LIMITED SITE DATA
ATTACHMENT D
MONITORING WELL BORING LOGS

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW-8 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/21/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/21/01
METHOD: 8.25" ID HSA	RIG: IR 300 OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
	S1A (0-0.5)					md, d, o(+)m S, w of G, t(-) $ 1.33	gray-brown
1	S1B (0.5-2)		97 ppm		20"	s, d, dk br $, w S & G.	Slight odor ~ 14"
2	S2 (2-4)		141 ppm		4"	do.	Insufficient recovery for lab sample. Strong odor, black liquid in gravel.
3						~ 3.0	▼ ~ 3.0'
4	S3 (4-6)		136 ppm (initial) 1166 ppm		24"	s-ss, w, bk-gy Cy$, l(+) mf S; occ bits of broken glass and brick in upper foot. Somewhat mottled appearance.	Very strong odors
5							
6	S4 (6-8)				0"		
7							
8	S5 (8-10)		107 ppm		7"	do: no anthropogenics, abundant plant fiber. (Peat-like)	
9							
10	S6 (10-12)		31 ppm		24"	do, abundant woody fibers.	
11						11.5	
12			24 ppm			Loose, wet, mf S.	

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW-8
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)		52 ppm		24"	l, w, om(+) S.	
14						14.0	
						End boring@ 14.0	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

NOTES: End boring at 14', plugged boring with bentonite-slurry to 11.5' dbg. Set 4" well screen at 3-11' below grade.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW-9 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/21/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/21/01
METHOD: 8.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
	S1A (0-0.5)					md, d, lt br, mf(+) S, l(+)f G, t $.	Odor
1	S1B (0.5-2)		59.4 ppm		14"		
2						2.0	
	S2 (2-4)		85.8 ppm		21"	Somewhat stiff, moist, dk br Cy$, l(-) f S, t cf G; abd wood fiber, pockets of fine Sand.	Strong odor
3							
4							▼ ~4.5
	S3 (4-6)		84.7 ppm		24"	do.	Very strong odor at apparent water table, diminishing with depth.
5						5.5	
6						l, wet, dk gy mf S, t $	Odor.
	S4 (6-8)		12.8 ppm		24"	do.	
7							
8						do: more fine sand, less Silt	Odor
	S5 (8-10)		13.8 ppm		24"		
9							
10						l, w, dk gy, mf(+) S.	Odor.
	S6 (10-12)				24"		
11							
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW-9
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)				24"	do.	
14						14.5	
15						End boring@14.5	
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

NOTES: End spoon sampling at 14' bdg, blind auger to 14.5' dbg, set 4" well screen at 4-14'

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW10 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/22/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/22/00
METHOD: 8.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
	S1A (0-0.5)					Topsoil & roots in a silty sand.	
1	S1B (0.5-2)		ND		16"	md, d-m, br, c mf(+) S, t(+) S, t f G, mtld, ins of silt.	
2							
3	S2 (2-4)		ND		16"	do; somewhat moist, occ brick, lime chips, glass	
4							
5	S3 (4-6)		21.5 ppm		18"	do. Moist to wet at ~5', free water in pockets of fine gravel	Strong odor at 5' Large piece of wood in base of spoon apparently saturated with black oily product
6						do. 6.5	▼ 6.5
7	S4 (6-8)		25.4 ppm		24"	Woody fiber with c&d in Silt. 7.0 l, wet, gy-br, f S, t(-) f G.	Thick, blackish liquid from 6.5-7.0, strong odor. Liquid has greasy feel and leaves notable smear on protective latex gloves when handled. Appears to have saturated the woody fiber.
8							
9	S5 (8-10)		12 ppm		20"	do; occ lenses of Silt.	
10							
11	S6 (10-12)				NR (<3")		
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW10
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)				NR (<3")		
14	Blind					14.5	
15						End boring @14.5	
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

Sample to 14, blind auger to 14.5, set 4" well screen 4-14'

Albany, NY (518) 458-1313	**Test Boring Log**	Boring No. MW - 10D
PROJECT: Freeman's Bridge Road		Project No.: 38925.02.01
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date: 8/22/00
SUBCONTRACTOR: Parratt-Wolff		Inspector: Kevin McGrath, Hydrogeologist
METHOD: HSA	RIG: IR 300 / OPERATOR: D. Thoma	
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: 2" Split-Spoon	

Depth (Feet)	Sample Number	PID	REC	USCS	Soil Description	Geologic Description	Observations
1	S1 (0-2)	0ppm initial; 6ppm H.S	16"		Medium dense, well sorted gravelly Sand; pockets + lenses of Silt and fine Sand, mottled appearance.	0-6" Topsoil & roots. Md, d-m, c m(+) f S, l(-) f G, t(+) $ + Cy$, abd brick, concrete frags,glass	
2	S2 (2-4)	6ppm initial; 10ppm H.S.	18"		do.	do. 3.5	
4	S3 (4-6)	51.1ppm H.S.	24"		Well sorted Gravel, angular shale chips	l-md, C f G w mf S, l(-) $, abundant woody fiber. Wet ~5.0 7.0	Black stained, strong odor, gummy texture. ▽ 5.0 Apparent free product at WT to 7.0'.
6	S4 (6-8)	26.8ppm H.S.	22"				
7		58.7ppm H.S.			Somewhat stiff gray Silt, lenses of yellow & brown fine Sand.	SS, w, gy + yb $, l f S, (lenses of fine sand in Silt matrix). 8.5	Odor
8							
9	S5 (8-10)	ND H.S.	24"		Poorly sorted fine Sand with Silt.	l-md, wet, gy f S, l(-) $.	Faint odor.
10		ND			do.	do.	
11	S6 (10-12)		24"				
12							

NOTES: No laboratory samples collected, duplicates information from MW-10, determined to be NOT necessary for NYSDEC PM.

TEST BORING LOG

BORING NO.: MW-10D
Project No.: 38925

Depth (Feet)	Sample Number	PID	REC	USCS	Soil Description	Geologic Description	Observations
13	S7 (12-14)		24"		do.	do; occ pockets of yellow brown mf S; occ layers of Clayey Silt, occ Gravel.	8" layers of roots fiber from 12.5 ~ 13.2"
14							
15	S8 (14-16)		24"		do.	do; somewhat greenish-gray to dk blue gray. Somewhat stiffer, low plasticity.	
16							
17	S9 (16-18)		24"		do.	do.	
18					do.	do.	
19	S10 (18-20)		24"			19.33	
20						do; with f G, well-rounded C to subangular Gravel.	Alternating layers up to 8" thick of f S, mf S & G, c f G + c m S. Silt on Silty Clay with f Sand.
21	S11 (20-22)		24"		do.	do.	
22							
23	S12 (22-24)		24"		do.	do; alternating layers of fine Sand and medium fine Sand and Gravel.	
24							
25	S13 (24-26)		24"		do.	do.	
26							
27	S14 (26-28)		24"		do.	do.	
28							

NOTES.

TEST BORING LOG

BORING NO.: MW-10D
Project No.: 38925

Depth (Feet)	Sample Number	PID	REC	USCS	Soil Description	Geologic Description	Observations
29	S15 (28-30)				do.	do.	
30	S16 (30-32)				do.	do.	
32	S17 (32-34)				do.	do.	
34					End boring @ 34' dbg.	34'	
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW11 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/22/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/22/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoms	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
	S1A (0-0.5)		ND			ss, d-m, dk br, $, l(-) f S, occ. Gravel, roots, asphalt, and concrete.	5" layer of broken asphalt.
1	S1B (0.5-2)		ND		15"		
2							4" layer of broken concrete
3	S2 (2-4)		ND		12"	do: Cy$ lenses, pockets of mf(+) S, occ pebbles; low plasticity.	
4							
5	S3 (4-6)		ND		12"	do; occ pockets of cm S	
6							
7	S4 (6-8)		ND		22"	do. Stiff to very stiff.	
						do. 7.5	
8						s-ss, m, tn-br, $, l(+) f S. 8.5	Abrupt color change to tan-brown at 7.5'.
9	S5 (8-10)		ND		10"	md, m, br-gy, $, w f S, occ. lenses of mf S.	Loam-like, possible natural soil horizon (pre-fill surface?)
10							
11	S6 (10-12)		ND		13"	do; wet at 11.5.	▼ 11.5
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW11
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)		ND		24"	do.	
14	Blind						
15						do.	
16	S8 (15-17)				24"	16'	Sharp contact at 16'.
						I, w, mf S, t(-) S.	
17						End boring @ 17.0'	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

