, all fine-very fine sand & silt, hue 2.5Y Value 2.5/1 (black), well sorted
			<u>23.7</u> <u>0.7</u>	<u>21</u>	0-21" SM sandy silt becoming silty sand towards bottom, very wet becoming wet, soupy/very soft becoming medium stiff/dense, well sorted hue 2.5Y hue 2.5Y value 2.5/1 (black)
			<u>158</u> <u>1.2</u>	<u>21</u>	0-21" SM slightly silty sand, very wet, medium dense, well sorted, hue 2.5Y Value 2.5/1 (black)
			<u>1.2</u> <u>0</u>	<u>~22</u>	0-22" SM sandy silt becoming a silty sand at ~10", very wet going to wet, well sorted, soft going to medium dense hue 2.5Y value 2.5/1 (black)
			<u>0</u> <u>0</u>	<u>24</u>	0-24" SM silty sand, gets slightly sandier at bottom, very wet, soupy, becoming medium dense, well sorted, fine-very fine, hue 2.5Y value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer MR Date 2/27/02 Pg 6 of 7



Soil Stratigraphy Field Log

Location ID G33
Facility ST
Project Tech Mem 0711

Date 2/21/02

Field Geologist Tanya Gurney / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2 x 1" acetate liner

Total Depth 70'

68'
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
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0.0'			Breathing Zone: In-Spoon: Headspace: 0 23.3	22	0-22" SM silty sand, very wet, medium dense, fine-very fine, well sorted, hue 2.5Y value 2.5/1 (black)
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Handwritten signature: Tanya Gurney



Soil Stratigraphy Field Log

Location ID 633
 Facility 6T
 Project RFI Well Inst/Tech Hdr VII

Date 2/25/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate Liner Total Depth 132'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
70'	0.0'		Breathing Zone: In-Spoon: Headspace: 0.0	21"	0-21" SP Hue ^{SY} 2.5/1 (Black) fine grain sand with some medium grains and some fines, moderately well sorted, wet, loose, red and white specks, silty sand from 2-3"
72'			bag 0.8		
74'			0.0	23"	0-23" same as above 70-72' 0-21" no silty sand
			bag 9.2		
			0.0	24"	0-22" SP Hue ^{SY} 2.5/2 (Black) fine grain sand with few fines, well sorted, wet, loose-medium dense, red and white specks
					22-23" M1 Hue ^{SY} 4/1 (dark gray) silt with some fine grain sand, well sorted, dense, moist-wet
76'			bag 7.8		23-24" same as above 74-76' 0-22"
78'			0.0	20"	0-20" same as above 70-72' 0-21"
			bag 12.1		
			0.0	19"	0-19" SP Hue ^{SY} 2.5/1 (Black) fine grain sand with some medium grains, few fines, moderately well sorted, moist-wet, loose-medium dense, red and white specks
80'			bag 107.8		
84'	no samples	collected			
			0.0	22"	0-22" SP Hue ^{SY} 2.5/1 (Black) fine grain sand with few medium grains and few fines, well sorted, moist-wet, loose, red and white specks.
86'			bag 0.0		
89'	no samples	logged			
			0.0	22"	0-22" SP Hue ^{SY} 2.5/1 (black) fine grain sand with few medium grains and few fines, well sorted, wet, loose, red and white specks
91'			*Bag > 100		
94'	no samples	collected			

Geologist's Signature [Signature] Date 2/25/02 Reviewer [Signature] Date 2/25/02 Pg 2 of 4

* Bags did not climb slowly and are probably due to moisture in bag.



Soil Stratigraphy Field Log

Location ID 633
 Facility AT
 Project RFI Well Just/Tech Mem II

Date 2/26/02
 Field Geologist Corey Johnson

Location Type: rem pos
 Soil Boring Only Well Test Pit

Drilling Method
beep probe

Sampling Method

Total Depth
132'

94'
96'
99'
101'
104'
106'
110'
112'
116'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	20"	0-20" SP to silty with depth, fine grain sand with few medium and few fines, fines increasing with depth to some silts, medium grains increasing with depth to some, Hue 5Y 2.5/1 (Black) wet, loose-medium dense, red and white specks, wood debris from 16"-20"
	no samples collected		0.0	24"	0-24" silty Hue 5Y 2.5/1 (Black) fine grain sand with some fines, silty sand, moderately well sorted, wet medium dense, red specks
	no samples collected		0.0	16"	0-16" SP Hue 5Y 2.5/1 (black) fine grain sand with some medium grains, few fines, moderately sorted, wet, medium dense, red and white specks
	no samples collected		0.0	18"	0-11" silty Hue 5Y 2.5/1 (Black) fine grain sand with some fines and few medium grain sand, moderately sorted, wet, loose, red and white specks 11-18" silty Hue 5Y 3/1 (gray dark gray) fine grain sand silt mix 50/50, loose, moist to wet, moderately well sorted, few visible red and white specks
	no samples collected		0.0	20"	0-15.5" SP Hue 5Y 2.5/1 (Black) fine grain sand with few medium grains and

Geologist's Signature [Signature] Date 2/26/02 Reviewer Natasha Gray Date 2/26/02 Pg 2 of 4

sample 104-106' - heavily filled and broke liner from pressure.
 * Bag PID readings climb slowly and are probably due to moisture in bag.



Soil Stratigraphy Field Log

Location ID 638
 Facility ET
 Project RFT Well Inst/Tech Memo VII

Date 2/26/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" x 1" Acetate liner

Total Depth 132'

116'-118'
cont

118'
124'

126'

128'
130'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					few fines, well sorted, wet, loose, red and white specks, 15.5"-20" SM Hue 5Y 3/1 (very dark gray) fine grain sand with silt and pockets of silt, moderately poorly sorted, wet, loose, red and white specks
	no	Sample	Collected		
			0.0	18"	0-13" ml Hue 5Y 3/1 (very dark gray) silt with few fine sand, very well sorted, wet, soft 13-18" SM Hue 5Y 3/1 (very dark gray) silty fine grain sand, 60/40 sand/silt, well sorted, moist-wet, loose, red and white specks
			bag 0.0		
			0.0	21"	0-17" SP Hue 5Y 2.5/1 (black) fine grain sand with few medium grains and few fines, well sorted, wet, loose, red and white specks 17-19" SM Hue 5Y 3/1 (very dark gray) fine grain sand silt mix, pockets of silt, sandy silt, moderately poorly sorted, moist-wet, medium dense, red and white specks in areas of sand silt mix. 19-21" ml Hue 5Y 4/1 (dark gray) silt with some fine grain sand, well sorted, dry-moist, medium dense,
			bag 0.0		
	no	Sample	Collected		
			0.0	22"	0-14" SP Hue 5Y 2.5/1 (black) fine grain sand with few medium grains and few fines, well sorted, wet, loose,

Geologist's Signature

Date 2/26/02

Reviewer

Date 2/26/02

Pg 3 of 4



PHILIP SERVICES
CORP.

Soil Stratigraphy Field Log

Location ID 653
Facility AT
Project Tech Memo VII Additional

Date 2/26/02

Field Geologist Corey Johnson

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 132'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

130' - 132'
cont.

132'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Red and white specks 14-17" Silt Hue 5Y 3/1 (very dark gray) fine silt silt sand with silt, silty sand, moderately sorted, wet, loose, red and white specks 17-19" M. Hue 5Y 4/1 (dark gray) silt with some fine sand, well sorted, very soft, wet
(Remaining table area is crossed out with a diagonal line)					

Geologist's Signature [Signature]

Date 2/26/02

Reviewer [Signature]

Date 2/26/02

Pg 4 of 4



Soil Stratigraphy Field Log

Location ID S34
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				12	0-3" gravel/asphalt 3-12" SW poorly sorted sand, fine sand with a few medium & coarse grains, moist, loose-medium dense hue 5Y value 2.5/1 (black)
			0	10	0-10" SW same black sand as above (0-2', 3-12")
			9.4	4	0-8" mostly wood debris mixed with SW as above 0-2', 3-12" (sulfur smell)
			42	10	0-10" SW same black sand as above (0-2', 3-12") 1-6" ML soft silt, moist, very well sorted, little-no sand, hue 2.5Y value 3/2 (very dark greyish brown) 6-10" SW same black sand as above (0-2', 3-12") with alot of wood pieces ~1" size, gets wet at bottom
			15.0 4.5	16	0-3" ML medium stiff silt, hue 2.5Y value 4/4 (olive very well sorted, wet, brown) wood debris 3-4" SM silty sand, wet, medium dense, moderately sorted, hue 5Y value 2.5/1 4-16" ML same as above 0-3"

Sulfur smell
↓

110
4



Soil Stratigraphy Field Log

Location ID 534
Facility GT
Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray/Correy Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" ~~AT~~ acetate liner

Total Depth 70'

10
12
14
16

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0.0'				17	0-17" ML medium stiff silt, wet, very well sorted hue 2.5 value 4/4 (olive brown) with sand lens every 1-2" increasing towards bottom Sand is SP moderately well sorted, wet, medium dense, finer mostly fine grained
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			12 2.3	16	0-4" ML medium stiff silt, wet a little fine sand mixed in, well sorted hue 2.5y value 2.5/1 (black) 4-12" ML same as above 0-4" but becoming very wet, soft - hue 2.5y value 2.5/1 black 12-16" SM silty sand, wet, moderately sorted, medium st dense, mostly fine grained with some medium grains hue 2.5y value 2.5/1 (black)
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			0 0.2	16	0-6" SW poorly sorted sand, fine-medium grained, wet, medium dense, red & white specks, hue 2.5y value 2.5/1 (black) 6-8" ML soft silt, very well sorted, wet, hue 2.5y value 3/1 (very dark grey) 8-16" SW same as above (0-6") black sand
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Soil Stratigraphy Field Log

Location ID S34
 Facility GT
 Project Tech Memo VII

Date 2/2/02

Field Geologist Tasya Gray/ Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2'x1" acetate liner

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0 18.2	24	0-16" SW poorly sorted sand, medium coarse sand with some fine ^{coarse} grains, wet, medium dense, wet, red & white specks, hue 2.5 value 2.5/1 (black) 16-18" SP well sorted sand, same as above but fine sand, wet, medium dense, red & white specks, hue 2.5 value 2.5/1 (black) 18-24" SW same poorly sorted sand as above 0-16"
			0 15.5	22	0-22" SW sand to same black sand as above (16-18' 0-16") several 0.5" pieces of rounded gravel found
			0 0.7	22	0-20" SW same black sand as above (16-18', 0-16") 20-22" SW/SP same sand becomes finer, ^(a few medium grains) mostly fine sand, wet medium dense, red & white specks, moderately sorted, hue 2.5 value 2.5/1 (black)
			0 0	22	0-22" ^{SW/SP} same as above (20-22' 20-22") black sand, on thin silt lens at ~6"
			0 0	22	0-22" SW/SP same as above (20-22' 20-22") black fine sand with few medium grains

Geologist's Signature Tasya Gray Date 2/2/02 Reviewer [Signature] Date 2/2/02 Pg 3 of 7



Soil Stratigraphy Field Log

Location ID 534
 Facility GT
 Project Tech Memo VII

Date 2/2/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2'x1" acetate liner

Total Depth 70'

26'
28'
30'
32'
34'
36'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0 10.1	22	0-22" SP/SW sand, fine-medium grained, moderately sorted, wet, medium dense, hue 2.5y value 2.5/1 (black)
			2.4 10.2	12	0-11" SP/SW sand same as above (26-28') 11-12" ML silt lens, soft, some fine sand, very well sorted,
			NA	0	poor recovery, sample fell out, driller said it was very soupy water with a little sand
			0.7 21.4	24	0-21" SM silty sand going to sandy silt at bottom, very wet, well sorted, very fine-fine sand & silt, loose/soft hue 2.5y value 2.5/1 (black) 21-24" ML soft silt, very well sorted, little to no sand, hue 2.5y value 3/1 (very dark grey), very wet,
			0 21.2	12	0-12" SM sandy silt, silt with very fine sand, soupy, very soft, well sorted, hue 2.5y value 3/1 (very dark grey) small amount of wood, very small pieces

Geologist's Signature Tasya Gray Date 2/2/02 Reviewer [Signature] Date 4/27/02 Pg 4 of 7



Soil Stratigraphy Field Log

Location ID S34
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

36'
38'
40'
44'
46'
50'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 3.3 ~8.7	13	0-13" SP sand, mostly fine grained, some silt content, wet, loose, well sorted, hue 2.5y value 2.5/1 (black)
			4.4 0	18	0-18" SP sand, mostly fine grained, wet, medium dense, moderately well sorted, hue 2.5y value 2.5/1 (black)
			0 0	17	0-17" SP sand same as above (38-40')
			0 0	19	0-19" SP fine sand, same as above (38-40')
			0	22	0-22" SP/SM very fine sand to fine sand with a little silt, wet, medium dense, well sorted, some small wood pieces, hue 2.5 value 2.5/1 (black)
			0	23	0-23" SP fine sand, wet, no silt, medium dense, moderately well sorted, red & white specks, hue 2.5 value 2.5/1 (black)
			0 0	24	0-24" SP/SM very fine-fine sand with a little silt, wet, medium dense, moderately well sorted, red & white specks, hue 2.5 value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer LMR Date 2/21/02 Pg 5 of 7



Soil Stratigraphy Field Log

Location ID S34
 Facility GT
 Project Tech Memo VII

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2x 1" acetate liner

Total Depth 70'

50'
52'
54'
56'
58'
60'
62'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0 0	24	0-24" SP fine sand, very little silt, very little medium grains, moderately well sorted, wet, medium dense, hue 2.5y value 2.5/1 (black)
			0 0	12	0-12" SP same as above (50-52' sand)
			0 0	17	0-17" SP same as above (50-52') sand
			0 0	22	0-22" SP same as above (50-52') sand
			0 0	22	0-22" SP same as above (50-52') sand
			0 3.5	212	0-10" SM sandy silt, very wet, soupy, very soft, moderately well sorted, hue 2.5 value 2.5/1 (black) 10-11" SP sand as above, fine grained, few medium, moderately well sorted, dense, hue 2.5y value 2.5/1 (black) wet 11-12" ML silt medium stiff-soft, little to no sand, wet, well sorted, hue 2.5y 3/1 (very dark grey)



Soil Stratigraphy Field Log

Location ID S34
 Facility GT
 Project Tech Memo III

Date 2/21/02

Field Geologist Tasya Gray / Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

62'
64'
66'
68'
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0 0	16	0-11" ML/SM silt with a little very fine sand, very wet, soupy & soft becoming medium stiff, well sorted, hue 2.5y value 2.5/1 (black) 11-16" SP fine sand, wet, dense moderately well sorted, hue 2.5y value 2.5/1 (black)
			0 0	220	0-20" SM silt with a little very fine sand, very wet, soupy & very soft to 16" then becomes stiff & slightly sandier, well sorted, hue 2.5y value 2.5/1 (black)
			0 0	222	0-14" SM very soupy silty sand, very fine - fine sand with silt, very wet, well sorted, hue 2.5y value 2.5/1 (black) 14-22" SM very dense silty sand, less silt than above, well sorted fine-very fine sand with a little silt, wet, wet to hue 2.5y value 2.5/1 (black)
			0	222	0-19" ML very soft soupy silt, very wet, well sorted, hue 2.5y value 2.5/1 (black) 19-22" SM sandy silt, very dense / stiff, wet, well sorted, hue 2.5y value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/21/02 Reviewer AKC Date 2/27/02 Pg 7 of 7



Soil Stratigraphy Field Log

Location ID Y26
 Facility GT
 Project Tech Memo VII

Date 2/18/02

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' long, 1" diameter acetate liner

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				13	Breathing Zone: In-Spoon: Headspace: 0-2" asphalt 2-5" gravel with some sand hue 5YR value 3/3, moist, poorly sorted, medium sand to coarse gravel loose 5-13" SW sand, fine-medium grained, moist, poorly sorted, loose, red & white specks, hue 10YR value 2/1 (black)
2'			0	17	0-17" SW sand, fine-medium grained, moist, poorly sorted, loose, red & white specks, hue 10YR value 2/1 (black)
4'			0	18	0-18" SW sand same as above 2-4' a 0.75" piece of gravel found at ~6" orange green, looks like high plagioclase content
6'			0	16	0-16" SW same as above 2-4' a few coarse grains throughout, a 1" piece of rock found at ~10" similar to rock found in 4-6'
8'			0	18	0-18" SW same as above 2-4' bgs
10'			0	12	0-12" SW moist sand, fine-medium grained, poorly sorted, loose, red & white specks hue 10YR value 2/1 (black) w/red & white specks but siltier at 4-9.5", 6-6.5" and 10-12"

Geologist's Signature Tasya Gray Date 2/18/02 Reviewer [Signature] Date 2/18/02 Pg 1 of 7

color: Munsell soil chart

34-36 no spec. sample



Soil Stratigraphy Field Log

Location ID Y26
 Facility GT
 Project Tech Memo VII

Date 2/18/07

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' long, 1" diameter acetate liner

Total Depth 70

12'
14'
16'
20'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	15	0-15" sand, wet, fine-medium SW grained, poorly sorted, medium dense, red & white specks, color is less brown than above, more olive, hue 2.5YR, value 2.5/1 (black)
			0	12	0-12" SW same as above 12-14' bgs
			0	11	0-11" SW same as above 12-14' bgs
			0	17	0-4" SW same as above 12-14' bgs 4-5" siltier lens mixed with same sand 5-6" SW sand, wet, mostly fine grained, moderately sorted, medium dense, red & white specks, hue 2.5YR, value 2.5/1 (black) a finer version of the same sand 6-8" very organic material, some broken wood fragments & root debris as well 8-12" back to finer SW, sand, wet, mostly fine grained, moderately sorted, medium dense, red & white specks, hue 2.5YR value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/18/07 Reviewer [Signature] Date 4/1/07 Pg 2 of 7

NOTE: Σ based off driller's observation, difficult to identify by core since all soil has been somewhat wet

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Soil Stratigraphy Field Log

Location ID 426
 Facility GT
 Project Tech Memo VII

Date 2/15/02

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' ions 1" diameter acetate liner

Total Depth 70'

20'
21'
24'
26'
28'
30'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
					Breathing Zone: In-Spoon: Headspace: 0
			0	15	0-15" SW sand, wet, mostly fine grained, moderately sorted, medium dense, red & white specks, hue 2.5YR value 2.5/1 (black)
			0	19	0-5" SW same sand as above 20-22' bgs getting to 5-8" SW same sand as above 20-22' bgs but very fine 8-19" SW same sand as above 20-22' bgs (back to mostly fine) 1" silt lens at ~ 13", followed by w/1" piece of wood
			0	20	0-20" SW same as above 20-22' bgs
			0	13	0-13" ML silt, medium stiff, moist, ^{very} well sorted, thin root material spread throughout hue 2.5Y, value 3/1 (very dark grey)
			0	14	0-14" SP sand, mostly very fine, well sorted, dense, red & white specks, wet, hue 2.5YR value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/15/02 Reviewer DJR Date 4/2/02 Pg 3 of 7

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Soil Stratigraphy Field Log

Location ID 426
Facility GT
Project Tech Memo VII

Date 2/14/02

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' long 1" diameter acetate liner

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

30'
32'
34'
38'
40'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			0	20	0-20" SP sand, mostly fine grained with a few medium grains, moderately well sorted, wet, medium dense, red & white specks, hue 2.5 YR, value 2.5/1 (black)
			0	15	0-15" SP same as above 30-32 bgs
			NA	0	sample was very soupy, fell out, no recovery
			0	~12 soupy	0-11" SM silty sand, fine-very fine sand mixed with silt, very wet, soupy, moderately well sorted, hue 2.5 YR value 2.5/1 (black) #14 11-12" ML SM silt lens, medium stiff, well sorted, wet, some sand content hue 2.5 YR value 3/1 (very dark grey)
			0	15	0-15" SM/SP sand with a little silt content, silt increasing at bottom, fine-very fine grained sand, wet, medium dense, moderately well sorted, hue 2.5 YR value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/14/02 Reviewer DHC Date 2/14/02 Pg 4 of 7

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Soil Stratigraphy Field Log

Location ID Y260
 Facility GT
 Project Tech Memo VII

Date 2/18/02

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' long 1" diameter acetate liner

Total Depth 70'

40'
42'
44'
46'
48'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Geological Description: Breathing Zone: In-Spoon: Headspace: <u>NA</u>
				<u>0</u>	sample was very soupy, fell out, no recovery
			<u>NA</u>	<u>0</u>	sample was very soupy, fell out, no recovery
			<u>21</u>	<u>0</u>	0-9" SM silty sand, wet, fine-very fine sand with a little silt content, loose & soupy, small wood fragments throughout, hue 2.5 value 2.5/1 (black) moderately sorted 9-21" SP fine-very fine sand, little to no silt, moderately well sorted, wet, dense, hue 2.5 value 2.5/1 (black)
			<u>20</u>	<u>0</u>	0-9" SM silty sand, wet, fine-very fine sand with a little silt content, loose, small wood fragments throughout, moderately sorted, hue 2.5 value 2.5/1 (black) 9-19" SP fine-very fine sand, little to no silt, wet, well sorted, dense, hue 2.5 value 2.5/1 (black) 19-20" SM siltier version of SP above, dense, wet, well sorted, very fine sand with silt hue 2.5 value 2.5/1



Soil Stratigraphy Field Log

Location ID Y26
 Facility GT
 Project Tech Memo VII

Date 2/15/02 Field Geologist Tasya Gray Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' long, 1" diameter acetate liner Total Depth 70'

48'
50'
52'
54'
56'
58'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	20	0-19" SM fine to very fine sand with silt mixed in, wet, medium dense moderately well sorted, hue 2.5 value 2.5/1 (black) 19-20" ML silt lens, medium stiff
			0	17	0-17" SM fine - very fine sand with silt, wet, loose & soupy, getting stiffer at bottom, moderately well sorted, hue 2.5 value 2.5/1 (black) small wood pieces throughout
			0	218 soupy	0-13" SM silty sand same as above 50-52' bgs
			0	17	0-17" SP fine-very fine sand, little to no silt, wet, medium dense, moderately sorted, hue 2.5 value 2.5/1 (black) white specks
			0	24	0-24" SM sandy silt, very wet, very loose/soft, very fine well sorted silt with a little sand, hue 2.5 value 2.5/1 (black) grades to a sandier unit at bottom becoming silty sand

Geologist's Signature Tasya Gray Date 2/15/02 Reviewer DAC Date 6/27/02 Pg 6 of 7



Soil Stratigraphy Field Log

Location ID Y26
 Facility GT
 Project Tech Memo III

Date 2/18/02

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2 1/2" dia, 1" diameter acetate liner

Total Depth 70'

58'
60'
62'
64'
66'
68'
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: ①	18	SP 0-18" moderately well sorted sand, little to no silt, mostly fine grained, wet, medium dense, red & white specks, hue 2.5 value 2.5/1 (black)
			0	24	0-24" SP same as above (58-60' bgs) some wood debris concentrated at 4-6"
			0	18"	0-18" SP same as above 58-60' bgs
			0	22	8-22" SP moderately sorted sand, slightly coarser than previous, wet, medium dense, mostly fine with a few medium grains, red & white specks, hue 2.5 value 2.5/1 (black) wood @ 10"
			0	6	06" SP same as above 64-66' bgs
			0	22	7-10 0-22" SP fine-very fine sand moderately well sorted, wet, loose, red & white specks, finer than previous, hue 2.5 value 2.5/1 (black)

Geologist's Signature Tasya Gray Date 2/18/02 Reviewer [Signature] Date 2/22/02 Pg 7 of 7



Soil Stratigraphy Field Log

Location ID ES
 Facility Georgetown
 Project RFI Well Installation

Date 2/23/02 Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Ecoprobe Sampling Method 2"x1" Acetate liner

Total Depth 88'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

50'
52'
54'
56'
58'
60'
62'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	21"	0-20" SP Hue 5Y 2.5/2 (Black) fine grain sand with medium grains, few fines, moderately well sorted, wet, loose, red and white specks 20-21" SM Hue 5Y 2.5/2 (Black) fine grain sand with few medium grain, some fines, moderately well sorted, wet, loose
			0.0 Bag	20"	0-20" same as above 50'-52' 0"-20"
			0.0	24"	0-21" SP Hue 5Y 2.5/2 (Black) fine grain sand with some medium grains, few fines increasing with depth to some fines, moderately well sorted, wet, loose, red and white specks 21-24" SM Hue 5Y 2.5/1 (Black) fine grain with pockets of fines throughout, moderately sorted, wet, loose
			0.0	22"	0-19" SP Hue 5Y 2.5/2 (Black) fine grain sand with some medium grains, few fines, moderately well sorted, wet, loose, red and white specks 19-22" same as above 54'-56' 21"-24"
			0.0	21"	0-18" SM Hue 5Y 2.5/2 (Black) fine grain sand with few medium grains, few fines, moderately well sorted, wet, loose, red and white specks 18-21" same as above 54'-56' 21"-24"
no	Sample	Recovered			

Geologist's Signature [Signature] Date 2/23/02 Reviewer [Signature] Date 6/1/02 Pg 1 of 4

60'-62' - Driller Lynn Tobel says soil to wet and soggy to remain in sampler



Soil Stratigraphy Field Log

Location ID E3
Facility Georgetown
Project RFI Well Installation

Date 2/23/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Beeprobe

Sampling Method 2"x1" Acetate Liner

Total Depth 88'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			0.0	24"	0-3" SM Hue 5Y 3/1 (very dark gray) fine grain sand with fines, well sorted, wet and soupy, loose 3-10" ml Hue 5Y 4/2 (olive gray) silt with some fine sand, well sorted, wet, medium stiff 10-16" SM Hue 5Y 3/1 (very dark gray) fine grain sand with fines, moderately sorted, wet and soupy, loose 16-24" SM Hue 5Y 3/1 (very dark gray) fine gray sand with fines, moderately sorted, wet, loose
			0.0	24"	0-20" SM Hue 5Y 3/1 (very dark gray) fine grain sand with fines, moderately sorted, wet and soupy, loose, red specks 20-24" SM Hue 5Y 3/1 (very dark gray) fine grain sand with few fines, moderately well sorted, wet, loose, red specks
			0.0	22"	0-17" SM Hue 5Y 3/1 (very dark gray) fine grain sand with some medium and few coarse grain sand, moderate-poorly sorted, wet and soupy, loose, wood debris, medium grain white specks 17-22" SM Hue 5Y 3/1 (very dark gray) fine grain sand with few medium grain and fine fines, moderately well sorted, wet, loose
			0.0	17"	0-17" same as above 66-68' 17-22"

Geologist's Signature

Date 2/23/02

Reviewed

Date 6/1/02

Pg 2 of 4



Soil Stratigraphy Field Log

Location ID E3
 Facility Georgetown
 Project RFI Well Installation

Date 2/23/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Ecoprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 88'

70'
72'
74'
76'
78'
80'
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				20"	0-15" Sm Hue 5Y 3/1 (very dark gray) fine grain sand with some fines and few medium grains, well sorted, wet and soupy, loose, red specks, tiny wood debris (very few) throughout. 15-20" Sp Hue 5Y 2.5/1 (black) fine grain sand with few fines, few medium grains, moderately well sorted, wet, loose, red and white specks
			bag 0.2	19" F	Same as above 70'-72' 15-20"
			0.0	21"	0-18" Sm Hue 5Y 3/1 (very dark gray) fine grain sand with few medium grain and some silt, silty sand, moderately sorted, very wet, loose, tiny wood debris 18-21" Sm Hue 5Y 3/1 (very dark gray) fine grain sand with fines, silty sand, well sorted, moist to wet, medium dense
			0.0	20"	0-16" Sm Hue 5Y 3/1 (very dark gray) fine grain sand and silt mix, well sorted, very wet, loose, red specks 16-20" Sm Hue 5Y 3/1 (very dark gray) fine grain sand with silt, well sorted, wet, loose, red specks
			0.0	21"	0-16" Same as above 76-78' 0-16" 16-21" Sm Hue 5Y 3/1 (very dark gray) fine grain sand with silt and pockets of silt, well sorted, wet, loose, red specks
			0.0	20"	0-20" ml Hue 5Y 4/1 (dark gray) silt with few fine sand, sand increasing with depth to some fine sand, well sorted, very well sorted, wet and soft becoming wet and soft/medium stiff with depth

Geologist's Signature [Signature] Date 2/23/02 Reviewer [Signature] Date 4/1/02 (very) Pg 13 of 4



Soil Stratigraphy Field Log

Location ID E3
 Facility Georgetown
 Project RFI Well Installation

Date 2/23/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2"x1" Acetate lined

Total Depth 88'

82'
84'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
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0.0'				24"	0-24" MI Hvc 5Y 2.5/1 (black) silt with few to some fine grain sand very well sorted, moist, medium stiff.
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			0.0	23"	0-2
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Geologist's Signature [Signature]

Date 2-23-02 Reviewer [Signature]

Date 6/1/02 Pg 4 of 4



Soil Stratigraphy Field Log

Location ID F4
 Facility Georgetown
 Project RFI Well Installation

Date 2/14/02

Field Geologist Coley Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Benprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 98'

60'

62'
64'

66'
68'

70'
72'

74'
76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				20"	0-20" SM Hue 104A 2/1 fine grain sand with few medium grains and few fines, moderately well sorted, wet, loose-medium dense, red and white specks
	No Sample Collected				
			0.0	24"	0-2" ml Hue 2.5Y 4/1 silt with some fine sand, some medium grain sand, moderately-poorly sorted, wet, loose/soft, wood debris 2-24" SM Hue 104R 2/1 fine sand with few medium grains and few fines, moderately well sorted, wet, loose, red and white specks
	No Sample Collected				
			0.0	24"	0-24" SM/ml Hue 2.5Y 5/1 silty sand with pockets of ml silt throughout, fine grain sand with silt, moderately sorted, very wet and soupy, loose/soft
	No Sample Collected				
			0.0	24"	0-24" SM Hue 2.5Y 2.5/1 fine grain sand with few medium grains and some fines, moderately sorted, wet, loose, red and white specks, small ml silt at 7", 11" and 22-23"
	No Sample Collected				
			0.0	24"	0-22" SM → SM Hue 2.5Y 3/1 sandy silt very wet and soft fine grain sandy silt → medium dense silty fine grain sand, moderately sorted, wet, (with depth)

Geologist's Signature [Signature] Date 2/14/02 Reviewer [Signature] Date 2/14/02 Pg 1 of 3



Soil Stratigraphy Field Log

Location ID F4
 Facility 6T
 Project RFI Well Installation

Date 2/14/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth 98'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

76-78 cont
78'
80'
82'
84'
86'
88'
90'
92'
94'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					22-24" ml Hue 2.5Y 4/1 fine grain sandy silt, moderately well sorted, moist to wet, medium stiff
	no	Sample	collected		
			0.0	19"	0"-2" ml Hue 2.5Y 3/1 silt with some fine grain sand, moderately sorted, wet, medium stiff 2"-13" ml Hue 2.5Y 3/1 silt with very few fines, very well sorted, soft, wet, very soft and soupy from 8"-10" 13"-19" SM Hue 2.5Y 2.5/1 fine grain sand with some fines, moderately well sorted, wet loose, red and white speckle
	no	Sample	collected		
			0.0	24"	0-24" ml Hue 2.5Y 2.5/1 ml to sm with depth, silt with fine grain sand to sandy fine grain sand with silt with depth, soft wet and soupy to wet and medium dense with depth, moderately-poorly sorted
	no	Sample	collected		
			0.0	24"	0-24" ml Hue 2.5Y 3/1 silt with 30% fine grain sand, well sorted, very wet and soupy, soft very soft and loose, soft from 21-24"
	no	Sample	collected		
			0.0	20"	0-20" ml Hue 2.5Y 3/1 silt with some fine grain sands, well sorted, wet, medium stiff

Geologist's Signature [Signature] Date 2/14/02 Reviewer [Signature] Date 2/19/02 Pg 2 of 3



Soil Stratigraphy Field Log

Location ID F4
Facility 6T
Project RFI Well Installation

Date 2/14/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method 6 probe

Sampling Method 2' x 1" Acetate line

Total Depth 98'

94
96
98

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
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0.0'					
					Breathing Zone: In-Spoon: <u>0.0</u> Headspace: <u>0.0</u>
				<u>24"</u>	<u>0-24" ml Hve 2.5% 3/1 silt with few fine grain sand, very well sorted, Wet, Soft</u>

	<u>Geotechnical F4-96-98-0202</u>		<u>0.0</u>	<u>24"</u>	<u>0-24" Same as above 94-96 0-24"</u>
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Geologist's Signature

Date 2/14/02

Reviewer

Date 2/14/02

Pg 3 of 3



Soil Stratigraphy Field Log

Location ID G3
 Facility GT
 Project Well Installation 2002

Date 2/19/02 Field Geologist Tasya Gray Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" acetate liner Total Depth 90'

60'
62'
64'
66'
68'
70'
72'
74'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				0	Breathing Zone: In-Spoon: Headspace: no soil logged
			0 0	19	0-19" SP sand, mostly fine grains, a few medium, moderately well sorted, wet, medium dense, red & white specks, hue 5Y value 2.5/1 (black)
			0 0	21	0-21" SP same as above 60-62' black sand
			0 0	21	0-21" SP same as above 60-62' thin silt lens (~0.25") @ ~4"
			0 0	~18	0-18" SP sand, fine grained with very few medium, well sorted, wet, loose & scoopable becoming medium dense, hue 5Y value 2.5/1 (black)
			0 1	20	0-20" SP same as above 66-68' all medium dense
			0 .5	20	6-20" SP same as above 66-68' all medium dense
			0.5 .8	22	0-22" SP/SM fine sand with some silt mixed in, well sorted, red & white specks, increased silt content to sandy silt in some areas, wood throughout, wet, loose to medium dense



Soil Stratigraphy Field Log

Location ID G3
 Facility GT
 Project Well Installation 2002

Date 2/16/02

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 90

74'
76'
78'
80'
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 1.7 2.0	20	0-18" SP sand, mostly fine grained, well sorted, wet, medium dense, hue 5Y value 2.5/1 (black) red & white specks 14-20" ML silt lens, very stiff, slightly greyer in color, sandy
			2.6 3	18	0-15" SP/SM fine sand with some very fine sand & silt, wet, loose-medium dense, red & white specks, well sorted, hue 5Y value 2.5/1 15-18" ML very stiff silt, well sorted, little or no sand, moist, hue 5Y value 3/1 (very dark grey)
			0.5 0.2	~14	0-8" SM sandy silt, very wet & soupy, very fine sands & silt, hue 5Y value 3/1 (very dark grey) well sorted 8-14" SM sandy silt becomes stiff, very fine sands & silt, hue 5Y value 3/1 (very dark grey) well sorted, wood pieces throughout ~0.25"
			0 0	24	0-21" SM sandy silt, very wet & soupy, very fine sands & silt, well sorted, hue 5Y value 3/1 (very dark grey) 21-24" SM silty sand, medium dense, wet, fine sand with some silt, well sorted, hue 5Y value 3/1 (very dark grey)

Geologist's Signature Tasya Gray Date 2/16/02 Reviewer [Signature] Date 2/16/02 Pg 2 of 3



Soil Stratigraphy Field Log

Location ID G3
 Facility GT
 Project Well Installation 2002

Date 2/19/02 Field Geologist Tasya Gray Location Type: Soil Boring Only Well Test Pit
 Drilling Method Geoprobe Sampling Method 2' x 1" allstate liner Total Depth 90'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
82' 0.0'			Breathing Zone: In-Spoon: Headspace: 0 0	12 poor recovery, liner damaged	0-12" SM sandy silt, soft, silt with some fine sand, wet, well sorted, hue 5Y, value 3/1 (very dark grey)
84'			0 10 - may be moisture PID dropped slowly afterwards	24	0-24" ML very soft silt with a little sand mixed in, very wet, some slightly soupy, well sorted, hue 5Y, value 3/1 (very dark grey) becomes stiff last 2"
86'			0	~12 poor recovery liner damaged	0-12" ML soupy silt with a little very soft silt, little to no sand, very wet, very well sorted, hue 5Y value 3/1 (very dark grey)
88'			0	19	0-19" ML soft-medium stiff silt, no sand, wet, very well sorted, hue 5Y value 3/1 (very dark grey)
90'					



Soil Stratigraphy Field Log

Location ID 1414
 Facility Georgetown
 Project RFI Well Installation

Date 2/12/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 70'

0'
2'
4'
6'
8'
10'
12'
14'
16'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				20"	0-2" SW GLEY 2 3/ coarse grain sands with some medium and fine grains, some fine gravels, poorly sorted, dry, loose 2-7" SM Hue 2.5Y 3/2 fine grain sand with few fins, moderately well sorted, moist, loose 7-20 MI Hue 2.5Y 5/4 silt with some fine grain sand, well sorted, dry, medium st. ft.
	Sample Collected				
			0.0	19"	0-7" SM Hue 2.5Y 4/1 silty sand fine grain sand with some silt, moderately well sorted, moist, medium dense 7-11" MI Hue 5Y 4/1 sandy silt, silt with some fine grain sands, moderately well sorted, moist, stiff 11-19" SM Hue 5Y 4/3 fine grain sand with mixed pockets of silt, poorly sorted, moist, loose
	Sample Collected				
			0.0	17"	0-17" SW Hue 7.5YR 2.5/1 medium grain sands with some fine and some coarse grains, moderately sorted, wet, loose, white specks
	Sample Collected				
			0.0	18"	0-18" SM GLEY 1 2.5, medium grain sand with some fine grains, moderately well sorted, wet, loose, red and white specks
	Sample Collected				

few silt

Geologist's Signature [Signature]

Date 2/13/02

Reviewer [Signature]

Date 6/1/02 Pg 1 of 3



Soil Stratigraphy Field Log

Location ID 1114
 Facility 6T
 Project RFJ Well Installation

Date 2/13/07 Field Geologist Cory Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method 6 probe Sampling Method 2' x 1" Acetate lined Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
16'					
0.0'					
18'					
20'	No	Sample collected			
			0.0	22"	0-22" Same as above 16-18' 0"-20" decreasing medium grain sands
22'					
24'	No	Sample collected			
			0.0	23"	0-23" SM 6LEY 1 2.5 fine grain sand with some medium grain sand, moderately well sorted, wet, loose, red and white specks
26'					
28'	No	Sample collected			
			0.0	24"	0-24" Same as above 24-26' 0"-23"
30'					
32'	No	Sample collected			
			0.0	5"	0-5" SM 6LEY 1 2.5 fine grain sand with few fines, moderately well sorted, wet, loose, red and white specks
34'					
36'	No	Sample collected			
			0.0	24"	0-24" Same as above 32-34' 0"-5"
38'					
40'	No	Sample collected			
			0.0	22"	0-22" SM 6LEY 1 2.5 fine grain sand with few fines, moderately well sorted, wet, loose, red and white specks
42'					
44'	No	Sample collected			
			0.0	24"	0-24" Same as above 40-42' 0"-22"
46'					
48'	No	Sample collected			
			0.0	18"	0-18" Same as above 40-42' 0"-22"
50'					
52'	No	Sample collected			

Geologist's Signature [Signature] Date 2/13/07 Reviewer [Signature] Date 6/1/07 Pg 2 of 3



Soil Stratigraphy Field Log

Location ID 1414
 Facility 6T
 Project RFI Well Installation

Date 2/13/02

Field Geologist Covey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method 6" auger

Sampling Method 2' x 1" Acetate liner

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
52 0.0'					
					Breathing Zone: In-Spoon: Headspace: 0.0
54 56 No	Sample collected			24"	0'-24" Same as above 40'-42' 0'-22"
			0.0	20"	0-20" SM 6LE4 ± 2.5 fine grain sand with few fins and some medium grain sands, moderately sorted, wet, loose, Red and white specks
58 60 No	Sample collected				
			0.0	22"	0-22" Same as above 56-58' 0'-20"
62 64 No	Sample collected				
			0.0	24"	0-24" Same as above 56-58' 0'-20"
66 68 No	Sample collected				
			0.0	22"	0-22" Same as above 56-58' 0'-20"
70					

Geologist's Signature

Date

Reviewed

Date

6/1/02

Pg 3 of 3



Soil Stratigraphy Field Log

Location ID I3
 Facility Georgetown
 Project RFI Well Installation

Date 2/20/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2' x 1" Acetate lined

Total Depth 90'

60'
62'
64'
66'
68'
70'
72'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0 Bag-0.0	21"	0-21" sp Hue 5Y 2.5/2 (Black) fine grain sand with few medium grains, few fines, Moderately well sorted, wet, medium dense, some silty sand at 18-19" red & white speck
			0.0 Bag-0.0	20"	0-20" sp Hue 5Y 2.5/2 (Black) fine grain sand with few medium grains, few fines, moderately well sorted, wet, medium dense, silty sand at 17-19" red & white speck
			0.1 Bag-0.0	22"	0-1.5" sw Hue 5Y 2.5/2 (Black) fine and medium grain sands with few fines, moderate - poorly sorted, wet, loose, medium grain white specks, wood debris (chunks) 1.5-22" sp Hue 5Y 2.5/2 (Black) fine grain sand with few medium grains, few fines, moderately well sorted, wet, medium dense, red and white specks
			0.0 Bag-0.0	23"	0-23" same as above 64'-66' 1.5"-22"
			0.0 Bag-0.0	23"	0-23" same as above 64'-66' 1.5"-22" silty sand from 17.5"-19"
			0.0	24"	0-24 same as above 64'-66' 1.5"-22"
			0.0 Bag-0.0	24"	0-24" sw Hue 5Y 2.5/1 (Black) fine and medium grain sand with few fines, medium grain decreasing with depth, fines increasing with depth, moderately sorted, wet, medium dense, red and white specks.

Geologist's Signature

Date 2/20/02

Reviewer [Signature]

Date 6/1/02 Pg 1 of 3



Soil Stratigraphy Field Log

Location ID I3
 Facility Georgetown
 Project RFI Well Installation

Date 2/20/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2"x1" Acetate Liner

Total Depth 90'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

72-74
cont.
74'
76'
78'
80'
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: Silty fine grain sand from 20"-24"
			0.0	15"	0-15" sp. Hue 5Y 2.5/1 (Black), fine grain sand with few medium grains, moderately well sorted, few fines, wet, medium dense, red and white specks
			Bag 0.0		
			0.0	22"	0-22" sp Hue 5Y 2.5/1 (Black), fine and medium grain sands, few fines, moderately sorted, wet, medium dense, red and white specks, silty sand at 2"-2.5"
			bag 0.2		
			0.0	18"	0-18" sp sp/sm Hue 5Y 2.5/2 to Hue 5Y 3/1 with depth, fine grain sand with medium grains and few fines, decreasing medium grains with depth, increasing fines with depth, silty sand from 14"-18", moderately sorted, wet, loose, red and white specks
			bag 0.0		
			0.0	24"	0-2" SM Hue 5Y 3/1 fine grain sand with some silt, moderately sorted, wet, soft and loose 2-24" same as above 74-76" 0-15"
			Bag 0.0		
			0.0	24"	0-20" SM Hue 5Y 3/1 fine sand silt mix 50/50, well sorted, wet, soft 20-24" SM Hue 5Y 3/1 fine sand with some silt, few medium sand, moderately well sorted, wet, stiff

Geologist's Signature

Date 2/20/02 Reviewer

Date 2/1/02 Pg 2 of 3



Soil Stratigraphy Field Log

Location ID I3
 Facility Georgetown
 Project RFI Well Installation

Date 2/20/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2"x1" Acetate Liner

Total Depth 90'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

82'-84' cont.
84'

86'

88'

90'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Red and white specks
			0.0	22"	0-2" SM Hue 5Y 3/1 fine grain sand with silt, silty sand, well sorted, wet, medium dense, 2-22" ml Hue 5Y 3/1 silt with some fine grain sand, well sorted, wet, soft
			Bas 0.0		
			0.0	21"	0-19" ml Hue 5Y 3/1 silt with some fine grain sand, well sorted, wet, soft, pockets of silty fine grain sand mix 50/50 at 1"-1.5" and at 17-18" 19"-21" SM Hue 5Y 3/1 50/50 fine grain sand silt mix, moderately well sorted, wet, medium dense
			0.0	23"	0-23" Same as above 86'-88' 19"-21"

Geologist's Signature

Date 2/20/02

Reviewer

Date 6/1/02

Pg 3 of 3



Soil Stratigraphy Field Log

Location ID J3
 Facility Georgetown
 Project RPI Well Installation

Date 2/15/02
 Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe
 Sampling Method 2"x1" Acetate liner
 Total Depth 90'

60'
62'
64'
66'
68'
70'
72'
74'
76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0 In-Spoon: Headspace: Bag 0.0	24"	0-24" SM GLEY 1 2.5 fine and medium grain sands with few fines, moderately sorted, wet, loose, red and white specks
			0.0 Bag-0.0	22"	0-22" SM GLEY 1 2.5 fine grain sand with few medium grains, with some fines, moderately sorted, very wet and soupy, loose, tiny organic fibers in water on top of sand.
			0.0 Bag-0.0	23"	0-23" Same as above 62'-64' 0-22" few tiny fibers in soil and in water
			0.0 Bag-0.0	23"	0-20" SM GLEY 1 2.5 fine grain sand with few medium grains, some fines, moderately sorted, wet, loose, red and white specks 20-23" ml this with 4/1, 6/1 in some fine grain sand, well sorted, soft, wet
			0.0 bag 0.0	24"	0-24" SM GLEY 1 2.5 fine grain sand with medium sand, very few fines, moderately sorted, wet, loose, red and white specks
			0.0 bag 0.0	16"	0-16" SM GLEY 1 2.5 fine grain sand with few medium, very few fines, moderately well sorted, wet, loose, red and white specks
			0.0 bag 0.1	23"	0-23" SM GLEY 1 2.5 fine grain sand with few medium grains, very few fines, moderately well sorted, wet, loose, red and white specks.
			0.0 bag 0.0	24"	0-24" same as above 72'-74' 0-23" fines increasing from 20"-24" from very few to 50/50 silt sand with depth.