NOTES: Borehole grouted with bentonite pellets from 15.5 to 17 feet below grade. 2" well screen set from 5-15.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW12 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/23/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/23/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)		12"			md, d, br $, a mf S, fgmts of brick, concrete, asphalt.	
2						st, m br Cy$ w fS, l(-) G; fqt asphalt and building stone.	
3	S2 (2-4)		8"			~3.5	
4						md, m, dk br, Cy$, w f S thin layers of asphalt. (Fill and Alluvium)	
5	S3 (4-6)		15"			~5.5	Spoon wet inside 4-6', potential perched zone.
6						md, m , br-gy Cy$ to rdbr $yC, l(-) f S.	
7	S4 (6-8)		20"				
8						st, d, br-gy $yC, l(-) f S; increasing mf sand fraction and occ. pebbles.	
9	S5 (8-10)		8"				
10						ss, w, dk br-gr $, a f S. Sand lenses increasing with depth.	▼ 10'
11	S6 (10-12)		24"				
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW12
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)		ND		24"	do; Sandy layers increasing in frequency and thickness.	
14							
15	S8 (14-16)		ND		24"	do.	Sandy layer > 1" ~ 15'.
16						do. 16.5	
17	S9 (16-18)		ND		24"	l, w, gy, m(+) f S.	
18						End boring @ 18.0	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

NOTES: Auger advanced to 16' boring advanced to 18' , grouted borehole to 15.5', with bentonite slurry.
2" screen set 5-15' dbg.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW13 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/23/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/23/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split-Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	NS				2"		Asphalt roadway or debris stuck in shoe.
2						s, m, dk br $yC; abt. asphalt and concrete;	
3	S1 (2-4)				18"	ss, d, gy Cy$, a f S, abt debris.	
4						do; with wood and cinders.	Odor.
5	S2 (4-6)				14"		
6		7/6				do; more sand, blackish	Odor
7	S3 (6-8)				10"		
8		7/6			4"	l, m, bl, f S, l $, abt. wood, cinder, organics	
9	S4 (8-10)					~9.0	
10						vs, d - m, $yC w f S, l(-) f G.	10.0'
11	S5 (10-12)	ND			12"		Outside of spoon smeared with black liquid, strong odor.
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW13
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S6 (12-14)				5"	sl, m, gy Cy&S.	
14							
15	S7 (14-16)				24"	m, gr, SyC, a S.	
16						End boring @ 16.0	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW14 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/23/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/23/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)				18"	l, w, br cmf S, a of G, l(-) $&C	Edge of parking area. Heavy rain causing some ponding around augers.
2							
3	S2 (2-4)				18"	do: w-m, less G, fqt lyr fill, occ. gr-br Cy$.	
4							▼ 4.0'
						l, m, gy-br, cmf S, w gr G a $. Abt. debris. 4.5	
5	S3 (4-6)				6"		
6							Odor.
7	S4 (6-8)				10"	m, d, br-gy Cy$; lns wd, debris.	Blackish liquid.
8						ss, w, Cy$, w f S, occ wd pcs.	Odor.
9	S5 (8-10)						
10						10.8	
11	S6 (10-12)				14"	l, w, gy, cmf(+) S.	
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW14
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)				<3"	do.?	no recovery in spoon, sand similar to previous interval in shoe.
14						End Boring @14.0	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

NOTES: Stop auger advance at 12' below grade and attempted to collect one additional spoon.
Boring was grouted closed with bentonite/portland slurryto 2 feet below grade and finished with cuttings.
Boring relocated approximately 3 feet to new location and installed without sampling to 10' below grade.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW15 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 8/24/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 8/24/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)				20"	Roadway asphalt & under base stone, G.	No odor, gravelly road fill, clean. No sample.
2						l, w, gy, mf G, w $ & f S; angular crushed stone,	
3	S2 (2-4)				8"	~3.0	
4						st, w, bl-gy, Cy$, l f S. fqt. Lenses of fine sand and sandy silt	▼ 3.5 Odor, free phase black oily liquid
5	S3 (4-6)				15"		
6						do; less stiff	Odor.
7	S4 (6-8)				10"		
8						st, m, bl-gy Cy$, pkts of l, w dk gr bk S $,	black oily liquid in pkts of loose soils.
9	S5 (8-10)				20"		
10						st, m, dk gr Cy$.	Slight odor.
11	S6 (10-12)				24"		
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW15
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)				20"	s, w, dk gy Cy$. 13.5	Slight odor.
14						l, w, br-gy, f S, t(+) f G & $. 14.0	
						End boring @ 14.0	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

Notes. Auger advanced to 14', six inch layer of bentonite pellets placed 13.5-14 feet, 2" well screen set 3-13.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW15D Page 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/03/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/06/00
METHOD: 8.25" HSA and 4.25" SC	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
						8.25" HSA to 10' below grade with no sampling. 6" casing set and grouted into place 4.25" spin casing with satndard sampling from 10 ft to EOB. 10.0'	
10							
12	S-1 (12-14)	12 24 24 36	ND		16"	md, w, gy, cf G, w cm S, t(+) $. Angular to subangular Gravel.	
14							
16							
18	S-2 (17-19)	23 17 28 18	ND		24"	do: lyrs of cm S.	
20							
22	S-3 (22-24)	36 37 14 10	ND		24"	do.	
24							
26							
28	S-4 (27-29)	20 13 10 12	ND		24"	l, w, gy, cm S.	
30						30.0'	
						End Boring @ 30'	

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW16 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 10/31/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 10/31/01
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	3 2 2 5	ND		14"	l -md, m, dk br m(+)f S, l(+) $, t(-) f G; abd, roots. 0.5 cut broken brick.	
2						do. 2.5	
3	S2 (2-4)	2 3 6 10	ND		6"	l, m, dk r-br, m-f(+) S, Cy$, l(-) f G; bits of brick, concrete, asphalt, wood.	
4						do.	
5	S3 (4-6)	4 2 2 2	ND		9"		
6						do.	Red, hard, rubber-like substance (dried paint?) and asphalt obstructing shoe
7	S4 (6-8)	WOH WOH 3 5	ND		4"	~7.0	
8						vs, m, bk Cy$, a f S, pockets of tan-brown f S.	Insufficient recovery to collect sample.
9	S5 (8-10)	WOH WOH WOH 1	ND		2"		
10						s-ss, m-w, gy & y-br Cy$, t f S.	▼ 10.5
11	S6 (10-12)	WOH WOH 1 1			24"	11.75	
12						l, w, gy-br, m(+)f S. End Boring @12.0'	

NOTES: Water level based on observation of apparent saturation in spoon sample.
Borehole plugged with bentonite from 11.5' - 12.0' 2" well screen set 6-11'.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW16D Page 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/2/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/3/00
METHOD: 8.25" HSA and 4.25" SC	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
10		NA				8.25" HSA to 14' below grade with no sampling. 6" casing set and grouted into place. 4.25" spin casing with satndard sampling from 14 ft to EOB.	
12							
14						14.0'	
16							
18	S-1 (17-19)	2 2 / 3 3	ND		16"	vl, w, bl-gy, m(+)f S; massive.	
20							
22	S-2 (22-24)	28 18 / 23 17	ND		15"	do 2" piece of wood ~23'.	
24							
26						~26'	
28	S-3 (27-29)	10 25 / 60 60	ND		24"	d-vd, w, bl-gy, cm(+) S, a cf G; abd. shale chips and cuttings.	
30		100/ 1				29 Refused @ 29'.	Probable bedrock

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW17 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/01/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/01/01
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	1, 3, 9, 6	ND		8"	vi-l, m, dk r-br mf(+) S, w CyS; abd. roots stems. Low plasticity ~1.0	
2	S2 (2-4)	4, 8, 7, 6	ND		9"	l, d, dk y-br, m(+)f S, t(+) $, t(-) f G; occ asphalt& concrete.	
3							
4	S3 (4-6)	4, 3, 3, 2	ND		6"	do.	
5							
6	S4 (6-8)	4, 5, 6, 7	ND		12"	do; moist. ~7.0	▼ ~ 7.5
7							
8	S5 (8-10)	3, 2, 2, 3			6"	l, w, gy mf S. 10.0	Strong petroleum-like odor.
9							
10	S6 (10-12)					End Boring at 10.0'	
11							
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Boring plugged to 8.5 feet, 3 feet of 2" screen set 5-8' bg.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW17D Page 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/1/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/3/00
METHOD: 8.25" HSA and 4.25" SC	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
10						8.25" HSA to 12' below grade with no sampling. 6" casing set and grouted into place. 4.25" spin casing with satndard sampling from 12 ft to EOB.	
12						12.0'	
14						15.1	Shale cuttings.
16	S-1 (15-17)	100/.1				Spin casing obstructed at 15' below grade by large/hard object. Spoon refused, roller bit refused.	
18						Casing broke free of concrete collar. boring abandoned.	
20						Casing grouted off to surface.	
22						Boring relocated ~ 5' to west.	
24						2nd attempt refused at 15' by shale probable bedrock.	
26						Deep well location abandoned.	
28							
30							

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW18 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/02/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/02/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	2, 8, 10, 7	18"			Topsoil + roots ~ 0.5 l, m, r&y-br mf S; occ CG, small bits of asphalt. ~1.5	
2	S2 (2-4)	5, 3	20"			do; no Gravel or debris at all. Massive.	
3		5, 6					
4	S3 (4-6)	2, 2	24"			do; wet at 5.25'.	
5		2, 2					▽ 5.25
6	S4 (6-8)	2, 1	19"			7.0	
7		2, 3				l, wet, gray M S.	
8	S5 (8-10)	3, 3	22"			do.	
9		2, 2					
10	S6 (10-12)	2, 3	18"			do	
11		3, 1					
12							

NOTES: Water level based on observation of apparent saturation in spoon sample. End Boring @ 12.5

Auger advanced to 12.5', 2" well screen set 7-12'.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW19 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/01/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/01/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	10, 11, 13, 19			16"	md, d, bk, cm S, a G: abd asphalt, fqt concrete	
2							
3	S2 (2-4)	21, 16, 6, 4			3"	do. ~3.5	
4							
5	S3 (4-6)	3, 2, 2, 2			NR		
6							
7	S4 (6-8)	4, 3, 3, 4			16"	s, w, or-br & gray, Cy$, w mf S; no plasticity. 7.0 l, w, gy, mf S. 8.0	Spoon dripping wet
8						End Boring @ 8.0'	
9							
10							
11							
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.
Plugged boring 6-6'.
Set 2" well at 3-6', well dry 1 hour after installation.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW19D Page 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/03/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/03/00
METHOD: 8.25" HSA and 4.25" SC	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
						8.25" HSA with no sampling to 8' below grade. 6" steel casing set. 4.25" spin casing with standard sampling to refusal at 23.4'	
8							
10							
12	S-1 (12-14)	1 1 / 1 1	24"			l, w, bl-gy mf S, t(+) $, no plasticity.	
14						~15	15' c S and f G in cuttings.
16							
18	S-2 (17-19)	21 12 / 10 18	NR				Casing grinding loudly.
20						~21	
22	S-3 (22-24)	17 77 / 100/0.4	24"			vst, w, gy, $, w f S, l(-) f G; deeply imbedded shale pebbles, cut shale frags at base. 23.4 Refused @23.4'.	Much stiffer, advance of casing very difficult. - Probable Bedrock
24							
26							
28							
30							

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW20 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 10/31/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 10/31/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	6 8 7 10			7"	md, m, r&or-br, m(+)f S, l(-) mf G, t(+) $: occ brick.	
2						do. 2.5	
3	S2 (2-4)	30 7 6			9"	l, m, dk br c(+)mf S, a cf G; abd. debris, mostly asphalt and brick.	
4		2				do.	brick in shoe
5	S3 (4-6)	3 4 3			1"		
6		4				do.	▽ Wet at ~ 6'.
7	S4 (6-8)	3 4 6			11"		
8		7				do	
9	S5 (8-10)	WOH WOH WOH			0"		
10		1				do. 10.5	Sheen on water at ~10-11'.
11	S6 (10-12)	WOH WOH 1			24"	s, w, gy Cy$, w f S. 11.0 l, wet, mf S	
12		1				End Boring at 12.0'	

NOTES: Water level based on observation of apparent saturation in spoon sample.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW20D Page 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/01/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/03/00
METHOD: 8.25" HSA and 4.25" SC	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
10		NA				8.25" HSA with no sampling to 14' below grade. 6" steel casing set and grouted and left overnight to cure. 4.25" Spin casing advanced through steel from 14' to EOB with standard sampling.	
12							
14							
16							
18	S-1 (17-19)	4 6 10 16			16"	f. w. br-gy, mf S, l(-) $	
20							
22	S-2 (22-24)	19 22 27 18			16"	l-md, w, br-gy, c(+) m S, w, cf G: rounded to well rounded washed stone.	Hard drilling.
24							
26							
28	S-3 (27-29)	10 12 22 22			3"	do; large rounded stone in shoe.	
30						End boring @ 30'	

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW21 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 11/01/00
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 11/01/00
METHOD: 4.25" ID HSA	RIG: IR 300 / OPERATOR: D. Thoma	Inspector: Kevin McGrath, Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	4 4 6 2	ND		14"	Topsoil, roots. f, m-w, br cm(+)f S, f(-), Cy$ & mf G; occ. bits of brick and concrete.	
2							
3	S2 (2-4)	18 14 14 10	ND		9"	do: pkts. of gy $, abd. brick/concrete/ asphalt.	
4							
5	S3 (4-6)	5 6 3 1	ND		9"	f, d, bl-gy mf S, a Cy$; t(+) mf G; occ. brick, asphalt & concrete.	
6						do.	
7	S4 (6-8)	3 3 1 1	ND		6"	7.0	
8						f, m-w, gy-br mf S, s Cy$, low plasticity, somewhat mottled.	▽ 8.5
9	S5 (8-10)	3 3 WOH WOH	ND		14"		
10						do.	
11	S6 (10-12)	1 1 WOH WOH	ND		24"	11.0 f, w, gy m S.	
12						End Boring at 12.0'	

NOTES: Water level based on observation of apparent saturation in spoon sample.

Auger advanced to 10', bore hole plugged to 9.5', 2" well screen set 5-9'.

EARTH TECH Albany, NY (518) 458-1313	**Test Boring Log**	Boring No. **MW21D** Page 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 3/27/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 3/30/01
METHOD: 8.25" HSA and 4.25" SC	RIG: CME85 OPERATOR: R. Nevatka	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
2						Blind auger to 6 feet below grade.	Hard grinding from 2-4 feet Bits of concrete, and brick in cuttings
4						5.0	.
6	S1 (6-8)	WH/WH 1/1	ND		9"	st, w, dk y-br $-Cy$, l(-) f S, f G; angular to subangular "chips", and occ course well rounded pebbles.	strong odor, blackish liquid around larger pebbles
8	S2 (8-10)	WH/WH 1/1	ND		17"	st, w, gy-br $, w y-br f S; mttld with lns and pkts of vf S.	faint odor
10	S3 (10-12)	WH/WH 1/1	ND		24"	do. 11.0 l, w, gy, m(+)f S, t(+) $; occ pkts f S	Sharp contact
12						Blind auger from 12-16 feet below grade. Steel casing set 3/27/01, and grouted to grade	"paste" like mud of fine sand and $ in cuttings.
14							
16							
18	S4 (18-20)	1/1 1/1			16"	l, w, gy mf(+) S, l(-) f G	
20							
22							
24	S5	10/11			18"	do: more Gravel	

NOTES: 8.25" HSA advanced without sampling to 6 feet beolow grade, samples collected from 6-12' to confirm alluviam/sand interface. HSA advanced without sampling to from 12-16 feet below grade. 6" steel casing set and grouted into place at 16'. 4.25" ID drive casing used to advance remainder of boringwith satndard sampling.
Casing driven with 300 lb hammer, samples collected with 140lb hammer.