Geologist's Signature [Signature] Date 2/15/02 Reviewer [Signature] Date 6/1/02 Pg 1 of 2

GLEY 1 2.5 - Black



Soil Stratigraphy Field Log

Location ID J3
 Facility Georgetown
 Project RFI Well Installation

Date 2/15/02
 Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe
 Sampling Method 2' x 1" Acetate lined

Total Depth 90'

16'
78'
80'
82'
84'
86'
88'
90'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
					Breathing Zone: In-Spoon: Headspace: 0.0
			0.0	21"	0-21" Same as above 72'-74' 0-23"
			0.0	24"	0-24" Same as above 72'-74' 0-23"
			0.0	19"	0-19" SM 6LE ± 2.5 medium and fine grain sands, few fines, wet, moderately sorted, loose, red and white specks
			bag 0.0	20"	0-20" SM 6LE4 ± 2.5 fine sand with some medium grain sands, few fines increasing to some fines with depth, moderately sorted, wet, loose, red and white specks, Hue 10YR 5/8 (yellowish brown) wood debris from 17"-18"
			0.0	20"	0-20" SM Hue 2.5Y 2.5 (black) fine grain sand with some silt, silt increasing with depth to silty sand sandy silt mix, moderately well sorted, very wet, loose red and white specks
			Bag 0.0	22"	0-18" SM Hue 2.5Y 2.5 (black) fine grain sand with few silt, few medium grains, moderately well sorted, wet, loose, red and white specks 18"-22" M1 Hue 2.5Y 4/1 (dark gray) fine grain sand and silt mix, well sorted, wet, stiff,
			0.0	23"	Same as above 86'-88' 18"-22"

Geologist's Signature [Signature] Date 2/15/02 Reviewer [Signature] Date 6/1/02 Pg 2 of 2



Soil Stratigraphy Field Log

Location ID K10
 Facility Georgetown
 Project RFI Well Installation

Date 2/12/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth

0'

2'
4'

8'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	24"	0-2" SW Hue 2.5Y 3/2 Medium and coarse sand with some fine sand and some fines, few fine gravels, poorly sorted, dry, loose 2-16" MI Hue 2.5Y 4/4 fine sand and silt, moderately well sorted, dry and crumbly, medium dense 10-24" SM Hue 2.5Y 4/1 fine sand with some fines, moderately well sorted, moist, loose
No	sample collected		0.0	20"	0-14" SM Hue 2.5Y 4/3 fine sand silt mix, sandy silt, well sorted, moist, stiff 14-19" SM Hue 5Y 3/2 medium grain sand with some fine sand and few fines, moderately sorted, moist, loose 19-20" SM Hue 10Y 5/1 fine sand with some fines, moderately well sorted, loose, moist
No	sample collected		0.0	19"	0-8" SM Hue 10YR 2/1 medium and fine grain sands with few fines, moderately sorted, wet, loose, white specks 8-11" SM Hue 10YR 2/1 fine sand with few medium grain sands and few fines, moderately sorted, loose, wet 11-12" MI Hue 5Y 4/2 sand silt, silt with fine grain sand, moderately well sorted, wet, soft

Geologist's Signature [Signature] Date 2/12/02 Reviewer [Signature] Date 2/12/02 Pg 1 of 6

0-2' sample from under 2" of asphalt.



Soil Stratigraphy Field Log

Location ID K10
 Facility 61
 Project RFI Well Installation

Date 2/12/02 Field Geologist Corey Johnson Location Type: Temporary Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth

8-10
 10'
 12'
 14'
 16'
 18'
 20'
 22'
 24'
 26'
 28'
 30'
 32'
 34'
 36'
 38'
 40'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					12-19" Same as above 5'-10' 0-8"
0.0'	NO	Sample Collected	0.0	20"	0-20" SM Hue 10YR 2/1 medium and fine grain sand, few fines, Moderately sorted, wet, loose, white specks
0.0'	NO	Sample Collected	0.0	24"	0-24" Same as above 12-14' 0-20"
0.0'	NO	Sample Collected	0.0	24"	0-24" SM Hue 10YR 2/1 fine sand with 850 few medium grains and few fines, Moderately well sorted, wet, loose, red and white specks
0.0'	NO	Sample Collected	0.0	24"	0-24" Hue 10YR 3/1 SM Silty sand, silt with fine grain sand, Moderately well sorted, wet, very wet, loose
0.0'	NO	Sample Collected	0.0	24"	0-24" SM Hue 10YR 2/1 fine sand with some fine medium grain sand and few fines, moderately sorted, wet, loose, red and white specks
0.0'	NO	Sample Collected	0.0	24"	0-24" Same as above 28-30' 0-24" ml silt lense from 20'-20.5"
0.0'	NO	Sample Collected	0.0	24"	0-24" SM Hue 10YR 2/1 Silty sand, fine sand with silt, moderately well sorted, wet and sandy, loose.
0.0'	NO	Sample Collected			

Geologist's Signature [Signature] Date 2/12/02 Reviewer [Signature] Date 2/11/02 Pg 2 of 6



Soil Stratigraphy Field Log

Location ID K10
 Facility BT
 Project RFI Well Installation

Date 2/12/02 Field Geologist Cortey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40' 0.0'					
42'					
44'	<u>No Sample Collected</u>				
46'			0.0	10"	0-10" Sm Hue 10YR 2/1 fine and medium grain sand with few fine fines, Moderately sorted, wet and soupy, loose red specks
48'	<u>No Sample Collected</u>				
50'	<u>No Sample Collected</u>				Too wet and soupy
52'			0.0	18"	0-18" Sm Hue 10YR 2/1 fine sand with some fines and few medium sand, Moderately sorted, very wet, loose,
54'	<u>No Sample Collected</u>				
56'			0.0	24"	Soil 0-24" Same as above 52-54' 0-18" white medium grain sand from 4-7"
58'	<u>No Sample Collected</u>				
60'			0.0	24"	0-19" Same as above 52-54' 0-18" 19-24" Hue 10YR 2/1 fine grain sand with few medium grains and few fines, Moderately sorted, wet, loose
62'	<u>No Sample Collected</u>				
64'			0.0	24"	0-24" Same as above 60-62' 19-24" red and white specks
66'	<u>No Sample Collected</u>				
68'			0.0	24"	0-24" Same as above 52-54' 0-18" medium and fine grain white sand
70'	<u>No Sample Collected</u>				
72'			0.0	14"	0-14" Sm Hue 10YR 3/1 fine fine grain sand, Moderately well sorted, very wet, loose, silt decreasing with depth red and white specks
74'	<u>No Sample Collected</u>				
76'					

Geologist's Signature [Signature] Date 2/12/02 Reviewer [Signature] Date 2/11/02 Pg 3 of 6



Soil Stratigraphy Field Log

Location ID K10
 Facility BT
 Project RFI Well Installation

Date 2/12/02

Field Geologist Covey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Acetate Liner

Total Depth

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

76
78
80
82
84
86
88
90
92
94
96

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			0.0	24"	0-17" SM FOR 1048 GLEY 2 2.5 Fine grain sand with few fines well sorted, wet and soft, loose, 17-24" SM GLEY 1 2.5 fine grain sand with few medium grain sands and few fines, moderately well sorted, wet, loose, red and white specks.
No	Sample	Collected	0.0	24"	0-24" SM GLEY 1 2.5 fine grain sand with few medium grains and few fines, moderately well sorted, wet, loose, red and white specks throughout
No	Sample	Collected	0.0	24"	same as above 80-82' 0-24"
No	Sample	Collected	0.0	12"	0-12" SM GLEY 1 2.5 fine grain sand with some fines, moderately well sorted, wet, loose, red specks throughout.
No	Sample	Collected	0.0	20"	0-20" SM GLEY 1 2.5 fine grain sand with some fines, moderately well sorted, wet, loose, red specks
No	Sample	Collected	0.0	22"	0-2" SM GLEY 1 2.5 fine grain sand with some fines, moderately well sorted, wet, loose, 2-17" SM GLEY 2 2.5 50/50 silt fine grain sand, moderately sorted,

Geologist's Signature [Signature] Date 2/12/02 Reviewer [Signature] Date 2/12/02 Pg 4 of 6



Soil Stratigraphy Field Log

Location ID K10
 Facility ET
 Project RFI Well Installation

Date 2/12/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth

96-98 cont
98
100
102
104
106
108
110
112
114
116

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: very wet and soupy, loose 17-22" Same as above 96-98' - 0"-2"
0.0	no sample	collected	0.0	20"	0-20" sm sm GLEY 1 2.5 fine grain sand with few fines, moderately well sorted, moist, medium dense red and white specks
0.0	no sample	collected	0.0	16"	0-11" sm GLEY 1 2.5 fine grain sand with silt, moderately well sorted, wet and soupy, loose 11-16" sm GLEY 1 2.5 fine grain sand with few fines, moderately well sorted, wet, loose, red and white specks
0.0	no sample	collected	0.0	23"	0-23" ml → sm GLEY 1 2.5 sandy silt with decreasing silt with depth to a fine grain sand with few fines, moderately sorted, wet and soupy to a moist to wet with depth, loose to medium dense with depth, medium dense from 17"-23", red and white specks from 17"-23"
0.0	no sample	collected	0.0	24"	0-24" ml, Hue 5Y 3/1 sandy silt, silt with some fine grain sand, well sorted, wet, soft
0.0			0.0	18"	0-8" ml, Hue 5Y 3/1 sandy silt, silt with some fine sand, well sorted, wet, soft 8-18" sm, GLEY 1 2.5, fine grain sand with some fines, moderately sorted, moist to wet, loose

Geologist's Signature [Signature] Date 2/12/02 Reviewer [Signature] Date 2/12/02 Pg 5 of 6



Soil Stratigraphy Field Log

Location ID K10
Facility 6T
Project BFI Well Installation

Date 2/12/02

Field Geologist Cory Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" x 1" acetate liner

Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
116' 0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	20"	0-11" SM 6LEY 1 2.5, silty fine grain sand, moderately sorted, wet and soupy, loose 11-20" ml Hue 5Y 3/1, sandy silt, silt with fine grain sand, well sorted, wet, soft
118'			0.0	22"	0-12" ml of Hue 5Y 3/1, fine sand silt with fine grain sand, well sorted, wet, few of medium stiff 12-22" SM 6LEY 1 2.5 fine grain sand with some silt, moderately sorted, wet and soupy, loose
120' 124'	Sample Collected				
126'			0.0	23"	0-23 ml Hue 5Y 3/1, silt with few fine grain sands, very well sorted, wet, soft,
126'	biotechnical K10-126-128-0202		0.0	24"	0-24" ml Hue 5Y 3/1, silt with ^{very} few fine grain sand very well sorted, moist, soft
128'			0.0	24"	0-24" ml Hue 5Y 3/1, silt with very few fine grain sand, very well sorted, moist soft
130'					

Geologist's Signature [Signature] Date 2/12/02 Reviewer [Signature] Date 6/1/02 Pg 6 of 6

* Sample 126' - 128' was logged through acetate liner and by grab sample from each end of the liner.



Soil Stratigraphy Field Log

Location ID 421
 Facility Georgetown
 Project

Date 2/13/02 Field Geologist Cory Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe Sampling Method 2' x 1" Acetate lined Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	13"	0-5" Sil Hue 2.5Y medium and fine sands with fine sands, poorly sorted, dry, loose 5-13" ML Hue 2.5Y 4/3 silt with some fine sand, moist well sorted, moist, stiff, Hue 2.5Y 4/6 coloring in patches throughout
2'			0.0	15"	0-5" ml Hue 10YR 4/1 sandy silt, silt with 40% fine sand, well sorted, moist to wet, stiff 5-11" ml Hue 7.5YR 4/4 silt with 30% fine sand, well sorted, moist, medium stiff, 11-15" same as above 4-6' 0-5"
4'	NO	Sample Collected			
6'			0.0	18"	0-18" SM Hue 7.5YR 2/5 fine and some medium grain sands, few fins, moderately sorted, wet, loose red and white specks
8'	NO	Sample Collected			
10'			0.0	18"	0-18" SM Hue 7.5YR 2/5 fine sand with few medium grains, few fins, moderately well sorted, wet, loose, red and white specks
12'	NO	Sample Collected			
14'			0.0	18"	0-18" Same as above 12-14'; 0-18" wood debris at 16-17"; Hue 2.5Y 4/1 ml silt from 17-17.5"; medium
16'	NO	Sample Collected			
18'			0.0	24"	Same as above 12-14' 0-18" ground white specks from 15-18"
20'	NO	Sample Collected			
22'					
24'	NO	Sample Collected			

Geologist's Signature CJA Date 2/13/02 Reviewer [Signature] Date 6/1/02 Pg 1 of 3



Soil Stratigraphy Field Log

Location ID KZ1
 Facility BT
 Project RFI Well Installation

Date 2/13/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
24'				4"	Breathing Zone: In-Spoon: Headspace: 0.0 0-4" SM SM Hue 2.5Y 4/1 50/50 silt/fine sand well sorted, wet, soft
26'	NO	Sample Collected			
28'	NO	Recovery			Silty residue in bottom of liner
30'	NO	Sample Collected			
32'			0.0	24"	0-24" SM Hue 7.5YR 2/5 fine sand with few medium grain sand and few fines, moderately well sorted, wet, loose Red and white specks, sil silt @ 4-5"
34'	NO	Sample Collected			
36'	NO	Recovery			
38'	NO	Sample Collected			
40'			0.0	24"	0-24" SM Hue 7.5YR 2/5 fine and medium grain sands, moderately sorted, wet, loose, red and white specks, sil silt @ 21-22"
42'	NO	Sample Collected			
44'			0.0	22"	0-22" same as above 40-42' 0-24", no silt
46'	NO	Sample Collected			
48'			0.0	24"	0-24 SM Hue 2.5Y 4/1 Silty sand, fine grain sand with 20% silt, well sorted, wet, medium dense tiny pieces of organics 11-14"
50'	NO	Sample recovered			
52'			0.0	21"	0-21" SM Hue 7.5YR 2/5 fine sand with few medium grain sand, few fines, moderately well sorted, wet, loose, red and white specks
54'	NO	Sample Collected			
56'			0.0	24"	0-24" sil → SM Hue 2.5Y 5/1 silt with few fine sand to fine sand with few medium grains and few fines with debris, moderately sorted 4-20" well sorted

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28'-30' - No resistance when pushing for sample, extremely wet
 36'-38' - No resistance when pushing for sample, too wet to stay in sampler



Soil Stratigraphy Field Log

Location ID K21
Facility 6T
Project RFI Well Installation

Date 2/13/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 70'

56-58' cont.
58'
60'
62'
64'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					0-4" and 20-24", Wet, Soft and loose, Breathing Zone: In-Spoon: Headspace:
10	sample	collected			
			0.0	20"	0-20" same as above 52'-54' 0-21"
20	sample	collected			
			0.0	23"	0-19" same as above 52'-54' 0-21" 1" x 1" ill silt at 13"-14" 19-22" sil Hue 2.5Y 5/1 fine grain sand with some fines, well sorted, wet, medium dense - dense, tiny wood/organic debris @ 20" 22-23" 7.5YR 2.5 wood debris with few fine and medium sands poorly sorted, wet, loose
			0.0	4"	56-60-4" same as above 64'-66', 0"-14"

Geologist's Signature [Signature] Date 2/13/02 Reviewer [Signature] Date 2/13/02 Pg 3 of 3



Soil Stratigraphy Field Log

Location ID M29
 Facility Georgetown
 Project RFI Well Installation

Date 2/14/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe Sampling Method 2x1" Acetate liner Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				12"	0"-6" SW Hue 7.5 YR 5/1 coarse sand with medium and fine grain sand, fine gravel, poorly sorted, dry, loose 6"-12" SW Hue 7.5 YR 3/2 medium and fine grain sand with some coarse gravel, poorly sorted, dry, loose
2' 4'	No Sample Collected		0.0	18"	0"-8" SM Hue 7.5 YR 2.5/1 fine and medium grain sands with Hue 2.5 YR 5/3 ml silt at 3"-4" and at 5"-6", moderately-poorly sorted, moist, loose 8"-11" Hue 2.5 YR 2.5/3 wood debris 11"-18" SM Hue 7.5 YR 4/1 fine and medium grain sands, moderately sorted, dry, loose, white specks
6' 8'	No Sample Collected		0.0	20"	0"-6" SM Hue 10 YR 2/1 fine sand with medium sand, moderately sorted, wet, loose 6"-18" ML Hue 10 YR 3/1 silt with few fine sand, very well sorted, moist, medium stiff 18"-20" ml Hue 10 YR 3/2 silt with few fine sand, moderately sorted, moist, soft, wood debris throughout
10' 12'	No Sample Collected		0.0	24"	0"-24" ML Hue 10 YR 3/2 silt with few fine sand, well sorted, moist,

Geologist's Signature [Signature] Date 2/14/02 Reviewer [Signature] Date 2/14/02 Pg 1 of 3



Soil Stratigraphy Field Log

Location ID M29
 Facility Georgetown
 Project RFI Well Installation

Date 2/14/02 Field Geologist Corey Johnson
 Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe Sampling Method 2"x1" Acetate liner Total Depth 70'

12-14' Cont
14'
16'
18'
20'
22'
24'
26'
28'
30'
32'
34'
36'
38'
40'
42'
44'
46'
48'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Stiff, wood/organic fibers through-out becoming some fine sand at 22"-24"
	no	Sample Collected			
			0.0	18"	0-18" MI Hue 10YR 3/1 silt with few fine sand, not well sorted, moist, stiff, some medium fine sand at 5"-8" and 13"-15"
	no	Sample Collected			
			0.0	19"	0-19" SM Hue 5Y 2.5/1 fine grain sand with some medium sand, moderately sorted, wet, loose, red and white specks
	no	Sample Collected			
			0.0	21"	0-21" same as above 20"-22" 0"-19"
			0.0	18"	0-18" SM Hue 5Y 2.5/1 fine grain sand with few medium grains, well sorted, few fines, wet, loose, red and white specks
	no	Sample Collected			
			0.0	23"	0-23" SM Hue 2.5Y 2.5/1 ^{moderately} fine grain sand with some fines, well sorted, wet, loose, red and white specks
	no	Sample Collected			
			0.0	24"	0-24" same as above 32-34" 0"-23" silty sand from 0-3"
	no	Sample Collected			
			0.0	24"	0-24" same as above 32-34' 0"-23"
	no	Sample Collected			
			0.0	24"	0-24" SM Hue 2.5Y 2.5/1 fine grain sand with fines, moderately well sorted, wet, loose, red and white specks
	no	Sample Collected			

Geologist's Signature [Signature] Date 2/14/02 Reviewer [Signature] Date 6/1/02 Pg 2 of 3



Soil Stratigraphy Field Log

Location ID W29
Facility Georgetown
Project RPI Well Installation

Date 4/14/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 70'

48'
50'
52'
54'
56'
58'
60'
62'
64'
66'
68'
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: 0.0
	NO	sample collected		24"	0-24" Same as above 44-46' 0-24"
			0.0	24"	0-24" Same as above 44-46' 0-24"
	NO	sample collected			
			0.0	24"	0-24" Same as above 44-46' 0-24"
	NO	sample collected			
			0.0	20"	0-20" SM Hue 2.5Y 2.5/1 fine-grain sand with few fins, well sorted, wet, loose, red and white specks
	NO	sample collected			
			0.0	18"	0-18" same as above 60-62' 0-20"
	NO	sample collected			
			0.0	21"	0-21" Same as above 60-62' 0-20"

Handwritten signature/initials

Geologist's Signature

Handwritten signature

Date 4/14/02

Reviewer

Handwritten signature

Date 4/14/02

Pg 3 of 3



Soil Stratigraphy Field Log

Location ID P18
Facility Georgetown
Project RFT Well Installation

Date 2/11/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Acetate lines

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0
2'
4'
6'
8'
10'
12'
14'
16'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				18"	0-3" SM Hue 7.5 YR 2.5/2 fine grain sand with some fines, moist, loose, moderately sorted, some grass and small roots 3-5" SM Hue 7.5 YR 2.5/2 fine grain sand, few medium and coarse grain sands throughout, loose, moderately sorted, few fines, moist 5-18" SM Hue 7.5 YR 4/6 fine grain sand, some medium grains loose, moderately sorted, moist
	NO sample collected		0.0	22"	0-22" SP Hue 7.5 YR 4/6 fine grain sand with some fines, moderately well sorted, medium dense, moist
	No sample collected				
	No recovery				
	No sample collected				
			0.0	24"	0-8" SM Hue 5 YR 2.5/2 fine grain sand with 30% ml silt, wet, moderately sorted, medium dense 8-24" SM Hue 2.5 YR 4/1 fine grain sand with some medium and coarse grain and some fines, poor to moderately sorted, wet, loose,
	No sample collected				

Geologist's Signature [Signature]

Date 2/11/02

Reviewer [Signature]

Date 2/11/02 Pg 1 of 4

8-10' no recovery, rock in shoe



Soil Stratigraphy Field Log

Location ID P18
 Facility Georgetown
 Project RFI Well Installation

Date 2/1/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method _____ Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
16' 0.0'				22"	0-22" <u>SM</u> Hue 2.5Y 2.5/1 fine and medium grain sand, moderately sorted, wet, loosey
18' 20'	<u>No sample collected</u>				
			0.0	22"	0-13" <u>SM</u> Hue 2.5Y 4/1 fine grain sand with 40% ml silt, moderately sorted, wet, medium dense 13-22" <u>SM</u> Hue 2.5Y 2.5/1 fine grain sand with some fines decreasing with depth, wet, moderately sorted, medium dense
22' 24'	<u>No sample collected</u>				
			0.0	20"	0-4" <u>SM</u> Hue 2.5Y 2.5/1 fine grain with some fines, few chunks of ml silt, moderately sorted, wet dense 4-20" <u>SW</u> Hue 2.5Y 2.5/1 fine and medium grain sands with few fines, moderately sorted, wet loosey, white fine and medium grain sands,
26' 28'	<u>No sample collected</u>				
			0.0	19"	0-19" <u>SW</u> Hue 2.5Y 2.5/1 fine grain sand with some medium grain and few fines, wet, loosey, moderately sorted, piece of ml silt at 4-5"
30' 32'	<u>No sample collected</u>				

Geologist's Signature [Signature] Date 2/1/02 Reviewer [Signature] Date 2/1/02 Pg 2 of 4



Soil Stratigraphy Field Log

Location ID P18
 Facility ET
 Project RFI Well Installation

Date 2/11/02 Field Geologist Corey Johnson Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' x 1" Acetate liner Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
32'	0.0'		0.0	16"	0-16" sw/so Hue 2.5Y 2.5/1 fine grain sand with few fines, very few medium grains, moderately sorted, wet, loose, red and white specks
34'	No Sample Collected		0.0	24"	Same as above 32-34' 0-16"
36'	No Sample Collected		0.0	22"	0-22" sm Hue 2.5Y 2.5/1 fine grain sands with some fines, moderately well sorted, wet, medium dense, red and white specks
38'	No Sample Collected		0.0	24"	0-24" sm Hue 10 YR 2/2 fine grain sand with 20% ml silt, moderately well sorted, wet, medium dense, red specks
40'	No Sample Collected		0.0	21"	Same as above 44-46' 0-24"
42'	No Sample Collected		0.0	24"	Same as above 44-46' 0-24"
44'	No Sample Collected		0.0	23"	0-14" sm Hue 10 YR 2/2 fine grain sand with few medium grains some fines, moderately sorted, wet, medium dense, red and white specks 14-17" ml Hue 7.5 YR 4/2, ml silt

Geologist's Signature [Signature] Date 2/11/02 Reviewer [Signature] Date 6/1/02 Pg 3 of 4



Soil Stratigraphy Field Log

Location ID P18
 Facility Georgetown
 Project PFI Well Installation

Date 2/1/02 Field Geologist Corey Johnson Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2"x1" Air take liner Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					with some fine grain sandy moist moderately well sorted - well sorted medium stiff
56-58' cont					17-23" same as above 56-58' 0-14"
58'	No Sample	Collected			
60'			0.0	15"	0-15" SM Hue 10YR 2/2 fine fine grain sand with few fines, moderately well sorted, wet, dense, red specks
62'	No Sample	Collected			
64'			0.0	18"	Same as above 60-62' 0-15"
66'	No Sample	Collected			
68'			0.0	12"	0-12" SM Hue 10YR 2/2 fine grain sand with silt, moderately sorted, moist to wet, dense, pockets of silt sandy silt from 8-11"
70'					

Geologist's Signature [Signature] Date 2/1/02 Reviewer [Signature] Date 2/1/02 Pg 4 of 4



Soil Stratigraphy Field Log

Location ID SL5
 Facility Georgetown
 Project RFI Well Installation

Date 2/13/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beoprobe

Sampling Method 2' x 2" acetate liner

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0'
2'
4'
6'
8'
10'
12'
14'
16'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	20"	0-20" ml to sm with depth, Hue 2.5Y 4/2 very fine grain sandy silt to a silty fine grain sand with depth, moderately well sorted, moist, medium dense
No	Sample	Collected			
			0.0	14"	0-12" SW Hue 2.5Y 5/4 medium and fine sands with few coarse, moderately sorted, moist, loose 12-14" SM Hue 2.5Y 3/2 fine grain sand with some fines, moderately well sorted, dry to moist, medium dense
No	Sample	Collected			
			0.0	22"	0-2" SM Hue 2.5Y 4/2 fine grain sand with fines, silty sand, moderately well sorted, wet, medium dense 2-4" SM Hue 10YR 3/4 the 6LEY 2 2.5/medium and fine grain sand with some fines, moderately sorted, wet, loose, the 10YR smeared on outer portion of cone 4-22" SM Hue 6LEY 2 of 2.5/1 fine and medium grain sands with few fines, moderately sorted, wet, loose white specks (fine and medium grains)
No	Sample	Collected			
			0.0	20"	0-20" SM Hue 10YR 2/1 fine and medium grain sands with few coarse grain sand and few fines, moderately sorted, wet, loose, red and white specks
No	Sample	Collected			

Geologist's Signature

Date 2/13/02

Reviewer

Date 2/13/02

Pg 1 of 3



Soil Stratigraphy Field Log

Location ID S15
 Facility BT
 Project RFI Well Installation

Date 2/13/02 Field Geologist Carey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe Sampling Method 2' x 1" Acetate line Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
16'				24"	0-24" Same as above 12-14' 0-20"
18'			0.0		
20'	<u>NO</u>	<u>Sample Collected</u>			
22'			0.0	22"	0-22" Sm Hue 10YR 2/1 medium grain sand with some coarse and fine grain sand, few fines, poor-moderately sorted, wet, loose, red and white specks.
24'	<u>NO</u>	<u>Sample Collected</u>			
26'			0.0	20"	0-20" Sm Hue 10YR 2/1 fine grain sand with some medium grains, few fines, moderately well sorted, wet, loose, red and white specks, chunk of wood @ 25' 1" x 6"
28'	<u>NO</u>	<u>Sample Collected</u>			
30'			0.0	20"	0-20" Same as above 24-26' 0-20"
32'	<u>NO</u>	<u>Sample Collected</u>			
34'			0.0	24"	0-24" Same as above 24'-26' 0-20" 22-24" Sm 6.5Y 1 2.5/ silt with some fine and medium grain sand, moderately sorted, wet, loose, white specks medium grained.
36'	<u>NO</u>	<u>Sample Collected</u>			
38'			0.0	24"	0-24" Sm Hue 10YR 2/1 fine grain sand with some medium grains, few fines, moderately well sorted, wet, red and white specks, 1/2 silt at 2-2.5' and at 13-14"
40'	<u>NO</u>	<u>Sample Collected</u>			
42'			0.0	20"	Same as above 36-38' 0-24" no silt
44'	<u>NO</u>	<u>Sample Collected</u>			
46'			0.0	24"	0-24" Sm Hue 10YR 2/1 fine grain sand with few fine grains and few medium grains, well sorted, wet



Soil Stratigraphy Field Log

Location ID S15
Facility ET
Project RFI Well Installation

Date 2/13/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method beeprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 70

44-46'
cont
46'
48'
50'
52'
54'
56'
58'
60'
62'
64'
66'
68'
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					loose, red and white specks
	NO	Sample Collected			
			0.0	24"	Same as above 44-46' 0"-24"
	NO	Sample Collected			
			0.0	24"	0-24" same as above 44-46' 0"-24"
	NO	Sample Collected			
			0.0	23"	0-23" same as above 44-46' 0"-24"
	NO	Sample Collected			
			0.0	22"	0-22" Sm Hue 10YR 2/1 fine grain sand with some medium and some fines, moderately well sorted, wet, loose, red and white specks
	NO	Sample Collected			
			0.0	10"	0-10" Sm Hue 10YR 2/1 fine grain sand with silt, silty sand, moderately sorted, wet and soupy, loose
	NO	Sample Collected			
			0.0	24"	0-24" same as above 44-46' 0"-24"

Signature

Geologist's Signature

Signature

Date 2/13/02

Reviewer

Signature

Date 2/13/02

Pg 3 of 3



Soil Stratigraphy Field Log

Location ID W23
 Facility Georgetown
 Project RFI Well Installation

Date 2/11/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate lined

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0
2'
4'
8'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			0.0	21"	0-1" 6W Hue 7.5 YR 5/1 Fine and coarse gravel with some coarse gravel and some coarse and fine sands, poorly sorted, moist loose 1-14" SM Hue 2.5 YR 5/4 Fine and medium sands with some fines, moderately sorted, moist loose 14-21" SM/ML Hue 2.5 YR 5/6 with some Hue 2.5 YR 4/6 streaks throughout, fine sand and silt pockets throughout, poorly sorted, moist, dense
	No sample collected		0.0	12"	0-4" SM Hue 2.5 YR 3/4 ^{few} fine sand with few fines, cobbles poor to moderately sorted, moist, loose 4-12" SM/ML Hue 2.5 YR 3/4 fine sand with layers of ML silt, some Hue 2.5 YR 3/6 discoloration in layers throughout, poorly sorted, moist, medium dense
	No sample collected		0.0	10"	0-2" SM Hue 2.5 YR 5/3 fine sand with some medium grains, some fines, moderately sorted, wet, loose 2-10" SM Hue 7.5 YR 2.5/1, fine sand

Geologist's Signature

Date 2/11/02

Reviewer

Date 4/10

Pg 1 of 3



Soil Stratigraphy Field Log

Location ID W23
Facility BT
Project RFI Well Installation

Date 2/11/07

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Acetate liner

Total Depth 70'

8-10' cont.

10-12'

14-16'

16-20'

22-24'

26-28'

30-32'

34-36'

38-40'

40-42'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
					2-10" cont. with few fines and few medium sands, moderately well sorted, wet, loose, red specks
	No sample collected				
			0.0	19"	0-19" ml Hue 7.5 YR 4/3 silt with few fine grains, moist, well sorted, stiff, organic fibers throughout, Hue 7.5 YR 3/1 streaks from 0-3"
	No sample collected				
	No Recovery				
	No sample collected				
			0.0	20"	0-20" SM Hue 7.5 YR 2.5/1 fine sands with few fines and few medium grain sands, wet, moderately well sorted, medium dense, red and white specks
	No sample collected				
			0.0	23"	0-23" same as above 20-22' 0-20" but very wet
	No sample collected				
			0.0	24'	Same as above 24-26' 0-23"
	No sample collected				
			0.0	22"	Same as above 24-26' 0-23"
	No sample collected				
			0.0	20"	0-20" SM Hue 7.5 YR 2.5/1 fine sand with few fines, well sorted, moist to wet, dense
	No sample collected				
			0.0	21"	0-21" SM Hue 7.5 YR 2.5/1 fine sand with few fines, few medium grains, wet, moderately well

Geologist's Signature [Signature] Date 2/11/07 Reviewer [Signature] Date 6/1/07 Pg 2 of 3

16-18' Kasey Gohel says sample got sucked out of liner because too wet.



Soil Stratigraphy Field Log

Location ID WZS
 Facility 6T
 Project RFI Well Installation

Date 2/11/02

Field Geologist Corey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" acetate liner

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

40-42 cont
41
44
46
48
50
52
54
56
60
62
64
66
68
70

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Sorted, loose, red and white specks,
	No Sample Collected				
			0.0	24"	0-24" Sm Hue 7.5 YR 4/1 fine sand with 50% ml silt decreasing with depth to 20% silt, well sorted, very wet, loose red and white specks
	No Sample Collected				
			0.0	24"	0-24" Sm Hue 7.5 YR 3/1 fine and medium grain sands with some fines, moderately sorted, very wet, medium dense, red and white specks
	No Sample Collected				
					Same as above 48'-50', 0-24"
	No Sample Collected				
			0.0	18"	0-5" Sm/ml Hue 7.5 YR 4/2 fine grain sand with 25% silt, well sorted, wet, medium dense, 5-18" Same as above 48'-50', 0-24"
	No Sample Collected				
			0.0	22"	Same as above 48'-50', 0-24"
	No Sample Collected				
			0.0	24"	Same as above 48'-50', 0-24"
					Same as above 48'-50', 0-24"

Geologist's Signature [Signature] Date 2/11/02 Reviewer [Signature] Date 2/11/02 Pg 3 of 3



Soil Stratigraphy Field Log

Location ID 11/11/02 06-106
 Facility Grace Dean
 Project BT

Date 5/2/02

Field Geologist Covey Johnson

Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Bequaert

Sampling Method 2' x 1" Acetate Liner

Total Depth 70'

0'
2'
4'
6'
8'
10'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				14"	0-4" Blk Hue 2.5Y 2.5/1 black, coarse sand with some fine gravel and some medium sand, poorly sorted, moist, loose 4-14" SP/SL Hue 5Y 3/2 dark olive gray, medium grain sand with some coarse grain sand and some fine gravel, moderate to poorly sorted, moist, loose
			0.0	12"	0-12" same as above (0-2) (4-14")
			0.0	19"	0-5" same as above (0-2) (4-14") 5-19" SP Hue 2.5Y 3/2 very dark grayish brown, fine grain sand with few medium grains, well sorted, moist to wet, medium dense, increasing red stain with d
			0.0	20"	0-20" SP Hue 2.5Y 2.5/2 black, fine grain sand with some medium grain, medium grain increasing with depth to 50/50 medium and fine grain, moderately sorted, wet, medium dense
			0.0	21"	0-9" SP Hue 5Y 3/2 dark olive gray, medium and fine grain sand, moderately sorted, wet, medium dense, one coarse gravel at 6" 9-21" SP/SL Hue 5Y 2.5/2 black, medium grain sand with some fine grain and few coarse grain sand, moderate to poorly sorted, wet, medium dense
			0.0	19"	0-3" same as above (8-10) (9-21") loose 3-5" SP Hue 5Y 4/2 olive gray, fine grain sand with few medium grain, moderate to well sorted, wet, medium dense

Geologist's Signature [Signature] Date 5/2/02 Reviewer [Signature] Date 6/1/02 Pg 1 of 5



Soil Stratigraphy Field Log

Location ID C6-106
 Facility 67
 Project WET Well Install.

Date 5/2/02 Field Geologist Looy Johnson Location Type: Impoundment
 Soil Boring Only Well Test Pit

Drilling Method beoprobe Sampling Method 2" x 1" acc + fine line Total Depth 70'

10'-12' cont.
12'
14'
16'
18'
20'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: 8"-19" SW Hue 2.5Y 2.5/1 Black, medium grain sand with some fine grain sand and few coarse grain sand, moderately-sorted, wet, medium dense
			0.0	10"	0-8" same as above (10'-12') (8"-19") 8-10" SP Hue 2.5Y 2.5/1 Black, medium and fine grain sand, moderately sorted, wet, medium dense
	Geotechnical Sample C6-106-14.3	-16-0502	0.0	10"	8-10" [(12'-14') (8-10')] to [(12'-14') (6"-8")] with depth, red specks
			0.0	22"	0-14" SW Hue 2.5Y 2.5/1 Black, medium and coarse grain sand with some fine grain and some fine grain sand, poorly sorted, wet, medium dense, red specks 14-22" SC/SP Hue 2.5Y 2.5/1 Black, medium grain sand with fine grain sand, moderately sorted, wet, medium dense, red specks
			0.0	16"	0-5" same as above (16-18') (14-22") 5-6" ML GY 1 3/1 very dark gray, fine silt/sand mix, moderately well sorted, moist, hard and crumbly 6-15" SP Hue 2.5Y 2.5/1 black, fine grain sand with few medium grains, well sorted, wet, medium dense 15-16" SM Hue 5Y 5/1 very dark gray, fine grain sand with silt, moderately sorted, wet, soft/loose red specks
			0.0	23"	0-5" SM Hue 5Y 7/1 very dark gray, fine grain sand with fines, moderately well

Geologist's Signature [Signature] Date 5/2/02 Reviewer [Signature] Date 5/2/02 Pg 2 of 5



Soil Stratigraphy Field Log

Location ID CB-106
 Facility BT
 Project H&I Water Job

Date 5/2/02
 Field Geologist Lorey Johnson

Location Type: Test Pit
 Soil Boring Only Well Test Pit

Drilling Method Geo probe
 Sampling Method 2" x 1" Air-Lift

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

20-22' cont

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Sorted, Wet, Soft 5-6" M Hue 5Y 3/1 Very dark gray, interbedded silt and sand, wet, soft 6-25" SM Hue 5Y 3/1 Very dark gray to black with dipping fine grain sand with some fines, fines decreasing with depth, well sorted, wet, medium dense
22'			0.0	24"	0-16" SM Hue 5Y 3/1 Very dark gray, fine grain sand with some fines, moderately well sorted, wet, loose 16-22" SP Hue 5Y 2.5/2 black, fine grain sand, very few fines, well sorted, wet, medium dense 22-24" SM Hue 5Y 3/1 Very dark gray, fine grain sand with fines, moderately sorted, wet, medium dense
24'			0.0	24"	0-24" SM - some with depth, Hue 5Y 3/1 very dark gray, fine grain sand with few fines, fines increasing with depth to silty silt with few fines, moderately sorted, wet, soft some organic debris @ 7"-8"
26'			0.0	24"	0-24" SM Hue 5Y 3/1 very dark gray, fine grain sand with fines and interbedded pockets of silt, moderately sorted, wet, medium dense, sandy silt from 18-21"

28'

Geologist's Signature [Signature]

Date 5/2/02

Reviewer [Signature]

Date 6/1/02 Pg 3 of 5



Soil Stratigraphy Field Log

Location ID CB-106
 Facility 6
 Project 102

Date 5/7/02

Field Geologist Cory Johnson

Location Type: Soil Boring
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' x 1" Accurate Liner

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24"	0-24" Silty clay. 50% fine sand, 50% silt, 10% clay, gray, fine grain sand with silt, moderately well sorted, loose, organic debris, red specks
	Geotechnical Sample CB-106-30-32-050Z		0.0	22"	0-4" Silty clay 50% silt, very dark gray, fine sand with silt, moderately well sorted, loose 4-22" Silty clay 50% silt, very dark gray, fine sand with silt, moderately sorted, soft
			0.0	24"	0-2" Silty clay 50% silt, very dark gray, silt with some fine grain sand, well sorted, wet, soft 2-20" Silty clay 50% silt, very dark gray, fine grain sand with some silt, moderately well sorted, wet, loose 20-24" Same as above (30-34)/(0-2")
			0.0	24"	0-24" Same as above (30-34)/(2-20")
			0.0	24"	0-24" Silty clay 50% silt, very dark gray, 50/50 fine grain sand/silt mix, well sorted, moist to wet, soft
			0.0	9"	0-2" Same as above (36-38)/(0-24") 2-9" Silty clay 50% silt, black, medium grain sand with some fine grain and few coarse grain, moderately - poorly sorted, wet - moist
			0.0	24"	0-24" cl. 50% silt, very dark gray, fine clay with very few fine sand, very well sorted, moist to wet, medium stiff, low plasticity

29'
30'
32'
34'
36'
38'
40'
42'

Geologist's Signature [Signature]

Date 5/2/02

Reviewer [Signature]

Date 5/2/02 Pg 4 of 5



Soil Stratigraphy Field Log

Location ID C6-47-106
 Facility _____
 Project RE

Date 5/2/02 Field Geologist Corey Johnson Location Type: Temporary
 Soil Boring Only Well Test Pit

Drilling Method Augercast Sampling Method _____ Total Depth 70'

42
44
46
48
50
52
54
56
60
70

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	24"	Breathing Zone: In-Spoon: 0.0 Headspace: 0-24" CL - 54 3/1 Very dark gray clay with very few fine sand, very well sorted, med, medium stiff
			0.0	24"	0-24" same as above (42-44) 0-24"
	Geotechnical sample C6-106-46-48-0502		0.0	22"	0-22" same as above (42-44) 0-24" white shell fragments from 15" 22", black streaks
			0.0	20"	0-20" ML Hue 5Y 3/1 very dark gray, silt with very few fine grain sand, very well sorted, med, very soft to medium stiff with depth.
			0.0	24"	0-24" ML Hue 5Y 3/1 very dark gray, clay with very few fine sand, very well sorted, med, soft-medium stiff, med to high plasticity
			0.0	24"	0-24" ML → SM with depth, grey / 4/1 dark greenish gray, fines with some fine grain sand to medium grain sand with clay fine grain sand and some fines with depth, moderately-poorly sorted, wet, medium dense.
			0.0	16"	0-16" SM Hue 5Y 3/1 very dark gray, fine grain sand with few medium grains and few fines, moderately sorted, wet, loose.
	no samples collected				
	C6-106-68-70-0502				

Geologist's Signature [Signature] Date 5/2/02 Reviewer [Signature] Date 6/1/02 Pg 5 of 5

**HYDROPUNCH INVESTIGATION
BORING LOGS**



Soil Stratigraphy Field Log

Location ID SB98-84
 Facility GT
 Project Hydropunch Inv.