EARTH TECH
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Test Boring Log

Boring No. MW21D
Page 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
	(23-25)	22/23					
26							
28	S6 (28-30)	10/5			22"	do.	
		7/12					
30							
32							Abundant gravel chips in wash water, mostly seds with some metas
34	S7 (35-38)	46/13			16"	do.	
		14/13					
36							
38	S8 (38-40)	11/12			12"	do.	
		16/19					
40							
42							
44	S9 (43-45)	6/7			16"	do	
		10/14					
46							
48						do 48.5	
	S10 (48-50)	40/20			14"	vst, w, gy $, l(+) f S, l(-) f G; rounded to angular pebbles and chips.	
		33/49					
50							
52							
54	S11 (53-55)	49/37			16"	do: deeply imbedded gravel	
		50=0.4				Refused @ 54.4	cut shale in shoe

NOTES: Till layer encountered at 48.5, boring refused at 54.4', cut Canajoharie shale in shoe, likely bedrock. 10 foot well screen set at 38-48 feet below grade.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW22 Sheet 1 of 1
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 3/27/07
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 3/27/01
METHOD: 4.25" ID HSA	RIG: CME 55 OPERATOR: R. Novatka	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1						Augers advanced blind to 4" below grade.	
2							
3							
4		50/0.2				Concrete dust and brick powder	▼ ~ 4.5
5	S-1 (4-6)		ND		< 3"	5.0	Cut concrete in shoe, hard drilling to 5' then easy. spoon wet at ~ 4.5
6		WOH				ss, w, gy, S, l(-) f S; occ. plant fiber, occ. vf lm f S.	Strong odor
7	S-2 (6-8)	WOH 3 2	ND		22"		Apparent sheen on soil. Water pouring out spoon
8						End boring @ 8.0	
9							
10							
11							
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

PID Malfunction, Fault probable lamp burnout, readings unreliable.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW23 Sheet 1 of 2
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 3/27/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 3/27/01
METHOD: 4.25" ID HSA	RIG: CME85 / OPERATOR: R. Nevatka	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	2 2 5 5	ND		18"	l, w, dk r-br, m(+)f S, w $ & f G; abd brick, concrete, asphalt, and plant fiber	
2 3	S2 (2-4)	4 6 8 5	ND		8"	do; moist, more $ to Cy$, less G; 4" of brick dust, pckts of y-br m S	
4 5	S3 (4-6)	2 2 2 2	ND		6"	do; coarser Gravel, rounded to subangular shale and limestone. 5.0	drumlid o-ring on auger bits of cermaic tiles
6 7	S4 (6-8)	6 10 3 1	ND		5"	ss, w, y-br $ a Cy$, l(-) f S, occ lyrs woody fiber, low plasticity	▼ ~ 7.5
8 9	S5 (8-10)	3 2 2 2	ND		7"	do; abd wood, lm bk $ & f S	Water poruing off spoon
10 11	S6 (10-12)	1 0 1			< 2"		cut wood and bk $ in shoe
12		1					

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW23
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)	6 3 1 3			24"	ss, w, bk, S, l(-) f S; abd woody fiber.	block of cut wood in layer of cm(+) S 13-13.5
14						do:	
						15.0	sharp contact
15	S8 (14-16)	1 4 4 4			18"	l, w, gy, mf S.	
16						End Boring @16.0'	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

Notes: Augers advanced to 14.0' below grade only. Spoon hole plugged with bentonite chips
10' of 0.10 slot screen set from 3.5 to 13.5.

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log	Boring No. MW23D Page 1 of 3
PROJECT: Freeman's Bridge Road		Project No.: 38925
CLIENT: New York State Department of Environmental Conservation		Datum: Grade
PURPOSE: Monitoring Well Installation		Date Started: 3/27/01
SUBCONTRACTOR: Parratt-Wolff		Date Finished: 3/29/01
METHOD: 8.25" HSA and 4.25" SC	RIG CME85 OPERATOR: R. Nevatka	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Standard	SAMPLE DEVICE: Split Spoon	

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
2							
4							
6	S1 (6-8)	2/2			< 2"		attempted to collect sample above wt to replace NR sample in MW23. No recovery
8		3/2					
10							
12							
14							
16							
18	S2 (18-20)	5/3			6"	l, w, gy mf S, l(-) $; occ lns $ and woody fiber	
20		2/2					
22							
24	S3	5/2			8"	do	

NOTES:

EARTH TECH
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Test Boring Log

Boring No. MW23D

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
	(23-25)	6/4					
26							
28	S4 (28-30)	9/39			12"	md-d, w, gr-gy cm S, w G; well rounded sedi & metas.	abundant rock chips in wash water
		39/37					
30							
32							
	S5 (33-35)	15/25			8"	do.	
34		19/19					
36							
38	S6 (38-40)	13/11			14"	do.	
		11/16					
40							
42							
44	S7 (43-45)	13/13			12"	l, w, gy, mf S, i(-) $.	
		13/13					
46							
48							
	S8 (48-50)	42/26			8"	md-d, w, gr-gy, c(+)mf S, w G	
		22/15					
50							
52							
	S9 (53-55)	10/17			9"	do.	
54		13/13					

NOTES:

EARTH TECH
Albany, NY (518) 458-1313

Test Boring Log

Boring No. MW23D

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
							Join line to Page 2
56						56.5	
58	S10 (58-60)	10/19 15/12			16"	s, w, gy Cy$, t(+) f S; moderate palsticity, interbedded laminae of Cy$ and f S.	
60							
62							
64	S11 (63-65)	12/11 10/5			18"	do.	
66							
68	S12 (68-70)	5/5 8/10			24"	do.	
70						End Boring @ 70.0	
72							

NOTES:

EARTH TECH Albany, NY (518) 458-1313	Test Boring Log		Boring No. MW24 Sheet 1 of 2
PROJECT: Freeman's Bridge Road			Project No.: 38925
CLIENT: New York State Department of Environmental Conservation			Datum: Grade
PURPOSE: Monitoring Well Installation			Date Started: 3/28/01
SUBCONTRACTOR: Parratt-Wolff			Date Finished: 3/28/01
METHOD: 4.25" ID HSA	RIG: CME85	OPERATOR: R. Nevatka	Inspector: Kevin McGrath Hydrogeologist
SAMPLE INTERVAL: Continuous	SAMPLE DEVICE: Split Spoon		

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
1	S1 (0-2)	WOH 2 4 7	ND		24"	l, w, r-br, mf S, w $; abd plant fiber and roots	
2 3	S2 (2-4)	9 9 24 12	ND		18"	md, dk r-br, mf S a $, t(+) fine G; occ bits of brick, concrete, and asphalt. Thin layers of ash from 3-3.5', occ pkts of shale chips.	
						~3.75'	
4 5	S3 (4-6)	15 10 7 6	ND		8"	ss, m, gy & o-br, $, a vf S; somewhat mttld, lns a pkts of o-br f S	water pouring off spoon
						6.0'	
6 7	S4 (6-8)	4 2 2 2	ND		21"	l, m-w, o-br mf(+) S, l(-) gy $; very mttld with lns & pkts of gy $ and m S, abd iron staining	
8 9	S5 (8-10)	1 1 2 2	ND		12"	do.	
10 11	S6 (10-12)	WOH 1 1 1	ND		24"	do. increasing medium sand content.	
12							

NOTES: Water level based on observation of apparent saturation in spoon sample.

Freeman's Bridge Road
Project No.: 38925

TEST BORING LOG

BORING NO. MW24
Sheet 2 of 2

Depth (Feet)	Sample Number	Blow Count	PID	WELL	REC	Geologic Description	Observations
13	S7 (12-14)	1/12 1/12			24"	l, w, it br m(+)f S, t(+) $	
14						14.0	
15	S8 (14-16)	WOH 1/12 3			24"	l, w bk-gy, mf(+) S, t(+) $.	
16							
17	S9 (16-18)	1 3 3 4			24"	do.	
18						do. 18.5	
19	S10 (18-20)	2 3 4 11			22"	l, w, dk r-br, cm(+) S, a G:	
20							
21	S11 (20-22)	10 14 24 42			22"	do; gravel consists of rounded to subangular sandstone, quartzites, limestone chips.	
22							very coarse hard grinding to 23', then very easy, grey paste like silty fine sand from 23-26' in cuttings
23						23.0'	
24							
25							
26						End Boring @ 26.0'	
27							
28							

Notes: unexpected shift to gravel at approximately 20 feet below grade, blind augers advanced from 22 to 26 feet in attempt to "tag" bedrock surface. Boring discontinued at 26 feet and well completed with 15' 11" of screen placed from 6-22 feet.

EarthTech (A Tyco International Ltd. Company)	Monitoring Well Boring Log	M. Well No.: MW (25)
PROJECT: Freeman's Bridge PDI	PROJECT No.: 83060.02	ET GEOLOGIST: Lucas Benedict
CONTRACTOR: Geologic, Inc.	DRILLER: Joe Menzel, Judson Powell	PAGE: 1 of 1 DATE: 4/25/05
BORING LOCATION: West-northwest of building in undeveloped field	SITE LOCATION: Glenville, New York	SURFACE ELEVATION: NA

WATER LEVELS				RIG	CASING	SAMPLER	CORE	TUBE
DATE	DEPTH	TIME	TYPE	CME 45C	Hollow Stem Auger	Split Spoon		
			I.D.		4.25"	2"		
			WEIGHT			140#		
			FALL			30"		

Depth (ft) bgs	Penetrometer (T/ft^2;KG/cm^2)	Blows per/6"	Recovery (feet)	PID (ppm)	Temp. (^oF)	SAMPLE DESCRIPTION AND STRATUM CHANGES	REMARKS
0		5	0.5'/2.0'			0.0'-0.4' Soft, Moist to Damp, Brown, Clayey Silt, Little Medium to Fine Sand, Trace Fine Gravel	Topsoil and Roots
		4					
1		3				0.4'-0.5' Loose, Dry, Grey, Coarse to Fine Gravel, Non-plastic	Fill Material to 6.0' bgs
		9					
2		17	1.4'/2.0'			2.0'-2.4' Loose, Wet, Construction and Demolition Debris, Brick	Non-plastic
		13				2.4'-2.7' Soft, Wet, Brown, Coarse to FineSand, Trace Medium to Fine Gravel, Trace Construction and Demolition Debris, Brick	Non-plastic
3		28					
		31				2.7'-3.4' Loose, Wet, Black, Asphalt Gravel, Trace Clay and Silt	Water Table observed at approximately 3.0' bgs based on moisture in spoon casing; Odor observed; Non-plastic
4		50/0.1	None				
		100/0.3					
5		1	1.0'/1.0'			5.0'-5.2' Very Soft, Saturated, Black, Silty Clay, Trace Fine Gravel, Trace Wood Fragments, Medium Plasticity	
		3					
6		W.O.H.	1.4'/2.0'			5.2'-6.0' Stiff, Moist to Damp, Brown/Grey Mottled, Clayey Silt, Trace Fine Gravel	Strong Odor Observed
		W.O.H.					
7		1				6.0'-6.5' Soft to Stiff, Saturated/ Moist to Damp, Brown/Grey Mottled, Clayey Silt, Trace Fine Gravel, Medium Plastic	Odor Observed; Consistency and Moisture Content Varied
		2					
8		W.O.H.	2.0'/2.0'			6.5'-7.4' Stiff, Damp to Wet, Brown/Grey Mottled, Medium to Fine Sand, Medium Plastic	Odor Observed
		1					
9		W.O.H.				8.0'-9.0' Very Soft, Saturated, Dark Grey, Medium to Fine Sand, Some clay and Silt, Trace Medium to Fine Gravel, Medium Plasticity	Odor Observed
		1					
10						9.0'-9.5' Soft, Wet, Dark Grey, Medium to Fine Sand, Some Clay and Silt, Trace Fine Gravel, Medium Plastic	
11						9.5'-10.0' Stiff, Wet, Dark Grey/Brown Mottled, Medium to Fine Sand, Medium Plasticity	
12							
13						End Boring @ 10.0' bgs; Drillers moved laterally, then redrilled to confirm the extent of the Fill. This boring drilled to 6.0' bgs and the interval of Fill was screened.	
14							
15							
16							
17							
18							
19							
20							
21							
22							

EarthTech (A Tyco International Ltd. Company)	Monitoring Well Boring Log	M. Well No.: MW (26)

PROJECT: Freeman's Bridge PDI	PROJECT No.: 83060.02	ET GEOLOGIST: Lucas Benedict	
CONTRACTOR: Geologic, Inc.	DRILLER: Joe Menzel, Judson Powell	PAGE: 1 of 1	DATE: 4/26/05
BORING LOCATION: West of onsite building along roadway	SITE LOCATION: Glenville, New York	SURFACE ELEVATION: NA	

WATER LEVELS				RIG	CASING	SAMPLER	CORE	TUBE
DATE	DEPTH	TIME	TYPE	CME 45C	Hollow Stem Auger	Split Spoon		
			I.D.		4.25"	2"		
			WEIGHT			140#		
			FALL			30"		

Depth (ft) bgs	Penetrometer (T/ft^2;KG/cm^2)	Blows per/6"	Recovery (feet)	PID (ppm)	Temp. (^oF)	SAMPLE DESCRIPTION AND STRATUM CHANGES	REMARKS
0		13	1.2'/2.0'			0.0'-0.2' Soft, Wet, Brown, Clay and Silt, Some Coarse to Fine Sand, Little Medium to Fine Gravel	Topsoil and Roots
		16					
1		9				0.2'-0.5' Loose, Damp, Black, Coarse to Fine Gravel, Little Medium to Fine Sand	Asphalt; Odor Observed
		3					
2		2	1.0'/2.0'			0.5'-1.2' Stiff, Damp to Wet, Brown/Grey Mottled, Clayey Silt, Trace (+) Medium to Fine Gravel, Trace Fine Sand, Low Plasticity	Odor Observed
		2					
3		3					
		4				2.0'-3.0' Stiff, Damp to Wet, Brown/Grey Mottled, Clayey Silt, Trace Fine Sand, Trace (-) Fine Gravel, Medium Plasticity	
4		2	1.0'/2.0'				
		2				4.0'-5.0' Same as Above	
5		2					
		2					
6		W.O.H.	2.0'/2.0'			6.0'-7.2' Same as Above	
		W.O.H.				7.2'-8.0' Soft, Saturated, Brown, Medium to Fine Sand, Little Clayey Silt, Trace Fine Gravel, Low Plasticity	Occasional Lenses of Clayey Silt
7		1					
		1					
8						End Boring @ 8.0' bgs; Drillers moved laterally, then redrilled to confirm the extent of the Clayey Silt interval. This boring drilled to 6.0' bgs and the Clayey Silt interval was screened.	
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

EarthTech
A Tyco International Ltd. Company

Monitoring Well Boring Log

M. Well No.: MW (27)

PROJECT: Freeman's Bridge PDI	PROJECT No.: 83060.02	ET GEOLOGIST: Lucas Benedict	
CONTRACTOR: Geologic, Inc.	DRILLER: Joe Menzel, Judson Powell	PAGE: 1 of 1	DATE: 4/27/05
BORING LOCATION:Southeast corner of building; Near overhead door	SITE LOCATION: Glenville, New York	SURFACE ELEVATION: NA	

WATER LEVELS				RIG	CASING	SAMPLER	CORE	TUBE
DATE	DEPTH	TIME	TYPE	CME 45C	Hollow Stem Auger	Split Spoon		
NA			I.D.		4.25"	2"		
			WEIGHT			140#		
			FALL			30"		