Date 7/13/98

Field Geologist
Laurel muselwhite
Chris minton
Carolyn Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push
Cascade Rcg II

Sampling Method
Logging + HS readings
+ 1 grab sample in acetate

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
--------------------------	-----------	----------------------	----------------------	--------------------------	--

0.0'
1.0'
3.0"
4.0"
2.0
0.0

0.0'				20"	Breathing Zone: In-Spoon: <u>22.5</u> Headspace: <u>0.0</u> 0-11" GP- fill, Grayish brown 5YR 3/2, Poorly sorted sands and Gravels, Org. loose, 12-17" SM - Silty sand, Dark yellowish brown 10 YR 4/2 ^{pm} 5/4 well sorted sands and silt, slightly moist, medium dense sand. 17-20" same as above except slightly dense.
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			8.1 0.0	16"	0-11" SM - silty sand, Grayish brown 5YR 3/2, Well sorted sands and silts, slightly moist, medium dense sand 11-16" ML-inorganic silts and clays Dark yellowish brown 10 YR 5/4, well sorted sands and silt, moist medium dense.
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			0.0 0.0	18"	0-18" SM - sand silt mixture, olive black 5Y 2/1, well sorted sands slightly moist, slightly loose sand.
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Soil Stratigraphy Field Log

Location ID SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist LM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Reg II - Cascade

Sampling Method DP - Acetate liners 1" x 2'

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
6.0"					
7.0"					
8.0"					
10.0"					
11.0"					
12.0"					
12.5"			0.0 0.0	17"	0-17" SW - well graded sands, Dark yellowish brown 10YR 2/2, well graded sands, well sorted, slightly moist, slightly loose.
			0.0 0.0	19"	0-19" same as above except Greenish Black 5GY 2/1, and moist.
			0.0 0.0	15"	0-15" same as above except olive black 5Y 2/1, and wet.
			0.0 0.0	17"	0- ^{12.5} 12 " same as above 12.5-13.5, OL - organic silts, Dark Yellowish brown 10YR 4/2, well sorted, slightly moist, medium dense silt. 13.5-17 Same as 0-12.5'

Geologist's Signature Janel Nordhelle Date 7/14/98 Reviewer CM Date 7/13/98 Pg 2 of 12



Soil Stratigraphy Field Log

Location ID SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist
LM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push
Cascade Rig 11

Sampling Method
DP - Acetate liner
1" x 2'

Total Depth
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
14.0'			Breathing Zone: In-Spoon: <u>0.0</u> Headspace: <u>0.0</u>	<u>20"</u>	<u>Same as 10-12'</u>
16.0'					
17.0'			<u>0.0</u> <u>0.0</u>	<u>22.5</u>	<u>Same as above.</u>
18.0'			<u>0.6</u> <u>0.6</u>		<u>Same as above, except 14-16"</u> <u>Dusky yellowish brown 10YR 2/2</u>
20.0'					

Geologist's Signature Janet Plushchik Date 7/14/98 Reviewer CM Date 7/13/98 Pg 3 of 12



Soil Stratigraphy Field Log

Location ID SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist LM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push Cascade Rig II

Sampling Method
DP-A acetate liner 1" x 2'

Total Depth
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
20.0'				22.0"	0-15" ^{SW} Same as above, except 16-18" SM - Silty sands and Grayish black N2. 18-22" same as above.
21.0'					
22.0'			0.0 0.0	15"	Same as 0-16" above, except Grayish black N2.
14.0'			0.0 0.0	11"	Same as above. Very wet.
6.0'					

Geologist's Signature Jared Plankate Date 7/13/98 Reviewer CM Date 7/13/98 Pg 4 of 12



Soil Stratigraphy Field Log

Location ID SB98-134
 Facility ET
 Project HPI

Date 7/13/98

Field Geologist LM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Rig II Cascade Drilling

Sampling Method DP - Acetate liner 2' x 1"

Total Depth 70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
6.0'	0.0'		Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	19.5"	Same as above, finely grained sand, also small wood fragments are present.
7.0'					
28.0'			0.0 0.0	20.0"	Same as above, except no wood particles present.
19.0'					
30.0'			0.0 0.0	19.5"	Same as above.
1.0'					

Geologist's Signature Janel M. [Signature] Date 7/14/98 Reviewer CM Date 7/13/98 Pg 5 of 12



Soil Stratigraphy Field Log

Location ID SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist LM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push
 Cascade Rig II

Sampling Method
DP - Acetate liner
 1" x 2"

Total Depth
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
32.0'	0.0'		Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	21.0"	Same as above, except with presence of reddish ^{rock} wood particles on
3.0'					
34.0'			0.0 0.0	19.0"	Same as above.
36.0'			0.0	19.5"	Same as above with the presence of silt clasts.
17.0'					
58.0'					

Geologist's Signature Jannel Klusdahl Date 7/14/98 Reviewer CM Date 7/13/98 Pg 6 of 12



Soil Stratigraphy Field Log

Location ID SB98-B4
 Facility AT
 Project HPI

Date 7/13/98

Field Geologist LM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push
 Cascade Prg II

Sampling Method
DP- Acetate liner 1"x2'

Total Depth
70'

3.0'

19.0'

30.0'

42.0'

43.0'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				17"	Same as above
			0.0	13.0"	Same as above.
			0.0	22.0"	Same as above, except finer sands and 21-22" is SM-Silty Sands. There are also wood particles present.

Breathing Zone:
 In-Spoon: 0.0
 Headspace:

44.0'

Geologist's Signature Jared Kaschke Date 7/14/98 Reviewer CM Date 7/13/98 Pg 7 of 12



Soil Stratigraphy Field Log

Location ID SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist CM

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push Cascade Rig #11

Sampling Method
DP - Acetate liner 1" x 2'

Total Depth
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
44				23"	0-21" [SM] Same as above, silt content increasing 21-23" [ML] clayey silt, dark greenish gray (G 4/1), fine grained, well sorted, wet, dense (much more dense than above interval).
45					
46			0.0 0.0	21"	0-19" [SM] Same as above 19"-21" [ML] Same as above.
47					
48			0.0	14"	0-14" [SM] Same as above 0-19"
49					
50					

Geologist's Signature Jared Lindstedt Date 7/14/98 Reviewer CM Date 7/13/98 Pg 8 of 12



Soil Stratigraphy Field Log

Location 898-B4
 Facility GT
 Project HPI

Date 7/13/98 Field Geologist Chris Minton/Laurel Munn Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Rig #11 Sampling Method DP-Acetate lines 1"x2" Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
50 50				20"	0-17" [SM] Same as above 0-14" 17-20" [ML] Same as 46-48', 19-21", Dark Gray N2.
51					
52 52					
53			0.0	21"	0-3" [ML] Same as above 17-20" 3"-21" [SM] Same as above 0-14" also with wood particles.
54					
55			0.0	23"	0-1.5" [ML] Same as above 0-3" with wood particles. 1.5-23" [SM] Same as above 3"-2", with wood particles,
56					

Geologist's Signature Laurel Munn Date 7/14/98 Reviewer CM Date 7/15/98 Pg 9 of 12



Soil Stratigraphy Field Log

Location SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist Laurel muselwhite

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push
 Cascade Rig #11

Sampling Method DP-Acetate liner 1" x 2'

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0-0°					Breathing Zone:
56			In-Spoon: 0.0 Headspace:	23"	0-23" [ML] Same as above 0-1.5" More clayey than previous intervals
57					
58					
59	Geotech Sample for permeability (undisturbed) SB98-B4 1440			22°	0-16" [ML] Same as 56-58" interval. 16-22° [ML] more sandy than clayey silt
60					
			0.0	17"	0-17 [SM] Same as 54-56', 1.5-23'

(estimate)

Geologist's Signature Laurel Muselwhite Date 7/14/98 Reviewer cm



Soil Stratigraphy Field Log

Location SB98-B4
 Facility GT
 Project HPI

Date 7/13/98

Field Geologist Laurel Munsellwhite

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Reg #11

Sampling Method DP - Acetate liners 1"x2"

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

62'

14'

66'

68'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
					Breathing Zone: In-Spoon: 0.0 Headspace:
				22"	0-22", ML SM, dark gray NZ well sorted loose fine grain sand & silt, wet.
			0.0	19"	0-15", same as above SM 15"-19", ML, grayish black NZ well sorted fine grain silt & sand, wet
			0.0	22.5"	0-8", ML, grayish black NZ well sorted fine grain silt & sand, wet 8"-22.5", ML grayish black NZ well sorted clay, silt w/ fine sand, fines towards the bottom.

Geologist's Signature

Laurel Munsellwhite

Date 7/14/98

Reviewer CM

Date 7/15/98

Pg 11 of 12



Soil Stratigraphy Field Log

Location SB98-B4
Facility GT
Project HPI

Date 7/13/98

Field Geologist Chris Murton/Laurel Moschler

Location Type: Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Reg #11

Sampling Method DP-Acetate lines 1" X 2'

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

68'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					
	<u>SB98-B4</u>			<u>24.5"</u>	<u>0-11" Same as above - Medium STIFF (loosness due to recharge of H₂O in bore hole)</u>
	<u>Geotech permeability TEST</u>				<u>11-24.5" - Same as 8-22.5" interval of 68'-68'</u>

70'

					<u>Bottom of Borehole</u>
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Geologist's Signature Laurel Moschler Date 7/14/98 Reviewer CM Date 7/15/98 Pg 12 of 12



Soil Stratigraphy Field Log

Location ID SB98-B6
 Facility Georgetown
 Project Hydropunch Investigation

Date 7/14/98

Field Geologist Chris B. Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push w/ Cascade Rig #11

Sampling Method Direct Push w/ 2' x 1" acetate liners

Total Depth 74'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				10"	0-10", SW, Pale yellowish brown 10YR 6/2, fine grained well sorted, dry, loose sand & silt
2'			0.0 0.0	16" 16.5"	0-13", SM, Dark yellowish brown 10YR 4/2, fine grained, well sorted sand, dry, medium dense 13"-16.5", SW, predominantly grayish black MZ w/ white specks, fine grained well sorted dry, medium dense
4'			0.0 0.0	16"	0-16", [SM] Same as above
6'			0.0 0.0	18"	0-18", [SM] Same as above except it is slightly moist
8'					

Geologist's Signature [Signature]

Date 7/15/98

Reviewer CM

Date 7/15/98 Pg 1 of 10



Soil Stratigraphy Field Log

Location ID SB98-B6
 Facility GT
 Project HPI

Date 7/14/98

Field Geologist
Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push
 Cascade Rig II

Sampling Method
Direct Push
 Acetate lined 1" x 2"

Total Depth
74'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
8' → 0.0'				18"	Breathing Zone: In-Spoon: 0.0 Headspace: 0.0 0-3.5" [SM] same as above 3.5'-5" SM Moderate brown 5YR 4/4 OL fine grained, well sorted, slightly damp, Medium stiff organic silt 5"-18" SM SW, predominantly grayish black w/ white specks, N2 fine grained, well sorted slightly damp, medium dense
10'			0.0 0.0	20"	0-4" [SW] same as above 4"-5" SM Dark greenish gray 5GY OL 4/1, fine grained, well sorted slightly damp, Medium stiff organic silt (trace organics (woody debris)) 5"-20" SM SW, Brownish Black w/ white speck 5YR 2/1, fine-grained, more coarse than 8'-10', well sorted very moist, medium dense sands
12'			0.0 0.0	9"	0-9" [SW] same as above except that it is SM wet
14'			0.0 0.0	12"	0-12" [SW] same as above
16'					

Geologist's Signature [Signature] Date 7/15/98 Reviewer CM Date 7/15/98 Pg 2 of 10



Soil Stratigraphy Field Log

Location ID SB98-B6
 Facility GT
 Project API

Date 7/14/98

Field Geologist Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Rig II

Sampling Method DP - Acetate liner 1" x 2'

Total Depth 74'

16'
18'
20'
22'
24'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
				9"	0-9" [SW] same as above but it is dark gray, N3
			0.0 0.0	16.5"	0-16.5" [SW] same as above.
			0.0 0.0	20.5"	0-20.5" [SW] same as above
			0.0 0.0	16.5"	0-4" [SW] same as above 4"-11" [SW] same as above except that the sand grains are looser 11"-16.5" [SW], dark gray N3 w/ white specks, fine grained well sorted wet sand, medium dense

Geologist's Signature Chris Minton Date 7/15/98 Reviewer CM Date 7/15/98 Pg 3 of 10



Soil Stratigraphy Field Log

Location ID 6898-B6
 Facility BT
 Project HPT

Date 7/14/98

Field Geologist Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Acet Cascade #11

Sampling Method DP - Acetate liner 1"x2'

Total Depth 74'

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

24'

0.0'

Breathing Zone:
 In-Spoon: 0.0
 Headspace: 0.0

20.5"

0-20.5", [SW] same as above

26'

0.0
0.0

21.5"

0"-27", [SW] same as above
 17"-21.5", SM, grayish black NZ
 fine grained well sorted sand
 & silt, wet, medium dense

28'

0.0

21"

0-20" [SM] same as above
 20-21" [SM] same as above
 except a higher silt
 concentration

30'

0.0

16"

0-16" SM, grayish black NZ
 fine grained well sorted sand
 & silt, wet, medium dense

32'

Geologist's Signature Chris Minton

Date 7/15/98

Reviewer CM

Date 7/15/98 Pg 4 of 10



Soil Stratigraphy Field Log

Location ID SR99-B6
 Facility _____
 Project _____

Date 7/14/98

Field Geologist
Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push
 Cascade Rig II

Sampling Method
DP Acetate liner 1" x 2'

Total Depth
74'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
32'			Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	21"	0-21" [SM] same as above except for the presence of woody debris as long as 1.5cm
34'			0.0 0.0	19"	0-4" [SM] grayish black NZ fine grained well sorted sand & silt, wet medium dense higher silt content than 32'-34' 4-19" [SM] grayish black NZ, fine grained well sorted sand & silt, wet medium dense
36'			0.0 0.0	18.5"	0-18.5" [SM] same as above except coarser grained than 34'-36' section 4-19"
38'			0.0 0.0	16"	0-16" [SM] same as above
40'					

Geologist's Signature [Signature] Date 7/15/98 Reviewer CM Date 7/15/98 Pg 5 of 10



Soil Stratigraphy Field Log

Location ID SB98-B6
 Facility GT
 Project HPI

Date 7/14/98 Field Geologist Chris Minton Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push w/ Cascade Rig #11 Sampling Method DP - Acetate liner 1" x 2' Total Depth 74'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40' - 0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	19.5	0-19.5" [SM] Same as above except this sample is Black N1
42'			0.0	18	0-5" [SM] Same as above 5-18" [SM] Same as above except sand is finer grained
44'			0.0	23.5	0-1" ML, Dark gray N3, fine grained silt & sand, well sorted, medium dense 1"-9" Same as 42'-44' (5-18") SM 9"-12" ML, Dark gray N3 fine grained silt & sand, well sorted medium dense 12"-23" Same as 42'-44' (5-18") SM
46'			0.0	12	0-12" same as above SM
49'					

Geologist's Signature [Signature] Date 7/15/98 Reviewer [Signature] Date 7/15/98 Pg 6 of 10



Soil Stratigraphy Field Log

Location ID SB98-B6
 Facility GT
 Project HPI

Date 7/14/98

Field Geologist
Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Direct Push Cascade Rig #11

Sampling Method
Direct Push w/ Acetate lined 1" x 2"

Total Depth
74'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
48' 0.0'				22	0-22" SM, grayish black N2, fine grained well sorted sand & silt. There is more silt in this layer than the previous ^{CBM} sample 46'-48" medium dense
50'			0.0	19"	0-19" [SM] ^{CBM} same as above SM, grayish black N2 fine grained well sorted sand & silt, wet, medium dense
52'	SB98-B6 54			20.5	0-20.5" [SM] same as above
54'				22	0-5" Mh, Dark gray N3, fine grained well sorted silt & sand, wet, medium dense 5"-22" SM, grayish black N2, fine grained well sorted sand & silt wet, medium dense
56'					

Geologist's Signature [Signature]

Date 7/15/98 Reviewer CM

Date 7/15/98 Pg 7 of 10



Soil Stratigraphy Field Log

Location ID SB 93-86
 Facility GT
 Project HPI

Date 7/14/98

Field Geologist Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Dredging Method Direct Push Cascade Rig #11

Sampling Method DP - Acetate liner 1"x2'

Total Depth 74'

56'

58'

60'

62'

64'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	22.5	Breathing Zone: In-Spoon: 0.0 Headspace: 0.0 0-8.5" ML, Dark gray N3, fine grained well sorted silt w/ sand, wet, dense and stiff 8.5-11" SM, Dark gray N3, coarse sand, poorly sorted, wet medium dense 11"-22.5" ML, Dark gray N3, fine grained, well sorted silt, w/ some sand, wet, stiff
			0.0	22.5	0-11" SM, Dark gray N3, fine grained, well sorted sand & silt, wet, stiff ^{medium} dense 11"-15" ML, Dark gray N3, fine grained well sorted silt w/ some sand, wet, stiff 15"-22.5" SM, Dark gray N3, fine grained well sorted sand & silt, wet, medium dense
			0.0	22.5"	1-20.5" SM, Dark gray N3, fine grained well sorted sand & silt, wet, medium dense 20.5-22.5" ML, Dark gray N3, fine grained well sorted silt w/ some sand
			0.0	20.5"	1-19" SM, Dark gray N3, fine grained well sorted sand & silt, wet, medium dense 19"-20.5" ML, Dark gray N3, fine grained well sorted silt w/ trace sand, very stiff, wet

Geologist's Signature Chris Minton

Date 7/15/98

Reviewer CM

Date 7/15/98 Pg 8 of 20



Soil Stratigraphy Field Log

Location ID SB98-86
 Facility GT
 Project HPL

Date 7/14/98 Field Geologist Chris Minton Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Rig #11 Sampling Method DP-Acetate liner 1" x 2' Total Depth 74'

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

64'	0.0'			17"	SM SM 0-17" SM, Black N1, Fine grained well sorted sand w/ some silt, wet, medium dense
66'			0.0	15"	0-15" SM, Black N1 fine grained well sorted sand w/ some silt, wet, medium dense
68'				24"	0-2" [SM] same as above 2"-7" ML, Grayish black NZ, fine grained well sorted silt w/ traces of gravel ^{CBM} sand wet stiff 7"-17.5" [SM] same as 64'-66' 17.5-22" [ML] same as 66'-68" (2"-7") 22"-24" [SM] same as 64'-66"
70'				8"	0-8" [ML], Grayish black NZ, fine grained well sorted silt w/ traces of sand, wet stiff
72'					

Geologist's Signature Chris Minton Date 7/15/98 Reviewer CM Date 7/15/98 Pg 9 of 10



Soil Stratigraphy Field Log

Location ID SB98-B6
 Facility GT
 Project HPI

Date 7/14/98

Field Geologist Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Rig #11

Sampling Method DP-Acetate liners 1" x 2"

Total Depth 74'

CBM
2'70'

74'

CBM
74'
76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: 0.0 Headspace:	23	0-4" [ML] same as above 4-23" SM, Black N1, well sorted fine grained sand w/ some silt, medium dense, wet
			0.0	24	0-24" ML grayish black N2 well sorted fine grained silt w/ traces of sand, wet STIFF
			End of Boring		

Geologist's Signature

Chris Minton

Date

7/15/98

Reviewer

CM

Date

7/15/98

Page 10 of 10



Soil Stratigraphy Field Log

Location ID SB98-E7
 Facility GT
 Project Hydropunch Investigation

Date 7/14/98
 Field Geologist Laurel Muselwhite

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15
Direct Push
 Sampling Method Continuous DP
Sampling

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				38"	Breathing Zone: In-Spoon: 0.0 Headspace: 0.0 0-4" SM Brownish Black 5YR 2/1, sand and silts, well sorted, slightly moist, loose 4-11" SW, Speckled dusky yellowish brown 10 YR 2/2 with some grayish orange 10YR 7/4, well sorted slightly moist, loose. 12-14" Asphalt 14-38" SM Dark yellowish brown 10 YR 4/2, sandy silts, well sorted, slightly moist, loose.
4.0'			0.0 0.0	37"	0-2" [SM] Dark yellowish brown 10 YR 4/2, sandy silts, well sorted, slightly moist, loose. 2"-20.5" SM Dusky yellowish brown 10 YR 2/2, clayey sand ^{fine grain} well sorted, moist, dense sm 20.5-23" SC, Dark yellowish brown 10 YR 4/2 clayey sand, fine grain, well sorted moist, dense 23-37" Same as (2"-20.5") above
8.0'			0.0 0.0	43"	0-8" SM Dusky yellowish brown 10 YR 2/2, fine grained with organic silts present, well sorted, slightly moist, slightly dense. 8"-43" SW Dusky brown 5YR 2/2 speckled with moderate yellowish brown 10 YR 5/4, medium grain sands, well sorted, moist, and loose.

Geologist's Signature Laurel Muselwhite Date 7/14/98 Reviewer CM Date 7/14/98 Pg 1 of 2



Soil Stratigraphy Field Log

Location ID SB 98-E7
 Facility GT
 Project Hydropunch Investigation

Date 7/14/98

Field Geologist Juanel Munselnite

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15
Direct Push

Sampling Method Continuous DP Sampling

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
12.0'			0.0 0.0	45.5"	0-45.5" SW Dusky brown 5YR 2/2 Speckled with moderate yellowish brown 10 YR 5/4, medium grain sand with little or no fines, well sorted, moist, loose.
16.0'			0.0 0.0	41"	0-25" SW Grayish black N2 Speckled with dark reddish brown 10R 3/4, medium fine grain sand with little silt, well sorted, moist, loose. 25-41" SW Dusky yellowish brown speckled with dark yellowish orange 10 YR 6/6, fine grain sand with little silt, well sorted, moist loose.
20.0'			0.0 0.0	22"	0-22" SW Grayish black N2 Speckled with dark reddish brown 10R 3/4, fine grain sand, well sorted, moist, loose.
22.0'					0-17.5" same as above 0-22"

Geologist's Signature Juanel Munselnite Date 7/14/98 Reviewer CM Date 7/14/98 Pg 2 of 4



Soil Stratigraphy Field Log

Location ID SB98-E7
 Facility GT
 Project Hydropunch Investigation

Date 7/14/98

Field Geologist
Jawad Musclwhite

Location Type
 Soil Boring Only Well Test Pit

Drilling Method
Cascade Rig # 15
Direct push

Sampling Method
Continuous DP Sampling

Total Depth
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
23.0					17.5" - 18.5" ML Dark gray N3, silty clay, moist, soft, more dense than above layer.
24.0					18.5" - 20" [SW] Same as 16-20' 0-25"
26.0			IS=0.0 HS=0.0	20.5"	0-20.5" SW Grayish black N2 speckled with dark reddish brown 10R 3/4, fine grain sand, well sorted moist, loose.
28			IS=0.0 HS=0.0	11"	0-9.5" [SW] Same as above, wet 9.5-11" [SM] Grayish black (N2) fine grained sand, silt, well sorted medium dense, wet.
30			IS=0.0 HS=0.0	22.5"	0-22.5 [SM] Same as above 9.5-11"
32			IS=0.0 HS=0.0	15.0"	0-12.4" [SM] Same as 2 above. 12-13" [ML] Same as 22-24' (17.5-18.5") 13-15" [SM] Same as 2 above (9.5-11")
34			IS=0.0 HS=0.0	19.5"	0-19.5" SM Grayish Black N2, fine grained sand and silt, well sorted, medium dense, wet.

Geologist's Signature Jawad Musclwhite Date 7/14/98 Reviewer AM Date 7/14/98 Pg 3 of 8



Soil Stratigraphy Field Log

Location ID SB98-E7
 Facility GT
 Project Hydroponic Investigation

Date 7/14/98
 Field Geologist Laurel Maschinski (CM)

Location Type: Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15 Direct Push

Sampling Method Continuous DP Sampling

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
34 35 36 36			Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	21"	0-21" [SM] Same as previous 32-34'
38			IS=0.0 HS=0.0	21.5"	0-21.5" [SM] Grayish Black N2, fine grained sand and silt with wood particles, well sorted, medium dense, wet.
40			IS=0.0 HS=0.0	20"	0-20" [SM] Grayish Black, N2, Fine grained sand w/trace silt, well sorted, medium dense, wet.
42			IS=0.0 HS=0.0	22"	0-15" ML Dark Gray N3, silty clay, moor wet, soft, medium dense. 15-22" [SM] Same as above 0-20"
44			IS=0.0 HS=0.0	18"	0-18" SM Grayish black, N2 with wood particles, fine grained sand and silt trace, well sorted, medium dense, wet.
45			IS=0.0 HS=0.0	19.5"	0-19.5" [SM] Same as above.

Geologist's Signature Laurel Maschinski
 Date 7/14/98

Reviewer CM Date 7/14/98 Pg 4 of 8



Soil Stratigraphy Field Log

Location ID SB98-E7
 Facility GT
 Project Hydrograph Investigation
 Location Type: Soil Boring Only Well Test Pit

Date 7/14/98
 Field Geologist Laural Muscalante / Carolyn Hayer

Drilling Method Cascade Rig #15 Direct Push
 Sampling Method Continuous DP Sampling

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

~~46~~
~~46~~
 Breathing Zone:
 In-Spoon:
 Headspace:

Continued from previous page.

48			IS = 0.0 HS = 0.0	23"	<u>Same [SM] as 42-44'</u> <u>0-23" [SM] same as 42-44'</u>
----	--	--	----------------------	-----	--

50			IS = 0.0 HS = 0.0	3"	<u>0-3" [SM] same as 42-44'</u>
----	--	--	----------------------	----	---------------------------------

52			IS = 0.0 HS = 0.0	22"	<u>0-19" [SM] same as 42-44'</u> <u>19-22 [MG] Dark Gray NS, silty clay, moist soft, more dense than above layer.</u>
----	--	--	---------------------------------	-----	--

54			IS = NA HS = NA	6.5"	<u>0-6.5 same as 42-44' [SM]</u>
----	--	--	--------------------	------	----------------------------------

56			IS = HS =	17"	<u>0-17" same as 42-44' [SM]</u>
----	--	--	--------------	-----	----------------------------------

			IS = NA HS =	21.5"	<u>0-21.5 [SM] same as 42-44'</u>
--	--	--	-----------------	-------	-----------------------------------

Geologist's Signature Laural Muscalante Date 7/14/98 Reviewer CM Date 7/14/98 Pg 5 of 8

NA - PID, sucked in some dirt and reads 2500 in ambient air.
 Not Available



Soil Stratigraphy Field Log

Location ID SB 98-E7
 Facility GT
 Project Hydropunch Investigation
 Location Type Soil Boring Only Well Test Pit

Date 7/14/98
 Field Geologist Janet Kluselukite / Carolyn Hayer

Drilling Method Cascade Rig #15 Direct Push
 Sampling Method Continuous DP Sampling

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
58					Continued from previous page.
58			IS = NA HS = 0.0	20.5"	0-20.5" [SM] Same as 42-44'
60				22.5"	0-22.5" [SM] Same as 42-44' with increasing silty/clay clasts.
62			IS = NA HS = 0.0	20.5"	0-20.5" [SM] Same as 42-44' with increasing amounts of silt.
64			IS = NA HS = 0.0	17.5"	0-12" [CL] Dark gray N3, silty clay, moist, soft, more silt/clay than previous layers. 12-17.5" [SM] Same as 42-44' with increasing amounts of silt.
66			IS = NA HS = 0.0	23.4"	0-18" [SM] Same as 42-44' with increasing amounts of silt. 18-23" [CL] Dark gray N3 silty clay, moist, soft.

Geologist's Signature Janet Kluselukite Date 7/14/98 Reviewer CM Date 7/14/98 Pg 6 of 8



Soil Stratigraphy Field Log

Location ID SB98-E7

Facility GT

Project Hydropunch Investigation

Date 7/14/98

Field Geologist Laurel Muschelwitz / Carolyn Mayer

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15 Direct Push

Sampling Method Continuous DP Sampling

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			Breathing Zone: In-Spoon: NA Headspace: 0.0	23.5'	0-23.5' [SM] Same as 42-44' with increasing silty/clay clasts.
70			IS = NA HS = 0.0	17"	0-17" [SM] same as above.
72			IS = NA HS = 0.0	24"	0-20" [SM] Same as 42-44' w/ increasing silty/clay clasts. 20-24" [ML] dark gray N3 silty clay, moist, soft.
74			IS = NA HS = 0.0	20"	0-15" [SM] Same as 42-44' w/ increasing silt/clay. 15-20" [ML] dark gray N3 silty clay, dense.
76			IS = NA HS = 0.0	17"	0-17" [SM] Same as 42-44' w/ increasing silt/clay.
78			IS = NA HS = 0.0	23.4"	0-17" [SM] Same as 42-44' w/ increasing silt/clay. 17-23" [ML] dark gray N3, silty clay, dense.

Geologist's Signature Laurel Muschelwitz Date 7/14/98 Reviewer CM Date 7/14/98 Pg 17 of 8



Soil Stratigraphy Field Log

Location ID SB 98-E7
Facility GT
Project Hydropuncte Investigation

Date 7/14/98

Field Geologist
Laurel Muselahnk / Carolyn Flager

Location Type
 Soil Boring Only Well Test Pit

Drilling Method
Cascade Drilling #15 Direct push

Sampling Method
Continuous DP Sampling

Total Depth
82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

80
82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			Breathing Zone: In-Spoon: Headspace:		Continued from previous page.
				20"	same as above



Soil Stratigraphy Field Log

Location ID SB98-J4
 Facility GT
 Project Hydropunch Investig.

Date 7/15/98

Field Geologist Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Rig #11

Sampling Method Acetate Liner

Total Depth 80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0' - 0.0'				11	Breathing Zone: In-Spoon: 0.0 Headspace: 4 0-7" GM, Dusky yellowish Brown 10YR 2/2, fine grained, well sorted (few gravel clasts), slightly damp, medium dense silt w some sand moist 7-11" ML, Moderate Brown 5YR 3/4 Fine grained well sorted slightly damp, medium dense silt w/ trace of sand moist
2' - 0.0'			0.0 10	19	0-14" [ML], Same as 0-2' (7-11") 14-14" SM, Dusky yellowish Brown 10YR 2/2, fine grained well sorted sand w/ some silt slightly moist, medium dense
4' - 0.0'			0.0 2	13.5	0-13.5" SW, Dusky Brown 5YR 2/2 Fine grained well sorted sand, slightly moist, loose
6' - 0.0'			0.0 0.0	20	0-20" SW, Dusky Brown 5YR 2/2 Fine grained poorly sorted sand slightly moist, loose

Geologist's Signature [Signature]

Date 7/15/98

Reviewer CM

Date 7/15/98 of 10



Soil Stratigraphy Field Log

Location ID SB99-34
 Facility GT
 Project HPI

Date 7/15/98 Field Geologist _____ Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
8' 0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 4	18.5	0-18.5" [SW] Same as above except it is moist & black NI w/ white specks
10'			0.0 CBM 10	16	0-16" [SW] same as above except it is medium dense
12'			0.0 CBM 0.0	17	0-17" [SW] same as above
14'			0.0 57	20.5	0-17" [SW] same as above, except it is wet 17-18" ML, Black NI, fine well sorted silt w/ some sand wet, medium stiff 18-20.5" [SW] same as 12-14'
16'					

Geologist's Signature [Signature] Date 7/16/98 Reviewer CM Date 7/16/98 Pg 2 of 10



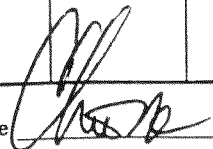
Soil Stratigraphy Field Log

Location ID SB98-34
 Facility ST
 Project HP1

Date 7/15/98 Field Geologist _____ Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
16' 0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 38	22.5	0-22.5" SW, Black M1, fine grained well sorted, wet, medium dense sand
15'			0.0 7	20.5	0-20.5" [SW] same as above
6'			0.0 4	22.5	0-9" [SW] same as above 9-22.5" OL, Dark greenish gray Sb 4/1, well sorted fine grained silt w/ trace sand wet, medium stiff
22'			0.0	20"	0-9.5" [OL] same as 20-22' (9-22.5') except this sample contains woody debris 9.5-20" SM, grayish black N2, well sorted, fine grained sand w/ some silt, wet, medium dense contains woody debris
24'					

Geologist's Signature 

Date 7/16/98 Reviewer CM

Date 7/15/98 pg 3 of 12



Soil Stratigraphy Field Log

Location ID SB98-54
 Facility GT
 Project HPI

Date 7/15/98 Field Geologist _____ Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
24' 0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 22	7	0-7" SM, Black N1; wet fine grained, well sorted sand w/ some silt, wet, medium dense
26'			0.0 18	15.5	0-15.5" SW, Black N1 w/ white specks, fine grained, well sorted sand, wet, medium dense
28'			0.0 17	22	0-10.5 [SW], same as above 10.5-15.5 ML, Dark gray N3, fine grained, well sorted silt w/ traces of sand, wet medium stiff 15.5-22 [SW] same as 26'-28'
30'			0.0 24	21.5	0-17" [SW] same as 26'-28' w/ thick woody debris at 16"-17" interval 17-18" [ML] same as 28'-30' (10.5-15.5") 18-21.5" SM ^{SBM} SM Black N1, fine grained well sorted sand w/ trace silt wet, medium dense

Geologist's Signature

Date 7/16/98 Reviewer CM Date 7/15/98 Pg 4 of 10



Soil Stratigraphy Field Log

Location ID SB98-34
 Facility GT
 Project HPI

Date 7/15/98 Field Geologist _____ Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
32' - 0.0'			0.0 15	23	Breathing Zone: In-Spoon: 0.0 Headspace: 0-14" ML, Grayish Black N2, fine grained well sorted silt w/ some sand, ^{very} wet (soupy) very soft 14-23" ML, Grayish Black N2, fine grained well sorted silt w/ some sand, wet, medium st. fr.
34'			0.0 15	23	0-3" [ML] Grayish Black N2, fine grained well sorted silt w/ some sand very wet, soft 3-7" [ML] Same as 32'-34' (14-23") 7-22" SW Black N2, fine grained well sorted sand, wet, medium dense 22-23" [ML] Same as 32'-34' (14-23")
36'			0.0 11	20.5	0-11" SW, Black N1, fine grained well sorted sand, wet, medium dense 11-16" SM, Grayish Black, N2, fine grained well sorted sand & silt, wet medium dense 11-20.5" [SW] same as 36'-38' (0-11")
38'			0.0 25	10	0-10" SW, Black N1, fine grained well sorted, wet, medium dense
40'					

Geologist's Signature [Signature]

Date 7/16/98 Reviewer CM

Date 7/15/98 Pg 5 of 10



Soil Stratigraphy Field Log

Location ID SB98-34
 Facility ST
 Project HPI

Date 7/15/98

Field Geologist

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method

Sampling Method

Total Depth

40'
42'
44'
46'
48'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 15	14 18	0-14" SM, Black N1; fine grained well sorted sand & silt, wet medium dense
			0.0 27	17"	0-15" SW, Black N1, fine grained well sorted sand, wet, medium dense 15-17" SM, Black N1, fine grained well sorted sand w/ some silt, wet, medium dense
			6.0 13	11"	0-6.5 [SW] same as 42-44' (0-15") 6.5-7.5 SM, Black N1, fine grained well sorted silt w/ trace of sand, wet medium dense 7.5-11" [SW] same as 42-44' (0-15")
			0.0 13	23"	1-8" OL, Dark gray N3, fine grained well sorted silt, wet, medium dense 8-16" ML, Dark gray N3, fine grained well sorted silt w/ traces of sand very wet (soupy) medium str. FF 16"-(ML) same as 46'-48' (8-16") but not as wet & it contains woody debris

Geologist's Signature

Date 7/16/98

Reviewer

CM

Date

7/15/98

Pg 6 of 10



Soil Stratigraphy Field Log

Location ID SB98-J4
 Facility GT
 Project HPI

Date 7/15/98 Field Geologist _____ Location Type:
 ___ Soil Boring Only ___ Well ___ Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
48 0.0'				15	Breathing Zone: 0 In-Spoon: 0.0 Headspace: 0.0 0-15", SW, Black N1, fine grained well sorted sand trace of silt, wet, medium dense
50' 7/16/98			0.0 0.0	22	0-20.5" SM, Grayish black, fine grained well sorted sand w/ some silt, wet (loopy from 4-11"), medium dense 20.5-22" ML, Dark gray N3, well sorted silt w/ some sand fine grained, wet, medium stiff
52'			6.0 0.0	23	0- 16" [ML] same as 50-52' (20.5-22") SM, Grayish black fine grained well sorted sand w/ some silt medium dense, wet 16"-18" [ML], Same as 50-52' (20.5-22") 18-23" SM, Grayish black, fine grained well sorted silt w/ some sand, wet medium stiff
54'			0.0	12.5	0-12.5" [SW, Black N1, fine grained well sorted sand, wet medium dense

Geologist's Signature [Signature] Date 7/16/98 Reviewer CM Date 7/15/98 Pg 7 of 10



Soil Stratigraphy Field Log

Location ID SB98-34
 Facility GT
 Project HPI

Date 7/16/98 Field Geologist _____ Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
56' - 0.0'			Breathing Zone: In-Spoon: 0.0 Headspace:	15.6	0-15.5" [SW] same as above
58'			0.0	16	0-16" [SW] same as above
60'			0.0	17	0-17" [SW] same as above
62'			0.0	19	0-19" [SW] same as above
64'					

Geologist's Signature [Signature] Date 7/16/98 Reviewer CM Date 7/16/98 Pg 8 of 10



Soil Stratigraphy Field Log

Location ID SB98-J4
 Facility GTT
 Project HPI

Date 7/16/98

Field Geologist

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method

Sampling Method

Total Depth

64'

66'

68'

70'

72'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	8	0-8" [SW] Same as above
			0.0 0.0	22.5	0-21" [SW] Same as above except poorly sorted w/ coarse to fine grained sand 21-22.5" ML, Grayish Black N2 well sorted fine grained silt w/ sand sand, wet trace medium stiff
			0.0 0.0	19	0-19" SM, Black N1, well sorted fine grained sand w/ trace silt, wet, medium dense
			0.0 0.0	15.5	0-12" SM, Grayish Black N2 well sorted fine grained sand w/ some silt, wet, medium dense 12-13" SM, Grayish Black N2, well sorted fine grained silt w/ some sand wet medium dense 13"-15.5" [SM] same as 70-72' (0-12")

Geologist's Signature

Date 7/16/98

Reviewer

CM

Date

7/16/98

Pg

9 of 12



Soil Stratigraphy Field Log

Location ID SB48-34
 Facility GT
 Project HPL

Date 7/15/98

Field Geologist

Location Type:
 Soil Boring Only Well Test Pit

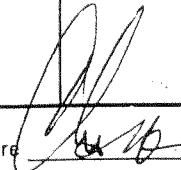
Drilling Method

Sampling Method

Total Depth

72'
74'
76'
78'
80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 0.2	20.5	0-20.5" SW, Black N1, fine grained, well sorted sand wet, medium dense
			0.0 0.0	19	0-19" [SW] same as above
			0.0 .6	17.5	0-17.5" [SW] same as above
			0.0 0.0	20	0-5" [SW] same as above 5-11" ML, grayish black N2, fine grained, well sorted silty/some sand, wet, medium st. fs 11-20" [SW] same as 76-78' (0-17.5")

Geologist's Signature 

Date 7/16/98

Reviewer CM

Date 7/16/98 Pg 10 of 12



Soil Stratigraphy Field Log

Location ID SB98-G5
 Facility GT

Project Hydropunch Investigation

Date 7/15/98

Field Geologist Janel Muschelink/Carolyn Klages

Location Type: Soil Boring Only Well Test Pit

Drilling Method Crescoda Rig #15
Direct Push

Sampling Method Continuous DP

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				40"	Breathing Zone: In-Spoon: 0.0 Headspace: 0.0 0-11" Road gravel, poorly sorted. 11-15" [SM] Dusky Brown 5YR 2/2, fine grain sand and silts, well sorted, slightly moist, loose 15-21" [SM] Same as above, except Dusky yellowish brown 10YR 2/2, loose 21-40" [SM] Same as 11-15" except sm Dark yellowish brown 10YR 4/2, loose dense
4.0'			15 = 0.0 HS = 0.0	36"	0-9.5" [SM] Dark yellowish brown 10YR 4/2, fine grain sands and silts, well sorted, slightly moist, medium dense 9.5-36" [SW] Dusky yellowish brown 10YR 2/2, moderate grain sands, well sorted, slightly moist, medium dense.
8.0'			15 = 0.0 HS = 0.0	39"	0-12.5" [SW] Same as above 9.5-36" 12.5-15" [ML] Moderate yellowish brown 10YR 5/4, fine grain ^{silts} sands and clays, moist, medium dense 15"-39" [SW] Grayish Black N9, moderate grain sands, well sorted, moist, medium dense
11.0'					

Geologist's Signature Janel Muschelink Date 7/15/98 Reviewer CM Date 7/15/98 Pg 1 of 8



Soil Stratigraphy Field Log

Location ID SB98-95
 Facility GT
 Project Hydropunch Investigation

Date 7/15/98 Field Geologist James W. ... / Carolyn ... Location Type: Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15 Direct Push Sampling Method Continuous DP Total Depth

11.0

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
<u>12.0</u>					Continued from previous page.
			IS = 0.0 HS = 0.0 <u>2.2</u>	39"	0-10" [SW], Md sm Dusty yellowish brown 10 YR 2/2, moderate grain sands, well sorted, wet, medium dense 10-39" [SW] Grayish black N2 , moderate grain sands, well sorted, wet, medium dense.
<u>16.0</u>			IS = 0.0 HS = 0.0	6"	0-6" [SW] Grayish Black, N2 sm moderate fine grain sands, well sorted, wet, medium dense
<u>18.0</u>			IS = 0.0 HS = 0.0	7"	0-7" [SW] Grayish Black, N2 , moderate grain sands, well sorted, wet, medium dense.
<u>20.0</u>			IS = 0.0 HS = 0.0	14.5"	0-14.5 [SW] Same as above.
<u>22.0</u>					

Geologist's Signature James W. ... Date 7/15/98 Reviewer CM Date 7/15/98 pg 2 of 8



Soil Stratigraphy Field Log

Location ID SB98-G5
 Facility GT
 Project Hydropunch Investigation

Date 7/15/98

Field Geologist Laurel Nusselwhite / Carolyn Mayer

Location Type: Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15 Direct Push

Sampling Method Continuous DP.