Depth (ft) bgs	Penetrometer (T/ft^2;KG/cm^2)	Blows per/6"	Recovery (feet)	PID (ppm)	Temp. (^oF)	SAMPLE DESCRIPTION AND STRATUM CHANGES	REMARKS
0						0.0'-0.5' Medium Stiff, Moist, Brown/Dark Grey, Coarse to Fine Gravel, and Clay and Silt, Little Coarse to Fine Sand	2" Pieces of Asphalt at bottom of the 0.0-0.5 interval
	1.25@0.25'	12	1.4'/2.0'				
	1.0@1.0'	8				0.5'-1.2' Medium Stiff, Moist, Red Brown, Medium to Fine Gravel, and Clay and Silt, Little Coarse to Fine Sand	A 0.1' interval from 0.11'-0.12' bgs of a micaceous, vesicular substance with conchoidal fracture. Interpreted as resin of some kind.
1	<0.5@1.2'	7					
	1.25@1.3'	5				1.2'-1.3' Soft, Moist, Black, Medium to Fine Gravel, Some Clay and Silt	
2		3	1.3'/2.0'				
		3				1.3'-1.4' Medium Stiff, Moist, Brown, Medium to Fine Sand	1.2'-1.3' : Odor Observed; Rubber Gasket found
3		3				2.0'-2.2'' Loose, Damp, Brown, Coarse to Fine Sand, Some Coarse to Fine Gravel, Trace Clay and Silt	
		3					2.0'-2.2' Asphalt Pieces; Interpreted as Sluff
4	<0.5@4.6'	1	1.0'/2.0'			2.2'-3.3' Soft, Damp, Black/White Mottled, Coarse to Fine Sand, Some Clay and Silt, Little Coarse to Fine Gravel	
	1.0@4.9'	2					2.2'-3.3' Strong Odor; White mottling is Clay/Silt sized
5		2				4.0'-4.4' Same as above, Becomes more competent with depth	
		1				4.4'-4.7' Very Soft/ Loose, Wet, Black, Coarse to Fine Sand, Coarse to Fine Gravel, Trace Clay and Silt	4.0'-4.4' Interpreted as Sluff
6	1.0@6.8'	2	1.6'/2.0'				6.0'-6.6' Interpreted as Sluff
		1				4.7'-4.8' Loose, Moist, C&D, brick	
7	1.0@7.4'	2				4.8'-5.0' Soft, Damp, Dark Brown/ Dark Grey, Clayey Silt, Medium to High Plasticity	
		1					
8	1.0@8.7'	2	1.0'/1.0'			6.0'-6.6' Loose, Wet, Brown, Coarse to Fine Gravel	8.0'-8.4' Interpreted as Sluff
		2				6.6'-7.1' Soft, Damp, Dark Brown/Dark Grey, Clayey Silt	8.4'-9.0' Becomes more competent with depth
9		1	1.5'/2.0'			7.1'-7.6' Soft, Damp to Wet, Dark Brown/ Dark Grey, Fine Sand, Little Clay and Silt	
		1					9.0'-9.5' Interpreted as Sluff
10		W.O.H.				8.0'-8.4' Loose, Wet, Dark Brown/Grey, Coarse to Fine Gravel, and Clayey Silt, Trace Coarse to Fine Sand	
		1					
11						8.4'-9.0' Soft, Moist to Damp, Dark Grey/ Dark Brown, Clayey Silt	
12						9.0'-9.5' Loose, Wet, Dark Brown, Coarse to Fine Gravel, and Clayey Silt, Trace Coarse to Fine Sand	
13						9.5'-10.5' Soft, Wet to Saturated, Dark Brown/Dark Grey, Fine Sand	
14							
15						End Boring @ 11.0' bgs. Drillers auger to 10.0' bgs. Clayey Silt interval was screened.	
16							
17							
18							
19							
20							
21							
22							

EarthTech (A Tyco International Ltd. Company)	Monitoring Well Boring Log	M. Well No.: MW (28)
PROJECT: Freeman's Bridge PDI	PROJECT No.: 83060.02	ET GEOLOGIST: Lucas Benedict
CONTRACTOR: Geologic, Inc.	DRILLER: Joe Menzel, Judson Powell	PAGE: 1 of 1 / DATE: 4/27/05
BORING LOCATION:Northwest corner of building; Near overhead door	SITE LOCATION: Glenville, New York	SURFACE ELEVATION: NA

WATER LEVELS				RIG	CASING	SAMPLER	CORE	TUBE
DATE	DEPTH	TIME	TYPE	CME 45C	Hollow Stem Auger	Split Spoon		
NA			I.D.		4.25"	2"		
			WEIGHT			140#		
			FALL			30"		

Depth (ft) bgs	Penetrometer (T/ft^2;KG/cm^2)	Blows per/6"	Recovery (feet)	PID (ppm)	Temp. (^oF)	SAMPLE DESCRIPTION AND STRATUM CHANGES	REMARKS
0						0.0'-0.7' Loose, Moist, Black with Brown pockets, Coarse to Fine Gravel, Some Coarse to Fine Sand, Trace Clay and Silt	Asphalt Surface and Subase Material
	2.25@0.5'	32	1.5'/2.0'				
1		15				0.7'-1.5' Loose, Moist, Light Grey, Coarse to Fine Gravel, Coarse to Fine Sand, Trace Silt and Clay	Limestone fill and other subase Material
		9					
2		8				2.0'-2.8' Same as Above	2.0'-2.8' Interpreted as Sluff
		8	0.8'/2.0'			4.0'-4.5' Loose/Medium Stiff, Moist, Dark Grey, Coarse to Fine Gravel, Some Clay and Silt, Trace Fine Sand, Non-plastic	4.0'-4.5' Interpreted as Sluff; Material is mostly loose with Cohesive portions
3		12					
		7				4.5'-5.9' Stiff, Moist to Damp, Brown/Grey Mottled, Clay, Trace Fine Gravel, High Plasticity	
4		3					4.5'-5.9' Odor Observed; Black Sticky Substance observed at 5.0' bgs
	1.75	2	1.9'/2.0'			6.0'-6.5' Loose/Medium Stiff, Moist, Dark Grey, Coarse to Fine Gravel, Some Clay and Silt, Trace Fine Sand, Non-plastic	
5	1.5	2					
	1.75	3				6.5'-7.9' Stiff, Moist to Damp, Brown/Grey Mottled, Clay, Trace Fine Gravel, High Plasticity	6.0'-6.5' Interpreted as Sluff; Material is mostly loose with Cohesive portions
6		3					
	1.25	4	1.9'/2.0'			8.0'-8.5' Loose/Medium Stiff, Moist, Dark Grey, Coarse to Fine Gravel, Some Clay and Silt, Trace Fine Sand, Non-plastic	
7	1.0	4					8.0'-8.5' Interpreted as Sluff; Interpreted as Sluff; Material is mostly loose with Cohesive portions; Moisture increased with depth
	1.5	3				8.5'-8.9' Stiff, Moist to Damp, Brown/Grey Mottled, Clay, Trace Fine Gravel, High Plasticity	
8	1.25	2					
	2.25	2	1.9'/2.0'			10.0'-10.5' Very Soft, Saturated, Dark Brown, Clay and Silt, Some Coarse to Fine Gravel	10.0'-10.5' Interpreted as Sluff; Interpreted as Sluff; Material is mostly loose with Cohesive portions
9	1.5	2					
	1.25	2				10.5'-11.8' Very Soft, Saturated, Dark Grey/Brown Mottled, Clay	
10	1.5	2					
	<0.5	1	1.8'/2.0'			12.0'-12.3' Loose/Medium Stiff, Moist, Dark Grey, Coarse to Fine Gravel, Some Clay and Silt, Trace Fine Sand, Non-plastic	
11		1					
		W.O.H				12.3'-13.0' Stiff, Moist to Damp, Brown/Grey Mottled, Clay, Trace Fine Gravel, High Plasticity	
12		1					
	1.5	12	1.9'/2.0'			13.0'-13.5' Loose, Wet, Grey/Dark Grey, Coarse to Fine Gravel	Fill Material; Possibly from below prexisting underground storage tank
	1.0	24				13.5'-13.9' Loose, Saturated, Dark Grey, Coarse to Fine Sand, Little Coarse to Fine Gravel	
13	<0.5	24					
		12					
14							
						End Boring @ 14.0' bgs. Drillers auger to 14.0' bgs, apply 2.0' of sand. Clay/ Clayey Silt interval was screened.	
15							
16							
17							
18							
19							
20							
21							
22							

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Latham, New York 12110

FIELD BOREHOLE LOG

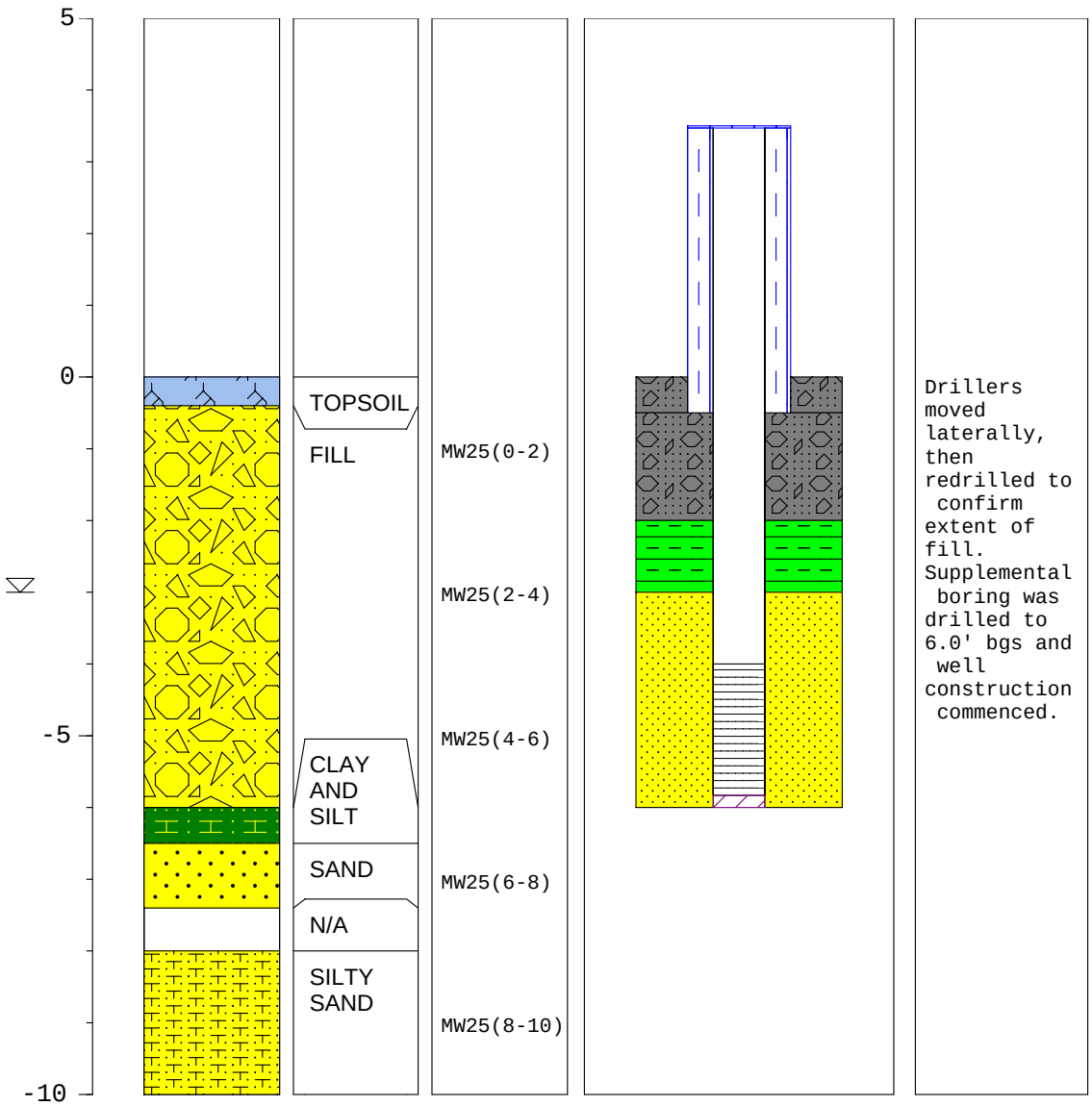
MONITORING WELL NO.: **MW-25**

TOTAL DEPTH: **10.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**NYSDEC Freemans Bridge Site**	DRILLING CO.:	**Geologic, Inc.**
SITE LOCATION:	**34 Freemans Bridge Road**	DRILLER:	**Joseph Menzel**
JOB NO.:	**83060**	RIG TYPE:	**CME 45C**
LOGGED BY:	**Lucas Benedict**	METHOD OF DRILLING:	**8" hollow stem auger**
PROJECT MANAGER:	**Lisa Swan**	SAMPLING METHODS:	**2" OD Split spoon**
DATES DRILLED:	**4-25-05**	HAMMER WT./DROP	**140 lb., 30 in.**

▽ Water level during drilling

DEPTH (BGS)	SOIL SYMBOL	SOIL TYPE	SAMP.	CONSTRUCTION PARAMETERS	COMMENTS



NOTES:

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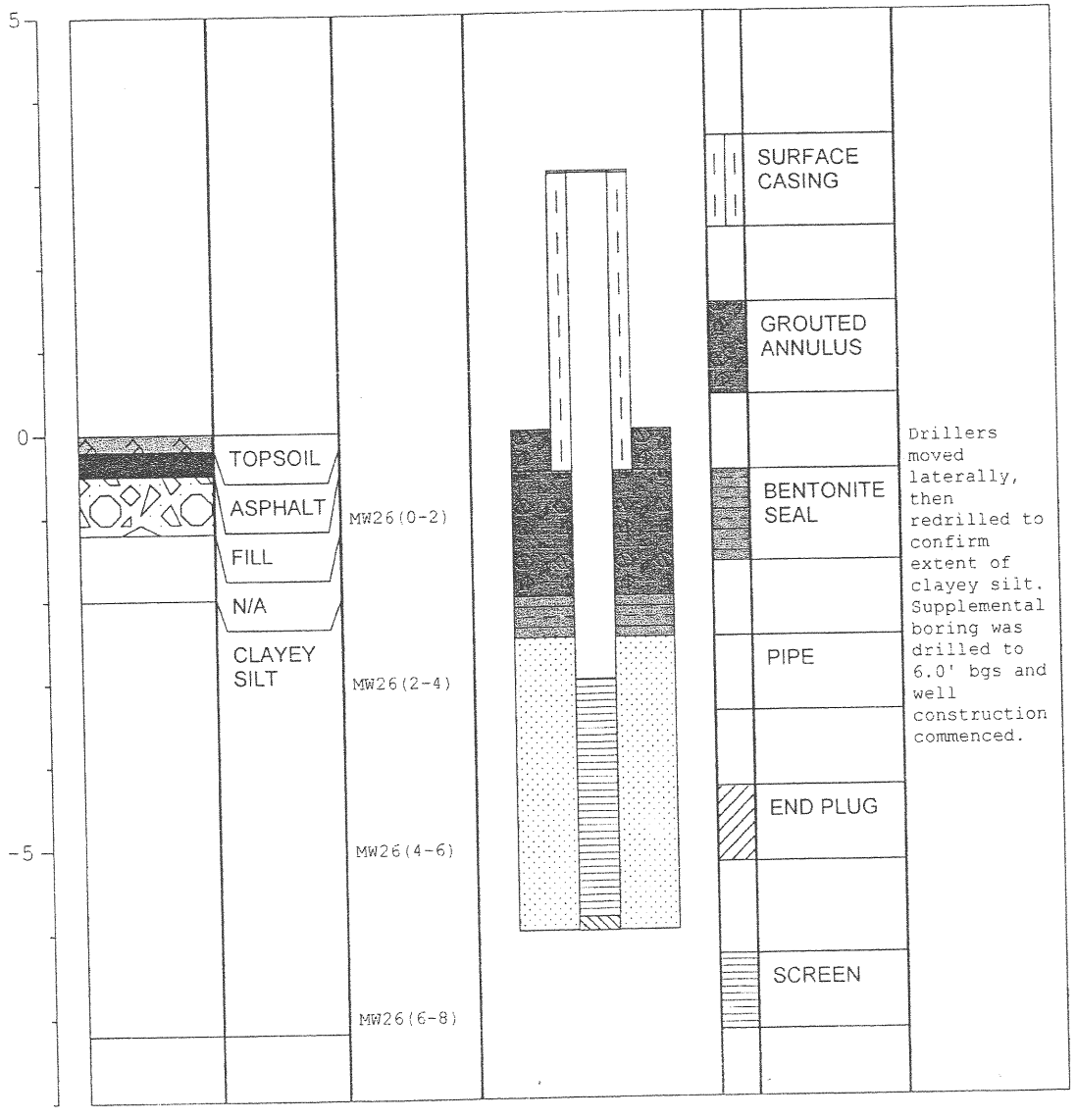
FIELD BOREHOLE LOG

MONITORING WELL NO.: **MW-26**

TOTAL DEPTH: **8.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	NYSDEC Freemans Bridge Site	DRILLING CO.:	Geologic, Inc.
SITE LOCATION:	34 Freemans Bridge Road	DRILLER:	Joseph Menzel
JOB NO.:	83060	RIG TYPE:	CME 45C
LOGGED BY:	Lucas Benedict	METHOD OF DRILLING:	8" hollow stem auger
PROJECT MANAGER:	Lisa Swan	SAMPLING METHODS:	2" OD Split spoon
DATES DRILLED:	4-26-05	HAMMER WT./DROP	140 lb., 30 in.