Total Depth

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0.0'					
22.0'				12.5"	0-12.5" [SW] Same as 18-20'
24.0'			IS=0.0 HS=0.0	22"	0-22" [SW] Same as 18-20' with increasing amounts of fine sands and silts.
26.0'			IS=0.0 HS=0.7	17"	0-17" [SM], Grayish black (N2) fine grained sands and silts, well sorted, wet, medium dense
28.0'			IS=0.0 HS=0.8	19"	0-19" [SM] Same as above, (26-28')
30.0'			IS=0.0 HS=1.2	16.5"	0-16.5" [SM] Same as 26-28'
32.0'			IS=0.0 HS=1.2	21"	0-21" [SM] Same as 26-28'
33.0'	Grain size sample taken				

Geologist's Signature Laurel Nusselwhite Date 7/15/98 Reviewer AM Date 7/15/98 Pg 3 of 8



Soil Stratigraphy Field Log

Location ID SB98-95
 Facility GT
 Project Hydropunch Investigation

Date 7/15/98
 Field Geologist Jared Muschelwitz David Borsten

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15
Direct Push
 Sampling Method Continuous DP

Total Depth

Depth of Sample (ft. bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0.0'					Continued from page 3.
34.0			IS = 0.0 HS = 1.2	14" 14"	0-14" [SM SM] Same as 26-28'
36.0			IS = 0.0 HS = 0.7	20" 17.5	0-20" [SM] Same as 26-28', with the presence of shell fragments.
38.0			IS = 0.0 HS = 0.6	22" 20.5	0-22" [SM] Same as 26-28'
40.0			IS = 0.0 HS = 0.4	20"	0-20" [SM] Same as 26-28'
42.0			IS = 0.0 HS = 1.1	22"	0-22" [SM] Same as 26-28'
44.0			IS = 0.0 HS = 1.7	5"	0-5" [SM] Same as 26-28'

Geologist's Signature Jared Muschelwitz Date 7/15/98 Reviewer CM Date 7/15/98 Pg 4 of 8



Soil Stratigraphy Field Log

Location ID SB98-95
 Facility AT
 Project Hydropunch Investigation

Date 7/15/98 Field Geologist Janel Muschler / David Borten Location Type: Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15 Direct Push Sampling Method Continuous DP Total Depth

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Breathing Zone: In-Spoon: Headspace:
46			IS=0.0 HS=0.9	20.5"	0-20.5 [SM] Grayish black (N2) fine grained silts and clays sands, well sorted, wet medium dense.
50			IS=0.8 HS=0.7	18.5"	0-18.5" [SM] Same as above. Grayish black (N2), medium grained sands, well sorted, wet medium dense.
52			IS=0.8 HS=4.7	17.5"	0-18.5" [SM] Grayish black (N2) medium grained sands, well sorted, wet, medium dense.
54			IS=1.0 HS=7.1	22.5"	0-22.5" Same as above.
56	Geotech Sample Taken		IS=0.0 HS=0.0	17"	0-17" [SM] Same as 50-52'

Geologist's Signature Janel Muschler Date 7/15/98 Reviewer CM Date 7/15/98 Pg 5 of 8



Soil Stratigraphy Field Log

Location ID SB98-65
Facility GT
Project Hydropunch Investigation

Date 7/15/98

Field Geologist Laurel Muschelwitz/David Borten

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Cas Code Rig # 15
Direct Push

Sampling Method Continuous DP.

Total Depth

Depth of Sample (ft bgs) Sample ID Blow Counts (per 6") Total Organics (ppm) Sample Recovery (inches) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

56.0				22"	0-22" [SM] Same as 50-52', with increasing silts.
------	--	--	--	-----	---

58.0			IS=0.2 HS=1.5	20"	0-20" [SM] Same as 50-52' with increasing presence of silts and clays.
------	--	--	------------------	-----	--

60.0			IS=0.2 HS=2.0	20"	0-20" [SM] Grayish Black N2, fine grained sands, well sorted, wet, medium dense.
------	--	--	------------------	-----	--

62.0			IS=0.0 HS=1.9	22.5"	0-21.6" [SM] Grayish black [N2] fine grained sands, well sorted, wet, medium dense. 16-21 [SN] Same as above except 0-16" except medium grained sands. 21-22.5 [ML] Grayish black, N2, fine silts, clays well sorted, dense.
------	--	--	------------------	-------	---

64.0			IS=0.0 HS=2.2	10.5"	0-10.5 [SM] Grayish black [N2] fine grained sands and silt, well sorted, wet, medium dense.
------	--	--	------------------	-------	---

66.0			IS=0.0 HS=1.4	9.5"	0-9.5" [SM] Grayish black, N2, fine grained sands and silt, well sorted, wet medium dense.
------	--	--	------------------	------	--



Soil Stratigraphy Field Log

Location ID SB98-G5
 Facility GT
 Project Hydropunch Investigation

Date 7/15/98 Field Geologist Janel Muschler/David Broten Location Type: Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15 Direct Push Sampling Method Continuous D.P. Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
67 68					Continued from page 6.
70			IS=0.0 HS=1.3	22.5"	0-21.5 [SM] Same as 66-68" 21.5-22.5 [ML] grayish black, N2, fine silts, clays, well sorted, dense.
72			IS=0.0 HS=1.3	22"	0-22" [SM] same as 66-68"
74			IS=0.0 HS=0.8	20"	0-20" [SM] same as 66-68"
76			IS=0.0 HS=0.7	20"	0-20" [SM] same as 66-68"
78			IS=0.0 HS=0.7	8"	0-8" [SM] same as 66-68"
78			IS=0.0 HS=0.7	19.5"	0-19.5" same as 66-68"

Geologist's Signature Janel Muschler Date 7/15/98 Reviewer DM Date 7/15/98 Pg 7 of 8



Soil Stratigraphy Field Log

Location ID SB98-95

Facility GT

Project Hydropunch Investigation

Date 7/15/98

Field Geologist Janel Kroschelute / David Broten

Location Type: Soil Boring Only Well Test Pit

Drilling Method Cascade Rig #15
Direct Push

Sampling Method

Total Depth

Depth of Sample (ft bgs)

Sample ID

Blow Counts (per 6")

Total Organics (ppm)

Sample Recovery (inches)

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Breathing Zone:
In-Spoon:
Headspace:

Continued from page 7.

Geologist's Signature

Janel Kroschelute

Date 7/15/98

Reviewer

CM

Date

7/15/98

Page

8 of 8



Soil Stratigraphy Field Log

Location ID SB98-I7
 Facility GT
 Project Hydropunch Investg.

Date 7/14/98

Field Geologist Chris Minton

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Direct Push Cascade Rig #11

Sampling Method Acetate liner

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0'	0.0'			18"	Breathing Zone: In-Spoon: 0.0 Headspace: 0.0 0-5" GP, Grayish Brown SYR 3/2 Partly sorted sands & gravels Dry & loose 5"-10" SM, Silty sand, Dusky brown SYR 2/2, well sorted ^{CBM} sands loose , slightly ^{CBM} moist Medium dense 10"-18" [SM] same as above except more dense & color is Moderate Brown SYR 4/4
2'			0.0 0.0	18"	0-6.5" [SM] same as directly above 6.5-18" SM, silty sand, Dusky yellowish brown 10YR 2/4 poorly ^{CBM} sorted sands w/ some silt, moist, medium dense
4'			0.0	16"	0-16" [SM] Same as above
6'			0.0	17"	0-5.5" [SM] Same as above 5.5-7" ML, Dark yellowish Brown 10YR 4/2, fine grained, well sorted, ^{CBM} moist medium dense 7"-17" [SM] Same as 4'-6'

Geologist's Signature Chris Minton

Date 7/15/98 Reviewer CM

Date 7/15/98 Page 1 of 10



Soil Stratigraphy Field Log

Location ID SB98-17
 Facility _____
 Project _____

Date 7/14/98

Field Geologist _____

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____

Sampling Method _____

Total Depth _____

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

8'
10'
12'
14'
16'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				16	0-16" SM, sand & silt mixture yellowish Brown 10YR 7/2 poorly sorted sands with silt Moist, moderately dense
			0.0	10.5	0-6" [SM] same as above 6"-10.5" [SW] Black N1, well sorted sand w/ some silt moist moderately dense with CBM does contain white specs, fine grained
			0.0	16	0-16" [SW] ^{CBM} Same as above SM
			0.0	21	0-21 ^{SM CBM} [SW] same as above except that it is now wet

Geologist's Signature [Signature] Date 7/15/98 Reviewer CM Date 7/15/98 Pg 2 of 10



Soil Stratigraphy Field Log

Location ID SB98-I7
Facility _____
Project _____

Date 7/14/98

Field Geologist _____

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____

Sampling Method _____

Total Depth _____

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
16' 0.0'			Breathing Zone: 0.0 In-Spoon: 0.0 Headspace: 0.0	18"	ESW ^{CBM} 0-18" [SW] ^{CBM} Same as above SM
18'			0.0 0.0	22"	0-22" ^{CBM} [SW] ^{CBM} Same as above SM except finer grained
20'			0.0 0.0	13"	0-10" SM ^{CBM} [SW] Same as above 10"-13" ML, Dark Gray N3, Fine grained well sorted Wet, medium stiff silt w/ traces of sand
22'			0.0 0.0	20.5"	0-18" ^{CBM} SM ^{CBM} SW, Black N1, well sorted sand w/ some silt, wet medium stiff, some white specks 18-20.5" SM, Blackish red SR Z/2 fine grained, well sorted silt w/sand, wet medium stiff

Geologist's Signature [Signature]

Date 7/15/98

Reviewer CM

Date 7/15/98 pg 3 of 10



Soil Stratigraphy Field Log

Location ID 2898-I7
 Facility _____
 Project _____

Date 7/14/98

Field Geologist _____

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____

Sampling Method _____

Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
24' 0.0'			Breathing Zone: <u>0.0</u> In-Spoon: <u>0.0</u> Headspace: <u>0.0</u>	14"	0-14" [SW ^{CBM}] Same as SM 22'-24' (0-18") except for the presence of woody debris up to 2cm long
26'			0.0 0.0	18"	0-12" [SW ^{CBM}] Same as above except there is no woody debris 12"-13.5" SM ^{CBM} Med. dark gray NY, fine grained, well sorted clay w/ traces of sand, wet medium stiff 13.5-18" same as 26'-28' (0-12")
28'			0.0 0.0	13"	0-13" [SW ^{CBM}] Same as 26'-28' (0-12")
30'			0.0 0.0	21"	0-21" [SW ^{CBM}] Same as above except that it is black NY w/ white specks

Geologist's Signature _____

Date 7/15/98

Reviewer AM

Date 7/15/98 Pg 4 of 10



Soil Stratigraphy Field Log

Location ID SB98-17
 Facility _____
 Project _____

Date 7/14/98

Field Geologist _____

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____

Sampling Method _____

Total Depth _____

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
32'	0.0'		Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	15"	0-15" [SM] ^{CBM} Same as above
34'			0.0 0.0	22"	0-22" [SM] ^{CBM} Same as above grainsize is somewhat smaller
36'			0.0 0.0	21"	0-13.5" [SM] ^{CBM} Same as above 13.5-15" [SM] black NI fine grained well sorted silt with sand, wet, medium dense w/ woody debris
38'			0.0 0.0	22"	15"-20" [SM] ^{CBM} Same as 36'-38' (0-13.5") 20-21" [SM] black NI fine grained with sorted sand w/ silt, wet, medium dense w/ woody debris 0-1" [SM] Same as 36'-38' (13.5-15") 1-22" [SM] ^{CBM} Same as 34'-36' except w/ a SM the same as 36'-38' ^{CBM} 38'-40' (0-1") between 13.5 & 14.5"



Soil Stratigraphy Field Log

Location ID SB98-17
 Facility _____
 Project _____

Date 7/14/98 Field Geologist _____ Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40'	0.0'			22"	<p>Breathing Zone: In-Spoon: 0.0 Headspace: 0.0</p> <p>[SW] ^{CSM} SM same as above</p>
42'			0.0 0.0	23"	<p>[SW] ^{CSM} 0-23" SW, black N1 w/ white specks, fine grained, poorly sorted, wet, medium dense contains some woody debris</p>
44'			0.0 0.0	21.5"	<p>0-7" [SW] same as above 7"-8" ML, grayish black N2, fine grained well sorted silt w/ trace sand, wet, medium stiff 8"-14.5" SW, black N1, fine grained well sorted wet, medium dense, much finer grained than previous 3 samples 14.5"-21.5" [ML] same as 44'-46" (7"-8")</p>
46'			0.0 0.0	16.5"	<p>0-16.5" SW, black N1, fine grained well sorted, wet, medium dense</p>
48'					

Geologist's Signature [Signature] Date 7/15/98 Reviewer CPM Date 7/15/98 Pg 6 of 10



Soil Stratigraphy Field Log

Location ID SB98-I7
 Facility _____
 Project _____

Date 7/15/98

Field Geologist _____

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____

Sampling Method _____

Total Depth _____

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
48'				23.5"	0-2" ML, Dark gray N3, fine grained, well sorted, wet, medium stiff silt w/ traces of sand 2"-23.5" SM SM , Dark gray N3, fine grained, well sorted sand w/ some silt, wet, medium dense
50'			0.0 0.0	17"	0-17" [SW] ^{CBM} Same as above SM
52'	Sample SB98-I7 54 CBM		0.0 0.0	18.5" CBM 16"	0-16" [SW] ^{SM CBM} same as above except for the presence of woody debris
54'			0.0 0.0	18.5	0-11" [SW] ^{SM CBM} same as 50'-52' 11"-14" [ML], Dark gray N3, fine grained well sorted silt w/ some sand, wet, medium stiff 14"-18.5" [SW] ^{SM CBM} , Dark gray N3, fine grained, well sorted, sand w/ some silt, wet, medium fine grained than previous 2 samples
56'					

Geologist's Signature [Signature]

Date 7/15/98 Reviewer CM

Date 7/15/98 Pg 7 of 10



Soil Stratigraphy Field Log

Location ID SB98-I7
 Facility _____
 Project _____

Date 7/15/98

Field Geologist _____

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method _____

Sampling Method _____

Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
56' - 0.0'				23"	Breathing Zone: In-Spoon: 0.0 Headspace: . 0-23" [SW] same as above but w/ an increase of silt
58'	Sample SB98-I7 60		0.0	18.5	
60'				24	0-10" ML, Grayish black NZ fine grained well sorted silt w/ trace sand, wet, Medium stiff 10-16.5" SW, Grayish black NZ fine grained well sorted sand w/ some silt, wet, Medium dense 16.5-24" ML, Grayish black NZ fine grained well sorted silt w/ trace sand, wet, medium stiff
62'				24	0-4" [ML] Same as 60'-62' (16.5-24") 4-22" ^{CBM ML} SW, Grayish black NZ fine grained well sorted silt w/ ^{CBM} trace sand, very wet (soupy & loose), very soft 22"-24" [ML] Same as 60'-62' (16.5-24")
64'					

Geologist's Signature [Signature]

Date 7/15/98

Reviewer CM

Date 7/15/98 Pg 8 of 10



Soil Stratigraphy Field Log

Location ID SB98-I7
 Facility _____
 Project _____

Date 7/15/98 Field Geologist _____ Location Type:
 ___ Soil Boring Only ___ Well ___ Test Pit

Drilling Method _____ Sampling Method _____ Total Depth _____

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
64'	0.0'		Breathing Zone: In-Spoon: Headspace: 0.0 0.0	22"	0-8" SM, Grayish Black N2 fine grained well sorted sand & silt wet medium dense 9"-15" ML, Dark Gray N3, fine grained well sorted silt w/ trace sand wet medium stiff 15"-22" SM, Black N1, fine grained (smaller than 0-8") well sorted sand w/ some silt, wet, medium dense
66'			0.0 0.0	24"	0-4" ML, Dark Gray N3, fine grained well sorted silt w/ trace sand wet, medium stiff 4"-18" ML, Grayish Black N2, fine grained well sorted silt w/ close to no sand, wet very wet (soupy) very soft 18"-24" ML, Dark Gray N3, fine grained well sorted silt w/ some sand less than 0-4", wet, medium st. ff
68'			0.10 34	20"	0-14" SM, Black N1, fine grained well sorted sand w/ some silt wet, medium stiff dense 14"-20" SM same as 68'-70' (0-14") except for more silt
70'			43	22.5	0-2" [ML] same as 68' Black N1, fine grained well sorted silt w/ trace sand wet, medium stiff CBM stiff 2-10" [ML] Black N1, fine grained well sorted silt w/ trace sand (less than 0-2") wet, medium dense 10"-21" SM Black N1, fine grained sand w/ some silt, well sorted, wet, medium dense 21-22.5" ML Black N1 fine grained well sorted silt w/ trace sand, wet, st. ff
72'					

Geologist's Signature [Signature] Date 7/15/98 Reviewer [Signature] Date 7/15/98 Pg 9 of 10



Soil Stratigraphy Field Log

Location ID SB98-I7
 Facility _____
 Project _____

Date 7/15/98

Field Geologist

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method

Sampling Method

Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
72' — 0.0'			Breathing Zone: In-Spoon: 0.0 Headspace: 20	18"	0-18" SW, Black N1, Fine grained well sorted, wet, medium dense sand w/ trace of silt
74'			0.0 20	18"	0-18" SW, Black N1, Fine grained well sorted, wet, medium dense sand w/ trace of silt
76'			0.0	19"	0-19" [SW] same as above
78'			0.0	20"	0-20" [SW] same as above

Geologist's Signature

Geologist's Signature

Date 7/15/98

Reviewer CM

Date 7/15/98 Pg 10 of 10

Soil Sampling Form



Soil Sampling Field Log

Location ID SS-1
 Facility GT
 Project GT Soil Gas Survey

Date 10/15/99
 Field Geologist C. Mayer
C. Minton T. Gray

Location Type:
 Hand Auger Hand Dug

Sampling Tools
 Decon Method
 Total Depth 4'


Depth of Sample (ft bgs)	Sample ID	Sample Recovery (inches)	Total Organics (ppm)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	SS-1-2	24 24	0.0 0.0	0-14" SM, medium-fine, silty sand, moderately sorted, dry, loose, pale yellowish brown, some woody debris 14-20" SM, medium-fine, silty sand, moderately sorted, dry, loose, grayish orange pink 20-24" same as above 0-2', 0-14"
3'	SS-1-4	24	0.0 0.0	0-24" SM, medium-fine, silty sand, moderately sorted, dry, loose, pale yellowish brown, some sub rounded fine gravel

Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-1-2	VOC	1x20z	NO	NO	glass	1300	PSC
SS-1-4	I	I	I	I	I	1310	I

Notes:

Geologist's Signature Natasha A Gray Date 10/15/99

Figure 3
Soil Sampling Form

		Soil Sampling Field Log			Location ID	SS-2	
					Facility	GT	
Date		Field Geologist			Project		
10/5/99		C. Minton, C. Mayer, T. Gray			GT Soil Gas Survey		
Sampling Tools		Decon Method			Location Type:		
					<input type="checkbox"/> Hand Auger <input type="checkbox"/> Hand Dug		
					Total Depth		
					4'		
Depth of Sample (ft bgs)	Sample ID	Sample Recovery (inches)	Total Organics (ppm)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.			
0.0'	SS-2-2	20	Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	0-4" top soil and grass 4-8" SM medium-fine silty sand, dry, loose, dark yellowish brown moderately sorted, some root debris 8-20" same as above 4-8" but pale yellowish brown moderately sorted			
2.0'	SS-2-4	19	0.0 0.0	0-4" same as above 0-2' 8-20" 4-5" same as above but dusky yellowish brown 5-19" SW, loose, dry, moderately sorted pale yellowish brown, medium-fine grain			
4.0'							
Samples Collected							
Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-2-2	VOC	1x20z	NO	NO	glass	1325	PSC
SS-2-4	I	I	I	I	I	1330	I
Notes:							

Geologist's Signature T. Gray Date 10/5/99

Soil Sampling Form



Soil Sampling Field Log

Location ID SS-3
 Facility GT
 Project Georgetown Soil Gas Survey

Date 10/5/99
 Field Geologist C. Minon, C. Mayer, T. Gray
 Location Type:
 Hand Auger Hand Dug

Sampling Tools
 Decon Method
 Total Depth

2.0'

2.0'

4.0'


Depth of Sample (ft bgs)	Sample ID	Sample Recovery (inches)	Total Organics (ppm)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	SS-3-2 MS/MSD	20	0.0 0.0	Breathing Zone: In-Spoon: Headspace: 0-2" top soil, grass 2-18" SM medium-fine, dry, loose moderately sorted, some root debris, moderate yellowish brown 18-20" SW slightly moist, loose, moderately sorted, medium-fine grained, dark yellowish brown
	SS-3-4	21	0.0 0.0	0-7" SM same as above 0-2', 2-18" 7-18" SW same as above 0-2', 18-20" 18-21" SW same as above 0-2', 18-20" but wet

Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-3-2- MS/MSD	VOC	3x2oz	NO	NO	glass	1340	PSC
SS-3-4	I	1x2oz	I	I	I	1350	I

Notes:

Geologist's Signature T. Gray Date 10/5/99

Figure 3
Soil Sampling Form

		Soil Sampling Field Log		Location ID <u>SS-4</u> Facility <u>GT</u> Project <u>Georgetown Soil Gas Survey</u>			
Date <u>10/5/99</u>		Field Geologist <u>C. Minton, C. Mayer, T. Gray</u>		Location Type: <input type="checkbox"/> Hand Auger <input type="checkbox"/> Hand Dug			
Sampling Tools		Decon Method		Total Depth			
Depth of Sample (ft bgs)	Sample ID	Sample Recovery (inches)	Total Organics (ppm)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.			
0.0'	SS-4-2	17	0.0	Breathing Zone: In-Spoon: Headspace: 0-3" top soil, grass 3-17" SM, medium-fine, moderately sorted, slightly moist, loose some root, wood, and charcoal debris, pale yellowish brown			
2'	SS-4-4	19	0.0	0-13" SM same as above 0-2', 3-17", slightly more fines 13-18" SW moist, loose, medium-fine, moderately sorted, dark yellowish brown			
4'							
Samples Collected							
Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-4-2	VOC	1x2oz	No	No	glass	1355	PSC
SS-4-4	I	I	I	I	I	1400	I
Notes:							

Geologist's Signature: T. Gray Date 10/5/99

Figure 3
Soil Sampling Form



Soil Sampling Field Log

Location ID SS-5
 Facility GT
 Project Georgetown Soil Gas Survey

Date 10/5/19 Field Geologist C. Minton, Colyer, T. Eray Location Type:
 Hand Auger Hand Dug

Sampling Tools _____ Decon Method _____ Total Depth _____

0'

2'

4'

Depth of Sample (ft bgs)	Sample ID	Sample Recovery (inches)	Total Organics (ppm)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	SS-5-2	7"	0.0	Breathing Zone: In-Spoon: Headspace: 0-2" top soil grass 2-7" SM, slightly moist, dark yellowish brown, loose, moderately sorted, some root debris Fine-medium
	SS-5-4 SS-5-4-4	13		0-1" SM same as above 0-2', 2-7" 1-13" SM same as above 0-2', 2-7" but dry and pale yellowish brown

Samples Collected

Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-5-2	VOC	1x2oz	No	Nc	glass	1405	PSC
SS-5-4	I	I	I	I	I	1410	I
SS-5-4-4	I	I	I	I	I	I	I
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Notes:

Geologist's Signature [Signature] Date 10/5/19

**Figure 3
Soil Sampling Form**



Soil Sampling Field Log

Location ID SS-6
 Facility GT
 Project Georgetown Soil Gas Survey

Date 10/5/99
 Field Geologist C. Minton, C. Mayer, T. Gray

Location Type:
 Hand Auger Hand Dug

Sampling Tools
 Decon Method
 Total Depth

0'
2'
4'

Depth of Sample (ft bgs)	Sample ID	Sample Recovery (inches)	Total Organics (ppm)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	SS-6-2 SS-6-9-2	20	0.0	Breathing Zone: In-Spoon: Headspace: 0-4" top soil and grass moist 4-20" SM dry, fine-medium, loose moderately sorted, moderate yellowish brown
	SS-6-4	19	2.6	0-12" SM same as above (0-2', 4-20") 12-19" SW loose, dry, fine-medium, moderate yellowish brown moderately sorted

Samples Collected

Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-6-2	VOC	1 x 2oz	No	No	glass	1610	PSC
SS-6-9-2	I	I	I	I	I	1620	I
SS-6-4	I	I	I	I	I	1620	I

Notes:

Geologist's Signature [Signature] Date 10/5/99

Soil Sampling Form



Soil Sampling Field Log

Location ID SS-7
 Facility GT
 Project Georgetown Soil Gas Survey

Date 10/5/99
 Field Geologist C. Minton, C. Mayer, T. Gray
 Location Type:
 Hand Auger Hand Dug

Sampling Tools _____
 Decon Method _____
 Total Depth _____

Depth of Sample (ft bgs) | Sample ID | Sample Recovery (inches) | Total Organics (ppm) | Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0'

0.0'	SS-7-2	17	0.0	Breathing Zone: In-Spoon: Headspace: 0-3" top soil moist 3-17" SM dry, fine, loose, moderately well sorted, pale yellowish brown,
------	--------	----	-----	---

2'

	SS-7-4	20	3.7	0-9" SM same as above (0-2' 8-17") 9-20" SW loose, dry, fine-medium moderately sorted, dark yellowish brown
--	--------	----	-----	--

4'

Samples Collected

Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
SS-7-2	VOC	1x262	NO	NO	glass	1547	PSC
SS-7-4	I	I	I	I	I	1558	I

Notes:

Geologist's Signature T. Gray Date 10/5/99

Figure 3
Soil Sampling Form



Soil Sampling Field Log

Location ID SS-8
 Facility GT
 Project Georgetown Soil Gas Survey

Date 10/5/99
 Field Geologist C. Minton, C. Mayer, T. Curay

Location Type:
 Hand Auger Hand Dug

Sampling Tools _____ Decon Method _____ Total Depth _____

Depth of Sample (ft bgs) Sample ID Sample Recovery (inches) Total Organics (ppm) Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0'

2'

4'

0.0' SS-8-2 20 0.0
 Breathing Zone:
 In-Spoon:
 Headspace:
0-2" soil top soil
2-13" SM dry, loose, root debris, fine-medium, moderately sorted, dark yellowish brown
13-20" SM, dry, loose, fine-medium, moderately sorted, pale yellowish brown

SS-8-4 22 0.0
0-17" same as above (0-2', 13-20")
17-22" SW loose, dry, fine-medium, moderately sorted, moderate yellowish brown

Samples Collected

Sample ID	Analysis	Volume	Filtered	Preservation	Container	Time	Lab
<u>SS-8-2</u>	<u>VOC</u>	<u>1x2oz</u>	<u>No</u>	<u>No</u>	<u>glass</u>	<u>1808</u>	<u>PSC</u>
<u>SS-8-4</u>	<u>I</u>	<u>I</u>	<u>I</u>	<u>I</u>	<u>I</u>	<u>1813</u>	<u>I</u>

Notes:

Geologist's Signature [Signature] Date 10/5/99

**SUPPLEMENTAL OFF-SITE CHARACTERIZATION
BORING LOGS**



Soil Stratigraphy Field Log

Location ID DI
 Facility GT
 Project Supplemental Offsite Char.

Date 10/9/00 Field Geologist Helle Gylling/Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liner Total Depth 88'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30'	0.0'	Water DI-34-1000		17"	0-17" SW fine black (w/1) sand with red & white specks, pretty uniform grain size, moist, medium dense
32'			0.2	15"	0-15" SW same as above (30-32')
34'			0	20"	0-11" ML olive black silt, fine to very fine grained, well sorted, fine pieces of wood, very soft, soupy, wet 11-14" ML olive black clayey silt, very fine grained, slightly plastic, well sorted, soft, wet 14-18" ML olive black silt, fine to very fine grained, well sorted, fine pieces of wood, very soft, soupy, wet 18-20" ML olive black clayey silt, very fine grained, slightly plastic, well sorted, soft, wet

Geologist's Signature Tasya Gray Date 10/14/00 Reviewer _____ Date _____ Pg 1 of 8

Note:
 Water also taken at DI-14-1000 and DI-24-1000
 Begam logging soil at 30' bgs.



Soil Stratigraphy Field Log

Location ID DI
 Facility GT
 Project Supplemental Offsite Char.

Date 10/9/00

Field Geologist Helle Gylling / Tasya Gray

Location Type:
 Soil Boring Only Temp Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liner

Total Depth 88'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
36' 0.0'			0	21"	<p>0-3" SP fine olive black sand, with red & white specs, poorly sorted, moist, medium dense, a small amount of wood debris</p> <p>3-4" ML olive black, very fine grained, clayey silt, very well sorted, moist, soft to medium stiff</p> <p>4-21" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted, abundant wood, especially concentrated at 4-5" and 19.5-20"</p>
38'			0.7	24"	<p>0-2" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted,</p> <p>2-5" SP same as above (0-2") but has woody debris</p> <p>5-24" SP same as above (0-2")</p>
40'					

Geologist's Signature Tasya Gray Date 10/15/00 Reviewer _____ Date _____ Pg 2 of 8



Soil Stratigraphy Field Log

Location ID DI
Facility GIT
Project Supplemental Offsite Char

Date 10/9/00

Field Geologist Helle Gylling / Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2.1" diameter acetate liner

Total Depth 88'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

40'
42'
44'
46'
48'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'	Water: DI-44-1000 Soil: DI-40.5-1000		21.4	24"	0-24" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted, abundant wood
	Soil: DI-42.5-1000		21.7 @ 42.5'	18"	0-2" ML olive black clayey silt, very fine grained, well sorted, more slightly plastic, soft, wet 2-18" SP olive black fine sand with red & white specs, wet, medium dense, poorly sorted, trace wood
			0.1	22"	0-22" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted, abundant wood
			0.1	23"	0-23" SP olive black, fine to very fine sand, with red & white specs, wet, medium dense, poorly sorted, lenses of wood at 6.5-7" and 15-18" and trace wood throughout

Geologist's Signature Helle Gylling / Tasya Gray Date 10/18/00 Reviewer _____ Date _____ Pg 3 of 8



Soil Stratigraphy Field Log

Location ID DI
 Facility GT
 Project Supplemental Offsite Char

Date 10/9/00

Field Geologist Helle Eylling/Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liner

Total Depth 88'

48'
50'
52'
54'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: <u>0.2</u>	<u>18"</u>	<u>0-18" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted with trace wood</u>
	<u>Water: DI-54-1000</u>		<u>0.4</u>	<u>24"</u>	<u>0-3" ML clayey silt, fine to very fine, very soft, olive black, wet, well sorted</u> <u>3-24" SP olive black, fine sand with red & white specs, wet, medium dense, poorly sorted, trace coarse sand at 22-24", wood and clumps of clayey silt similar to ML of 0-3"</u>
			<u>0.5</u>	<u>20"</u>	<u>0-20" SP olive black, fine to medium sand, with red & white specs, wet, medium dense, poorly sorted, woody debris</u>

Geologist's Signature Tasya Gray Date 10/18/00 Reviewer _____ Date _____ Pg 4 of 8



Soil Stratigraphy Field Log

Location ID D1
 Facility GT
 Project Supplemental Offsite Chem

Date 10/9/00 Field Geologist Helle Gylling / Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liner Total Depth 88'

54'

56'

58'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.4	24"	Breathing Zone: In-Spoon: Headspace: 0-10" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted, abundant wood 10-18" SP/ML 50-50 mix of clumps of clayey silt, fine to very fine, very soft, olive black, wet, well sorted mixed with olive black fine sand with red & white specs, wet medium dense, poorly sorted with wood
			0.3	24"	0-2" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted, with wood 2-12" ML clayey silt, olive gray, soft to very soft, wet, very fine grained, well sorted 12-24" SP olive black, fine sand, with red & white specs, wet, medium dense, poorly sorted, with wood

Geologist's Signature Tasya Gray Date 10/18/00 Reviewer _____ Date _____ Pg 5 of 8



Soil Stratigraphy Field Log

Location ID D1
 Facility GT
 Project Supplemental Offsite Char

Date 10/9/00 Field Geologist Helle Eyrilling / Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liner Total Depth 88'

58'
60'
62'
64'
66'
68'
70'
72'
74'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
				18"	0-18" SP/ML olive black, fine sand grading to silt size, red & white specs, moderately well to poorly sorted, wet , medium dense, with wood
	Water: D1-64-1000		0.1	24"	0-24" SP olive black, fine sand with red & white specs, poorly sorted, wet, medium dense,
			0	17"	0-17" SP same as above sand (60-62')
			0	9"	0-9" SP same as above fine sand (60-62')
			0.2	20"	0-20" SP same as above fine sand (60-62')
				22"	0-22" SP same as above fine sand (60-62')
	Water D1-74-1000		0	22"	0-22" SM olive black silty sand, more fine grained than before, moderately sorted, wet, medium dense
			0	22"	0-16" ML soft clayey silt, dark grey, wet, well sorted 16-22" SM olive black silty sand, fine to very fine, moderately sorted, wet, medium dense

Geologist's Signature Tasya Gray Date 10/10/00 Reviewer _____ Date _____ Pg 6 of 8



Soil Stratigraphy Field Log

Location ID D1
 Facility GT
 Project Supplemental Offsite Char

Date 10/9/00/10/10/00

Field Geologist Helle Gylling / Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2 1/4" diameter acetate liner

Total Depth 88

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
74'	0.0'		0	20"	0-15" ML dark grey silt, very soft, soupy, well sorted, very wet 15-20" ML/CL dark grey clayey silt, medium stiff, wet, well sorted
76'			0	24"	0-3" ML, dark grey silt, medium stiff, somewhat dry, well sorted 3-24" SM fine black/dark grey silt and sand mix, moderately sorted, wet, medium dense, trace wood
78'			0	24"	0-4" ML olive grey silt, very soft, well sorted, soupy wet, 4-6" ML clayey olive grey silt, soft to medium stiff, wet, well sorted 6-18" ML olive grey silt, very soft, well sorted, soupy, wet 18-24" SM fine black to dark grey silt and sand mix, moderately sorted, wet, medium dense
80'					

Geologist's Signature Tasya Gray Date 10/10/00 Reviewer _____ Date _____ Pg 7 of 8



Soil Stratigraphy Field Log

Location ID D1
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00

Field Geologist Helle Gylling / Tosya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liner

Total Depth 88'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

80'
82'
84'
86'
88'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	Water: D1-84-1000			24"	0-18" ML olive grey silt, very soft, well sorted, soupy wet 18-24" SP/SM fine black to dark grey silt and sand mix moderately sorted, wet medium dense
			0	24"	0-24" ML clayey silt/silty clay, olive grey, soft to medium stiff, wet, well sorted
			0.3	24"	0-21" ML clayey silt/silty clay, olive grey, very soft, wet, well sorted 21-24" SP/SM fine black to dark grey silt and sand mix, moderately sorted, wet, medium dense
				1"	Core did not come up, except for 1" of medium stiff clayey silt. The acetate liner was covered with wet soupy silt

Geologist's Signature Tosya Gray Date _____ Reviewer _____ Date _____ Pg 8 of 8



Soil Stratigraphy Field Log

Location ID DZ
 Facility GT
 Project 2000 GT offsite ^{Supplemental} Characterization

Date 10/17/00
 Field Geologist Corey Johnson
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2 1/2" Diameter Acute liners
 Total Depth 74

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30	DZ-30-1000 Soil VEC		93.3	24"	Breathing Zone: In-Spoon: Headspace: 0-24" well sorted SP Grayish black mostly fine fine sands with some medium sands within, wet, loose sand, red and white grains of sand mixed within. one 1/2" chunk of silty sand at about 22".
32			0.0	12"	0-12" sp same as 30-32 (0-24") no silty sands
34	DZ-34-1000 vol TOC Methane Ethn. Alkalinity CO2 chloride		0.0	12"	0-12" sp same as 30-32 (0-24") Very wet, no silty sands. pools of water on top of soil (sand)
36			14.2	10"	0-10" sp same as 30-32 (0-24") no silty sands, very wet Several cobbles mixed in sand and several coarse grains of sand.
38	DZ-38-1000 Soil VEC		97.0	18"	0-18" sp same as 30-32 (0-24") no silty sand
40			0.0	10"	0-10" sp same as 30-32 (0-24") no silty sands
42	DZ-42-1000 VEC TOC Methane Ethn. Ethane Alkalinity CO2 chloride		0.0	8"	0-8" sp same as 30-32 (0-24") no silty sands, some medium to coarse sands, two coarse gravel pieces. Three pieces woody debris. one thin/slimy 1" long, the other two 1/4" wide 1" long. All Dark brown light in the middle.

44 Geologist's Signature Corey Johnson Date 10/17/00 Reviewer _____ Date 10/17/00 Pg 1 of 4

Started bagging soil at 30' bgs.
 Water samples taken above 30' bgs: DZ-14-1000 and DZ-24-1000



Soil Stratigraphy Field Log

Location ID DZ
 Facility 6T
 Project 6T Supplemental offsite cleanup

Date 10/17/00

Field Geologist Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method geoprobe

Sampling Method 2' 1" diameter Acute liners

Total Depth 74

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
44 0.0'			0.0	22"	0-22" sp same as 30-32 (0-24") no silty sands, wood debris in top 10" (12-22") no larger than 1/4" by 1/4". About 10 pieces.
46			0.0	22"	0-15" sp same as 30-32 (0-24") no silty sands, 1" long by 1/4" wide piece of wood found at 0-1" 15-18" scattered pieces of wood within sp 30-32 (0-24") matrix, About 20 pieces. 18-22" sp same as 30-32 (0-24")
48	DZ-SZ-1000		0.0	~12"	0-12" sp same as 30-32 (0-24") no silty sands , 1" by 1" chunk of silty sand position unknown because sample had to be knocked out of sampler and lined into a pile on aluminum foil, couple pieces of 1/4" wood debris.
50			0.0	~8"	0-8" sp same as 30-32 (0-24") 1 1/2" by 1 1/2" chunk of silty sand, 2" by 1" area containing about a 1/4 teaspoon of white, medium sized sand. Some small wood debris.
52			0.0	24"	0-21" sp same as 30-32 (0-24") very wet 1/4" piece of silty sand at ~2" 21-24" ml, olive black, fine sand to silt. soft to medium stiff, moist well sorted
54					

Geologist's Signature Corey Johnson Date 10/17/00 Reviewer _____ Date 10/17/00 Pg 2 of 4



Soil Stratigraphy Field Log

Location ID DZ
 Facility GT
 Project 2000 GT Supplemental off-site char

Date 10/17/00 Field Geologist Corey Johnson Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2' 1" diameter Acetate liners Total Depth 74

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
54 0.0'			0.0	20"	0-20" SP Same as 30-32 (0-24") less medium sands with more finer sands. 1" by 1/4" chunk of silty sand at ~ 5" small woody debris at 18"-20".
56			0.0	24"	0-24" ml. Same as 52-54 (21-24") 2-12 SP gradually gets less silty from 2 towards 12. Same as 30-32 (0-24") of olive black, sandy silt, well sorted, wet, soft 12-24" sp Same as 30-32 (0-24") moist, no silt
58			22.0	24"	0-24" sp Same as 30-32 (0-24") no silty sands
60			2.8	10"	0-10" SP Same as 30-32 (0-24") 3/4" by 3/4" chunk of silty sand. It was olive black
62	DZ-62-1000 VOL		18.4 (@ 63A')	24"	0-18" SP mostly medium sands with some coarse intermixed: 20% white sand as found at 50-52 (0-8"). Other 80% same as 30-32 (0-24") 18-24" sp Same as 30-32 (0-24") 5% white sand as found at 50-52 (0-8") no silt

Geologist's Signature [Signature] Date 10/17/00 Reviewer _____ Date _____ Pg 3 of 4



Soil Stratigraphy Field Log

Location ID P2
 Facility 6T
 Project ZOCO 6T Supplemental site characterization

Date 10/17/00 Field Geologist Cory Johnson Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2 1/2" diameter Acetate lined Total Depth 74'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
64 0.0'				20"	Breathing Zone: In-Spoon: Headspace: 0.0 0-12" ^{SUN} ML Same as 52-54 ⁵⁶⁻⁵⁸ (2-12") 0-4" mostly silt, progressively less silt up to 12" 12-24" Sp Same as 30-32 (0-24") Slightly silty sands 22-24" ml same as 52-54 (21-24")
66			0.0	24"	0-24" ml same as 52-54 (21-24") can be molded like clay
68			0.0	8"	0-2 1/2" ml same as 52-54 (21-24") can be molded 2 1/2"-8" Sp same as 30-32 (0-24") silty sands and fine sands, very wet (sappy)
70			0.0	24"	0-22" Sp same as 30-32 (0-24") silty sands and fine sands, very wet (sappy) 22-24" ml same as 52-54 (21-24") Too wet to mold.
72				24"	0-24" Sp same as 30-32 (0-24") silty sands to fine sand fairly wet
74					

Geologist's Signature Cory Johnson Date 10/17/00 Reviewer _____ Date _____ Pg 4 of 4



Soil Stratigraphy Field Log

Location ID DB
 Facility G-7
 Project Supplemental offsite characterization

Date 10/19/00
 Field Geologist Jolanda Magnuson / Corey Silvers
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2 1/2" Diameter, Acetate liner
 Total Depth 36'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30	DB-33-1000			20"	0-20" SP coarse medium olive black sand, with red and white specs well sorted, wet, loose, pebbles, medium fine sands Loose sand
32			0.1	8"	0-8" SP medium olive black sand with red and white specs, well-medium sorted, wet, loose sand, few fines, angular pebbles 1/8"
34			0.3	18"	0-18" SP medium olive black sand with red and white specs, well-medium sorted, wet, loose sand, no pebbles, few fines
36			0.7	22"	0-22" SP medium olive black sand with red and white specs, well medium sorted, wet, loose sand, no pebbles, increasing fines @18" fine sand, few coarse
38			0.3	22"	0-22" SP medium ^{fine} olive black sand with red and white specs, wet-med sorted, wet, loose sand, few medium, no pebbles

Geologist's Signature Jolanda Magnuson Date 10/19/00 Reviewer _____ Date _____ Pg 1 of 1

Started taking soil logs at 30' bgs.
 Water samples taken above 30' bgs: DB-13-1000,
 DB-23-1000



Soil Stratigraphy Field Log

Location ID D3
 Facility CST
 Project Supplemental off-site characterization

Date 10/19/00
 Field Geologist Salaiah Wagnon
Corey Johnson
 Location Type: TEMP
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2' 1" diameter Acetate liner
 Total Depth 86'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40 0.0'	D3-43-1000		Breathing Zone: In-Spoon: Headspace: 0.3	12"	0-12" SP Fine olive black with few medium, no pebbles. Red and white Specs, well sorted, wet, loose sand,
42			0.7	22"	0-22" SP Fine olive black sand with few medium, no pebbles Red and white specs, medium well sorted, wet, loose sand
44			0.3	22"	0-22" SP Fine olive black sand with few medium, no pebbles red and white specs, well-medium sorted, wet, loose sand.
46				10"	0-10" Sp medium - Fine olive black sand. No pebbles, 1/2" by 1/2" Chunks of silty sand, Red and white specs, medium sorted, wet, loose sand. Increasing fine to medium sands. From 5 to 10"
48			0.2	18"	0-18" SP Fine olive black sand with few medium sands. Two pebbles, Red and white specs well-medium sorted, moist, loose sand,

Geologist's Signature Corey Johnson Date 10/19/00 Reviewer _____ Date _____ Pg 2 of 5



Soil Stratigraphy Field Log

Location ID D3
 Facility GT
 Project Supplemental offsite characterization

Date 10/19/00 Field Geologist Corey Johnson Location Type: Soil Boring Only Well Test Pit
 Drilling Method Geoprobe Sampling Method Sabamh Magnuson Total Depth 86'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
50 0.0'	D3-53-1000		0.0	12"	0-12" SP fine olive black sand few medium ^{medium} Red and white specs. well sorted wet. loose sand. 0-2" organic woody debris
52			0.0	6"	0-6" SP fine olive black sand no medium. Red and white specs. well sorted. Wet very loose sand. Organic woody debris varying 5mm to 20mm throughout.
54			0.0	6"	0-6" SP fine olive black sand. no medium. Red and white specs. well sorted. Very soupy wet. loose very loose sand. no organics.
56			0.0	24"	0-24" SP fine olive black sand. few medium. Red and white specs. well-medium sorted. Wet. loose. organics-woody debris
58			0.0	24"	0-24" SM fine olive black ^{silty} sand with no mediums Red and white specs. well-medium sorted. Wet and loose.
60	D3-63-1000			24"	0-24" SP fine olive black sand with no medium. Red and white specs. well-graded medium sorted. moist and loose.
62					

Geologist's Signature [Signature] Date 10/19/00 Reviewer _____ Date _____ Pg 3 of 5



Soil Stratigraphy Field Log

Location ID D3
 Facility BT
 Project 2000 BT Supplemental offsite characterization
 Location Type:
 Soil Boring Only Well Test Pit
 Total Depth 86'

Date 10/19/00
 Field Geologist Wey Jahn / Salamah M.
 Drilling Method _____
 Sampling Method _____

62
64
66
68
70
72

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				18"	0-18" SP fine olive black sand few medium, red and white specs, well-medium sorted wet, loose.
				22"	0-22" ML Silt fine sands. Sandy silt, fine sands. Silt with few fine sands, olive black, well sorted, very soft
			2.4	24"	0-24" SP fine olive brick sand red and white specs, increasing fines, few medium sands, medium sorted, wet, medium dense woody debris
			0.0	22"	0-22" SP Silt with few fine sands olive black, well sorted to medium sorted, soft wet, soft. @ 18-22" fine sands increase
	D3-73 1006		0.4	12"	0-12" ML silt with few fine sands olive black, well sorted, soft, wet, soft, woody organic debris

Geologist's Signature _____ Date _____ Reviewer _____ Date _____ Pg 4 of 5



Soil Stratigraphy Field Log

Location ID B3
 Facility GT
 Project Offsite Supplemental Characterization

Date 10/20/00

Field Geologist
Saidmah Magnusen
Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Beeprobe

Sampling Method
2', 1"

Total Depth
86

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, Indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
72 0.0'			0.1	22	0-12" ML olive black silt with very few fine sands, well sorted. few clays, wet, medium stiff 12-22" SM olive black sandy silt. silt with some fine sands medium sorted, wet. Loose to soft
74	Pictures 16-78		0.3	24	0-6" ML olive black silt with no sand, some clays. well sorted. wet-very wet, soft. 6-20" ML olive black silt with with increasing fine sands few clays. well sorted. soupy wet. very soft. 20-24" SM olive black sandy silt, silt with fine fine sands medium sorted, wet. loose to soft
76 78			0.0	24	0-20" SM ML olive black sandy silt with ^{few to no} fine sands, well sorted. moist dense. 20-24" ML olive black silt with fine sands, well sorted. moist. dense.
80 82	B-82-84 Crotch		NA	24	0-24" ME-CL Olive black silt with clay, very well sorted. moist. stiff.
84			0.7	24	0-24" MC-CI Olive black clayey silt. No sands. very well sorted. Dry-moist. stiff.

Geologist's Signature Saidmah Magnusen Date 10/20/00 Reviewer _____ Date _____ Pg 5 of 5





Soil Stratigraphy Field Log

Location ID D4
 Facility Git-2000
 Project Offsite Supplemental Characterization

Date 10/23/00 Field Geologist Salamah Magnuson Location Type: Soil Boring Only Well Test Pit

Drilling Method Gasprobe Sampling Method 2, 1" diameter Acetate liner Total Depth 86

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30	gw D6-33-1000		0.0	22"	0-22" SW medium olive black sand. Few fines. Poorly sorted. Wet, loose. red and white specs.
32			0.0	6"	0-6" SW Medium olive black sand. Few fines, poorly sorted. Very wet. Poorly graded sm sorted. Very loose. Red and white specs. few coarse grains
34			0.0	24"	0-24" SW medium olive black sand few fines, no coarse grains. Poorly sorted. wet. loose. Red and white specs.
36			0.0	18"	0-18" SW medium-fine olive black sand. Mostly medium-50%-50% medium-fine grains poorly sorted. Moist-wet. medium dense. Red and white specs.
38			0.0	18"	0-18" SW medium-fine olive black sand. 50%-50% medium to fine grains. poorly sorted. moist. medium dense. Red and white specs.
40	gw D4-43-1000		0.0	4"	0-4" SW/SP medium to fine olive black sand. Increasing fines, 40-60% medium to fine grains. medium to poorly sorted. very wet, soupy. very soft. red and white specs.

Geologist's Signature _____ Date _____ Reviewer _____ Date _____ Pg 1 of 7

Started logging soil at 30' bgs.
 Water samples taken above 30' bgs: D4-13-1000
 and D4-23-1000



Soil Stratigraphy Field Log

Location ID D4
 Facility GT
 Project Supplemental Offsite Char.

Date 10/23 Field Geologist Sethnaiah Magnisen Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" Diameter Acetate liner Total Depth 88

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
42 0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	6"	0-6 SW/SP medium to fine olive black sand 40-60% Medium to fine grains. Medium to poorly sorted. So very wet, soupy, very loose. red and white specs.
44			0.0	6"	0-6 SW/SP SP fine olive black sand with some medium grains. 25-75% Medium to fines. well sorted. very wet. very loose. red and white specs.
46			0.0	24"	0-24" SW medium olive black sand with some fines and some coarse. Mostly medium grains. Poorly sorted. Moist to wet. medium dense. Red and white specs.
48			0.0	24"	0-24" SW/SP medium to fine olive black sand. Fine with some medium grains. Poorly sorted. Wet. Loose. Red and white specs.
50	ge D4 53-1000		0.0	12"	0-12" SP fine olive black sand with some medium. 25-75% medium to fine grains. Poorly to medium sorted. Very wet, soupy, very loose. Red and white specs.
52					



Soil Stratigraphy Field Log

Location ID DA
 Facility GT
 Project Supplemental Offsite Char.

Date 10/23/06

Field Geologist Silwanah Magnusson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Coneprobe

Sampling Method 2', 1" Diameter Acetate liner

Total Depth 88

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

52'
54'
56'
58'
60'
62'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				24"	0-24" ^{SW} medium olive black sand with some fine grains. Poorly sorted, wet, loose. Red and white specs @ 4-7" increasing fines. Woody debris.
			0.0	24" 34"	0-24" SP fine 0-24" SW medium olive black sand with some fines. Poorly sorted, wet, loose. Red and white specs. @ 6" increasing fines.
			0.0	6"	0-6" SP fine olive black sand with some medium grains. Poorly to medium sorted. Very wet, very loose. Red and white specs.
			0.0	10"	0-10" Same as above 56-58 (0-6)
	geo DA 63-1000		0.0	6"	0-4" SP fine olive black sand with some silt. no few medium sand grains. medium sorted to poorly sorted. Very wet, soupy, very loose. 4-6" SP medium olive black sand with some fine grains. poorly sorted, wet, loose.



Soil Stratigraphy Field Log

Location ID D4
Facility CJT
Project Supplemental offsite char

Date 10/23/00

Field Geologist Selamah Magnusson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Cycloprobe

Sampling Method 2.1" Diameter Acetate liner

Total Depth 88

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
62'					
64'					
66'					
68'					
70'					

Geologist's Signature _____ Date _____ Reviewer _____ Date _____ Pg 7 of 7



Soil Stratigraphy Field Log

Location ID D4
 Facility Git
 Project Supplemental Offsite char.

Date 10/23/00

Field Geologist Sakimah Magnuson

Location Type:
 Soil Boring Only ^{temp} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" diameter acetate liner

Total Depth 88

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
70 0.0'	D473-1000			24"	0-24" SMSP fine olive gray sands. No medium, few silts. Poorly sorted. wet. loose. organic woody debris. @ 27" 1" ML stringer, medium stiff, wet. silt with fine sand.
72			0.0	22"	0-3" SM Sandy silt. Olive gray. 50-50 sand to silt, poorly sorted. wet. loose. 3-20" SM/ML silt with very fine sand. Dark gray. soft poorly to medium sorted. very wet. mostly silts. @ 20-22" fine sand to SM sandy silt, silt with fine sands. olive gray. poorly sorted. very wet. loose
74			0.0	6"	0-5" ML silt with little to no very fine sands. Dark gray. very well sorted. very wet. very soft. 5-6" SM silt with fine sand. olive gray. 50-50% sand to silt. poorly sorted. wet. loose
76			0.0	24"	0-2" ML silt with little to no very fine sands. Dark gray. well sorted. stiff. moist. 2-6" SM sandy silt, silt with very fine sand. olive black. moist. poorly to medium sorted

cont. 73



Soil Stratigraphy Field Log

Location ID D4
 Facility GT
 Project Supplemental offsite Char

Date 10/23/00 Field Geologist S. Magnuson Location Type: TEMP.
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2 1/2" diameter, acetate liner Total Depth 8.5'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size; sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

76 cont.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					6-22" ML/CL silt with clay. No very fine sands. Dark gray, well sorted, moist to wet. soft.
					22-24" SM sandy silt. olive gray. Silt with fine and very fine sand, poorly sorted. Moist. Silt in medium dense sand.

78

			7.5	24"	0-18" SM sandy silt. silt with very fine sands. 40-40 silt to sand. olive gray, poorly sorted, very wet, soupy. loose and soft. organic with woody delon, almost hair-like. @ 12-18" increasing sand
					18"-24" SP fine olive gray sand w/ to some silt. 80-20% sand silt. medium sorted, very wet. loose. organic woody delon.

80

	D-83-100 SW		3.0	24"	0-20" ML silt with ^{very} fine sand. mostly silt and some clay. mostly silt. Dark gray, very soft, very wet, soupy, medium sorted.
					20-24" SP fine olive gray sand with some fine silt. Poorly sorted. very wet, loose.

82



Soil Stratigraphy Field Log

Location ID D4
 Facility GT
 Project Supplemental off-site Char

Date 10/24/00

Field Geologist S. Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2.11" diameter acetate liner

Total Depth 88

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
82 0.0'			0.8	0-24"	0-10" SM Sandy silt + silt with very fine sand. medium sorted to poorly sorted. Moist. medium dense to medium stiff. 10-24" ML silt with very few very fine sands. well sorted. Dark gray. moist. Stiff.
84			0.8	0-24"	0-24" ML silt with some clays. well sorted. Dark gray. no sands. @ 0-7" Wet. Soft. @ 7-24" moist. very stiff.
86	84-86 88 geoprobe		NA	0-24"	0-24" ML
88					



Soil Stratigraphy Field Log

Location ID D5
 Facility GIT
 Project Supplemental Offsite Char

Date 11/28/00 - 11/29/00 Field Geologist Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 89

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D5-13-1000 D5-23-1000 D5-33-1000 D5-43-1000			0	no soil logged
43'			0	8"	0-8" SW poorly sorted sand, fine to medium grained, no fines, wet, olive black with red & white specks, loose
45'			0	20"	0-20" SW same as above (43-45') but woody debris throughout
49'			0	15"	0-15" SW same as above (43-45') silt lens ~.25" thick @ in the shoe (@ 49')
49'	D5-53-1000			0	soil not logged
53'			0	12"	0-12" SW poorly sorted sand, mostly fine grained, wet, olive black with red & white specks, loose
55'			0	21"	0-21" SW same as above (53-55')
57'					

Geologist's Signature Tasya Gray Date 11/29/00 Reviewer _____ Date _____ Pg 1 of 4



Soil Stratigraphy Field Log

Location ID DS
 Facility GT
 Project Supplemental Offsite Char

Date 11/29/00

Field Geologist Tanya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 89

57'
59'
63'
65'
67'
69'
73'
75'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0	20	0-20" SW poorly sorted sorted sand, mostly fine grained, wet, loose, olive black with red and white specks
	DS-63-1000			0	no soil logged
			0 Poor recovery	~14	0-14" SW poorly sorted sand, mostly fine grained, wet, loose, olive black with red & white specks, wood debris
			0 Poor recovery	~12	0-12" SW same as above (63-65') no wood
			0	20	0-20" SW same as above (63-65') only a very small amount of wood
	DS-73-1000			0	no soil logged
			0	15	0-10" SM silty sand, wet, medium dense, moderately sorted, olive black, fine-very fine 10-15" ML silt with a little sand, wet, soft, well sorted, mostly silt, olive black



Soil Stratigraphy Field Log

Location ID D5
 Facility GT
 Project Supplemental Offsite Char

Date 1/29/00

Field Geologist
Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2', 1" diameter acetate liners

Total Depth
49

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
75 0.0'	D5-77-1000		Breathing Zone: In-Spoon: Headspace: 11.7	19	0-10" SW grading to SM in last 4", sw is wet, mostly fine sand with a few fines, poorly sorted, olive black, loose, silt content increases to SM. silty sand otherwise the same 10-14" ML silt with a little sand, olive grey, soft, well sorted,
77			0	~24	0-20" ML very soft silt, olive grey, well sorted, very wet. 20-24" ML medium silt silt, olive grey, well sorted, moist, much drier than above, crumbly texture
79'			0 poor recovery	~6	0-6" SM silty sand, soupy, very wet, very loose, olive black, moderately sorted, some woody debris
81'			NA	0	poor recovery
83'					

Geologist's Signature Tasya Gray Date 1/29/00 Reviewer _____ Date _____ Pg 3 of 4



Soil Stratigraphy Field Log

Location ID DS
 Facility GIT
 Project Supplemental Offsite Char

Date 11/29/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 89

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			Breathing Zone: In-Spoon: Headspace: ○	24	0-8" SM sandy silt, mostly silt, soft, olive black, wet, well sorted 8-12" SM silty sand, loose, olive black, wet (very), moderately sorted 12-20" SM same as above sandy silt (0-8") 20-24" ML medium stiff silt, olive grey, well sorted, moist, crumbly texture
			○ poor recovery	24	0-24" ML soft to medium stiff silt, olive grey with black streaking, moist, very well sorted
				○	Capped for geotechnical analysis
					bottom of boring

83-85
85-87
87
89



Soil Stratigraphy Field Log

Location ID D6
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00

Field Geologist Salamah Magnuson / Cora Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners


Total Depth 78'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
30'	0.0' <u>Water D6-34</u>				
					Breathing Zone: In-Spoon: <u>0.0</u> Headspace: <u>0.0</u> 0-12" SP Med olive black sand, few to no fines with red and white specs, well sorted very loose, wet
32'			<u>0.0</u>	<u>12"</u>	0-5" SP Same as above 30-32 (0-12") 5-12" SM olive black silty sand with fines, poorly sorted, medium dense, wet
34'			<u>0.0</u>	<u>22"</u>	0-4" SP medium olive black sand, few to no fines with red and white specs, well sorted, very loose, wet 4-7" ML olive black silt with fine sand, moderately sorted, very soft, very wet, orange woody debris ~10mm length 7-22" SP Medium olive black sand, few to no fines with red and white specs, well sorted very loose, wet, woody debris throughout. @7-12" very wet @12" large woody debris ~30mm
36'					

Geologist's Signature _____ Date _____ Reviewer _____ Date _____ Pg 1 of 7

D6-14-1000 and D6-24-1000 collected. Started logging soil at 30' bgs

		Soil Stratigraphy Field Log			Location ID <u>D6</u> Facility <u>GT</u> Project <u>Supplemental Offsite Char</u> Location Type: <u>PLMP</u> <input checked="" type="checkbox"/> Soil Boring Only <input checked="" type="checkbox"/> Well <input type="checkbox"/> Test Pit
Date <u>10/10/00</u>		Field Geologist <u>Salamah Magnuson/Conroy Johnson</u>			Total Depth <u>78'</u>
Drilling Method <u>Geoprobe</u>		Sampling Method <u>2", 1" diameter acetate liners</u>			Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 5")	Total Organics (ppm)	Sample Recovery (Inches)	
36' 0.0'			Breathing Zone: In-Spoon: Headspace: <u>0.3</u>	19"	0-2" SP medium olive black sand, few to no fines with red and white specs well sorted, very loose wet 2-6" ML olive black silt with fine sand, moderately well sorted, medium stiff, moist 6-19" SP medium olive black sand, few to no fines, with red & white specs, well sorted, very loose, wet, one very thin lense of organic debris ~10mm
38'	Soil D6-38-40-1000 water D6-42-1000		30.7	20	0-20" SP same as above with wood debris from 2-4" (2 pieces, ~15mm)
40'			0	22	0-6" SP same as above 6-22" SM olive black silty sand with increasing fines & organic matter, poorly sorted, wet medium dense
42'					



Soil Stratigraphy Field Log

Location ID D6
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00 - 10/11/00 Field Geologist Salamah Magnuson / Corey Johnson Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 78

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

42'

44'

46'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24"	0-2" SM olive black silty sand with fines, poorly sorted, wet, medium dense 2-24" SP medium olive black sand, few to no fines, with red & white specs, well sorted, very loose, wet
			0.7	20"	0-20" SP same as above woody debris from (0-2")
	<u>B6</u>		0	24"	0-3" SM olive black silty sand with fines, poorly sorted, medium dense , very wet, soupy, soft 3-7" ML olive black silt with fine sand, moderately sorted, very soft, very wet, orange woody debris (~10mm length) 7-14" SP very wet medium olive black sand with few coarse, some fines, poorly sorted, very loose 14-21" ML olive black silt with fine sand, moderately sorted, very soft, very wet, or

Cont.



Soil Stratigraphy Field Log

Location ID D6
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00
 Field Geologist Salamah Magnuson, Corey Johnson
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2, 1" diameter acetate liners
 Total Depth 78'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

48'

50'

52'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: 21-24" SM olive black silty sand, very wet, very soft, poorly sorted
	water D6-52- 1000		0	22	0-12" SP olive black silty sand, few coarse, increasing fines, very wet, very soft, moderate poorly sorted 12-18" SM olive black silty sand very wet, poorly sorted, medium dense 18-22" SP medium sand with few to no fines, olive black with red & white specs, well sorted, very loose, wet
			0	12	0-9" SP olive black silty sand with fines, poorly sorted, medium dense, wet 9-11" ML olive black silt with fine sand, moderately sorted, soft, moist 11-12" SP olive black silty sand with fines, poorly sorted, medium dense, wet



Soil Stratigraphy Field Log

Location ID D6
 Facility GT
 Project Supplemental Offsite Char

Date 10/11/00-10/12/00

Field Geologist
Salahah Magnuson
Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2', 1" diameter acetate liners

Total Depth
78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	11"	0-11" SP olive black silty sand with fines, poorly sorted, medium loose, moist
			0	21"	0-21" SP olive black fine sand with ^{no} fines or very little, medium grained, red & white specs, well sorted, very loose, wet, @ 20" 1" ML stringer moist, med. stiff, olive black, wet
				14"	0-14" SP olive black medium sand, few to no fines with red & white specs, well sorted, very loose, wet
	Water D6-62-1000		0	20"	0-20" SM silty sand with a little medium sand, olive black, poorly sorted, medium dense, moist
			0	24"	0-24" SM silty sand with a little medium sand, olive black, poorly sorted, soft and soupy, wet, some wood debris

52'
54'
56'
58'
60'
62'

10/11/00
11/21



Soil Stratigraphy Field Log

Location ID D6
 Facility GT
 Project Supplemental Offsite Char

Date 10/12/00 Field Geologist Helle Gylling, Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 798

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0	2.4"	0-24" SM silty sand with a little medium sand, olive black, poorly sorted, soft and soupy, wet, some wood debris
			0	24"	0-24" SM silty sand, same as above (62-64')
			0	20"	0-1" ML clayey silt, olive grey, soft, well sorted, moist. 1-18" SM silty sand with a little medium sand, olive black, poorly sorted, soft and soupy, wet, some wood debris 18-20" ML clayey silt, olive grey, soft, well sorted, moist
	Water D6-72-1000		0	24"	0-12" ML soupy silt, olive black with a little clay, very soft, well sorted, very wet
			0	24"	12-24" SM silty sand with a little medium sand, olive black, poorly sorted, medium dense, moist

62'
64'
66'
68'
70'

Geologist's Signature Helle Gylling Date 10/25/00 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID D60
 Facility GT
 Project Supplemental Offsite Char

Date 10/2/00

Field Geologist Helle Gylling, Tanya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 78'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
70' 0.0'			0	24"	0-10" ML soupy silt, olive black with a little clay, very soft, very wet, well sorted 10-24" ML soupy silt gradually becoming SM sandy silt towards the bottom, wet, moderately sorted, dark grey
72'			0	20"	0-20" SM silty sand with fines, olive black, poorly sorted, wet, medium dense
74'				0	Sample fell out, top part had a little olive grey soupy silt with some clay content. Bottom part was SM, sandy silt, moist, olive black
76'				~20"	0-16" ML clayey silt, wet, soft at top becoming drier and medium stiff towards bottom, olive grey, well sorted 16-20" SM silty sand with fines, olive black, poorly sorted, medium dense, wet
78'					

Geologist's Signature

[Handwritten Signature]

Date 10/2/00

Reviewer _____

Date _____

Pg 7 of 7



Soil Stratigraphy Field Log

Location ID SA-D7
 Facility GIT
 Project Supplemental Offsite Char

Date 10/10/00

Field Geologist Helle Gylling, Tasya Gray

Location Type:
 Soil Boring Only ^{Temporary} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

2'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'				14"	0-1" SM olive grey, silty sand (black, brown/orange, & white grains), dry, loose, poorly sorted 1-2" ML dark yellowish brown, medium stiff, clayey silt, dry, orange streaks, well sorted 2-3" asphalt & surface debris 3-11" ML clayey silt, slightly moist, moderate brown, medium stiff, orange spots & streaks, mm-thin lenses/laminae of very fine sand, (olive grey, poorly sorted) 11-14" SM fine silty sand, olive grey, dry, loose, poorly sorted

4'

			0	17"	0-17" SP fine sand grading to fine to medium sand towards bottom, dry, loose, olive grey
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6'

Geologist's Signature Tasya Gray Date 10/19/00 Reviewer [Signature] Date 10/19/00 Pg 1 of 10

0-2' bgs not logged, surface asphalt / fill



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00 Field Geologist Helle Gylling, Tasya Gray Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	18"	0-18" SP fine to medium sand grading from olive grey at top to dusky brown towards the bottom. Higher concentration of orange/brown grains at top than above lithology, dry, loose, poorly sorted.
			0	17"	0-18" SP dark grey, fine to medium sand with iron oxides, a little coarse sand, loose, moist, poorly sorted. 1-12.5" SP dusky brown, poorly sorted sand grading from fine at top to fine-to-medium towards the bottom, loose, moist, trace coarse sand / fine gravel. 12.5-17" SP dark grey fine-medium sand with trace coarse sand / fine gravel, loose, moist, poorly sorted.

6'
8'

10'

Geologist's Signature Helle Gylling Date 10/19/00 Reviewer [Signature] Date 10/19/00 Pg 2 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00

Field Geologist Helle Gylling, Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water D7-14-1000				
			1	16"	Breathing Zone: In-Spoon: Headspace: 0-1" SM dark grey, fine to medium sand, loose, moist, moderately sorted 1-3" ML silt, wet, very soft, well sorted, dark grey 3-16" SP graded from ML above into fine to medium sand, dark grey, loose, moist, poorly sorted
			1.2	16"	0-16" SP dark grey, fine to medium sand, loose, moist, poorly sorted
			0.4	7"	0-7" SP dark grey, fine to medium sand, loose, dry , poorly sorted, moist
			7.1	15"	0-1" SM sandy silt, dark grey, moderately sorted, soft, moist 1-15" SM grading to SP, dark grey, fine to medium sand, loose, moist, poorly sorted
			0.1	18"	0-18" SP dark grey silty sand to fine-medium sand with trace gravel, loose, moist, poorly sorted

10'
 $\sqrt{10.5}$
 12'
 14'
 16'
 18'
 20'

Geologist's Signature Helle Gylling, Tasya Gray Date 10/10/00 Reviewer AG Date 10/19/00 Pg 3 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00 Field Geologist Helle Gylling, Tasya Gray Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
20'	0.0' Water: D7-24-1000		Breathing Zone: In-Spoon: Headspace: 0	18"	0-12" SP dark grey fine to medium sand, loose, moist, poorly sorted 12-13" CL greenish olive grey clayey silt, stiff, dry, well sorted 13-18" SP dark grey fine to medium sand, loose, moist, poorly sorted
22'			0	24"	0-24" SP dark grey fine to medium sand, loose, moist, poorly sorted
24'				24"	0-18" SP dark grey fine to medium sand, loose, moist, poorly sorted, at 6" trace wood begins & continues 18-24" SP grades to ML, soft, wet, dark grey, moderately sorted, a little fine sand
26'			0	8"	0-8" SP/SM same fine dark grey sand, with varying amounts of fines, trace gravel, loose, moist, poorly sorted
28'			0	17"	0-17" SP dark grey, fine to medium sand, loose, moist, poorly sorted
30'					

Geologist's Signature Tasya Gray Date 10/19/00 Reviewer HG Date 10/19/00 Pg 4 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/10/00 Field Geologist Helle Gylling, Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30' 0.0'	Water D7-34-1000		Breathing Zone: In-Spoon: Headspace: 0	21"	0-21" SP dark grey, fine to medium sand, loose, moist, poorly sorted
32'				4"	0-4" SM/ML fine to medium, dark grey sand, loose, moist, poorly sorted with clasts of olive grey, soft, clayey silt, well sorted, moist
34'			0	24"	0-18" ML olive grey, medium stiff, clayey silt, wet, well sorted 18-20" ML/SM gradational zone from ML above to SM below 20-24" SM dark grey, silty sand with minor wood, wet, moderately sorted, loose
36'			0	6"	0-6" SM dark grey silty sand, moderately sorted, wet, loose
38'			0.2	24"	0-24" SM dark grey silty sand, moderately sorted, wet, loose
40'					

Geologist's Signature Helle Gylling Date 10/19/00 Reviewer [Signature] Date 10/19/00 Pg 5 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/19/00

Field Geologist Helle Gylling, Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 76'

40'

42'

44'

46'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water: D7-44-1000		Breathing Zone: In-Spoon: Headspace: 12.8	20"	0-5" SM sandy silt, dark grey, wet, loose, moderately sorted 5-8" SM same as above (0-5") but high concentration of wood 8-14" SM silty sand, fine to medium sand with fines, dark grey, wet, loose, moderately sorted 14-18" ML clayey silt, olive grey, soft, wet, well sorted, 18-20" SM sandy silt, dark grey, wet, loose, moderately sorted
	Soil: D7-43.5-1000		51.7	22"	0-22" SP fine-medium sand, dark grey with white and orange/brown specs (Fe-oxides), wet, poorly sorted, medium dense
			6.5	24"	0-24" SM silty sand/sandy silt, dark grey, wet, loose, moderately sorted, higher content of fines than in SM of 40-42'

Geologist's Signature Helle Gylling Date 10/19/00 Reviewer Tasya Gray Date 10/19/00 Pg 6 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/11/00

Field Geologist Helle Gylling, Tasya Gray

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 70'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
46'	0.0'		Breathing Zone: In-Spoon: Headspace: 0.3	20"	0-20" SP fine sand with only a little medium sand, dark grey with white & orange/brown specs, wet, poorly sorted, medium dense
48'			0.1	20"	0-20" SP fine sand with only a little medium sand, same as above (46-48')
50'	Water DT-54- 1000		0	24"	0-12" SM soupy, silty sand/sandy silt, very wet, dark grey, loose, moderately sorted 12-16" ML olive grey, medium stiff, clayey silt, wet, well sorted, 16-22" SM soupy, silty sand/sandy silt, very wet, dark grey, loose, moderately sorted 22-24" ML olive grey, medium stiff, clayey silt, wet, well sorted
52'			0.1	24"	0-7.5" SM soupy, silty sand/sandy silt, very wet, dark grey, loose, moderately sorted, 7.5-8.5" ML olive grey, clayey silt, medium stiff, wet, well sorted 8.5-24" SM soupy, silty sand/sandy silt, very wet, dark grey, loose, moderately sorted
54'					

Geologist's Signature Helle Gylling Date 10/11/00 Reviewer Tasya Gray Date 10/19/00 Pg 7 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/11/00 Field Geologist Helle Gylling, Tasya Gray Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2, 1" diameter acetate liners Total Depth 76'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

54'
56'
58'
60'
62'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0.1	20"	0-1" SM soupy silty sand, very wet, dark grey, loose, moderately sorted 1-2" ML clayey silt, medium stiff, olive grey, wet, well sorted. 2-20" SM soupy silty sand, very wet, dark grey, loose, moderately sorted, abundant wood from 2-16"
			0	24"	0-24" SM soupy silty sand, very wet, dark grey, loose, moderately sorted
			0	20"	0-20" SM silty sand, wet, dark grey, loose, moderately sorted
	Water D7-G4-1000		0	~12"	0-12" SM silty sand, wet, dark grey, moderately sorted, ^{loose} firms up towards bottom, woody debris

Geologist's Signature Helle Gylling Date 10/19/00 Reviewer [Signature] Date 10/19/00 Pg 8 of 10



Soil Stratigraphy Field Log

Location ID DF
 Facility GT
 Project Supplemental Offsite Char

Date 10/11/00

Field Geologist Helle Gylling, Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 76'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

62'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'			0	24"	0-1" SM silty sand, ^{very} wet, dark grey, moderately sorted, loose 1-2" ML olive grey, clayey silt, medium stiff, wet, well sorted 2-24" SM silty sand, very wet, dark grey, loose, moderately sorted, woody debris in the top 8"

64'

			0	18"	0-2" ML soupy silt, dark grey, very soft, well sorted, 2-18" SM silty sand, very wet, dark grey, loose, moderately sorted, woody debris
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66'

			0	24"	0-11" SM silty sand, very wet, dark grey, loose, moderately sorted, woody debris 11-16" SM same as above grading to ML, soupy olive grey silt, very wet, moderately sorted, becoming medium stiff & very well sorted towards bottom 16-21" ML olive grey, clayey silt, medium stiff, wet, well sorted
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Geologist's Signature Tasya Gray Date 10/19/00 Reviewer [Signature] Date 10/19/00 Pg 9 of 10



Soil Stratigraphy Field Log

Location ID D7
 Facility GT
 Project Supplemental Offsite Char

Date 10/11/00 Field Geologist Helle Gylling, Tasya Gray Location Type: Temp
 Soil Boring Only Well Test Pit


Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 5')	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					21-24" SM silty sand, very wet, dark grey, loose, moderately sorted
			0	0	sample fell out, looked like same silty sand, very wet, as above SM
	D7-74-1000		0	24"	0-24" SP fine to medium sand, dark grey, wet, poorly sorted, medium dense, only a small amount of medium grains
			0	24"	0-17" SM fine silty sand, very wet, dark grey, loose, moderately sorted, wood debris 17-24" ML soft, clayey silt, dark grey, well sorted.
				0	sample all liquid, poured out, SM, sandy silt, soupy, dark grey, moderately sorted

cont.
68'
70'
72'
74'
76'

Geologist's Signature [Signature] Date 10/19/00 Reviewer [Signature] Date 10/19/00 Pg 10 of 10

Note - D7-76-78-1000 taken for geotechnical analysis

		Soil Stratigraphy Field Log			Location ID <u>SA-D8</u> Facility <u>GT</u> Project <u>Supplemental Offsite Char</u>
Date <u>10/12/00</u>		Field Geologist <u>Helle Gylling / Tooya Gray</u>			Location Type: <u>Temp.</u> <input checked="" type="checkbox"/> Soil Boring Only <input checked="" type="checkbox"/> Well <input type="checkbox"/> Test Pit
Drilling Method <u>Geoprobe</u>		Sampling Method <u>2', 1" diameter acetate liners</u>			Total Depth <u>80'</u>
Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30' 0.0'	Water SA-D8-34-1000		Breathing Zone: In-Spoon: Headspace: <u>2.1</u>	20"	0-20" SP fine to medium sand with few fines, dark grey, loose, slightly moist, poorly sorted, black, white, & brown grains
32'			0.4	19"	0-19" SP fine to medium sand with a little coarse sand to fine gravel and a few cm size pieces of wood, dark grey with black, white, & brown grains, loose, slightly moist, poorly sorted
34'			0.1	19"	0-9" SP fine to medium sand with few fines, dark grey, loose, slightly moist, poorly sorted with abundant cm-sized wood pieces 9-19" SP fine to medium sand with few fines, dark grey, loose, slightly moist, poorly sorted
36'					

Geologist's Signature Natasha Gray Date 10/12/00 Reviewer _____ Date _____ Pg 1 of 7

Note:
 water sample SA-D8-14-1000 and SA-D8-24-1000 also taken,
 Beam logging soil at 30' bgs



Soil Stratigraphy Field Log

Location ID SA-D8
 Facility GT
 Project Supplemental Offsite Char

Date 10/12/00

Field Geologist Helle Gylling, Tasya Eray

Location Type:
 Soil Boring Only ^{TEMP.} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80'

30'

38'

40'

42'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24"	Breathing Zone: In-Spoon: Headspace: <u>0.7</u> 0-3" SP fine to medium sand with few fines, dark grey, loose, slightly moist, poorly sorted 3-4" SP fine to medium sand grading to medium to coarse sand, otherwise same as above 4-16" SP medium to coarse sand with abundant wood, loose, moist, poorly sorted 16-24" SP to ML the sand from 4-16" grades into a ^{well} sorted silt, dark grey, moist, loose sand to very soft silt, minor sand
				1.5"	0-1.5" SM fine sand with some silt, dark grey, moist ^{moderately} moist, poorly sorted, loose
	water SA-D8-44-1000		0	24"	0-24" SM sandy silt with abundant fine wood, greyish black, very wet, medium dense, poorly sorted ^{moderately}



Soil Stratigraphy Field Log

Location ID SA-D8
 Facility GT
 Project Supplemental Offsite Char

Date 10/12/00

Field Geologist Helle Grylling/Tasya Gray

Location Type:
 Soil Boring Only ^{Temp.} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'				24"	Breathing Zone: In-Spoon: Headspace: 0
					0-6" SM silty sand, dark grey, loose, wet, moderately sorted 6-14" ML soupy silt with some clay, soft, olive grey, very wet, well sorted 14-19" SM silty sand, dark grey, loose, wet, moderately sorted 19-21" SM silty sand, dark grey, loose, wet, moderately sorted, abundant wood, silt content increased 21-24" SM silty sand, dark grey, loose, wet, moderately sorted
			0.7	22"	0-5" SM silty sand, dark grey, loose, wet, moderately sorted 5-22" SM sandy silt, very wet, greyish black, moderately sorted, soft, some cm-sized nodules of clayey silt, grading to SM silty sand towards the bottom

42'

44'

46'



Soil Stratigraphy Field Log

Location ID SA-D8
 Facility GT
 Project Supplemental Offsite Char

Date 10/12/00 / 10/13/00 Field Geologist Helle Grylling / Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 5")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
46'	0.0'			0	Sample fell out. Looks like same SM silty sand as above.
48'	Soil SA-D8-49.5-1000 Water SA-D8-52-1000		27.4	20"	0-20" SM silty sand, dark grey, loose, wet, moderately sorted
50'			11.1	0	Sample fell out. Looks like same SM silty sand as above, with trace wood debris
52'	Soil SA-D8-53.5-1000 Water SA-D8-56-1000		46 (@ 53.5')	24	0-20" SP fine sand with few fines, dark grey, loose, wet, poorly sorted 20-24" ML silt with a little sand, olive black, moist, soft, well sorted
54'			0	0	Sample fell out, some SM silty sand, dark grey, loose, wet, moderately sorted, some ML, wet, medium stiff to soft, olive black silt with a little sand, moist, well sorted
56'			0	~18	0-18" SM sandy silt, greyish black, very wet, medium dense, moderately sorted
58'					

10/13
↓



Soil Stratigraphy Field Log

Location ID SA-D8
 Facility GT
 Project Supplemental Offsite Char

Date 10/13/00

Field Geologist Helle Gylling/Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
58' 0.0'			0.3	24"	0-4" ML clayey silt, fine, moist, low plasticity (cracks, not molds) some fine sands, well sorted, stiff, olive black 4-24" SP fine to medium sand with dark grey, loose, moist, poorly sorted, abundant wood from 9-20"
60'				0	sample fell out. look like some SM silt sand mix, dark grey, loose, moist, moderately sorted and some ML, clayey silt
62'	Water SA-D8-06-1000		0	24"	0-24" SM silt sand mixture, dark grey, loose, moist, moderately sorted
64'			0	24"	0-19" SM silt sand mix, dark grey, loose, moist, moderately sorted, wood debris 19-24" SM grading to ML silty sand, dark grey loose, moist, moderately sorted grading to silt with a little sand, olive black, moist, soft, well sorted
66'					

Geologist's Signature Tasya Gray Date 10/13/00 Reviewer _____ Date _____ Pg 5 of 7



Soil Stratigraphy Field Log

Location ID SA-D8
 Facility GT
 Project Supplemental Offsite Char

Date 10/13/00

Field Geologist Helle Gylling / Tanya Gray

Location Type: Temp.
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 80'

66'
68'
70'
72'
74'
76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					0-7" ML silt with a little sand, olive black, moist, soft, well sorted 7-20" SM silty sand, dark grey, medium dense, moist, moderately sorted, some wood
			0.2	22"	0-22" SM silty sand, dark grey, moderately sorted, some wood, soupy wet at the top, drier toward the bottom
				0	sample fell out, looks like SM silty sand with wood debris, soupy
	Water SA-D8-76-1000		0	24"	0-22" SM silty sand, dark grey, moderately sorted, moist, loose, some wood 22-24" ML clayey silt, moist, well sorted, medium stiff, olive black
				24"	0-24" SM silty sand, somewhat soupy at the top grading to wet towards middle & bottom, dark grey, moderately sorted,

Geologist's Signature Tanya Gray Date 10/14/00 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID SA-D8
 Facility GT
 Project Supplemental Offsite Char

Date 10/13/00
 Field Geologist Helle Gylling/Tasya Murray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2", 1" diameter acetate liners
 Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

76'
78'
80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				24"	0-24" SM sandy silt, soupy, dark grey, moderately sorted, very wet
			0	24"	0-24" ML clayey silt, wet the first 6-8", becoming medium stiff to stiff towards the middle and bottom, olive black, very well sorted

Geologist's Signature [Signature] Date 10/12/00 Reviewer _____ Date _____ Pg 7 of 7



Soil Stratigraphy Field Log

Location ID D9
 Facility GT
 Project Supplemental Offsite Char

Date 10/30/00

Field Geologist Tasya Gray

Location Type: HP
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0'
30'
32'
34'
36'
38'
40'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water: D9-13-1000 D9-23-1000		Breathing Zone: In-Spoon: Headspace:		no soil logged
	Water D9-33-1000 D9-4-33-1000		○ poor recovery	~ 6	0-6" SW olive black sand with red & white specs, fine-medium with a few coarse grains, very wet, very loose, poorly sorted
			○ poor recovery	~ 6	0-6" SW same as above
			○ poor recovery	~ 10	0-10" SW olive black sand with red & white specs, fine-medium with a few coarse grains, very wet, very loose, poorly sorted, lots of wood debris, as large as 0.75" length
			○ poor recovery	~ 10	0-10" SW same as above (34-36') but no wood
			○ poor recovery	~ 12	0-12" SW olive black sand with red & white specs, fine to medium grained, very wet, very loose, poorly sorted



Soil Stratigraphy Field Log

Location ID D9
 Facility GT
 Project Supplemental Offsite Char
 Location Type: Temp.
 Soil Boring Only Well Test Pit

Date 10/30/00

Field Geologist Tanya Gray

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

40'
42'
44'
46'
48'
outflow

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	Water: D9-43-1000		Breathing Zone: In-Spoon: Headspace: 0	24	0-24" SW poorly sorted, fine-medium sand, olive black with red & white specs, wet, loose,
			0	21	0-12" SW same as above (40-42') but with wood 12-14" ML soft, well sorted, olive grey, wet, 14-21" SW same as above (40-42')
			0	17	0-17" SW poorly sorted, mostly fine sand, some medium, olive black, wet, loose, red & white specs.
			0 Poor recovery	~16	0-5" SW same as above (44-46') 5-10" grades into SM, silty sand, very wet, higher fines content, very loose, olive black, grades back to SW as above at bottom
			0.0	24	0-16" SM silty sands, very wet and soupy, mostly fines, olive black, well sorted, very loose

Geologist's Signature Tanya Gray Date 10/31/00 Reviewer _____ Date _____ Pg 2 of 36

Greg John 10/31/00



Soil Stratigraphy Field Log

Location ID D9
 Facility GI
 Project Supplemental Offsite Char

Date 10/31/00

Field Geologist Corey Johnson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

continue
48

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'					
					Breathing Zone: In-Spoon: Headspace: 0.0
				24	16-20" ml, olive black, very fine, well sorted, dry & moist, medium soft. 20-24 sp. olive black, fine sands, medium sorted, moist, soft, loose
50'			0.0	24	0-24" sw olive black silty sands, medium sorted, wet, white specs
52'			5.8	20	0-20" sw, olive black sands, poorly sorted, moist, loose, red and white specs.
54'			18.8	22"	0-14" sm olive black, silty sands, medium sorted, wet, loose, red and white specs 14-16" organic wood debris, light brown, mostly large pieces, > 1". 16-22" sm olive black, silty sand, medium sorted, wet, loose, red and white specs

56

Geologist's Signature Corey Johnson Date 10/31/00 Reviewer _____ Date _____ Pg 3 of 3



Soil Stratigraphy Field Log

Location ID D9
 Facility BT
 Project Supplemental Offsite Characterization
 Location Type: Temp
 Soil Boring Only Well Test Pit

Date 10/31/00
 Field Geologist Lorey Johnson

Drilling Method beaprobe
 Sampling Method 2' 1" diameter Acetate liners
 Total Depth 82'

56'
58'
60'
62'
64'
66'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, Indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0 poor recovery	~10"	0-10" sw olive black, mostly fine sand some medium, poorly sorted, wet and soupy, loose, red and white specs
			0.0 poor recovery	~8"	0-8" sw olive black, mostly fine sand with some medium, poorly sorted, very wet and soupy, loose, red and white specs, small pieces of organic debris scattered throughout. ~ 2mm long, very thin, dark brown
			0.0 poor recovery	~8"	0-8" sw olive black, mostly fine with some medium sand, poorly sorted, very wet and soupy, loose, red and white specs.
			0.0 poor recovery	~8"	0-8" sm olive black, silty sands, poorly sorted, moist, loose, red and white specs
			0.0 poor recovery	~6"	0-6" ml olive black, ^{fine-} sandy silt, medium sorted, very soupy, loose, red and white specs.

Geologist's Signature Lorey Johnson Date 10/31/00 Reviewer _____ Date _____ Pg 4 of 6



Soil Stratigraphy Field Log

Location ID D9
 Facility Git
 Project Supplemental Offsite Char.

Date 10/31/00

Field Geologist Cody Johnson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, Indication of contaminants (odor or sheen), and general stratigraphic description.

66'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	24"	0-8" st sm ^t olive black, sandy silt, medium sorted, wet loose, white specs 8-13" ml olive black ^{mostly} silt with very fine sands, well sorted, wet, too soft 13-24" st sm ^t olive black, sandy silt, medium sorted, wet loose, red and white spec

68'

			2.2 poor recovery spread thin through liner	12"	0-12" sm olive black, sandy silt poorly sorted, wet and soupy, red and white specs.
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70'

			1.2	24"	0-24" ml olive black, silt with few fine-very fine sand, poorly sorted, wet - very wet, few red and white specs, very soft
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72'

			0.0	18"	0-18" ml olive black, so/so silt and fine sand, poorly sorted, very wet and soupy, red and white specs, loose/soft very small, thin organic debris throughout
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74'

Geologist's Signature Cody Johnson Date 10/31/00 Reviewer _____ Date _____ Pg 5 of 7



Soil Stratigraphy Field Log

Location ID D9
 Facility GT
 Project Supplemental Offsite Char

Date 10/31/00

Field Geologist Corey Johnson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 5')	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
74' 0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	23"	0-22" ml olive black, sandy silt. Mostly silt with few fine sand, medium-well sorted, wet, soft, 22-23" sm olive black, silty sand, poorly sorted, wet, loose, red and white specs
76'			0.0 poor Recovery	10"	0-10" sm sm olive black, silty sand, mostly sand with some silt, poorly sorted, wet, loose red and white specs. few white, medium-fine grained pieces of sand mixed throughout.
78'			0.0	22"	0-22" ml olive black mostly silt with very little very fines, well sorted, soft, fairly cohesive.
80'			0.0	24"	0-24" ml olive black mostly silt with very little very fines, well sorted, medium soft, cohesive and easily molded.
82'					



Soil Stratigraphy Field Log

Location ID 223 D10
 Facility GT
 Project Supplemental Offsite Char

Date 11/3/00 / 11/6/00 Field Geologist Helle Gylling / Tanya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2, 1" diameter acetate liners Total Depth 80

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
30' 0.0'	D10-33-1000		Breathing Zone: In-Spoon: Headspace: 0	poor recovery ~10"	0-10" SW poorly sorted fine to medium sand grayish black with white and red specks, few fines, poorly sorted, loose, soupy
32'			0	6"	0-6" SW same as above (30-32', 0-10") except trace coarse sand
34'			0	22"	0-22" SW same as above (30-32', 0-10") with trace coarse sand
36'			0	poor recovery ~10"	0-10" SW same as above (30-32', 0-10") with trace coarse sand.
38'	Water: D10-43-1000		0	20	0-20" SW poorly sorted sand, fine-medium, olive black with red & white specks, loose, wet
40'			0 poor recovery	12	0-12" SW same as above ~6" of finer SW but unable to tell if this is from top or bottom of sample.
42'					

Geologist's Signature Nancy Gray Date 11/6/00 Reviewer _____ Date _____ Pg 1 of 1

0-30' soil not logged, water samples collected: D10-13-100 and D10-23-1000



Soil Stratigraphy Field Log

Location ID D10
 Facility GIT
 Project Supplemental Offsite Char

Date 11/6/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80

42'
44'
46'
48'
50'
cont.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0	21	0-21" SW poorly sorted sand, wet, fine-medium, loose, olive black with red & white specks
			0	17	0-17" SW/SP moderately sorted sand, mostly fine grained, loose, wet, olive black with red & white specks
			0	24	0-18" SM silty sand, moderately sorted, fine every fine grained, loose, wet, olive black 18-24" SP poorly sorted sand, fine-medium, wet, loose olive black with red & white specks
			0	24	0-24" ML medium silt with a little fine sand, wet, well sorted, olive grey
	<u>WATER D10-53- 1000 S D10-9-51- 1000</u>		2.4	22	6-3" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks 3-9" ML soft, wet silt with some fine sand, olive grey, well sorted 9-16" ML medium stiff, moist silt, with a little fine sand, well sorted olive grey



Soil Stratigraphy Field Log

Location ID D10
 Facility GT
 Project Supplemental Offsite Chem

Date 11/6/00

Field Geologist Tasya Conway

Location Type:
 Soil Boring Only Wall Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liner

Total Depth 80

cont
52'
54'
56'
58'
60'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					10-18" ML same as above (3-9") 18-32" ML same as above (9-16")
			2.2	18	0-18" SW/SP moderately sorted sand, wet, loose, olive black with red & white specks, mostly fine grains
	Water D10-58-1000		10.1 poor recovery	~12	0-12" SW poorly sorted, fine-medium sand, very wet, loose, olive black with red & white specks
			6.0 poor recovery	210	0-10" SW poorly sorted sand, mostly fine with a few medium grains & some silt size content, very wet, soupy, loose, olive black with red & white specks
			21	21	0-21" SW moderately sorted silty sand, mostly fine sand with silt, wet, loose, olive black with red & white specks

Geologist's Signature Tasya Conway Date 11/6/00 Reviewer _____ Date _____ Pg 3 of 6



Soil Stratigraphy Field Log

Location ID D10
 Facility GT
 Project Supplemental Offsite char

Date 11/6/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liner

Total Depth 80

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

600

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	<u>WTC</u>			23	0-5" SM sandy silt, wet, well sorted, olive grey, fine-very fine 5-18" ML medium stiff silt, olive grey, very well sorted, wet, little or no sand 18-23" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks

602

			0	24	0-3" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks 3-8" ML soft silt, very well sorted, no sand, wet, olive grey 8-24" SM silty sand that gets more silty towards bottom, wet, loose, olive black with red & white specks
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604

	Water D10-68-1000		17.7 poor recovery	~12	0-12" SW/SM poorly sorted fine-medium sand, wet, loose, olive black with red & white specks grading to SM silty sand, moderately well sorted, wet, loose, olive black, fine sand & silt
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606

Geologist's Signature Tasya Gray Date 11/6/00 Reviewer _____ Date _____ Pg 4 of 60



Soil Stratigraphy Field Log

Location ID D10
 Facility GT
 Project Supplemental Offsite Char

Date 11/6/00 Field Geologist Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2, 1" diameter acetate liner Total Depth 80

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
66'			0 poor recovery	~ 16	0-16" SM silty sand, moderately sorted, mostly fine sand with some fines, very wet, soupy, loose, olive black with red & white specks
68'			0 poor recovery	~ 10	0-10" SM silty sand, higher sand content than previous sample, very wet, loose, soupy, olive black with red & white specks
70'	Water: D10-74-1000		12.7	24	0-24 SM silty sand, sand content increases 21-24", very wet, soupy, loose, moderately well sorted, olive black
72'			0 poor recovery	~ 12	0-12" SW poorly sorted fine-medium sand, very wet, soupy very loose, olive black with red & white specks
74'			0 poor recovery	~ 12	0-12" SM silty sand with varying amount of silt, very wet, loose, olive black, fine sand with silt, some is almost a sandy silt, moderately well sorted



Soil Stratigraphy Field Log

Location ID D10
Facility GT
Project Supplemental Offsite Char

Date 11/6/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit ^{temp.}

Drilling Method Geoprobe

Sampling Method 2" diameter acetate liner

Total Depth 80

76'
78'
80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24	0-10' ML soft silt, very well sorted, no sand, wet, olive grey 10-24" ML medium stiff silt, very well sorted, no sand, moist to wet, olive grey
			0	24	0-24" ML medium stiff to stiff, very well sorted silt, no sand, moist, olive grey
					bottom of boring

Geologist's Signature Tasya Gray Date 11/6/00 Reviewer _____ Date _____ Pg 6 of 6



Soil Stratigraphy Field Log

Location ID D11
 Facility GT
 Project Supplemental Offsite Char

Date 10/26/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	water D11-13-1000 and D11-23-1000				Breathing Zone: In-Spoon: Headspace: no sample logged
	D11-33-1000		poor recovery	~12	0-12" SW poorly sorted fine-medium sand with a few coarse grains, loose, wet, olive black with red & white specs, wood debris
			8.7 poor recovery	~12	0-12" SW same as above but no wood
			0 poor recovery	~10	0-10" SW poorly sorted, fine-medium sand, loose, soupy, very wet, olive black with red & white specs
			0	22	0-22" SW same as above (32-34)
			0 poor recovery	28	0-8" SW same as above (34-36)

0
28 ~~30~~
30 ~~32~~
32 ~~34~~
32
34 ~~36~~
36 ~~38~~
38

Geologist's Signature T. Gray Date 10/27/00 Reviewer _____ Date _____ Pg 1 of 7



Soil Stratigraphy Field Log

Location ID D11
 Facility GT
 Project Supplemental Offsite Char

Date 10/27/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
38' 0.0'	Water D11-43- 1000		0	14"	0-14" SW fine-medium sand, poorly sorted, wet, loose, olive black with red & white specs
40'			0	16"	0-16" SW same as above with a few coarse grains
42'			0	21"	0-21" SW same as above 40-42'
44'			0	17"	0-17" SW/SP moderately sorted, fine me mostly fine sand with some medium grains, loose, wet, olive black with red & white specs
46'			0	22"	0-22" SP well sorted fine sand, a few medium grains, very wet, loose, olive black with red & white specs
48'					



Soil Stratigraphy Field Log

Location ID D11
 Facility GT
 Project Supplemental offsite Chem

Date 10/27/00 Field Geologist T. Gray Location Type:
 Soil Boring Only Well Test Pit

Drilling Method geoprobe Sampling Method 2", 1" diameter acetate liner Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
48 0.0'			0	~10	0-10" SP mostly fine sand, a few medium grains, moderately well sorted, very wet, soupy, very loose, olive black with red & white grains
50'	Water D11-53-1000		0	~12	0-12" SP SW fine-medium grained sand, poorly sorted, wet, loose, olive black with red & white grains
52'			0	23	0-13" SW same as above 50-52'
54'			0	23	0-23" SW fine-medium sand, higher content of fine sand than previous sample, wet, loose, poorly sorted, olive black with red & white specs.
56'	Water D11-60-1000		1.7	24	0-4" ML stiff, very wet, silt, small amount of very fine sand, olive grey, well sorted 4-24" SM silty sand, very wet, loose, well sorted, fine, olive black, 21-24" stiffens = silt content increases to almost ML



Soil Stratigraphy Field Log

Location ID D11
 Facility GT
 Project Supplemental Offsite Char.

Date 10/27/00

Field Geologist
Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
geoprobe

Sampling Method
2', 1" diameter acetate liner

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
58' 0.0'				24	0-24" SP well sorted fine sand. Wet, loose to medium dense, olive black with red & white specs
60'			9.1	24	6-6" SP same as above 58-60' 2 2 pieces of silt ML ~.5" long by .02" wide 6-24" SM soupy silty sandy silt, very soft, well sorted, very wet, olive black with red & white specs grading to a silty sand towards the bottom ~6", same as above SM just slightly higher sand content
62'			10.0	24	0-18" SM silty sand as above grading to sandy silt as above, all very soupy
62'					18-24" ML slightly sandy silt, olive black, soft, wet, well sorted, fine-very fine
64'				23	0-6" ML sandy silt, medium stiff, well sorted, wet, olive black, silt with a few fine sand



Soil Stratigraphy Field Log

Location ID D11
 Facility GT
 Project Supplemental Offsite Char.

Date 10/27/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geo Probe

Sampling Method 2', 1" diameter acetate liner

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					<p>Breathing Zone: In-Spoon: Headspace:</p> <p>6-11" ML same as above but soft & very wet</p> <p>11-23" ML stiff, moist, olive grey well sorted silt, little or no sand. There are ~1" lens of the sandy silt (ML) of above at 17-18" and 13-14"</p>
			0	24"	<p>0-6" Interbedded lens of ML, silt, very stiff, moist, olive grey, well sorted, not plastic with ML, silt, soft, some fine sand mixed in, very wet, olive grey, well sorted</p> <p>6-13" SM silty sand, mostly fine sand with some silt, olive black with red & white specs, loose, wet, well sorted</p> <p>13-24" ML silt, stiff, wet, olive grey, well sorted, not plastic, SM (as above) lens at 18-19" and 15-16" silt is not as hard as silt from 0-6"</p>

cont.

66

68

Geologist's Signature Tasya Gray Date _____ Reviewer _____ Date _____ Pg 5 of 7



Soil Stratigraphy Field Log

Location ID D11
 Facility GIT
 Project Supplemental Offsite Char.

Date 10/27/00

Field Geologist Tasha Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liner

Total Depth 84'

69'
70'
72'
74'
76'
78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	24	0-24" ML very soft silt, very wet, soupy, olive grey, well sorted, very little sand
	Water D11-74-1000		0 poor recovery	~12	0-12" SM silty sand, fine sand with high silt content, very wet, soupy, very loose, olive black with red & white specs
			0	~16	0-16" ML silt with a little fine sand, olive grey, wet, well sorted, soft to medium stiff, not plastic
			0 poor recovery	~10	0-10" SM silty sand, olive black w/ red & white specs, very wet, soupy, very loose, well sorted,
			0	24	0-13" ML silt with a small amount of fine sand, olive black, wet, goes from medium stiff to soft, well sorted 13-24" SP/SW fine-medium moderately sorted sand, wet, loose, olive black with red & white specs

Geologist's Signature Tasha Gray Date 10/27/00 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID D11
 Facility GT
 Project Supplemental Offsite Char.

Date 10/27/00

Field Geologist Tasya Curran

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

78'
80'
82'
84'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	22	0-2" ML medium stiff silt, olive grey, well sorted, wet, 2-22" ML grading to SM ML is very soft, very wet, soupy, little or no sand, olive black, well sorted SM is sandy silt, fine-very fine, olive black, same as above but grains are visible
			0	24	0-24" ML very stiff silt, little or no sand, moist, olive grey, continuous, very well sorted,
			0	24	0-8" ML soft silt, wet, olive grey, well sorted, no sand 8-24" ML very stiff silt, no sand, moist, olive grey, very well sorted
					bottom of boring



Soil Stratigraphy Field Log

Location ID D12
 Facility GT
 Project _____

Date 11/3/00

Field Geologist Salamah Magnuson

Location Type:
 Soil Boring Only Temp Wall Test Pit

Drilling Method Hydro Auger Push

Sampling Method 2.1" Diameter Acetate Liner

Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: 0-6" Cement 6-24" Silt. NO soil sample
2			0.6	18"	0-12" SP fine and very fine sand medium to well sorted. Olive gray. Dry. loose. No red and white specs. @ 4-8" Dark gray @ 9" silt stringer orangeish gray 12-18" ML silt with very few very fine sand. Medium sorted. Dark yellowish brown. Dry. Very stiff
4	D12-4-6-1000 Soil geotech			15"	0-15" same as above 2-4 SW SP fine and very fine sand medium to well sorted. Olive gray. Dry. Loose. Collect for Geotech
6			0.6	18"	0-18" SW medium and fine sand. 50-50 medium to fine grains. Poorly sorted. Olive black. Dry. loose. Some red and white specs.
8	D12-8-70-1000 Soil geotech			18"	0-18" SW appears to be similar to 6-8 (0-18"); moist to wet.
10	D12-8-1000 SW				NO RECOVERY
12					



Soil Stratigraphy Field Log

Location ID D12
 Facility G.T
 Project _____

Date 11/3/00

Field Geologist Salomon Hill Magnusson

Location Type: Trap
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" Aralake Limer

Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
12 0.0'				12"	Breathing Zone: In-Spoon: Headspace: 1.6 0-12" SW medium and fine sand, with some silt. Poorly sorted. Olive black. Moist some coarse gravel. Loose.
17	D12-14-16-1000 Soil geotech			6"	0-6" SW collect soil for geotech
16			11.6	20"	0-20" SP fine olive black sand well sorted. wet. loose.
18	D12-18-20-1000				Geotech Sample
20	D12-2-100 guc		1.3	12"	0-12" SW medium olive black sand with some fine gravel and sand. Poorly sorted. Moist to wet. Loose. Red and white specs. Some silt.
22			1.6	12"	0-12" SP medium olive black sand with few fines and some coarse gravel sand. Poorly sorted. wet. loose. Red and white specs
24	D12-24-26-1000			22"	0-22" SW appears to be similar to 22-24 (0-12"). collect for geotech
26			1.8	9" poor recovery	0-9" SW medium and fine olive black sand. 50-50 medium to fine. Poorly sorted. wet very wet. Loose. Red and white specs.
28					

Geologist's Signature Salomon Hill Magnusson Date 11/3/00 Reviewer _____ Date _____ Pg 2 of 7



Soil Stratigraphy Field Log

Location ID D12
 Facility GT
 Project _____

Date 11/3/00

Field Geologist Selamali Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Greeprobe

Sampling Method 2 1/2" Diameter Sealate Liner

Total Depth 82

28
30
32
34
36
38

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24"	0-24" SW appears to be the same as 26-28 (0-9") Collect for geotech
	D12-35-1000 SW		0.0	24"	0-6" SW medium, fine sand with silt. Olive black. Poorly sorted. wet. loose. Red and white specs 6-7" woody debris 7-10" SM sandy silt. 65-35 silt to silt. Poorly sorted. Dark gray. wet. soft 10"-24" SP medium and fine sand with some silt. Poorly sorted. Olive black. wet. loose. Red and white specs. @ 22" woody debris.
				6" Poor recovery	0-6" SP medium and fine sand with some silt. Olive black. poorly sorted. wet. loose. Red and white specs.
	D12-34 3/4-1000 sand geotech			18"	0-18" SW appears medium grain sand. wet. Collect for geotech sample.
			0.0	24"	0-24" SP medium and fine grained sand. Olive Black. Poorly sorted. with some fines. wet. loose. Red and white specs.

Geologist's Signature Selamali Magnuson Date 11/3/00 Reviewer _____ Date _____ Pg 3 of 7



Soil Stratigraphy Field Log

Location ID D12
 Facility GT
 Project _____

Date 11/3/00 Field Geologist Salamah Magnuson Location Type: Soil Boring Only Well Test Pit
 Drilling Method Geoprobe Sampling Method 2 1/4" Diameter Acetate Liner Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D12-38 1000 soil geotech			20"	0-20" SP collect for geotech sample.
38					
40	D12-43-1000 SW		0.0	5" poor recovery	0-5" SW medium olive gray sand with some fines. Partly sorted, very wet, sticky. Very low. Red and white specs.
42			0.0	22"	0-22" SW same as above 40-42 (0-5)
44			0.0	5" poor recovery	0-5" SW same as above 40-42 (0-5)
46	D12-46-43-1000 soil geotech			18"	0-18" SW same as above 40-42 (0-5)
48			0.0	16"	0-16" SW same as above 40-42 (0-5)
50	D12-53-1000 SW		0.0	6" poor recovery	0-4" SW medium olive black sand with some medium to fine grains and some silt. Partly sorted, very wet, very loose. Red and white specs. 4-6" fine olive black sand with some medium grains and some silt. In places some fines and silt. Partly sorted very wet, very loose. Red and white specs.
52					
54					
56					
58					
60					
62					
64					
66					
68					
70					
72					
74					
76					
78					
80					
82					



Soil Stratigraphy Field Log

Location ID D12
 Facility 67T
 Project _____

Date 11/6/00

Field Geologist Salamah Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Circumferential

Sampling Method 2 1/2" Diameter - Aretoboliner

Total Depth 82

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
52 0.0'				6" Poor Recovery	SW 0-6" Medium olive black sand with some fine grains and silt. Poorly sorted. Very wet. Very loose. Red and white specs.
54	D12-54-56-1000 <i>(see) Gated</i>			20"	0-20" SW Same as above 52-54 (0-20") collect for geotechnical analysis.
56			0.0	6"	0-6" SW fine olive black sand with some medium grains and silt. Increase in silt from 52-54. Poorly sorted. Very wet. Loose. Red and white specs. Organic woody debris.
58	D12-58-60-1000 <i>rock geol.</i>			24"	0-24" SM sandy silt. Very wet. Collect for geotechnical analysis.
60	D12-63-1000 <i>SW</i>		0.0	3" Poor Recovery	0-3" SM sandy silt. 60-40 silt to sand. Poorly sorted. Very wet. Very loose. Dark gray. Organic woody debris.
62			0.0	3" Poor Recovery	0-3" SM Same as above. 60-62(0-3)
64				13"	0-13" SM same as above. 60-62(0-3) collect for geotechnical analysis.



Soil Stratigraphy Field Log

Location ID D12
 Facility GT
 Project _____

Date 1/16/00

Field Geologist Selannah Magnusson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Greeprobe

Sampling Method 2, 1" Diameter Acetate Liner

Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
66 0.0'				24"	0-18" ML silt with ^{few to no} very fine sand. Well sorted. Dark gray moist to wet. Medium stiff. 15-24" SM sandy silt. 50-50 sand to silt. very fine sand and silt. Poorly sorted. Wet. loose, soft. Olive Black. @22" organic woody debris @23" coarse grains
68			0.0	24"	0-3" SM sandy silt. 40-60 sand to silt. Increasing fines. Poorly sorted. wet, loose, soft. olive black. 3-14" ML silt with little to no fine grains. well sorted. Dark gray. wet, soft. 17-24" ML silt with few very fine sand grains. Medium sorted. Dark gray. Moist, stiff.
70	D12-25-1000 3W		0.0	20"	0-3" ML silt with few very fine sand. Medium sorted. Dark gray. wet, very soft. 3-16" SM Sandy silt. 50-50 silt to sand. Dark gray. Poorly sorted. wet, soft. 16-20" SW fine olive black sand with some silt and very fine sand. Poorly sorted. wet, loose. woody debris.



Soil Stratigraphy Field Log

Location ID D12
 Facility GT
 Project _____

Date 1/6/00

Field Geologist Salamah Magnusen

Location Type:
 Soil Boring Only Temp Well Test Pit

Drilling Method Geoprobe

Sampling Method 2 1/4" Diameter Acetate Liner

Total Depth 82

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
72 0.0'			Breathing Zone: In-Spoon: Headspace: 1.0	8" poor recovery	0-8" SM Sandy silt. 70-30 silt to sand. Dark gray. Poorly sorted. Wet, loose, soft.
74			0.0	24"	0-8" SM Sandy silt. Silt with some very fine sand. 80-75-25 silt to sand. Moderately sorted. Dark gray. wet. loose. 8-24" ML silt with little to fine sand. Dark gray. well sorted. wet. very soft.
76			0.0	24"	0-20" ML silt with little to no fine sand grains. Dark gray. Well sorted. wet-soupy. very soft. 20-24" SM sandy silt. Silt with some to few very fine sand. 65-35 silt to sand. Poorly sorted. wet. loose, soft.
78			0.0	24"	0-24" ML VERY FINE, VERY WELL SORTED, MOIST TO WET, MID STIFF, OLIVE GRAY SILT
80			0.0	24"	0-24" ML silt with no fines. Dark gray. Moist. Stiff. Well sorted.
82					

Geologist's Signature Salamah Magnusen Date 1/6/00 Reviewer _____ Date _____ Pg 7 of 7



Soil Stratigraphy Field Log

Location ID D13
 Facility GT
 Project _____

Date 11/7/00

Field Geologist Selma Maguison

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Catoprobe

Sampling Method 2', 1" Diameter Acetate Liner

Total Depth 52

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D13-13-100 D13-23-100 D13-33-100				NOT LOGGED
30			0.0	12"	0-12" SW fine olive black sand with some silt and medium grains. Poorly sorted. Wet. Loose. Red and white specs.
32			1.2	20"	0-20" SW same as above
34			0.0	20"	0-20" SP fine olive black sand with few silt. Well sorted. Wet. loose. Red and white specs.
36			0.0	12" poor recovery	0-12" SW fine olive black sand with some silt. Poorly sorted. Wet loose. Red and white specs.
38			0.0	24"	0-24" SP fine olive black sand with little to no silt. Well sorted. wet/loose. Red and white specs.
40			0.0	18"	0-18" SW fine olive black sand with some silt and few medium grains. Poorly sorted. wet loose. Red and white specs.
42	D13-43-100		0.0	20"	0-20" SW fine olive black sand with few silt, A few pebbles, a few coarse grains. Medium to poorly sorted. Wet. Medium stiff. Red and white specs.

Geologist's Signature Selma Maguison Date 11/7/00 Reviewer _____ Date _____ Pg 1 of 4



Soil Stratigraphy Field Log

Location ID GT D13
 Facility GT
 Project Supplemental Offsite Char

Date 11/7/00 Field Geologist Salamah Magnusson Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" Diameter Acetate Liner Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
44				23"	0-23" SW medium olive black sand with fine and coarse grains. Moderately to sorted. Wet. Medium dense. Red and white specs
46			1.9		
48			5.5	22"	0-22" SW same as above
			0.0	6" poor recovery	0-6" SW medium olive black sand with silt. Poorly sorted. Wet. Very loose. Red and white specs. Organic woody debris.
50			0.0	24"	0-24" silty sand. Fine and very fine sand with some silt. 75-85 sand to silt. Poorly sorted. wet, loose. Red and white specs.
52	D13-S3-1002		0.0	8"	0-8" same as above.
54			0.0	24"	0-24" SM silty sand. Fine and very fine sand with some silt. Increased silt. 65-35 sand to silt. Poorly sorted. wet. loose. Red and white specs. woody debris
56			0.0	24"	0-24" Same as above. @ 16" silt lense.
59			0	~12"	0-12" SM silty sand, nearly 50% silt, very wet, soupy, loose, moderately sorted, olive black with red & white specks
60					

Geologist's Signature Salamah Magnusson Date 11/7/00 Reviewer _____ Date _____ Pg 2 of 4



Soil Stratigraphy Field Log

Location ID D13
 Facility GT
 Project Supplemental Offsite Char

Date 11/7/00 Field Geologist Salamah Magnuson / Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2, 1" diameter acetate liner Total Depth 82

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
60 0.0'	D13-63-1000 Silt		Breathing Zone: In-Spoon: Headspace: 0.0	4" poor recovery	0-4" Same as above.
62	D13-62-64-1000 Sand		60.6	24"	0-24" SW fine olive black sand with some very fine sand and silt. Poorly sorted. Wet. loose. Red and white specs. PID 60 @ 3". Disturbance hits > 8ppm throughout
64			2.8	4" poor recovery	0-4" SW silty sand. 50-50 sand to silt. Poorly sorted. Olive black. wet. loose. Red and white specs. woody debris.
66			0.0	24"	0-12" ML silt with no fines, some clay. Well sorted. Dark gray, wet. Medium stiff. 12-24" SM silty sand. 50-50 sand to silt. Poorly sorted. Wet. olive black. loose-soft.
68			0.0	24"	0-18" SM sandy silt. Silt with some very fine sand. 75-25 silt to sand. Moderately sorted. Dark gray. Soft. Wet, very wet. 18-24" SM sandy silt. Silt with some very fine sand. 65-35 silt to sand. Poorly sorted. Dark gray. Soft. Wet.
70					



Soil Stratigraphy Field Log

Location ID D13
 Facility GT
 Project Supplemental Offsite Char

Date 11/7/00-11/8/00

Field Geologist Salamah Magnison

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
70	D13-73-100 SW		Breathing Zone: In-Spoon: Headspace: 6.5	10" poor recovery	0-10" same as above 68-70 (18-24")
72	D13-73-100		0.7	4" poor recovery	0-4" same as above 68-70 (18-24")
74			2.0	24"	0-8" ML silt with very fine sand. 80-20 silt to sand. well sorted. Very wet. Very soft. Organic debris. Dark gray. 8-70" SM sandy silt. Dark gray. Silt with fine sand. 60-40 silt to sand. Poorly sorted. Soft. wet. 20-24" SM/SW silty sand. sand with some silt. 50-50 sand to silt. Olive black. Poorly sorted. Wet. loose.
76			1.7	3" poor recovery	0-3" SM Sandy silt. Dark gray. 60-40 silt to sand. Poorly sorted. Very wet. Very soft.
78			0.0	24"	0-24" ML silt with some clay. Dark gray. Very well sorted. Dry. Very stiff.
80			0.0	24"	0-8" ML silt and clay. Dark gray. well sorted. Moist. Soft. 8-24" ML silt and clay. Dark gray. well sorted. Dry. Very stiff.

Geologist's Signature Salamah Magnison Date 11/8/00 Reviewer _____ Date _____ Pg 4 of 4



Soil Stratigraphy Field Log

Location ID D14
 Facility GT
 Project Supplemental Offsite Cha

Date 11/1/00

Field Geologist
Tasya Gray, Salamah Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2', 1" diameter acetate liners

Total Depth
80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 5")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water: D14-13-1000 D14-23-1000				no soil logged
30'	Water: D14-33-1000		0 poor recovery	~ 8	SW 0-8" poorly sorted fine-medium sand with some coarse grains, red & white specs, olive black, very wet, very loose,
32'			0 poor recovery	~ 14	SW 0-14" same as above (30-32)
34'			0 poor recovery	~ 10	0-10" SW poorly sorted fine-medium sand, red & white specs, olive black, very wet, very loose
36'			1.1	21	0-21" SW poorly sorted sand, same as fine-medium, olive black with red & white specs, wet, loose
38'			0	22	0-22" SW same as above (36-38')
40'	Water: D14-43-1000 D14-9-43-1000		0	23	0-23" SW same as above (36-38') some silt mixed in at ~ 21"
42'					

Geologist's Signature Tasya Gray Date 11/1/00 Reviewer _____ Date _____ Pg 1 of 3



Soil Stratigraphy Field Log

Location ID D14
 Facility GT
 Project Supplemental Offsite Char

Date 11/1/00 Field Geologist Tanya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 80'

42'
44'
46'
48'
50'
52'
54'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0	23	0-23" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specs, some silt @ ~22"
			0 poor recovery	~16	0-16" SW poorly sorted sand, fine-medium, very wet, loose, olive black with red & white specs, some wood debris
			0 poor recovery	~12	0-12" SW same as above (44-46')
			1.2 poor recovery	~12	0-12" SW same as above (44-46')
	Water D14-S3- 1000		4.5 poor recovery	~12	0-12" SW same as above (44-46')
			1.4 poor recovery	~12	0-12" SW/SP SW as above grading into moderately sorted sand, higher fine sand content, still a few medium grains, wet, loose, some silt content beginning in last few inches, olive black with red & white specs



Soil Stratigraphy Field Log

Location ID D14
 Facility GT
 Project Supplemental Offsite Char

Date 11/1/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

54'
56'
58'
60'
62'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0	24	0-24" SP grading to SW around 12" in, goes from mostly fine grained sand with a little silt to a fine to medium sand mix with no silt, wet, loose, sorting gets poorer in bottom half, olive black with red & white specs
			0	22	0-22" SW fine-medium sand, poorly sorted, no fines wet, loose, olive black with red & white specs
			0	22	0-22" SM slightly silty sand, silt content increases towards bottom, mostly fine, some medium sand, wet, loose, olive black with red & white specs, moderately sorted
	Water D14-03- 1000		0 poor recovery	1/2"	0-12" SM very loose, soupy, silty sand, very wet, olive black, well sorted, small amount of small fibrous (wood) pieces



Soil Stratigraphy Field Log

Location ID D14
 Facility GT
 Project Supplemental Offsite Char

Date 11/1/00

Field Geologist
Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2, 1" diameter acetate liners

Total Depth
80'

62'
64'
66'
68'
70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				10	0-10" SM sandy silt, very soft, very soupy, very wet, well sorted, mostly silt with some fine sand, olive grey
	Water D14-68-1000		7.6	16	0-16" SM same as above, (62-64) but slightly stiffer
			1.3	24	0-20" SM soft sandy silt, wet, well sorted, olive grey, silt with fine sand 20-24" ML medium stiff silt, very little sand, moist-wet, ^{very} well sorted, olive grey
			0.4	18	0-11" ML medium stiff silt, no sand, very well sorted, olive grey, moist to wet, 11-18" SP moderately well sorted sand, fine-medium grained, wet, loose, olive black with red & white specs,

Geologist's Signature Tasya Gray Date 11/2/00 Reviewer _____ Date _____ Pg 4 of 7



Soil Stratigraphy Field Log

Location ID D14
 Facility GT
 Project Supplemental Offsite Char

Date 11/1/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

70'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)
0.0'			Breathing Zone: In-Spoon: Headspace: <u>0</u>	23

0-5" SP, moderately well sorted, fine sand with a few medium grains, wet, loose, olive black with red & white grains,
 5-10" SM, sandy silt, very wet, very loose/soft, fine sand and silt, olive black with red & white grains well sorted
 10-13" ML, very soft silt, very wet, little or no sand, olive grey, very well sorted
 13-23" SM sandy silt, wet, soft, olive black, well sorted, fine sand & silt

72'

			<u>0</u> poor recovery	~16
--	--	--	---------------------------	-----

0-16" SM silty sand, very wet, soupy, very loose, olive black with red & white specs, well sorted, fine sand & silt

74'

	<u>water; D14-78-1000</u>		<u>0</u> poor recovery	~16
--	---------------------------	--	---------------------------	-----

0-16" SW mostly fine sand with some medium grains, poorly sorted, wet, loose, olive black with red & white specs

76'



Soil Stratigraphy Field Log

Location ID D14
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00

Field Geologist Tasya Gray/Helle Gylling

Location Type:
 Soil Boring Only ^{trip} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					
76'			0.0	24'	<p>Breathing Zone: In-Spoon: Headspace: 0.0</p> <p>0-8" ML silt, very fine-grained, olive black, wet, well-sorted, few grains of fine sand, soft</p> <p>8-24" ML same as above (76-78', 0-8") except moist & medium stiff</p>
78'			0.0	23'	<p>0-13" ML silt same as above (76-78', 0-8")</p> <p>13-23 ML silt same as above (76-78', 8-24")</p>
80'					

Geologist's Signature Helle Gylling Date 11/2/00 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID D15
 Facility GT
 Project ZAD Supplemental Closure

Date 10/26/00

Field Geologist Salamak Magnuson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" Diameter, Acetate liner

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0					Not logged
30			0.0	5" poor recovery	0-5" medium olive black SP sand with few fine grains medium sorted, wet-soupy, very loose. Red and white specs. Organic woody debris.
32			0.0	0-12" poor recovery	0-12" SW medium olive black sand with increasing fine grains, few pebbles, poorly sorted, very wet, soupy, very loose. Red and white specs.
34			0.0	0-12" poor recovery	0-12" SW medium olive black sand with increasing ^{fine and coarse} grains and few pebbles. Poorly sorted, very wet, soupy, very loose. Red and white specs. woody debris.
36			0.0	20"	0-20" SW SP medium and fine olive black sand. 50-50 ^{medium} sand to fine sand, few coarse sand, and pebbles. Wet, loose. Red and white specs. woody debris @ 8" prolific organic woody debris
38					



Soil Stratigraphy Field Log

Location ID D15
 Facility GT
 Project Supplemental Offsite Char

Date 10/26/00

Field Geologist Salamah Magnuson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
38	D15-5m		0.0	8"	0-8" SP fine olive black sand with few medium grains. medium sorted. wet. loose. Red and white specs. organic woody debris.
40	D15-43-1000 Sw		0.0	12"	0-12" SP fine, olive-black sand with few (3%?) medium grains. Moderately well sorted. Wet. Loose. Red specks, white specks.
42			0.0	12"	0-10" SMA Silty fine to medium sand. Contains < 1% coarse sand. SW fine to med sand, poorly sorted. Red specks, white specks wet, loose. Olive black. 10-12" SM Silty fine sand, dark gray. Red specks, white specks
44			0.0	7"	0-7" SW Medium olive black sand with some fine and coarse grains, and some silt. Poorly sorted. Wet. Loose. Red and white specs. Some small pebbles.
46			0.0	12"	0-12" SW medium olive black sand with some fine grains and few coarse grains. 70-30 medium to fine sands. Poorly sorted. wet. loose. Red and white specs.
48					



Soil Stratigraphy Field Log

Location ID D15
 Facility GT
 Project Supplemental Offsite Char

Date 10/26/00

Field Geologist Salamah Magnuson

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2-ft, 1-in. dia. acetate liners

Total Depth 42'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
48 0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	12"	SW dark grey, poorly sorted sand ~60% fine / 40% med grained. Occasional coarse sand grains or pebbles (up to 18mm max length) throughout (<1%) wet, loose, Red specks, white specks.
50			0.0	24"	0-24" SP fine, olive, black sand with few medium medium grains. 75-25 fine to medium grained. medium sorted. Moist to wet. loose to slightly dense. Red and white specks.
52			0.0	10"	0-10" SP fine olive black sand with few medium grains. 80-20 fine to medium grained sand. well sorted. Moist medium dense. Red and white specks.
54			0.0	16"	0-16" SW fine olive black sand with few some medium grains. 60-40 fine to medium grains. poorly sorted. wet. loose. red and white specks.
56			0.0	16"	0-16" SM very fine to fine olive black sand with silt. 60-40 sand to silt. Poorly sorted. Wet, loose, red and white specks. 5-10" SM silt with very fine sand. 60-40 silt to sand poorly graded very wet, very loose, brown.

58
60



Soil Stratigraphy Field Log

Location ID D15
 Facility GT
 Project _____

Date 10/26/00

Field Geologist Salamah Magnusson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" Acetate liner

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
58'60'			Breathing Zone: In-Spoon: 0.0 Headspace: 0.0	20"	SP dark gray, fine to medium sand (~70% fine, ~30% med.) moderately well sorted. Red specks, white specks, moist but not soupy. Occasional silt "pebbles" up to 1cm dia. throughout (but less than 1% by volume). [0-20"]
60'			0.0	10"	SP 0-10" SP dark gray, fine sand, moderate to well sorted. Red specks, white specks, wet and loose (soupy)
62'			0.0	20"	SM 0-20" SM dark gray, (olive?) silty, very fine sand, white specks and barely visible red specks. Wet. Silt pebble at ~16" (1cm dia.). Well sorted Noncohesive
64'			0.0	8"	0-8" SM dark gray, silty, very fine sand, well sorted. White spots. Barely visible red specks. Wet and loose. Organic woody debris present.
66'			10.1 at 3" 15"	18"	0-18" SM dark gray, silty, very fine, well-sorted sand. White specks. Woody organic debris. ^{with silt} wet, loose.
68'			0.0	10"	0-10" SM dark gray, silty, fine, moderately to well sorted fine sand. White specks, red specks, wet, loose, mica (?) visible with 10X hand lens.
70'			0.0	22"	0-4" ML dark gray, well sorted silt, med. plasticity, moist, cohesive 4-8" ML dark gray, sandy silt, med to low plasticity. moist 8-22" SM silty sand, dark gray, wet, moderately sorted. White specks
72'					

Geologist's Signature Salamah M Date 10/26/00 Reviewer _____ Date _____ Pg 4 of 5



Soil Stratigraphy Field Log

Location ID D15
 Facility GT
 Project Supplemental offsite Char.

Date 10/26/00

Field Geologist
Joe Depner

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2-ft, 1-in dia. acetate liner

Total Depth
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
72'	0.0'			22"	0-2" ML sandy silt, dark gray moist, cohesive, med. plastic 2-10" SP silty fine sands, well sorted, dark gray 10-12" ML dark gray sandy silt, well sorted, dark gray 12-22" SP silty fine sand, well sorted, dark gray with white specks.
74'			0.0	24"	0-24" ML dark gray, well sorted, wet, cohesive, plastic silt
76'			0.0	22"	0-14" sm silty sand, well sorted, wet, dark gray with white specks 14-22" ml silt with very fine sands, dark grey, well sorted, moist, cohesive,
78'			0.0	24"	0-24" ml silt with few very fine sands, dark gray, well sorted, moist, cohesive
80'			0.0	24"	0-24" ml silt with few very fine sands, dark grey, well sorted, moist cohesive, 0-12" slightly more moist than 12-24"
82'					

Geologist's Signature Joe Depner Date 10/26/00 Reviewer _____ Date _____ Pg 5 of 5



Soil Stratigraphy Field Log

Location ID D16
 Facility GT
 Project Supplemental Offsite Chmr.

Date 10/27/00

Field Geologist Covey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' 1" diameter acetate liner

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
30'	Water D16-33-1000				
					Breathing Zone: In-Spoon: Headspace: 0.0
			0.0	24"	0-24" SP olive black, medium sands, medium-well sorted, red and white specs, wet, loose
32'			0.0	12"	0-12" SP olive black, medium sands with few coarse grains, medium sorted, white grains, wet and soupy, loose
34'			0.0	22"	0-22" SP olive black, median sands with few coarse grains, medium sorted, white and red specs, wet, loose
36'			0.0	18"	0-12" SP olive black, medium sands, few coarse grains, medium sorted, red and white specs, wet, loose 12-18" SP olive black, medium sands with gravelly sands, poor-medium graded, wood debris in 17-18", wet, loose, red and white specs.
38'			0.0	20"	0-20" SP olive black, medium sands, medium-well sorted, red and white specs, moist, loose
40'					

Geologist's Signature Covey Johnson Date 10/27/00 Reviewer _____ Date _____ Pg 1 of 7

soil was not logged until 30' bgs
 Samples collected above 30' bgs: water: D16-13-1000,
 D16-23-1000



Soil Stratigraphy Field Log

Location ID D16
 Facility BT
 Project BT 7000 Supplemental Offsite Characterization

Date 10/27/00

Field Geologist Carey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Hand Geoprobe

Sampling Method 2'1" diameter Acetate liners

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40' 0.0'			0.0	18"	0-18" sp olive black, medium sands, medium-well sorted, red and white specs, moist, loose
42'			0.0	6"	0-6" sp olive black, medium sands, medium-well sorted, red and white specs, wet and soupy, loose, poor recovery
44'			0.0	18"	0-18" sp olive black, medium sands, medium-well sorted, red and white specs, moist, loose
46'			0.0	20"	0-20" sp olive black, medium sands, medium-well graded & sorted, red and white specs, moist, loose
48'				poor recovery	sw olive black w/ blocks, white & red specks, medium sand w/ some coarse sand, white and fine gravel (dark greenish grey hardened clumps of clay), soupy, loose, poorly sorted, some fines.

50' Geologist's Signature Carey Johnson Date 10/27/00 Reviewer _____ Date _____ Pg 2 of 7



Soil Stratigraphy Field Log

Location ID D16
 Facility GT
 Project Supplemental D/H site Char.

Date 10/27/00

Field Geologist Corey Johnson, Helle Gylling

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" dia. acetate liner

Total Depth 84

50'
52'
54'
56'
58'
60'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: 0.0 Headspace:	21"	0-21" SW olive black w/ red and white specks, medium to fine sand, moist, medium clay, poorly sorted, few fines
				poor recovery	SW olive black w/ red and white specks, fine to medium sand (more fine sand than above (50-52', 0-21')), wet, some fines, loose, poorly sorted
			0.0	18"	0-18" SW/SP olive black sands, medium sands, red and white specks, fine, medium sorted, wet, loose
			0.0	20"	0-18" SW/SP olive black, medium sands, red and white specks, medium-well sorted, moist, loose.
			0.0	18"	0-18" SP/SW olive black fine to medium sand, red & white specks, medium sorted, moist, loose, gradls from SP at the top to SW towards the bottom

Geologist's Signature Helle Gylling Date 10/27/00 Reviewer _____ Date _____ Pg 3 of 7



Soil Stratigraphy Field Log

Location ID 016
 Facility 61
 Project Supplemental Off-site Check

Date 10/27/00

Field Geologist Corey Johnson, Helle Gylling

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" 1" dia. acetate lined

Total Depth 84

60

62

64

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				19"	0-19" SW olive black fine to medium sand w/red & white specks, few fines, moist, poorly sorted, medium dense
				21"	0-9" SM olive black silty sand (fine to very fine) w/red & white specks, wet, medium sorted, loose 9-12.5 ML clayey silt, soft, well sorted, olive grey, wet 12.5-14.5 SM same as above (62-64', 0-9") 14.5-15.5 ML same as above (62-64', 9-12.5") 15.5-16.5 SM same as above (62-64', 0-9") 16.5-17.5 ML same as above (62-64', 9-12.5") 17.5-21 SM same as above (62-64', 0-9")

Geologist's Signature [Signature] Date 10/27/00 Reviewer _____ Date _____ Pg 4 of 7



Soil Stratigraphy Field Log

Location ID D16
 Facility GT
 Project Supplemental off-site char

Date 10/27/00 & 10/30/00

Field Geologist Helle Gilling, Tasha Lizzy

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2.1" diameter acetate liner

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					SP/SM olive black fine to medium sand w/white & red specks, soupy, nearly to medium sorted, some inch-size clumps of very silty sand, loose
	Water D16-70-1000		76.8	~20"	0-15" SM olive black silty sandy/white & red specks, medium sorted, wet, loose; grades into: 15-20" ML olive black silt w/very little fine sand, well sorted, soft wet,
			19.1	~12"	0-12" SM sandy silt, olive black, very wet, soupy, very soft, moderately sorted
			1.0	24	0-12" ML stiff silt, olive grey, moist, well sorted, little or no sand 12-15" SP SM moderately sorted sand, olive black, wet, fine-medium grained, red & white specks loose

64

66

68

70

cont.

10/27
10/30

Geologist's Signature Tasha Lizzy Date 10/30/00 Reviewer _____ Date _____ Pg 5 of 7



Soil Stratigraphy Field Log

Location ID D16
 Facility GT
 Project Supplemental Offsite Char

Date 10/30/00

Field Geologist Tasya Gray

Location Type: TEMP.
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, Indication of contaminants (odor or sheen), and general stratigraphic description.

cont.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					Breathing Zone: In-Spoon: Headspace: 15-19" ML silt with a little sand, olive grey, medium stiff, wet, well sorted 19-21" SP(SW) moderately sorted sand, wet, loose, olive black with red & white specs, fine-medium 21-24" ML silt, olive grey, medium stiff soft, moist to wet, well sorted
72'			0 above background (0.6)	23	0-23" ML silt with a little sand, sand content increases last ~4", olive black, very wet, very soft, well sorted, white specs
74'			0 above background poor recovery	216	0-16" SW silty sand, very wet, soupy, very loose, olive black, some white grains, mostly fine to very fine, moderately well sorted
76'			9.5	24	0-24" ML silt with a little fine sand, very wet, soupy, very soft, olive black, well sorted
78'					

Geologist's Signature Tasya Gray Date 10/30/00 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID D16
 Facility GT
 Project Supplemental Offsite Char

Date 10/30/02 Field Geologist Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 84'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
78' 0.0'			Breathing Zone: In-Spoon: Headspace: 7.2	24	0-24" sandy silt, fine-very fine, very wet soupy, well sorted, olive black, very soft
80'			0	24	0-10" ML silt, well sorted, olive grey, very soft, wet 10-24" ML silt, well sorted, olive grey, medium stiff, moist to wet
82'			0	24	0-8" ML soft silt, well sorted, olive grey, wet, 8-24" ML stiff silt, well sorted, olive grey, moist
84'					bottom of boring



Soil Stratigraphy Field Log

Location ID DL7
 Facility GT
 Project Offsite Supplier Wash/Clar.

Date 10/24/00

Field Geologist Salamah Magnusen

Location Type:
 Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Cone probe

Sampling Method 2", 1" Diameter Acetate liner

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	gw DL7-13-1000 DL7-23-1000				Breathing Zone: In-Spoon: Headspace: NOT LOGGED
30'	gw DL7-33-1000		3.7	0-18"	0-14" ^{SP} SW Medium olive gray black sand. Mostly medium grains with some coarse and fine sands. Poorly sorted. Very wet. very soft loose. Organic woody debris. Red and white specs. 14-18" ^{SW} Same as above with increasing medium and fine grain sands and less coarse grain sands.
32'			0.0	0-20"	0-20" fine olive black sand with ^{SW} some medium grains. no coarse grains. poorly sorted. wet. loose. Prolific organic woody debris. Red and white specs.
34'			0.0	0-20"	0-20" SP fine olive black sand with few medium grains. no coarse, well sorted. wet. loose. pr organic woody debris. Red and white specs.
36'			0.0	20"	0-20" SW fine olive black sand with some medium grains. poorly sorted. wet. loose. pebbles - subrounded through out. woody debris. @18-20" lots of large 2-20cm woody debris.



Soil Stratigraphy Field Log

Location ID D17
 Facility GT
 Project Affiliate Supplemental Clean

Date 10/24/00 Field Geologist Selama W. Magnuson Location Type: Soil Boring Only Well Test Pit

Drilling Method Creeperush Sampling Method 2.1" Diameter Acetallic Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
38			0.0	20"	SP 0-20" medium olive black sand. few fine grains, well sorted. Wet. loose. white and red specs. woody debris up to 20cm clumps
40	SW D17-43-100		0.0	12"	0-12" SP same as above 38-40 (0-20")
42			0.0	24"	0-24" SW fine to medium olive black sand. 50-50% fine to medium grains. poorly sorted. moist-wet. medium dense. red and white specs. woody debris.
44			0.0	24"	0-24" SW same as above 42-44 (0-24")
46			0.0	20"	0-20" SW same as above 42-44 (0-24")
48			0.0	20"	0-20" SW medium olive black sand with some fines and some coarse grains. poorly sorted. moist-wet. loose-medium dense. red and white specs. some pebbles.
50	SW D17-53-1000		0.0	6" poor recovery	0-6" same as above 48-50 (0-20")
52					



Soil Stratigraphy Field Log

Location ID D17
 Facility GT
 Project Offsite, Supplemental Char

Date 10/24/00-10/25

Field Geologist Salamah Magrison

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2' 1" Diameter Acetate liner

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
52	0.0'		0.0	20"	0-20" ^{SP} Fine olive black sand with few ^{medium} fine grains. well sorted. wet. medium dense. Red and white specs
54			0.1	12"	0-12" same as above 52-54 (0-20")
56			0.0	4" poor recovery	0-4" same as above 52-54 (0-20")
58			0.0	12"	0-12" ^{SP} Fine olive black sand with few medium sand grains. well sorted. wet. medium dense Red and white specs. 10/24 11-125
60	D17-63- 1000 gw		0.0	24"	0-24" SW medium and fine olive black sand with few coarse grains. Poorly sorted. wet. medium dense. Red and white specs. Organic woody debris.
62			0.0	24"	0-18" SM sandy silt, 50-50 sand to silt. very fine sand. poorly sorted. Olive black. wet. loose Organic debris. 18-24" SW fine and very fine sand with some silt. Olive black. Poorly sorted. moist to wet. loose. Red and white specs.
64					



Soil Stratigraphy Field Log

Location ID D17
 Facility GT
 Project Supplemental Offsite Char

Date 10/25 - 10/26/00
 Field Geologist Salamah Magnuson

Location Type:
 Soil Boring Only Trip Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2', 1" diameter acetate liners

Total Depth 84'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0.0	poor recovery	SW Fine and very fine sand with a little silt. olive black, very wet, poorly sorted, loose. Red and white specks.
			0.0	24"	0-8" ML sandy silt. silt with very fine sand. 75-25 silt to sand. Medium sorted. Moisture wet. stiff. Olive Dark gray. 8-18" SW very fine sand with some silt. Increasing silt with depth. Poorly sorted. Olive Black. wet. soft. 18"-24" SW sandy silt. silt with very fine sand. 60-70 silt to sand. Poorly sorted. olive black. wet. soft-loose
			0	~10"	0-10" SM soupy sandy silt, olive grey, well sorted, very wet, very soft,
	Water: D17-73-1000		0	~12"	0-12" SM same as above
			0	23"	0-16" SM silty sand, soupy, very wet, very loose, olive black, well sorted, 16-21" ML medium stiff silt, very well sorted, olive grey, wet,

64

66

68

70

72'

cont.

10/25
10/26

Geologist's Signature [Signature] Date 10/26/00 Reviewer _____ Date _____ Pg 4 of 6



Soil Stratigraphy Field Log

Location ID D17
 Facility GT
 Project Supplemental Offsite Char

Date 10/26/00 Field Geologist T. Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					21-23" SM sandy silt, olive grey silt with a lot of fine sand, wet, medium stiff, still somewhat plastic
				~10"	0-10 SM/ML silty sand, olive black, very wet, soupy, well sorted, grading to ML silt with small amount of fine sand, olive black, very wet, soupy, well sorted
			0	24	0-3" SM sandy silt, olive black, very wet, well sorted, fine sand with silt 3-24" ML very soft silt with a small amount of sand, very wet, well sorted, olive black, stiffens to medium stiff 21-24"
			0	23	0-3" ML silt with small amount of fine sand, wet, medium stiff, olive black, well sorted 3-23" ML silt with ^{very little} some fine sand, ^{very} wet, soupy, very soft, olive black, well sorted

cont.
74'
76'
78'
80'



Soil Stratigraphy Field Log

Location ID D17
 Facility GT
 Project Supplemental Offsite Char

Date 10/26/00

Field Geologist T. Gray

Location Type: temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

80'
82'
84'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'			0	24	0-24" stiff silt, very well sorted, moist, olive grey, not plastic (cracks not molds very well)
			0	24	0-24" same as above
					bottom of boring

Geologist's Signature Nathan J. Gray Date 10/26/00 Reviewer _____ Date _____ Pg 6 of 6



Soil Stratigraphy Field Log

Location ID D18
 Facility GT
 Project Supplemental Offsite Char

Date 10/23/00

Field Geologist T. Gray

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2.1" diameter acetate liners

Total Depth 82

0'
30'
32'
34'
36'
38'
40'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	water D18-13-1000 D18-23-1000		Breathing Zone: In-Spoon: Headspace:		no soil logged
	water D18- 38-1000		19.3 but only on really wet, 5.1 on soil	~21"	SW poorly sorted sand, 0-21" fine-medium grained, wet, loose, red & white specs, olive black
			poor 0.0 recovery, had to bang out sample	~12"	SW same as above (30-32') 0-12"
			0.0 poor recovery again	~18"	SW poorly sorted sand, mostly 0-18" fine sand, a few fines & a few medium grains, wet, loose, red & white specs, olive black, very similar to above but finer
			0.0 poor recovery again	~12"	SW poorly sorted sand, fine-0-12" medium grained, few to no fines, wet, loose, red & white specs, olive black,
			0.0	9"	SW/moderately sorted fine sand, a few medium grains, wet, loose, red & white specs, olive black, 0-9"



Soil Stratigraphy Field Log

Location ID DIS
 Facility GT
 Project Supplemental Offsite Char

Date 10/23/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 42

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40 0.0'	Water DIS-43-1000 & DIS-4-43-1000		Breathing Zone: In-Spoon: Headspace: ○	~19"	SP 0-19" SP fine grained sand, olive black, moderately well sorted, wet, medium dense, red & white specs, woody debris, especially concentrated at 2-4" and 16-18"
42'			○ poor recovery	~12"	0-12" SW fine-medium sand with some coarse grains, very wet, poorly sorted, loose, red & white specs, lots of wood
44'			○ poor recovery	~16"	0-16" SP fine grained sand, moderately well sorted, olive black, little or no fines, loose, very wet, red & white specs
46'			○	22"	0-22" SP same as above
48'			○	22"	0-22" SP/SW fine-medium sand, moderately sorted, olive black, red & white specs, loose, wet
50'	Water DIS-53-1000		○ poor recovery	~10"	0-10" SP/SW same as above (48-50') but very wet, soupy

Geologist's Signature T. Gray Date _____ Reviewer _____ Date _____ Pg 2 of 10



Soil Stratigraphy Field Log

Location ID D18
 Facility GT
 Project Supplemental Offsite Char

Date 10/23/00

Field Geologist
T. Gray

Location Type:
 Soil Boring Only ^{temp} Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2", 1" diameter acetate liners

Total Depth
82

52'
54'
56'
58'
60'
62'
64'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, Indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: ○ poor recovery	~12"	0-12" SW partly sorted sand, fine-medium, olive black, red & white specs, loose, wet
			○ poor recovery	~2"	0-2" SP/SW same as above but very soupy, mostly water in sampling tool
			○	22"	0-22" SP/SW fine-medium sand, moderately sorted, wet, red & white specs, loose, olive black, small amount of wood @ ~5" in
			○ poor recovery	~12"	0-12" SP/SW fine-medium sand, moderately sorted, wet, red & white specs, loose, olive black
	Water D18-63-1000		○ poor recovery	~12"	0-12" SP fine sand with a few fines & a few medium grains, moderately well sorted, very wet, soupy, olive black, red & white specs, loose
			○	21"	0-21" SP fine sand with a few fines & a few medium grains, moderately well sorted, wet, olive black with red and white specs, loose silt stringer ~.1" wide @ 20", one piece of wood @ 19"

Geologist's Signature T. Gray Date 10/25/00 Reviewer _____ Date _____ Pg 3 of 6



Soil Stratigraphy Field Log

Location ID DIS
 Facility GT
 Project Supplemental Offsite Char

Date 10/23/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
64' 0.0'			Breathing Zone: In-Spoon: Headspace: 0	20	0-20" SP moderately well sorted fine sand with few fines & a few medium grains, wet, olive black with red & white specs, medium dense
66'			Poor recovery 8.6 in siltiest stuff	~12"	0-12" SM mostly silty sand, well sorted, fine-very fine, wet, soupy, loose, olive black w/red & white specs, some sandy silt that is the same but higher silt content and firmer but still soft (this is where PID hit was)
68'	Soil DIS-045- 1000		25.1 @ 16"	22"	0-16" ML silt with a small amount of fine sand, wet, medium stiff, olive grey, well sorted, 16-22" SM silty sand, fine to very fine, olive black, wet, medium dense, moderately well sorted
70'					

Geologist's Signature T. Gray Date 10/25/00 Reviewer _____ Date _____ Pg 4 of 6



Soil Stratigraphy Field Log

Location ID DIS
 Facility GT
 Project Supplemental Offsite Char

Date 10/23/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only ^{temp} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
70' 0.0'				15	0-15" ML silt with small amount of fine sand, olive grey, medium stiff, well sorted, wet, some of it soupy.
72'			13.1	24	0-24" ML silt with no sand, olive grey, medium stiff, well sorted, wet, SM stringers at 20-21" & 15-16", olive grey, medium dense, wet, moderately sorted, fine sand with fines
74'	Soil: DIS-74-76-1000		83.8 poor recovery	~14"	0-14" SM as above grading to SP well sorted sand with few to no fines, loose, wet, very wet, olive black
76'	Soil: DIS-765-1000		38	24"	0-2" ML silt olive grey, medium stiff, well sorted, wet, 2-5" SM sandy silt, olive grey, soft, wet, well sorted 5-13" ML silt, olive grey medium stiff, well sorted, wet, no sand

enc 10/23

cont.

Geologist's Signature T. Gray Date 10/23/00 Reviewer _____ Date _____ Pg 5 of 6



Soil Stratigraphy Field Log

Location ID D18
 Facility GT
 Project Supplemental Offsite Char

Date 10/24/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method geoprobe

Sampling Method 2", 1" diameter acetate liner

Total Depth 82'

cont
78'
80'
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace:		13-21" SM silty sand, soupy, very wet, moderately well sorted, olive grey 21-24" ML medium stiff silt, wet, well sorted, olive grey
			—	⊙	no recovery, looks like it was very soupy silt
			⊙ above background (1.7)	23	1-5" SP fine sand, wet, loose, olive black, moderately well sorted 5-17" ML soft to medium stiff silt, wet, well sorted, olive-grey 17-20" ML sandy silt, very soft, very wet, well sorted, olive grey 20-23" ML soft to medium stiff silt, wet, well sorted, olive grey
					bottom of boring



Soil Stratigraphy Field Log

Location ID D19
 Facility Git
 Project Supplemental Offsite Char

Date 11/27/00

Field Geologist Helle Gylling/Tasya Gazy

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 86'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D19-13-1000 D19-23-1000 D19-33-1000 D19-43-1000		Breathing Zone: In-Spoon: Headspace:	0	no soil logged
43'			0	20"	0-20" SW poorly sorted olive black sand, medium to fine, with red and white specks, very few fines, wet, loose.
45'			0	20"	0-19.5" SW same as above (43-45', 0-20") 19.5-20" SM silty sand otherwise same as above (43-45', 0-20")
47'			0	24"	0-24" SM silty sand, olive black, fine-grained to silt size, wet, with red & white specks, loose
49'					

Geologist's Signature Helle Gylling Date 11/27/00 Reviewer _____ Date _____ Pg 1 of 5



Soil Stratigraphy Field Log

Location ID 019
Facility GIT
Project Supplemental Offsite Char

Date 11/27/00

Field Geologist Helle Gylling / Tasya Erway

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 86'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

49'
53'
55'
57'
59'
63'
65'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	019-53-1000		Breathing Zone: In-Spoon: Headspace:		NO SOIL LOGGER
			0	20"	0-20" SW poorly sorted sand, fine to very fine, some silt, olive block with red and white specks, wed, loose.
			0	poor recovery ~10"	0-10" SW poorly sorted sand, fine to medium, only little silt, olive block with red and white specks, wed, loose.
			0	poor recovery ~10"	0-10" SW same as above (55-57', 0-10")
	019-63-1000				NO SOIL LOGGER
			0	poor recovery ~8"	0-8" SM silty sand, fine to silt size, poorly sorted, olive block with red and white specks, very wed, loose, some wood debris (1-4mm).

Geologist's Signature Helle Gylling Date 11/27/00 Reviewer _____ Date _____ Pg 2 of 5



Soil Stratigraphy Field Log

Location ID D19
 Facility GT
 Project Supplemental Offsite Char

Date 11/27/00 / 11/28/00

Field Geologist Helle Gylling/Tosya Gray

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 86'

65'

67'

69'

73'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					0-12" SW poorly sorted sand, fine to very fine, olive black with red and white specks, very wet, loose, wood debris (1-7mm)
					0-8" SM sandy silt, poorly sorted, olive black with red and white specks, soupy, loose
					8-20" ML silt, well-sorted, olive gray, wet and very soft, gradng to medium stiff & drier, very fine grained...
					soil not logged...
			17.9	100% 24"	0-3" ML silt sm clayey silt, silt with clay. 80% silt, 20% clay. olive gray, moist, medium stiff, medium graded. 3-6" CL clay, no silt, well sorted, medium dark gray, moist, medium stiff.

Geologist's Signature Helle Gylling Date 11/27/00 Reviewer _____ Date _____ Pg 3 of 5



Soil Stratigraphy Field Log

Location ID D19
 Facility Git
 Project Supplemental Office (LWR)

Date 11/28/00

Field Geologist
Salamah Magnusa

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Crop probe

Sampling Method
2 1/2" Diameter, Acetate Liner

Total Depth
86'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: 6-7" SM sandy silt, 60-40 silt to sand, poorly graded. Dark gray. Moist to wet. Soft, loose. 7-13" ML CL clay, well sorted, medium dark gray, moist. Medium stiff. 13-14" SM sandy silt, 60-40 silt to sand. Poorly graded. Dark gray. Moist to wet. Soft. Loose. 14-24" ML/CL clay with few silt. 85-15, 90-10 clay to silt. Well graded, dark gray. ML wet. ML soft.
75			9.1	18"	0-18" SM ML silt with some clay, and 75-25 silt to clay. Dark gray, very wet, very soft. Moderately sorted.
77	D19-82-100 200		12.5	6"	0-6" ML same as above 75-77 (0-18")
79			0		SOIL NOT LOGGED
82			0	24"	0-11" CL clay with some silt. 65-35 clay to silt. Moderately sorted. Dark gray, ^{very} wet soft. 11-24" CL clay with some silt. 70-30 clay to silt. Moderately sorted. Dark gray, moist. Moderately medium stiff.

Geologist's Signature Salamah Magnusa Date 11/28/00 Reviewer _____ Date _____ Pg 4 of 5



Soil Stratigraphy Field Log

Location ID D19
 Facility GT
 Project 2000 Supplemental Offsite

Date 11/28/00 Field Geologist Tanya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method geoprobe Sampling Method 2', 1" acetate liners Total Depth 36'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	24	0-6" ML soft, wet, well sorted silt, olive grey with black streaking, 6-24" ML medium stiff-stiff, moist silt, well sorted, olive black grey with black streaking
					bottom of boring

84

36'



Soil Stratigraphy Field Log

Location ID D20
 Facility GT
 Project Supplemental Offsite Char

Date 11/7/00 Field Geologist Tasya Gray Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 80

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water D20-13-1000 D20-23-1000				no soil logged
30'	Water: D20-35-1000		0.4	6	0-6" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks, mostly medium grains
32'				0	no recovery in liner
34'			0.0	16	0-6" SW poorly sorted sand, mostly medium with some fine sand, loose, wet moist, olive black with red and white specks.
36'			0	~10	0-10" SW poorly sorted sand, mostly medium with some fine sand, loose, moist, wet, olive black with red & white specks
38'			0	~6	0-6" SW poorly sorted sand, same as above (36-38')
40'	Water: D20-43-1000		0	~3	0-3" SW same as above (36-38')
42'					

Geologist's Signature Tasya Gray Date 11/8/00 Reviewer _____ Date _____ Pg 4 of 5



Soil Stratigraphy Field Log

Location ID D20
 Facility GT
 Project Supplemental Offsite Char

Date 11/7/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
42'	0.0'		0	24	0-24" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white silt at least 40-50% medium
44'			0	21	0-21" SW same as above (42-44) begins to get finer grained @ 15-21"
46'			0	21	0-21" SW same as above (42-44)
48'			0	15	0-15" SW same as above (42-44)
50'	Water: D20-53-1000		0	~18	0-18" SW poorly sorted sand a little finer than previous samples but still some fine-medium, wet, loose, olive black with red & white specks
52'			0	18	0-18" SW same as above (50-52')
54'			0	22	0-22" SW ^{mp} moderately sorted, mostly fine sand with a few medium grains, wet, loose, olive black with red & white specks
56'					

Geologist's Signature Natasya Gray Date 11/8/00 Reviewer _____ Date _____ Pg 2 of 5



Soil Stratigraphy Field Log

Location ID D20
 Facility GT
 Project Supplemental Offsite Char

Date 11/7/00

Field Geologist
Tanya Gray

Location Type: temp.
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2, 1" diameter acetate liners

Total Depth
80

Depth of Sample (ft bgs)	Sample ID	Bir w Counts per 6"	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
50' 0.0'			Breathing Zone: In-Spoon: Headspace: 0	24	0-24" SP moderately well sorted sand, mostly fine grained, wet, loose, olive black with red & white specks, some wood debris at top
58'			0	24	0-24" SP same as above (50-58") but wood was throughout silt stringer at 23"
60'	D20-63 1000		0	3" poor recovery	0-3" SP same as above (56-58)
62'			0	5"	0-3" sm silty sand. 50-50 sand to silt. Poorly sorted. sm very fine sand with silt. Very wet. Very soft. Red and white specks. woody debris. Dark gray 3-6" SW fine sand with some silt. 65-35 sand to silt. Poorly sorted. olive black. very wet. loose.
64'			0	20"	0-20" Same as above 62-64 (3-6") with increased fines between 0-8"



Soil Stratigraphy Field Log

Location ID D20
 Facility GT
 Project GT Supplemental Offsite

Date 11/8/00

Field Geologist Selamah Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" Diameter Acetate Liner

Total Depth 80

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
66 0.0'				24"	<p>Breathing Zone: In-Spoon: Headspace: 0.0</p> <p>0-6" SM Sandy silt to silty sand. Dark gray, poorly sorted, wet, soft.</p> <p>6-8" ML silt with some clay. Well sorted. Soft to very wet. Dark gray.</p> <p>8-15" ML silt with very fine sand. 75-25 silt to sand. Moderately sorted. Dark gray. Soft, wet, organic debris.</p> <p>15"-24" ML silt with some clay. Well sorted. Dark gray, wet, soft.</p>
68			0.0	3"	<p>0-3" SM sandy silt. Silt with some very fine sand. Dark gray. Very wet. Very loose. Poorly sorted. Organic woody debris.</p>
70	D20-73-100 3"		0.0	24"	<p>0-18" SM sandy silt. Silt with very fine sand. Poorly sorted. 65-35 silt to sand. Dark gray. Very wet. Very loose. Organic woody debris.</p> <p>18-24" ML silt with some clay. Dark gray. Well sorted. Wet. Medium stiff-soft.</p>
72			0.0	poor recovery ~6"	<p>0-6" ML sandy silt, same as above (70-72', 0-18").</p>
74					



Soil Stratigraphy Field Log

Location ID D20
 Facility GT
 Project Supplemental offsite work

Date 11/8/00

Field Geologist Salamah Magnusen

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" Diameter, Acetate Liner

Total Depth 80

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
74 0.0'			Breathing Zone: In-Spoon: Headspace: 0.0	12"	0-12" ML silt with some clay and very few very fine sand. Dark gray. Moderately sorted. Very wet. Very soft.
76			0	24"	0-8" ML silt with some clay. Dark gray. Well sorted. Wet. Soft. 8-20" silty silt with few very fine sand. 80-90 silt to sand. Moderately sorted. Very wet. Very soft. Dark to olive black. Organic odors. 20-24" ML silt with some very fine sand. 80-90 silt to sand. Well sorted. Wet. Medium stiff. Dark gray.
78			0	24"	0-24" ML silt with some clay. Well sorted. Dark gray. Moist. Stiff.
80					Total Depth = 80'



Soil Stratigraphy Field Log

Location ID D21
 Facility GT
 Project Supplemental/Offsite Char.

Date 11/8/00 Field Geologist Sarahna Magnuson Location Type: Soil Boring Only Well Test Pit

Drilling Method Creoprobe Sampling Method 2, 1" Diameter Acetate Liner Total Depth 7.5'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0	D21-13-100 D21-23-100 D21-33-100		Breathing Zone: In-Spoon: Headspace:		NOT LOGGED
30			0	20"	0-20" SP fine olive black sand with few silt. Moderately to well sorted. Moist to wet. Loose. Red and white specs. @17-20" coarse grains, woody debris.
32			0	18"	0-18" medium olive black sand with some fine grains, no silt. Poor to moderately sorted. Wet. Loose. Red and white specs. some coarse grains.
34			0	20"	0-20" ^{SP} medium olive black sand with coarse grains, no fines. Poorly to moderately sorted. Wet. Loose. Red and white specs. A few pebbles.
36			0	22"	0-22" ^{SP} same as above 34-36 (0-20")
38			0	22"	0-22" ^{SP} same as above 34-36 (0-20")
40	D21-43-100		0	16"	0-16" ^{SW} medium olive black sand with some coarse and fine grains. Poorly sorted. wet. Loose. Red and white specs.

Geologist's Signature Sarahna Magnuson Date 11/8/00 Reviewer _____ Date _____ Pg 1 of 5



Soil Stratigraphy Field Log

Location ID DZ1
 Facility GT
 Project Supplemental Offsite Char

Date 11/8/00 / 11/9/00

Field Geologist Sabannah Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2 1/2" Acetate Liner

Total Depth 78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
42 0.0'			0 Breathing Zone: In-Spoon: Headspace: 0	20"	0-20" SP medium olive black sand with few fine grains well sorted, wet. Loose. Red and white specs.
44			0	6" poor recovery	0-6" SP fine dark gray sand with some fine grains. Poorly sorted, wet, loose. Red and white specs. Organic matter.
46			0	4" poor recovery	0-4" SP same as above.
48			0 poor recovery	~10	0-10" SW fine-medium sand some coarse grains olive black with red & white specks, wet, loose, poorly sorted
50	Water: DZ1-53-1000		0 poor recovery	~10	0-10" SW fine-medium sand with some coarse grains, olive black with red & white specks, very wet, loose, poorly sorted, wood debris
52			0	~21	0-21" SW fine-medium sand, olive black with red & white specks, wet, loose, poorly sorted
54					

11/8/00
11/9/00

Geologist's Signature Sabannah Magnuson Date 11/9/00 Reviewer _____ Date _____ Pg 2 of 5



Soil Stratigraphy Field Log

Location ID D21
 Facility GT
 Project Supplemental Offsite Char

Date: 11/9/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2, 1" diameter acetate liners

Total Depth 78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
54'	0.0'		0	20"	0-20" SW same as above. (52-54 (0-21"))
56'			0	14"	0-14" SW same as above (52-54)
58'			0 poor recovery	~12"	0-12" SP mostly fine sand, olive black with red & white specks, moderately well sorted, very wet, loose
60'			0	24"	0-24" SP mostly fine sand, olive black with red & white specks, wet, loose, moderately well sorted, wood debris
62'			0	19"	0-19" SP grading to ML @ 3" - 13" medium stiff getting soft, olive grey, silt, little or no sand, well sorted, wet, grades back to SP for 13-15" then to ML 15-19" medium stiff, moist, well-very well sorted, olive grey
64'					

Geologist's Signature Tasya Gray Date 11/9/00 Reviewer _____ Date _____ Pg 3 of 3



Soil Stratigraphy Field Log

Location ID D21
 Facility GT
 Project Supplemental Offsite Char

Date 11/9/00

Field Geologist Tasya Gray/Hella Gylling

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	22	0-3" SP moderately well sorted, mostly fine grained sand, olive black with red & white specks, wet, loose Breathing Zone: In-Spoon: Headspace: poor recovery
			0	22	3-21" ML medium stiff silt, well sorted, wet, olive grey. 21-22" SP same as above (0-3")
			0	22	0-22" SM silty sand/sandy silt, fine sand & silt, olive black with red & white specks, wet, medium dense, moderately well sorted
			0	24"	0-24" ML silt, well sorted, olive grey, grad. up from wet and soft at the top to ^{medium} stiff and moist toward the bottom
			0	24	0-8" ML silt well sorted, olive grey, ^{medium} stiff, moist 8-13" ML silt, well sorted, olive grey, wet, soft 13-24" ML silt same as above (70-72', 0-8")

64'
66'
68'
70'
72'

Geologist's Signature Hella Gylling Date 11/9/00 Reviewer _____ Date _____ Pg 4 of 25



Soil Stratigraphy Field Log

Location ID D21
Facility BT
Project BT 2000 suppl. offsite d.r.

Date 11/9/00

Field Geologist Helle Gylling

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" dia. subsoil liner

Total Depth 78'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

72'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				24"	0-24" SM sandy silt, olive gray, wet, soft, poorly sorted

74'

			0	24"	0-7" SM soupy sandy silt, olive gray, soft, poorly sorted. 7-11" ML medium stiff silt, olive gray, well sorted, moist 11-24" SM wet to soupy sandy silt, olive gray soft, poorly sorted
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76'

			0	24"	0-15" SM/ML silt with little sand, poorly-medium sorted, olive gray, wet 15-24" ML medium stiff silt, well sorted, olive gray, moist
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78'

Bottom of boring

Geologist's Signature Helle Gylling Date 11/9/00 Reviewer _____ Date _____ Pg 5 of 5



Soil Stratigraphy Field Log

Location ID D22
 Facility GT
 Project Supplemental Offsite Char

Date 10/24/00

Field Geologist
T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2", 1" diameter acetate liners

Total Depth
82'

0'
30'
32'
34'
36'
38'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water D22-13-1000 D22-23-1000				no soil logged
	Water D22-33-1000		0	18	0-15" SW fine-medium sand, ^{poorly} moderately sorted, wet, loose, olive black with red & white specs
			9	22	0-1" silt lens, ML, olive grey, wet, medium dense, well sorted 1-22" SW fine-medium sand with a few coarse grains, wet, loose, poorly sorted, olive black with red & white specs
			0 Poor recovery	~10"	0-10" SW same as above but very wet, soupy
			8	22	0-21" SW fine-medium sand, wet, loose, poorly sorted, wood debris olive black with red and white specs 21-22" SP fine sand with a few fines, moderately well sorted, ^{very} wet, olive black, red & white specs, loose

Geologist's Signature T. Gray Date 10/24/00 Reviewer _____ Date _____ Pg 1 of 6



Soil Stratigraphy Field Log

Location ID D22
 Facility GT
 Project Supplemental Offsite Char

Date 10/24/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 82

38'
40'
42'
44'
46'
48'
50'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: ○ poor recovery	~8"	0-8" SW mostly fine, some medium grained sand, very wet, soupy, poorly sorted, olive black, with red & white specs, very loose, wood debris
	D22-43-1000		○ poor recovery	~8"	0-8" SW mostly fine, some med. grained sand same as above
			○	16"	0-16" SW same as above
			○ poor recovery	~10"	0-10" SW fine-medium sand same as above
			○ poor recovery	~12"	0-12" SW poorly sorted fine-medium sand with some coarse grains, very wet, soupy, olive black with red & white grains, small amount of wood, very loose
			○ poor recovery	~12"	0-12" SW poorly sorted fine-medium sand, no coarse grains, wet, olive black with red & white grains, loose, no wood, 1



Soil Stratigraphy Field Log

Location ID D22
 Facility GT
 Project Supplemental Offsite Char

Date 10/24/00/10/25/00

Field Geologist T. Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
50'	0.0'	D22-53-1000	⊙ Breathing Zone: In-Spoon: Headspace: ⊙ poor recovery	~ 10"	SW fine-medium sand, wet (very), poorly sorted, loose, soupy, olive black with red & white specs,
52'			⊙ poor recovery	~ 8"	SW/SP mostly fine sand, some med. grains, moderately sorted, soupy, very wet, very loose, olive black with red & white specs
54'			⊙	23"	SW/SP 0-23" SW/SP same as above (18-21" abundant wood)
56'			⊙ poor recovery	~ 12"	0-12" SASW/SP same as above, no wood
58'			⊙	16"	0-16" SW fine-medium sand, poorly sorted, wet, loose, olive black with red & white specs no wood
60'			12.5	18"	0-18" SP/SM fines & sandy silt silt with very fine sand, 50-50 silt to sand. Poorly sorted, olive black, wet, loose to soft. ⊙ 12-18" less wet,

end 16



Soil Stratigraphy Field Log

Location ID D22
 Facility GT
 Project 200 Offsite Supplemental Characterization

Date 10/25/00

Field Geologist Salamah Magnusen

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Coneprobe

Sampling Method 2' 1" Diameter Acetate Liner

Total Depth 82'

62'

64'

66'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Soil D22-60-62-1000			20"	0-20" SP very fine olive black sand with some fine sand and few silt grains. poorly sorted. wet. very loose. organic woody debris.
	Soil D22-64-66-1000		44.0	24"	0-3" ML silt with very fine sands olive black. 70-80 silt to sand. medium sorted. moist to wet. medium stiff. 3-6" SM sandy silt. silt with very fine sands. increased sand content from 0-3". Darker olive black. Poorly sorted. wet loose. 6-24" ML silt with very fine sands olive black. 80-20 silt to sand. well sorted. moist medium stiff. PID hits were at 6" and 70".
	Soil D22-66-68-1000		117	24"	0-9" ML silt with very fine sands olive black. 80-20 silt to sand. well sorted. wet. soft. well sorted. 9-11" SM sandy silt. silt with very fine sands. olive black medium sorted. wet. loose. organic woody debris. 11-13" ML silt with very fine sands olive black. well sorted. moist to wet. soft to medium stiff. 13-24" SP very fine sand with some fine grains and silt. olive black. poorly sorted.

Geologist's Signature Salamah Magnusen Date 10/31/00 Reviewer _____ Date _____ Pg 4 of 6



Soil Stratigraphy Field Log

Location ID D22
 Facility GT
 Project Supplemental Offsite Char.

Date 10/25/00

Field Geologist Salamah Magnuson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Coneprobe

Sampling Method 2', 1" Diameter Acetate Liner

Total Depth 82'

66

68

70

72

74

76

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: Wet, loose, organic woody debris. PID readings of 17 occurred at 13-15". Sustained hits around 20 up to 40 throughout.
	Soil D22-68-70-1000		88.7	@ 3" poor recovery	0-3" SM sandy silt. Silt with very fine sand. 70-30" silt to sand, medium sorted. Wet, soupy, very soft.
	Soil D22-70-72-1000		134	24"	0-24" ML silt with some clay. Dark gray, well sorted. Stiff, slightly moist. Sustained PID hits above 80 ppm throughout.
			25.6	24"	0-20" SP sm sandy silt. Silt with very fine sand. 60-40 silt to sand, poorly sorted. Olive black, very wet, soupy, very loose, organic woody debris, prolific. 20-24" ML silt with clay, well sorted. Dark gray, wet, stiff.
			8.4	24"	0-24" ML silt with clay, well sorted. Dark gray. Moist stiff. @ 10-12" increasing very fine sands @ 16-18" wet



Soil Stratigraphy Field Log

Location ID D22
Facility GT
Project Supplemental offsite ch

Date 10/25/00

Field Geologist Satamaa Magnusson

Location Type: Pump
 Soil Boring Only Well Test Pit

Drilling Method Creoprobe

Sampling Method 2.1" Diameter Seabliner

Total Depth 82

76'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: <u>2.01</u>	<u>5"</u> Poor recovery	0-5" SM Sandy silt. Silt with very fine sand. 70-30 silt to sand. Medium sorted. Dark gray, very wet, scoop, very loose & very soft, organic woody debris floating in water.

78'

			<u>0.0</u>	<u>24"</u>	0-2" SM ^{sc} Sandy silt. Silt with very fine sand. 80-20 silt to sand. Some clays, well to moderate sorting. Dark gray, wet soft. 2-4" SM Sandy silt. Increasing sand from 0-2". 70-30 silt to sand. Medium sorting. Dark gray, wet soft. 4-10" ML Sandy silt with clay. Well sorted. wet soft. Dark gray. 10-24" ML silt with clay. well sorted. Dry to moist. MS silt.
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80'

	<u>geotech D27-80- S7-1000</u>			<u>24"</u>	0-24" ML same as above 78-80 (10-24")
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82'



Soil Stratigraphy Field Log

Location ID D23
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0
30
32
34
36
38

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	water D23-13-1000 2 D23-23-100				no soil logged
	D23-33-1000		1.3	16	0-16" SW, poorly sorted sand, fine-medium with a few fines mixed in, wet, loose, olive black with red & white specs
			0 poor recovery	~12'	0-12" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specs
			0 poor recovery	~10'	0-10" SW same as above 32-34'
			0 poor recovery	~6"	0-6" SW poorly sorted fine to medium sand, soupy, loose, olive black with red & white specs. Water is fizzy, some larger bubbles have an oily sheen. Soil test kid negative.

Geologist's Signature Tasya Gray Date 11/2/00 Reviewer _____ Date _____ Pg 1 of 28



Soil Stratigraphy Field Log

Location ID D23
 Facility GIT
 Project Supplemental Offsite Char

Date 11/2/00 Field Geologist Tasya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 80

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
38' 0.0'			Breathing Zone: In-Spoon: Headspace: 0	23	0-23" SW poorly sorted sand, fine-medium with some coarse grains between 3-6", wet, loose, olive black with red & white specs, abundant wood 2-4"
40'	Water: D23-43-1000		0 poor recovery	~20	0-20" SW poorly sorted sand, fine-medium grained, very wet, loose, olive black with red & white specs
42'			0	14	0-14" SW same as above (40-42')
44'			0 poor recovery	~12	0-12" SW same as above soupy (40-42')
46'			0.3	18	0-18" SW same as above (40-42')
48'			0 poor recovery	~12	0-12" SW same as above (40-42') soupy
50'	Water: D23-53-1000		0.4 poor recovery	~12	0-12" SW poorly sorted sand, fine-medium, very wet loose, soupy, olive black with red & white specs, large pieces of wood (up to 1" by .5")
52'					



Soil Stratigraphy Field Log

Location ID D23
Facility GT
Project Supplemental Offsite Char

Date 11/2/00

Field Geologist Tanya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80'

52'
54'
56'
58'
60'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0	22	0-22" SW poorly sorted sand, fine-medium, wet, olive black with red & white specs, loose
			0	18	0-18" SW poorly sorted sand, fine-medium with a little silt, wet, olive black with red & white specs, loose, soupy, wood debris
			0	22	0-22" SP moderately well sorted sand, mostly fine grained, wet, loose, olive black with red & white specs
			0	poor recovery 10	0-10" SW olive black sand fine to medium-grained, poorly sorted, soupy, loose, red and white specks, some wood debris up to 15mm, few fines.
			0	24"	0-6 SM sandy silt, olive black silt size to very fine sand, medium sorted, wet, loose; grading into:

Geologist's Signature [Signature] Date 11/2/00 Reviewer _____ Date _____ Pg 3 of 7



Soil Stratigraphy Field Log

Location ID D23
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00 Field Geologist Helle Gylling Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'					6-24" SW olive black sand, fine to medium, poorly sorted, red and white specks, loose, moist. Minor wood debris to 5mm.
			3.3	21"	0-21" SW olive black sand, very fine to fine with a little medium sand, poorly sorted, loose, wet, red and white specks; minor wood debris to 5mm.
			1.2	23"	0-2.5" ML olive black silt, medium stiff ^{Mo} stiff, well sorted, moist, very fine grained; 2.5-20" SW olive black poorly sorted fine to medium sand with red and white specks, loose, wet, poorly sorted, wood debris to 3mm

62'

64'

Geologist's Signature Helle Gylling Date 11/2/00 Reviewer _____ Date _____ Pg 4 of 7



Soil Stratigraphy Field Log

Location ID D23
 Facility GT
 Project Supplemental Offsite Char

Date 11/3/00

Field Geologist Helle Gylling

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'					Breathing Zone: In-Spoon: Headspace: 20-21" ML clayey silt, soft, olive gray, well sorted, wet 21-23" SW mostly fine with some medium sand, olive black with red and white specks, 10-15% larger wood debris up to 15mm, poorly sorted, wet, loose.
			281	poor recovery 6"	0-6" SW same as above (64-66', 2.5-20") except soupy.
	Soil: D23-68- 70-1000		156 at top of silt.	23"	0-18" ML stiff olive black clayey silt, moist, very well sorted, very fine-grained. 18-19" SM olive gray silty sand, medium sorted, fine to very fine-grained, moist, medium dense.

66'

68'

Geologist's Signature Helle Gylling Date 11/3/00 Reviewer _____ Date _____ Pg 5 of 78



Soil Stratigraphy Field Log

Location ID D23
 Facility GT
 Project Supplemental Offsite Char

Date 11/3/00

Field Geologist Helle Gylling

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'					19-22" ML same as above (68-70', 0-18") except soft. 22-23" SM same as above (68-70', 0-18")
70'	soil: D23-70- 72-1000		79.2	24	0-12" ML/SM olive black clayey silt with some very fine sand, poorly sorted, wet, soft 12-24" SM silty sand, fine to very fine grained, medium sorted, olive black, medium dense, wet
72'			2.1	poor recovery ~20"	0-15" ML clayey silt olive black, soft to medium stiff, moist to wet, well-sorted 5-20" SM olive black sandy silt, medium poorly sorted, moist, medium dense.
74'					

Geologist's Signature

Helle Gylling

Date

11/3/00

Reviewer

Date

Pg 6 of 7



Soil Stratigraphy Field Log

Location ID 023
 Facility GT
 Project Supplemental Offsite Char

Date 11/3/00 Field Geologist Helle Gylling Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 80'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
74' 0.0'			Breathing Zone: In-Spoon: Headspace: 17.8	poor recovery ~8"	0-5" SM silty sand, olive black, fine grained, some wood debris to 2mm, medium sorted, soupy, loose. 5-7" SW poorly sorted sand, fine to medium with red and white specks, wet, soft, loose
76'			0	24"	0-2" ML clayey silt medium stiff, olive black, well sorted, moist, very fine-grained 2-5" SM silty sand, olive black, wet, medium dense, fine to very fine grained, medium sorted 5-24" ML same as above (76-78', 0-2")
78'					

Geologist's Signature Helle Gylling Date 11/3/00 Reviewer _____ Date _____ Pg 7 of 28



Soil Stratigraphy Field Log

Location ID D23
 Facility 61
 Project 2000 suppl. offsite dem.

Date 11/3/00

Field Geologist Helle Gylling

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2" dia. geobore liner

Total Depth 80'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				24"	Breathing Zone: In-Spoon: Headspace: 0 0-10" ML soupy olive black silt, slightly clayey, well sorted, soft, very fine grained. 10-24" ML clayey silt, stiff to medium stiff, very well sorted, olive black, very fine grained, moist.

80'



Soil Stratigraphy Field Log

Location ID D24
 Facility GT
 Project Supplemental off site Char

Date 11/8/00

Field Geologist Salah Mahgoub

Location Type:
 Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" Diameter Acetate Liner

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	D24-13-1000 SW D24-23-1000 SW D24-33-1000			0	NOT LOGGED
30			0	18"	0-18" SW fine olive black sand with some fines and medium grains. Poorly sorted. Wet. Loose. Red and white specs. Increasing fines with depth.
32			0	8" poor recovery	0-8" SW fine and medium olive black sand with some silt. Poorly sorted. Wet. Loose. Red and white specs.
34			0	6" poor recovery	0-6" SW fine and medium olive black sand with some silt and coarse grains. Poorly sorted. Very wet. Very loose. Red and white specs.
36			0	20"	0-20" SW medium olive black sand with some coarse grains. Poorly sorted. Wet. Loose. Red and white specs. Pebbles, organic woody debris.
38			0	24"	0-24" SW fine olive black sand with some silt and medium and coarse grains. Poorly sorted. Wet. Loose. Organic debris.
40					

Geologist's Signature Salah Mahgoub Date 11/8/00 Reviewer _____ Date _____ Pg 1 of 6



Soil Stratigraphy Field Log

Location ID D24
 Facility GT
 Project Supplemental Offsite Char

Date 11/8/00 Field Geologist Salamah Magnuson Location Type: Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Greeprobe Sampling Method 2', 1" Acetate Liner Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
40 0.0'	D24-43- 1000 SW		Breathing Zone: In-Spoon: Headspace: ○	6"	0-6" ^{fine} silty sand with silt. 50-50 silt to sand. Poorly sorted. Very wet. very loose. Dark gray.
42			○	22"	0-22" sm same as above 40-42 (6"). Organic woody debris.
44			○	6"	0-6" SW fine and medium olive black sand with some silt. Poorly sorted. wet. Loose. few red and white specs. <u>Deve-</u> <u>ing</u> lines.
46			○	22"	0-24" SW fine same as above 44-46 (6"). Increased fines 0-12".
48			○	20"	0-20" SW fine black olive black sand with few medium grains and silt. Poorly sorted. wet. Loose. Red and white specs.
50	D24-53- 1000 SW		○	7" poor recovery	0-7" SW fine olive black sand with some silt. poorly sorted. Olive black. very wet. very loose organic debris.
52					

Geologist's Signature Salamah Magnuson Date 11/8/00 Reviewer _____ Date _____ Pg 2 of 6



Soil Stratigraphy Field Log

Location ID D24
 Facility CT
 Project Supplemental Offsite Char.

Date 11/8/00/11/9/00
 Field Geologist Sarah Magnesson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe
 Sampling Method 2, 1" Diameter, Acetate Liner

Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
52 0.0'				20"	0-20" SW medium and fine sand with few silt. Olive black. Moist to wet. Loose. Red and white specs.
54			0	20"	0-20" SM silty, sand. fine sand with some silt. Dark gray. Moderately sorted. Wet. Loose
56			0	22"	0-22" SW fine and medium olive black sand. Moderately sorted. Wet. Loose. Red and white specs.
58			0	22"	0-22" SW fine olive black sand with some silt and medium grains. Poorly sorted. Wet. Loose. Red and white specs.
60	Water: D24-63-1000		0 poor recovery	~12"	0-12" SW olive black sand with red & white specks, mostly fine with some medium. ^{very} wet, loose, poorly sorted
62			0 poor recovery	~12"	0-12" SM olive black silty sand, fine sand with silt, sand content varies slightly throughout, ^{wet} wet, loose, moderately sorted small amount of organic debris
64					

118
119

Geologist's Signature Sarah Magnesson Date 11/9/00 Reviewer _____ Date _____ Pg 3 of 6



Soil Stratigraphy Field Log

Location ID D24
 Facility GT
 Project Supplemental Offsite Char

Date 11/9/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well ^{Temp.} Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 52

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				24	Breathing Zone: In-Spoon: Headspace: 0
					0-6" ML very soft silt, olive grey, wet, very well sorted 6-9" ML medium stiff silt, olive grey, wet, very well sorted 9-14" SP fine olive black sand, wet, loose, moderately well sorted 14-20" ML soft silt going to medium stiff olive grey, wet, very well sorted 20-24" SM sandy silt, soft, olive grey, wet, well sorted
			0	21	0-21" SPISW mostly fine sand with some medium grains, olive black with red & white specks, wet, loose, poorly sorted
				Poor recovery ~16	0-16" SM silty sand, silt content is higher in part (sandy silt), olive black with red & white specks, very wet, soupy, moderately well sorted, fine sand with silt
			0	24	0-5" ML very soft silt, very wet, soupy, olive grey, very well sorted 5-8" same as above but soft

64

66

68

70

cont

Geologist's Signature Tasya Gray Date 11/9/00 Reviewer _____ Date _____ Pg 4 of 6



Soil Stratigraphy Field Log

Location ID D 24
 Facility GT
 Project Supplemental Offsite Char

Date 11/9/00 Field Geologist Tasya Gray Location Type: trip
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 82

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

cont.

72'

74'

76'

78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			0 Breathing Zone: In-Spoon: Headspace:	24	9-13" ML medium stiff silt, wet, very well sorted, olive grey 13-16" SM silty sand lens loose, wet moderately sorted, olive black 16-24" ML medium stiff silt, wet, very well sorted, olive grey
			0	24	0-6" SM sandy silt, well sorted, very soft, wet, olive black, 6-9" ML soft silt, very well sorted, wet, olive grey 9-11" SM silty sand as above (orig) 11-24" ML soft silt with a little fine sand, well sorted, wet, olive grey.
			0 poor recovery	210	0-10" SM silty sand with some organic debris, olive grey to black, very wet, very loose,
			0	18	0-9" ML very soft silt, olive grey, very wet, soupy, very well sorted 9-15" ML medium stiff silt, olive grey, wet, well sorted (very) 15-18" SM silty sand, olive grey, well sorted, wet, loose

Geologist's Signature Tasya Gray Date 11/9/00 Reviewer _____ Date _____ Pg 5 of 6



Soil Stratigraphy Field Log

Location ID D24
Facility GT
Project Supplemental Offsite Char

Date 11/9/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)
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0.0'			Breathing Zone: In-Spoon: Headspace: 0	24
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0-8" ML very soft silt, olive grey, very well sorted, wet
8-24" ML medium stiff silt, olive grey, very well sorted, wet

80'

			0	24
--	--	--	---	----

0-3" ML, soft silt, olive grey, very well sorted, wet
3-24" ML medium stiff to stiff silt with clay, moist, very well sorted, cannot feel any grains, olive grey

82'

					bottom of boring
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Soil Stratigraphy Field Log

Location ID D25
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00

Field Geologist Tasya Gray
Salimah Magnuson

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					0-6" Concrete 6-24" Fill
2			0.0	12	0-12" SW fine olive black sand with some medium grains, dry, poorly sorted, loose, a few red specs but different than SW we've seen at deeper depths at other holes, higher quartz content it appears
4				15	capped for geotechnical analysis
6			19.9	9.5	0-4.5" SW fine sand, same as above (2-4') 4.5-5" ML, brownish black silt, little or no sand, moist soft, very well sorted 5-9.5 SW same as above (2-4')
8				8	capped for geotechnical analysis
10'					

Geologist's Signature Tasya Gray Date 11/2/00 Reviewer _____ Date _____ Pg 1 of 36

11/24



Soil Stratigraphy Field Log

Location ID D25
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

10'
12'
14'
16'
18'
20'
22'
24'
26'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water D25-13- 1000		Breathing Zone: In-Spoon: Headspace:		unable to get soil to log
	Soil: D25-12-4 1000		76	10	0-10" SW poorly sorted sand, olive black, wet, fine to medium sand, red & white specs, loose, some fines present, ^{more similar to soil seen at other holes}
	Water: D25-17- 1000		82 in acetate liner		capped for geotechnical analysis
			35.7	214	unable to get soil to log
			35.7	12	0-12" SW poorly sorted sand, olive black, wet, fine-medium sand, red & white specs, loose
				9.5	capped for geotechnical analysis
	Water: D25-26- 1000		4.6	21	0-21" SW poorly sorted sand, olive black with red & white specs, wet, fine-medium with a few fines, loose
			0	16	0-16" SW same as above 22-24'

Geologist's Signature Tasya Gray Date 11/2/00 Reviewer _____ Date _____ Pg 2 of 2



Soil Stratigraphy Field Log

Location ID D25
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00 Field Geologist Tanya Gray Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 84

26'
28'
30'
32'
34'
36'
38'
40'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				12	capped for geotechnical analysis
			1.6	23	0-23" SW poorly sorted, olive black w/ red & white specs, fine-medium, loose
					capped for geotechnical analysis
	Water: D25-30-1000		0	210	0-10" SW silty sand, very wet, soupy, very loose, mostly fine sand with silt, well sorted
			0.1	222	0-22" SW poorly sorted, fine-medium, wet, loose, olive black with red & white specs, wood debris
					capped for geotechnical analysis
			0 poor recovery	~10	0-16" SW poorly sorted, fine-medium, wet, loose, olive black with red & white specs

Geologist's Signature Tanya Gray Date 11/2/00 Reviewer _____ Date _____ Pg 3 of 3



Soil Stratigraphy Field Log

Location ID D25
 Facility GT
 Project Supplemental Offsite Char

Date 11/21/00 Field Geologist Tasya Ewary Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 84

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

40'
42'
44'
46'
48'
50'
52'
54'
56'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0 poor recovery	~14	0-14" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specs
	Water: D25-46-1000		0 poor recovery	~12	0-12 SW same as above (40-42')
			0	~18	0-18" SW same as above (40-42')
					capped for geotechnical analysis
			0	20	0-20" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specs, wood debris
					capped for geotechnical analysis
	Water: D25-50-1000		1.2	22	0-22" same as above (48-50')
			0.9 poor recovery	8	0-8" SP/SW moderately sorted, fine grained sand with some medium, wet, loose, olive black with red & white specs

Geologist's Signature Tasya Ewary Date 11/21/00 Reviewer _____ Date _____ Pg 4 of 5



Soil Stratigraphy Field Log

Location ID D25
 Facility GT
 Project Supplemental Offsite Char

Date 11/2/00 / 11/3/00

Field Geologist Tasya Gray / Salimah Magnusek

Location Type: Temp.
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
56' 0.0'	D25-80-58-1000 Soil geotech				Capped for geotechnical analysis
58'				~20" poor recovery	0-20" ML medium stiff silt with a little fine sand moist, well sorted, olive grey.
60'	D25-60-62-1000 Soil geotech				Capped for geotechnical analysis
62'	D25-66-1000 SW		2.3	~3" poor recovery	0-3" SM silty sand, 50-50 sand to silt. Olive black. very wet, soupy. Poorly sorted. very loose.
64'			19.3	20"	0-15" same as above. 62-64 (0-3") hits were located @ 6" 15-20" SM sandy silt. 65-35 silt to sand. poorly sorted. olive black. wet. loose. increasing fines
66'	D25-66-68-1000 Soil geotech			20"	0-20" same as above (64-66 (15-20) SM increasing fines.
68'			14.0	6" poor recovery	0-3" same as above (64-66 (15-20) 5-6" ML silt with some very fine sand. 75-25 silt to sand. Medium sorted. Moist to wet. Stiff. Oils m Dark gray
70'					

Geologist's Signature Salimah Magnusek Date 11/3/00 Reviewer _____ Date _____ Pg 5 of 36



Soil Stratigraphy Field Log

Location ID D25
 Facility GIT
 Project Supplemental Offsite Ch

Date 4/3/00 Field Geologist Salamah Magnuson Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 84

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
70	D25-70-72-1000 soil geotech			24"	0-24" Collected for geotech increasing fines.
72	D2-76-1000 SW		1.2	5" poor recovery	0-5" SW sandy silt. 65-35 silt to sand. poorly sorted. very wet. Dark gray. very soft. very fine sand
74			11.5	22"	0-12" ML silt with little to no very fine sand. well sorted. Dark gray. Moist to wet. medium stiff. organic woody debris 12-22" ML silt with some very fine sand. 85-15 silt to sand. well sorted. Dark gray. wet. soft. P10 hit @ 18"
76	D25-76-78-1000 soil geotech			20"	0-20" collected for geotech appears silty.
78			1.7	24"	0-24" ML silt with some clay. very well sorted. Dark gray. Dry to moist. very stiff.
80			0.0	12"	0-12" ML same as above 78-80 (0-24") @ 3-8" met.
82	D25-82-84-1000 soil geotech			24"	0-24" ML Collect for geotech
84					

Geologist's Signature Salamah Magnuson Date 4/3/00 Reviewer _____ Date _____ Pg 6 of 7



Soil Stratigraphy Field Log

Location ID D26
 Facility GT
 Project Supplemental Offsite Char

Date 11/30/00 Field Geologist Tasha Gray / Salam M. Magnum
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 79

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

43'
45'
47'
49'
53'
55'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D26-13-100 D26-23-100 D26-33-100 D26-43-100				Soil NOT logged
			0	23	0-23" SW poorly sorted sand, mostly fine grained with some fines, wet, loose, olive black with red & white specks, wood debris
			0	18	0-18" SW poorly sorted sand, fine-medium grained, no fines, wet, loose, olive black with red & white specks, concentrated wood debris at 4-5"
			0	24	0-24" SW poorly sorted sand, mostly fine grained with a few medium grains, little or no fines, wet, loose, olive black with red & white specks
	D26-53-100			0	no soil logged
			0	12" per recovery	0-12" SW poorly sorted sand mostly fine grained with a few medium grains, few fines. Very wet-very loose. Olive black with red and white specks. Organic woody debris.

Geologist's Signature Salam M. Magnum Date 11/30/00 Reviewer _____ Date _____ Pg 1 of 3



Soil Stratigraphy Field Log

Location ID D26
 Facility GT
 Project Supplemental Offsite Char

Date 11/30/00 Field Geologist Tasha Gray / Selma M. Magallon Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 79

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
55 0.0'			0	20"	0-20" SW poorly graded. Fine sand with little to no medium grains. Few silt. Wet, loose. Olive black. Red and white specs. Organic woody debris.
57			0	10"	0-10" SW Poorly graded. Fine sand with few medium grains, and few silt grains. Wet, loose. Olive black. Red and white specs. Organic woody debris.
59 63	D26-43-100		0	0	SOIL NOT LOGGED
			0	15" poor recovery	0-8" SM Sandy silt. Silt with some very fine sand. 65-35 silt to sand. poorly graded. Dark gray. Wet. Soft. 8-10" SM Silty sand. Fine sand with silt. 40-40/55-45 sand to silt. poorly graded. Olive black. Wet, very soft, loose. 10-15" SM sandy silt. Silt with some very fine sand. Moderately sorted. 75-25 silt to sand. Dark gray. Wet to moist. medium stiff. Decreasing moisture, increasing fines.
65			0	6"	0-6" SM Sandy silt / silty sand poorly sorted. Olive black. Very wet. Very soft / loose. Red and white specs.
67					

Geologist's Signature Selma M. Magallon Date 11/30/00 Reviewer _____ Date _____ Pg 2 of 3



Soil Stratigraphy Field Log

Location ID D26
 Facility GT
 Project Supplemental Offsite Char

Date 11/30/00 Field Geologist Tosya Gray/Salamah Magnum Location Type: Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 79

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
67 0.0'				24"	0-3" SM sandy silt. 65-35 silt to sand. Poorly graded. Olive black, wet, loose. 3-24" ML silt with very fine sand. Poorly graded. Dark gray. Wet, soft
68	D26-73-1000			0	SOIL NOT LOGGED
73			0	12" poor recovery	0-12" SM sandy silt. silt with very fine sand. 70-30 silt to sand. Dark gray. Very wet. Very soft. @ 9" less water, moist @ 12" increased sand
75			0	24"	0-20" SM sandy silt. silt with very fine sand. 70-30 poorly graded. Dark gray. Wet, loose. 20-24" ML silt with some very fine sand. 85-15 silt to sand. Moderately sorted. Dark gray. Moist. Medium stiff.
77			0	24"	0-24" ML silt, medium stiff, olive grey, moist to wet, stiff in bottom few inches & drier, very well sorted
79					Bottom of boring

Geologist's Signature Salamah Magnum Date 11/30/00 Reviewer _____ Date _____ Pg 3 of 3



Soil Stratigraphy Field Log

Location ID D27
 Facility GT
 Project Supplemental off-site clean

Date 10/16/00 Field Geologist Sabina Magnuson Location Type: Soil Boring Only Well Test Pit

Drilling Method Greasebe Sampling Method 2" 1" acetate liners Total Depth 51'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
33'	0.0'		0.0	24"	Breathing Zone: In-Spoon: Headspace: 0.0 0-24" SP grayish black. Medium sand, no fines well sorted, moist, loose white and red/brown grains a few pebbles
35'			0.0	20"	0-20" SP same as 33-35 (0-24")
37'			2.7/1.3	20"	0-20" SP same as 33-35 (0-24") no pebbles
39'	Water D27-43-1000		4.8/3.4	16"	0-16" SP same as 33-35 (0-24") no pebbles. Very wet.
41'			3.2/1.8	24"	0-24" SP same as 33-35 (0-24") moist
43'			4.8/1.3	20"	0-20" SP same as 33-35 (0-24") moist
45'			1.0/0.9	4"	0-4" SP same as 33-35 (0-24") moist
47'			1.3/0.7	24"	0-24" SP same as 33-35 (0-24") moist
49'	Water D27-53-1000		2.3/1.2	12"	0-5" SP same as 33-35 (0-24") 5-8" SM grayish black, well sorted 8-12" SP moist, very soft, silty sands consistant color. SP same as 33-35 (0-24")
51'					

Geologist's Signature _____ Date _____ Reviewer _____ Date _____ Pg 1 of 1

Began logging soil at 33' bgs. Water samples taken before 33' bgs. D27-13-1000, D27-23-1000, after 51' bgs. D27-33-1000, D27-43-1000



Soil Stratigraphy Field Log

Location ID D28
 Facility GT
 Project _____

Date 11/9/00

Field Geologist Salamah Magnuson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Creeprobe

Sampling Method 2" 1" Diameter Acetate Line

Total Depth 82

0
30
32
34
36
38

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D28-13-100 D28-13-100 D28-33-100				NOT LOGGED
			0	24"	0-24" SP medium olive black sand with few fine and coarse grains. Moderately sorted. Wet. Loose. Red and black specs.
			1.4	6" poor recovery	0-6" SW medium and fine olive black sand with some coarse grain sand silt. Poorly graded. Wet. Loose. Red and white specs.
			1.0	22"	0-22" SW fine olive black sand with some medium grains and silt. Poorly sorted. Wet. Loose. Red and white specs. Organic debris.
			0.4	20"	0-5" SW same as above 34-36 (0-22") 5-12" SM Sandy silt, silt with very fine sand. 50-50 sand to silt. Dark gray. A few coarse grains. Wet. Soft. Lots of organic debris. Poorly sorted. 12-20" SW fine olive black sand with some medium grains and some silt. Poorly sorted. Wet. Loose. Red and white specs.



Soil Stratigraphy Field Log

Location ID D28
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00 Field Geologist Tasya Gray / Salamah Magnusson
 Location Type: Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" Diameter Acetate Liner Total Depth 82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
36 0.0'	8		0	14	0-14" SW poorly sorted sand, fine-medium, olive black with red & white specks, wet, loose
40	Water: D28-43- 1000		0	17 0	no soil logged
42			0	17	0-17" SW same as above (38-40)
44			0	0	no soil logged
46			0	19	0-19" SW same as above (38-40) with a few 1" chunks of silt
48			0	0	no soil logged
50	Water: D28-53- 1000		0	22	0-22" SM silty sand, mostly fine sand with fines, very wet, soupy, well sorted, wood debris
52			0	0	no soil logged
54			0	22	0-22" SW poorly sorted sand, fine-medium, olive black with red & white specks, wet, loose
56			0	0	

Geologist's Signature Tasya Gray Date 11/10/00 Reviewer _____ Date _____ Pg 2 of 4



Soil Stratigraphy Field Log

Location ID D28
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00 Field Geologist Tasya Gray Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 82

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
56 0.0'				0	no soil logged
58			0	215	0-15" SW as above grading to SW, silty sand, silty mostly sand, finer grained, very wet, soupy, loose, olive black with red & white specks, wood debris
60				0	no soil logged
62	Water: D28-03-000		0	24	0-24" SP/SW moderately sorted sand, mostly fine sand with a few medium grains & a few fines, very wet, loose, olive black with red & white grains, wood debris
64					no soil logged
66			0	24	0-24" SM sandy silt, well sorted, very wet, very soft, olive gray - black, fine - very fine grains
68					no soil logged
70'					no soil logged

Geologist's Signature Tasya Gray Date 11/10/00 Reviewer _____ Date _____ Pg 3 of 4



Soil Stratigraphy Field Log

Location ID D28
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00

Field Geologist Tasya Curran

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 82'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

70'
72'
74'
76'
78'
80'
82'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water: D28 - 73-1000		Breathing Zone: In-Spoon: Headspace: 0 poor recovery	24	0-4" SM silty sand, mostly fine sand with a little silt, very wet, soupy, moderately sorted, small pieces organic debris
				0	no soil logged
			0 poor recovery	~18	Half is SP/SW, moderately sorted, mostly fine sand, olive black with red & white specks, wet, loose Half is SM silty sand, moderately well sorted, fine-very fine, olive black with red & white specks, very wet, loose, organic debris
				0	no soil logged
			0	24	0-24" ML medium stiff silt, very well sorted, moist, wetter in first 6", olive grey
					no soil logged
			0	24	0-24" ML same as above (78-80')
					bottom of boring

Geologist's Signature

Tasya Curran

Date 11/10/00

Reviewer _____

Date _____

Pg 4 of 4



Soil Stratigraphy Field Log

Location ID D29
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00 Field Geologist Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 78

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0	Water: D29-13-1000 D29-23-1000		Breathing Zone: In-Spoon: Headspace:		no soil logged
30	Water: D29-33-1000		○ Poor recovery	~16	0-16" SW poorly sorted sand, mostly fine with some medium grains, very wet, loose, olive black with red & white specks
32				○	no soil logged
34			○ Poor recovery	~20	0-20" SW poorly sorted sand, fine-medium grained, a few fines, very wet, loose, wood debris, olive black with red & white specks, one silt lens from unknown depth ~0.5" thick
36				○	no soil logged
38			○	18	0-3" SP/SW moderately sorted sand, olive black with red & white specks, wet, loose, mostly fine 3-6" ML medium stiff silt, olive grey, well sorted, wet, very fine, little bit of sand 6-14" SP/SW same as above (0-3") 14-18" ML same as above (3-6")
40					

Geologist's Signature Tasya Gray Date 11/10/00 Reviewer _____ Date _____ Pg 1 of 5



Soil Stratigraphy Field Log

Location ID D29
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 7.5

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	Water 029-43-1000				no soil logged
40'				24	0-2" ML medium stiff silt lens 2-14" SW/SP silty sand and fine sand, moderately sorted, olive black with red & white specks, wet loose 14-16" ML medium stiff silt lens 16-19" SW/SP same as above (2-14") 19-24" ML medium stiff silt lens 21-24" SP fine sand, moderately sorted, olive black with red & white specks, wet, loose
44'				0	no soil logged
46'			0 poor recovery	~12	Half of sample is SW, poorly sorted sand, fine-medium, olive black with red & white specks, wet, loose Half of sample is SW, sandy silt, moderately well sorted, wet, very soft, olive black/grey
48'				0	no soil logged
50'					

Geologist's Signature Tasya Gray Date 11/10/00 Reviewer _____ Date _____ Pg 2 of 5



Soil Stratigraphy Field Log

Location ID 1729
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00

Field Geologist Tasya Gray

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 78

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
50 0.0'	Water D29-53-1000		Breathing Zone: In-Spoon: Headspace: ○ poor recovery	~12	0-12" SW poorly sorted sand, fine-medium with a few coarse grains, very wet, soupy, loose, olive black with red & white specks,
52				○	no soil logged
54			○ poor recovery	12	0-12" SW/SP moderately sorted sand, fine-medium, wet, loose, olive black with red & white specks
56				○	no soil logged
58			○ poor recovery	~18	0-18" SW/SP same as above (54-56") with wood debris (very little) bottom gets siltier
60	Water D29-63-1000			○	no soil logged
62			○ poor recovery	~20	0-6" SP mostly fine sand, moderately well sorted, wet, loose, olive black with red & white specks 6-20" silty sand, still mostly fine sand but more cohesive, very wet, loose, olive black with red & white specks
64					

Geologist's Signature Tasya Gray Date 11/10/00 Reviewer _____ Date _____ Pg 3 of 5



Soil Stratigraphy Field Log

Location ID D29
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00

Field Geologist Tanya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 78

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

64
66

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'				0	no soil logged

			⊙	23	0-6" SM sandy silt, well sorted mostly silt with a little fine sand, wet, very soft, olive grey/black 6-20" ML silt with a very little sand, starts very soft and becomes medium stiff, wet, well sorted, olive grey 20-23" SM silty sand, fine sand & silt mix, so/so, wet, moderately well sorted, loose, olive black
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68

				0	no soil logged
--	--	--	--	---	----------------

70

	water D29-73-1000		⊙	24	0-24" SM very soupy silty sand, fine sand mostly with silt & a few medium grains, very wet, very loose, olive black with red & white specks
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72

				0	no soil logged
--	--	--	--	---	----------------

74'

			⊙	24	0-24" ML medium stiff silt, moist-wet, very well sorted, no sand, olive grey.
--	--	--	---	----	---

76'

Geologist's Signature Tanya Gray Date 11/10/00 Reviewer _____ Date _____ Pg 4 of 5



Soil Stratigraphy Field Log

Location ID D29
Facility GT
Project Supplemental Offsite Char

Date 11/10/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 78'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
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76

0.0'

Breathing Zone:
In-Spoon:
Headspace:

24

same as above
(74-76') moist

78

end of boring



Soil Stratigraphy Field Log

Location ID D30
 Facility GT
 Project Supplemental Offsite Char

Date 11/10/00

Field Geologist
Tanya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method
Geoprobe

Sampling Method
2', 1" diameter acetate liners

Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water D30-13-1000 D30-23-1000				no soil logged
30'	Water D30-33-1000		0	18	0-18" SW poorly sorted sand, very wet, fine-medium, loose, olive black w/ red & white specs
32'				0	no soil logged
34'			0	22	0-22" SW same as above (30-32') with wood debris
36'				0	no soil logged
38'					no soil logged
44'			0	10	0-10" SW poorly sorted sand, very wet, fine-medium, loose, olive black w/ red and white specs
46'			0	18	0-14" SW olive black, poorly sorted, wet, fine-medium, loose, red and white specs. 14-16" SM, olive black, medium sorted, wet, silty sand, loose. 16-18" SW olive black, poorly sorted, wet, fine-medium, loose, red and white specs.

Geologist's Signature Tanya Gray Date 11/13/00 Reviewer _____ Date _____ Pg 1 of 3



Soil Stratigraphy Field Log

Location ID D30
 Facility GT
 Project Supplemental Offsite Char

Date 11/13/00

Field Geologist Corey Johnson

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
48					No soil logged
54			0.1	~5 Poor Recovery	0-5" SM sw/pt olive black, med-fine sand with some silty sand, poorly sorted, very soupy and wet, red and white specs in SW matrix
56			0.3	~4 Poor Recovery	0-5" sw olive black, medium-fine sand, poorly sorted, wet and soupy, red and white specs
58					No soil logged
64			0.0	~4 Poor Recovery	0-5" SW olive black, medium-fine sand, poorly sorted, wet and soupy, red and white specs, small (1-2mm) thin pieces of organic debris scattered throughout.
66			0.0	24	0-24 Ml olive black, silty sandy silt, medium-well sorted, soft, moist,
68					No soil logged
74			0.0	22	0-22 SM olive black, silty sands poorly sorted, wet, fine sands with some silt.
76					

Geologist's Signature Corey Johnson Date 11/13 Reviewer _____ Date _____ Pg 2 of 3



Soil Stratigraphy Field Log

Location ID D30
 Facility GT
 Project Supplemental Offsite Char
 Location Type: Temp
 Soil Boring Only Well Test Pit

Date 11/3/00

Field Geologist Corey Johnson

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
76 0.0'					No soil logged
78			0.0	~5 Poor Recovery	sm olive black, silty sands, fine sand with few silt, poorly sorted, wet and soupy, loose, red and white specs.
80					No soil logged
82			0.0	~4	sm olive black, silty sands, fine sand with few silt, poorly sorted, wet and soupy, loose, red and white specs, small (1-2mm) pieces of organic debris thin scattered throughout.
84					No soil logged
86			0.3	24	ml olive black, mostly silt with few fine sand and clay. well sorted, soft med stiff
88					



Soil Stratigraphy Field Log

Location ID D31
 Facility GT
 Project Supplemental Offsite Char

Date 11/30/00 Field Geologist Tasya Gray / Salamah Magnuson Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 81'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	D31-13-1000 D31-9-13-1000 D31-23-1000 D31-33-1000 D31-43-1000			0	no soil logged
43'			0	14	SW poorly sorted sand, 0-14" fine-medium with some coarse grains & fine gravel, wet loose, olive black with red & white grains & some green grains, wood debris
45'			0	24	SW poorly sorted sand, fine-medium grained, very wet, loose, olive black with red & white specks,
47'			0	~12	poor recovery 0-12" SW poorly sorted sand, fine-medium grained, wet, loose, olive black with red & white specks
49'				0	no soil logged
53'			0	24	0-24" SW poorly sorted sand, fine-med. grained, wet, loose, olive black with red & white specks
55'			0	~12	0-12" SW poorly sorted fine ^{med grained} sand med wet, loose, olive black w/ red & white specks
57'			0	~18	poor recovery 0-18" SW poorly sorted sand, fine-med grained, very wet, loose, olive black w/ red & white specks
59'-63'				0	no soil logged

Geologist's Signature Tasya Gray Date 11/30/00 Reviewer _____ Date _____ Pg 1 of 2



Soil Stratigraphy Field Log

Location ID D3L
 Facility GT
 Project Supplemental Offsite Char

Date 12/1/2000

Field Geologist Tasya Gray / Amy Sidew

Location Type:
 Soil Boring Only ^{Temp} Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 81'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace:
63'			0	~12"	SW poorly sorted fine-med. grained sand, wet, loose, olive-black w/ white & red specks grading into SM silty sand moderately sorted olive black w/ white & red specks & small pieces of woody debris
65'			0	~24"	0-24" SW poorly sorted fine-med. grained sand, wet, loose, olive-black w/ white & red specks
67'			0	~18"	SM silty sand, moderately sorted, very wet, loose, olive black w/ white & red specks grading to SW poorly sorted fine-med grained sand, wet, loose, olive black w/ white & red flecks & larger (1cm x 1/2 cm) chunks woody debris
69'					no soil logged
73'					
77'					
79'			poor recovery	~1/2"	ML well sorted silt, wet, loose, olive grey
81'			0	~24"	0-12" SM silty sand, moderately sorted, wet, loose, olive dark olive grey 12-24" grading to ML well sorted silt, wet loose, dark olive grey (between olive grey & olive black)
81'					

Geologist's Signature _____ Date _____ Reviewer _____ Date _____ Pg I of I



Soil Stratigraphy Field Log

Location ID D33
 Facility ETI
 Project 2000 Supplemental/Offsite Char-
 Location Type:
 Soil Boring Only Well Test Pit

Date 12/13/00

Field Geologist
Tasya Gray

Drilling Method
Geoprobe

Sampling Method
2" 1" diameter acetate liner

Total Depth
81

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	D33-03-1000		Breathing Zone: In-Spoon: Headspace:	0	no soil logged
03'			0	24	0-24" SP moderately sorted sand, mostly fine grained, wet, loose, olive black with red & white specks, wood debris concentrated @ ~14"
05'			0	24	0-24" SP same as above (03-05') no wood
07'	D33-71-1000		6.5	22	0-22" SP same as above (03-05') no wood
09'				0	no soil logged
71'			1.2	20	0-20" SP same as above (03-05') there is a silty sand sand lens @ ~13-15"
73'			7	24	0-24" SM slightly silty sand, mostly fine sand, wet, loose, moderately sorted, olive black with red & white specks, silt lens from ~17-18"
75'					



Soil Stratigraphy Field Log

Location ID D33
 Facility CT
 Project 1000 Supplemental/C&S site

Date 12/14/00 Field Geologist Salamak Magnuson
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2 1/2" Diameter Total Depth 81

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
75	D33-1-100				no soil recovered
77			0.0	6" recovery	2-6" silty clay with mostly fine sand with some silt. silty block. Moist. Very dark gray. loose. Very fine.
81			0.0	24"	0-24" ML silt with few very fine sand grains. Dark gray. well sorted. Moist. Stiff.



Soil Stratigraphy Field Log

Location ID D34
 Facility GT-Reysi
 Project GT 200 Gaddemantal
 Location Type: Temp
 Soil Boring Only Well Test Pit

Date 12/14/00

Field Geologist Sabinali Magnuson

Drilling Method Greeprobe

Sampling Method 2 1/2" Jacator Liner

Total Depth 75

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0					NOT LOGGED
63			0.0	18"	0-18" SP very fine sand with little to no silt. Moderately graded. Olive black. Wet. Loose. Red and white specks.
65			0.0	18"	0-18" SW fine sand with some medium grains and silt. Partly sorted. Olive black. Wet. Loose. Red and white specks. @15-18" increasing fine sand and silt.
67			0.0	15"	0-18" SP fine sand with few medium grains, little to no silt. Moderately sorted. Olive black, wet, loose. Red and Black specks. Woody debris.
69					NOT LOGGED
73			0.0	20"	0-20" SW sandy silt. Silt with few very fine sand. Dark gray. 70-80 Moderately sorted. Silt to sand. Wet soft. @ 12" <u>Wet</u> .
75					

Geologist's Signature Sabinali Magnuson Date 12/14/00 Reviewer _____ Date _____ Pg 1 of 1



Soil Stratigraphy Field Log

Location ID D33
 Facility ST
 Project ST 200 Supplemental

Date 12/14/00

Field Geologist Salamali Magnusson

Location Type: Test Pit
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method C

Total Depth

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	<u>D35-65-100</u>				NOT LOGGED
65			0.0	24"	0-24" SW fine sand with few to no medium grains or silt. Well sorted. Olive black. wet. loose. Red and white specs.
65			0.0	24"	0-24" SW fine sand with some medium grains. Poorly sorted. Olive black wet. Loose. Red and white specs.
67			0.9	18"	0-18" SW fine and medium sand with few silt. Poorly sorted. Olive black. wet. Loose. Red and white specs. Woody debris.
69					NOT LOGGED
73			0.0	24"	0-12" SW fine sand with some silt. Poorly sorted. Olive black. wet. Loose. Red and white specs. 12-24" SW silty sand. Sand with silt, 65-35. Poorly sorted. Dark gray. Very wet. Soft. loose. Woody debris. Red and white specs.

Geologist's Signature Salamali Magnusson Date 12/14/00 Reviewer _____ Date _____ Pg 1 of 1



Soil Stratigraphy Field Log

Location ID DB6
 Facility GT-Pepsi
 Project Supplemental Offsite

Date 12/15/00

Field Geologist Selama W. Magrison

Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2 1/2" Diameter Test Pit

Total Depth 75

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description
0.0'	DB6-13-1000				NOT LOGGED
65			0	3" poor recovery	0-3" SW fine and medium grain sand with less silt. Poorly graded. Olive black. Wet. Loose. Red and white specs. few pebbles.
65			0	6" poor recovery	0-6" SW same as above.
67			0	15"	0-15" SW fine sand with few medium grains and silt. Olive black. Wet. Loose. Red and white specs.
69	DB6-13-1000				NOT LOGGED
73			0	15"	0-15" SP fine sand with little to no fines or medium grains. Moderately to well sorted. Olive black. Wet. Loose. Red and Black Specs.
75					

Geologist's Signature Selama W. Magrison Date 12/15/00 Reviewer _____ Date _____ Pg 1 of 1



Soil Stratigraphy Field Log

Location ID B12
 Facility GT
 Project Supplemental Offsite Char

Date 12/12/00 Field Geologist Tanya Gray / Holle Gylling Location Type: Temp
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 45'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'					Breathing Zone: In-Spoon: Headspace: 0
				14	0-3" asphalt 3-6" GM silt, sand, gravel mix, no coarse gravel, pretty dry, ^{very} poorly sorted, loose, dark yellowish brown 6-8" SC sandy clay, dry, medium dense, moderately sorted, fine-very fine, moderate yellowish brown 8-14" SW poorly sorted sand, dry, loose, fine-medium (50/50%), light olive grey
			0	7.5-16" 16"	0-8.5" SC sandy clay, dry, moderately well sorted, dry loose, fine-very fine, light olive grey 0-7.5" 8.5-16" SW same as above (0-2', 3-14")
			0	17	0-3.5" SC sandy clay, dry, moderately well sorted, loose, fine-very fine, light olive grey 3.5-13.5" SW poorly sorted sand, fine-medium, higher fine sand content (~70/30%) dry, loose, olive grey 13.5-15.5" SC lens same as above (0-3.5") 15.5-17" SW same as above (3.5-13.5")

0
2
4
6

Geologist's Signature Tanya Gray Date 12/12/00 Reviewer _____ Date _____ Pg 1 of 5



Soil Stratigraphy Field Log

Location ID B12
 Facility GT
 Project Supplemental Offsite Char

Date 12/12/00 Field Geologist Tanya Gray / Helle Gylling Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 45'

6'
8'
10'
12'
14'
16'
18'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace: 0	17	0-1" SC sandy clay, moist, moderately well sorted, fine-very fine, medium dense, dark yellowish brown 1-17" SW poorly sorted sand, slightly moist, loose, fine-medium (n70/30), olive black with red & white specks
			0	16	0-16" SW very poorly sorted sand, fine-coarse sand with variations in grain size throughout getting coarse then fine then coarse then finer again, slightly moist, loose, olive black with red & white specks
			0	0	unable to recover soil
	Water B12-15-1000		0	16	0-16" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks, (n50/50 med. grain size throughout), small silt lens @ 0"
			0	12	0-12" SW same as above poorly sorted sand
			0 poor recovery	NS	0-18" SW same as above but fine sand content increasing



Soil Stratigraphy Field Log

Location ID B12
 Facility GI
 Project Supplemental Offsite Char

Date 2/12/00

Field Geologist Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 45'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
18				13	0-13" SW poorly sorted sand, medium dense, wet, fine-medium, mostly fine, olive black with red & white specks
20			0	8	0-8" SW same as above (18-20')
22			0	9	0-9" SW same as above (18-20')
24			0	10	0-10" SW same as above (18-20') some wood debris
26			0	~16	0-16" SW same as above (18-20') no sign of wood small silt lens ~1"
28	B12-30-1006		0	~14	0-14" SW same as above (18-20') no sign of wood
30			0	~14	0-14" SW same as above (18-20') no sign of wood
32			0	22	0-7" SW same as above (18-20') no wood 7-15" SW silty sand, wet, loose, well sorted, olive black fine-very fine 15-22" SW sandy silt, same as above SW but higher silt content

Geologist's Signature Tasya Gray Date 2/12/00 Reviewer _____ Date _____ Pg 3 of 5



Soil Stratigraphy Field Log

Location ID 312
 Facility GT
 Project Supplemental Offsite Char

Date 12/12/00

Field Geologist Tanya Gray

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2", 1" diameter acetate liners

Total Depth 45'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description
0.0'				24	<p>0-0" 0-0" SW poorly sorted sand, fine-coarse grains with lots of wood, sample is primarily wood pieces, very wet, loose, olive black</p> <p>0-7" silt + lens</p> <p>7-10" SW as above</p> <p>10-24" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks, grades into a silty sand the last 2" small amount of wood debris throughout</p>
			0		<p>0-7" SW poorly sorted sand, fine-medium, wet, loose, olive black with red & white specks, small amount of wood</p> <p>7-12" SM silty sand, moderately sorted, wet, wood debris, loose, olive black with red & white specks</p> <p>12-14" ML soft silt, olive grey, well sorted, wet, structure very fine, little or no sand</p> <p>14-23" SP moderately well sorted, fine sand, wet, loose, olive black</p>

34'

36'

38'



Soil Stratigraphy Field Log

Location ID B12
Facility GT
Project Supplemental Offsite Char

Date 12/12/00

Field Geologist Lasya Gray

Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2', 1" diameter acetate liners

Total Depth 45

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
38 0.0'			Breathing Zone: In-Spoon: Headspace: 0	~20	0-20" SW fine sand with some medium grains & a small amount of silt grains, wet, loose, poorly sorted, olive black with red & white specks
40			0	23	0-23" SM sandy silt grades to silt @ 5-6" then goes to silty sand then grades to sandy silt @ 13-15" then grades to sandy silt/silty sand to bottom, all of sample is olive black, wet loose-medium dense, moderately well sorted
42			0 poor recovery	~12	0-12" SM slightly silty sand, mostly fine grained, wet, loose, some wood debris, olive black with red & white specks
44					not logged
45					bottom of boring

Geologist's Signature Lasya Gray Date 12/12/00 Reviewer _____ Date _____ Pg 5 of 5



Soil Stratigraphy Field Log

Location ID F9
 Facility GT
 Project Supplemental Offsite Char

Date 10/5/00 Field Geologist Helle Gylling, Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2', 1" diameter acetate liners Total Depth 120'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

0'
2'
4'
6'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'				0	asphalt and gravel
<u>3.5'</u>				12"	0-5" SP, well sorted fine sand, few fines, loose to very loose, dusky yellowish brown, slightly moist, little gravel 5-11.5" ML silt, inorganic, with little or no sand, well sorted, medium stiff, moist, dark yellowish brown with light brown streaking 11.5-12" SP well sorted fine sand, few fines, loose to very loose, dusky yellowish brown, slightly moist, little gravel
				14.5"	0-1.5" SP well sorted fine sand, few fines, loose to very loose, dusky yellowish brown, slightly moist, little gravel 1.5-9" ML silt, inorganic, with little or no sand, well sorted, medium stiff, moist, dark yellowish brown with light brown streaking 9-14.5" SP same as above sw

Geologist's Signature Tasya Gray Date 10/19/00 Reviewer _____ Date _____ Pg 1 of 12



Soil Stratigraphy Field Log

Location ID F9
 Facility GT
 Project Supplemental Offsite Char

Date 10/5/00 Field Geologist Helle Gylling; Tasya Gray
 Location Type: Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 120'

6'
8'
10'
12'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace:	15.5"	0-15.5" <u>SP</u> well sorted fine sand, few fines, loose to very loose, dusky yellowish brown, slightly moist, little gravel
				18"	0-1.5" <u>ML</u> silt, inorganic with little or no sand, well sorted, medium stiff, pretty dry, dark yellowish brown 1.5-18" <u>SP</u> well sorted fine sand, few fines, loose to very loose, dusky yellowish brown, slightly moist, little gravel
				18"	0-3" <u>ML</u> silt, inorganic with little or no sand, well sorted, medium stiff, pretty dry, dark yellowish brown 3-18" <u>SW</u> dusky yellowish brown, mostly medium sand with few or no fines, poorly sorted, loose, moist, variations in coarseness of sand throughout, some white & brown grains



Soil Stratigraphy Field Log

Location ID F9
 Facility GT
 Project Supplemental Offsite Char

Date 10/5/00

Field Geologist Helle Gylling, Tasya Gray

Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe

Sampling Method 2, 1" diameter acetate liners

Total Depth 120'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'	Water F9-15-1000		Breathing Zone: In-Spoon: Headspace:	14"	SW same as above grading to SP, well sorted fine sand, few fines, loose to very loose, dusky yellowish brown, slightly moist, little gravel
				13"	^{0-13"} SW dusky yellowish brown, mostly medium sand with few or no fines, poorly sorted, loose, moist, variations in coarseness of sand throughout, some white & brown grains
				16"	0-16" SW same as above
				24"	0-24" SW same as above
					Collected Geotechnical Sample F9-20-22-1000
				21"	0-6.5" SW same as above 6.5-10.4" SW same as above but has wood debris 10.4-21" SW same as above (no wood)

12'
14'
16'
18'
20'
22'
24'



Soil Stratigraphy Field Log

Location ID F9
 Facility GT
 Project Supplemental Offsite Char

Date 10/5/00 Field Geologist Helle Gylling, Tanya Gray Location Type:
 Soil Boring Only Well Test Pit

Drilling Method Geoprobe Sampling Method 2", 1" diameter acetate liners Total Depth 120'

Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.

22'
24'
26'
28'
30'
32'

Depth of Sample (ft bgs)	Sample ID	Blow Counts (per 6")	Total Organics (ppm)	Sample Recovery (Inches)	Geological Description: Sample Interval, Unified Soil Class ID, Munsell Color, grain size, sorting, moisture, compaction, indication of contaminants (odor or sheen), and general stratigraphic description.
0.0'			Breathing Zone: In-Spoon: Headspace:	18"	0-18" SW dusky yellowish brown, mostly medium sand with few or no fines, poorly sorted, loose, moist, variations in coarseness of sand throughout, some white & brown grains
				21"	0-6.5" SW same as above 6.5-10.4" SW same as above but has wood 10.4-21" SW same as above (no wood)
	F9-30-1000 water			23"	0-23" SW dusky yellowish brown, medium sand with a little coarse sand and fine gravel, poorly sorted, loose, moist, some white & brown grains
				21"	0-21" SW same as above (26-28')
					Collected Geotechnical Sample F9-30-32-1000 looks like same SW as above