DEPTH (BGS)	SOIL SYMBOL	SOIL TYPE	SAMP.	CONSTRUCTION PARAMETERS	LEGEND	COMMENTS



NOTES:

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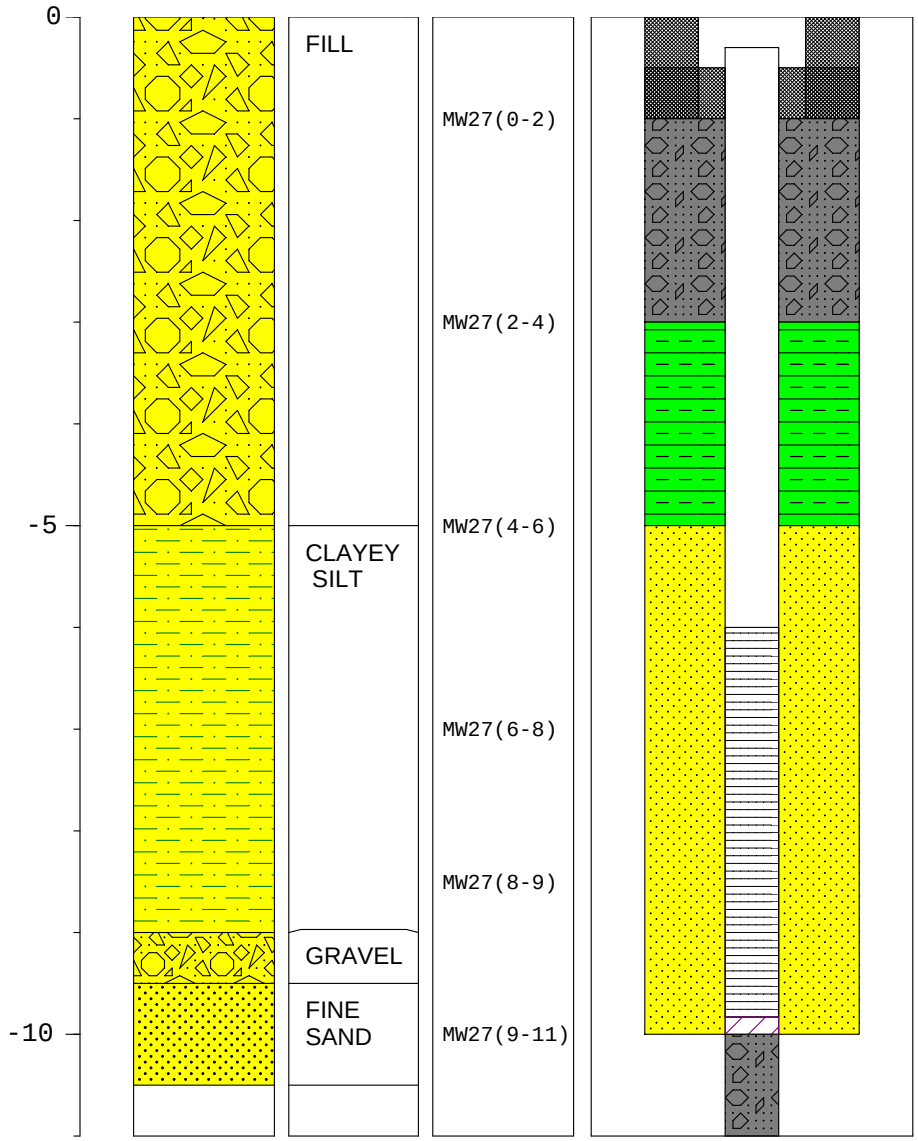
FIELD BOREHOLE LOG

MONITORING WELL NO.: **MW-27**

TOTAL DEPTH: **11.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**NYSDEC Freemans Bridge Site**	DRILLING CO.:	**Geologic, Inc.**
SITE LOCATION:	**34 Freemans Bridge Road**	DRILLER:	**Joseph Menzel**
JOB NO.:	**83060**	RIG TYPE:	**CME 45C**
LOGGED BY:	**Lucas Benedict**	METHOD OF DRILLING:	**8" hollow stem auger**
PROJECT MANAGER:	**Lisa Swan**	SAMPLING METHODS:	**2" OD Split spoon**
DATES DRILLED:	**4-27-05**	HAMMER WT./DROP	**140 lb., 30 in.**



NOTES:

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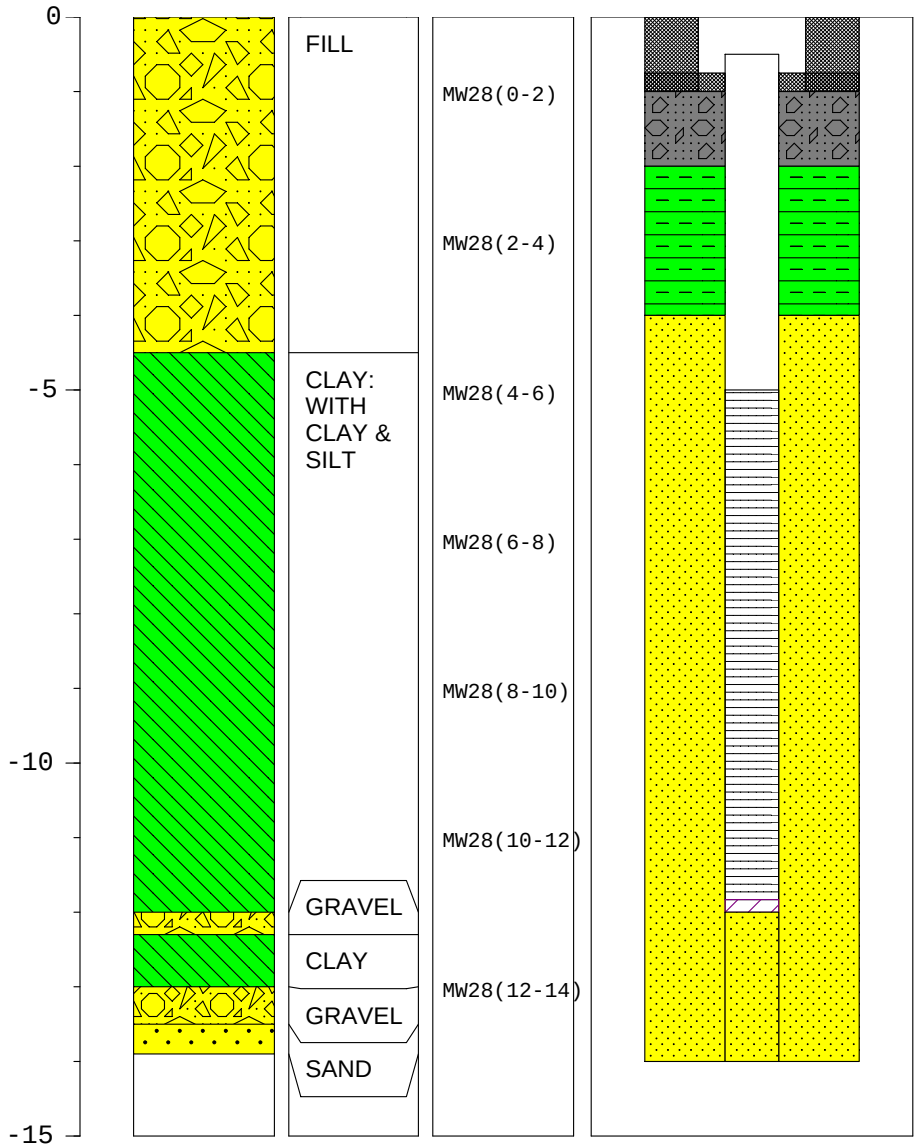
FIELD BOREHOLE LOG

MONITORING WELL NO.: **MW-28**

TOTAL DEPTH: **14.0'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**NYSDEC Freemans Bridge Site**	DRILLING CO.:	**Geologic, Inc.**
SITE LOCATION:	**34 Freemans Bridge Road**	DRILLER:	**Joseph Menzel**
JOB NO.:	**83060**	RIG TYPE:	**CME 45C**
LOGGED BY:	**Lucas Benedict**	METHOD OF DRILLING:	**8" hollow stem auger**
PROJECT MANAGER:	**Lisa Swan**	SAMPLING METHODS:	**2" OD Split spoon**
DATES DRILLED:	**4-27-05**	HAMMER WT./DROP	**140 lb., 30 in.**

DEPTH (BGS)	SOIL SYMBOL	SOIL TYPE	SAMP.	CONSTRUCTION PARAMETERS



NOTES: