Appendix V. Additional Geotechnical BoringLogs for Wastebeds 1-8 (map of locations is Figure 5 in Appendix II)

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-09
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/19/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/19/2010

Boring Company: Parratt-Wolff
Foreman: Mark Eaves
OBG Geologist: C. Yuri Veliz

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-WH-WH	2.0/0.6	1	0-2 Topsoil. 0.2-0.6 - Yellowish gray damp, soft, sand size particles	Top Soil	\ \	0	800
2	2	4	1-WH-1-WH	2.0/1.6	1	0-1 - Light gray, wet, soft, silt size particles. Some hard layers	SW		26	803
4	3	6	1-WH-WH-WH	1.0/1.5	NA	0-0.5 SAA. 0.5-0.7 - Olive green, wet, soft, marl (sandy), some shells. 0.7-0.8 - dark gray, wet, soft, SILT, some sand, organic matter, odor. 0.8-1.5 - olive green, wet, soft MARL (sandy silt), some shells	5'		2.5	808
6	4	8	WH-WH-WH-WH	2.0/1.5	NA	0-1.5 - Greenish gray, wet, soft, marl (silty), some shells	Marl	=	0	810
8	5	10	WH-WH-WH-WH	2.0/0.5	NA	0-0.5 - Dark greenish gray, wet, very soft, MARL (silty), some shells, roots		=	28	823
10	6	12	WH-WH-WH-WH	2.0/1	NA	0-1 SAA		=	0	825
12	7	14	WH-WH-WH-WH	2.0/2.0	NA	0-2 - Dark greenish gray to greenish gray, wet, very soft MARL (silty), some shells, roots		=	0	835
14	8	16	WH-WH-WH-WH	2.0/1.0	NA	0-1 - Greenish gray, wet, very soft, MARL (silty), little shells		=	0	942
16	9	18	WH-WH-WH-WH	2.0/1.0	NA	0-1 SAA		=	0	845
18	10	20	WH-WH-WH-WH	2.0/2.0	NA	0-2 SAA		=	0	917
20	11	22	WH-WH-WH-WH	2.0/1.0	NA	0-1 Dark greenish gray, wet, very soft, MARL (silty) shells		=	0	920
22	12	24	WH-WH-WH-WH	2.0/1.0	NA	0-1 SAA		=	0	930
24	13	26	WH-WH-WH-WH	2.0/1.0	NA	0-1 Greenish gray, wet, very soft, MARL (silty), some shells	26'	=	0	935
26	14	28	WH-WH-WH-WH	2.0/1.0	NA	0-1 SAA, silty, increase clay	Trans Marl	=	0	938
28	15	30	WH-WH-WH-WH	2.0/1.0	NA	0-1 Dark greenish gray, wet, very soft, MARL (silty increase clay), trace shells		=	0	940
30	16	32	NA	2.0/1.0	NA	0-0.5 - SAA. 0.5-1 Brownish gray, wet soft, silt and sand, some clay	31.5	=	0	950
32	17	34	NA	2.0/1.0	NA	0-1 SAA	Silt		0	955
						EOB - 34' bg	EOB 34			
						Well installed at 31 ft bg				
						Choke sand - 34-31				
						Screen-31-6				
						Sand-31-4				
						Choke sand - 4-3				
						Grout - 2-0				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-10 / WB18-SB-184
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/11/2010

Boring Company: Parratt-Wolff
Foreman: Joe Percy
OBG Geologist: Jonathan Bone

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-2-3	2.0/0.8	4	0-0.8 - Loose, dry, pale yellowish brown (10YR 6/2) fine-medium SAND. Few thin bands of reworked Solvay waste.	Sand 2.0'	\ \	0	935
2	2	4	4-3-2-3	2.0/0.8	5	0-0.8 - Dense, dry, very light gray (N8) SILT & FINE SAND-sized particles. Consolidated matrix. Few cemented layers.	Solvay Waste		3.1	940
4	3	6	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 Very soft, saturated, white (N9) SILT-sized particles. Paste matrix.				950
6	4	8	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA, transition to light greenish gray color. 1.5-2 - Soft, saturated, dark greenish gray to greenish black SILT & FINE SAND. Little shells	7.5'	=	28.3	952
8	5	10	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 - Soft-loose, saturated greenish gray (5GY 6/1) SILT & FINE-MEDIUM SAND, some clay sand & small gravel-sized concretions, few shells.	Marl	=	52	958
10	6	12	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, loose		=	65	1000
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 Soft, saturated, greenish gray fine SAND & SILT, few shells		=	6.9	1005
14	8	16	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace organic matter		=	2.2	1012
16	9	18	WH-WH-WH-WH	2.0/0.1	WH	0-0.1 SAA, mostly all sluff material		=	3.2	1015
18	10	20	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA		=	14.9	1020
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 Very soft, saturated greenish gray SILT, some fine sand, few shells		=	1.3	1025
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	24'	=	1	1028
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated medium dark gray (N4) SILT, few fine sand-sized shells, trace sand	Trans. Marl	=	0	1035
26	14	28	WH-WH-WH-WH	2.0/1.4	WH	0-1.1 Soft, saturated, Dark greenish gray (5GY 4/1) SILT, some fine sand & fine sand-sized shells		=	0	1038
28	15	30	WH-WH-WH-WH	2.0/0.7	WH	0-0.7 Very soft, saturated dark greenish gray SILT, little fine sand	30'	=	0.6	1040
30	16	32	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 Soft, saturated, brownish gray (5YR 4/1) SILT, some fine sand and fine sand-sized shells	Silt 32'	=	3.7	1050
32	17	34	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Soft, saturated, brownish gray SILT & CLAY. Some black mottling throughout	Silt and Clay		0.4	1055
34	18	36	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA, very soft			0	1100
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, brownish gray SILT & CLAY. Extremely cohesive, little black mottling			0	1105

Well completion: Screen 7-32', riser 0-7', sand 5-32', sand choke 32-38' and 3-5', grout 0-3'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-11 / WB18-SB-188
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/15/2010**
File No.: 1163	**Fall: 30"**	**End Date: 1/18/2010**

Boring Company: Parratt-Wolff
Foreman: Joe Percy
OBG Geologist: Jonathan Bone/Robert Trent

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed			Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-1	2.0/2.0	2	Light gray (5Y 6/1) SILT, some fine sand with roots. Damp, very loose, white (N9) silt and sand sized particles in consolidated matrix. Damp	Solvay Waste		\	\	0	1400
2	2	4	8-5-1-1	2.0/1.5	6	White (N9) light gray (N7) SILT & SAND sized particles in permeated matrix wet, firm			\	\	113	1401
4	3	6	WH/2	2.0/0.2	WH	Poor recovery Slop & Wood fibers					58.6	1409
6	4	8	WH-3-4-4	2.0/2.0	7	1.5 ft Dark greenish gray (5GY 4/1) and yellowish gray (5Y 8/1) SILT & FINE SAND with shells. 0.5 ft Greenish gray (5GY 6/1) SILT & FINE SAND with shells, moist, sulfer odor, trace sand	Marl			=	7.6.	1410
8	5	10	WH/2	2.0/0	WH	No recovery				=	NA	1415
10	6	12	WH/2	2.0/2.0	WH	Greenish gray (5GY 6/1) fine SAND & m/c SAND, some silt, little to some fine gravel sized oncolites, saturated, very loose				=	131	1420
12	7	14	WH/1 1-1	2.0/2.0	1	Greenish gray (5GY 6/1) fine SAND & f/m gravel sized oncolites, some silt, saturated, very loose sulfur odor, slight mothball odor				=	65.2	1422
14	8	16	WH/2	2.0/0.3	WH	Door recovery, Greenish gray (5GY 6/1) SILT & fine SAND, some m/c sand saturated shells, saturated, very loose sulfur odor, mothball odor				=	375	1425
16	9	18	WH/2	2.0/0.5	WH	SAA, mothball odor				=	578	1430
18	10	20	WH/2	2.0/0.5	WH	SAA				=	337	1440
20	11	22	WH/2	2.0/0.5	WH	SAA				=	289	1445
22	12	24	WH/2	2.0/0.5	WH	SAA				=	292	1450
24	13	26	WH/2	2.0/0.3	WH	SAA poor recovery				=	191	1500
26	14	28	WH/2	2.0/0	WH	No recovery				=	NA	1510
28	15	30	WH/2	2.0/1.0	WH	SAA				=	NA	1515
30	16	32	WH/2	2.0/2.0	WH	SAA little clay				=	239	1525
32	17	34	WH/2	2.0/1.0	WH	Light olive gray (5Y 6/1) SILT, some clay, little to some shells, wet, very soft	Trans marl			=	25.2	1530
34	18	36	WH/2	2.0/2.0	WH	Brownish gray (5YR 4/1) with little black (N1) mottling throughout, SILT & CLAY, cohesive, damp, very soft	Silt/Clay				0	1545
36	19	38	WH/2	2.0/2.0	WH	SAA					0	1555

Well Construction Details:

Screen: 6 - 34' Sand: 4 - 34' Grout: 0 - 2'
Riser: +2.5 - 6' #00 Sand Choke: 2 - 4'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-12 / WB18-SB-193
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/14/2010**
File No.: 1163	**Fall: 30"**	**End Date: 1/14/2010**
Boring Company: Parratt-Wolff		**Screen =** / **Riser** / **Grout **
Foreman: Joe Percy		**Choke Sand** / **Sand Pack** / **Bentonite**
OBG Geologist: Jonathan Bone		

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-3-2-1	2.0/1.5	5	0-1 Loose, dry, Pale yellowish-orange (10YR 8/6) f-m SAND, some shell fragments. 1-1.5 Loose, dry, f-m sand and sand-sized particles	Sand	\ \	0	805
2	2	4	1-WH-1-WH	2.0/1.3	1	0-1.3 Soft, wet, Very light gray (N8) SILT & f. SAND sized particles, consolidated and paste matrix	Solvay Waste	\ \	5.8	807
4	3	6	WH-WH-WH-WH	2.0/1.5	WH	0-1 Very soft, wet, Moderate blue green (5BG 4/6) SILT sized particles, paste matrix. 1-1.3 Soft, wet, Brownish black (5YR 2/1) SILT, trace fine sand. High organic content, chemical like odor. 1.3-1.5 Soft, wet, Greenish gray (5GY 6/1) SILT, trace fine sand, trace shells	Organic rich Silt		37.2	818
6	4	8	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, wet, Light olive gray (5Y 6/1) SILT, some fine sand, some shells, trace organic material. Thin bands (1/8 inches) of Yellowish gray (5YR 8/1) mottling	Marl	=	14.7	820
8	5	10	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, saturated		=	215	830
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, very soft, increase fine sand		=	2.7	835
12	7	14	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, saturated		=	26.8	838
14	8	16	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 SAA		=	16.9	845
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, very soft/runny		=	61.5	848
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand, few shells. Thin (1/8 inch) bands of Yellowish gray (5Y 8/1) mottling		=	40.1	855
20	11	22	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, trace fine sand, less mottling		=	17.1	900
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		=	46.1	903
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray SIILT, trace fine sand, few shells		=	24.7	912
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no fine sand, trace shells		=	10.7	915
28	15	30	WH-WH-WH-WH	2.0/1.8	WH	0-1.8 SAA< little fine sand, few shells		=	7.2	925
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		=	6.7	930
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-2 SAA, some fine sand		=	32.1	935
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, moist, Brownish gray SILT, little clay, trace shells and thin roots	Trans Marl	=	0.3	945
36	19	38	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, trace fine sand, less mottling		=	0	948
38	20	40	WOR 2	2.0/1.0	WH	0-1 Very soft, saturated Brownish gray SILT & CLAY. Some black mottling. Very cohesive	Silt and Clay		0	953
40	21	42	WOR 2	2.0/2.0	WH	0-2 SAA, extremely cohesive			0	1000

Well Construction Details: Screen: 6 - 38' #0 Sand: 4 - 38' Grout: 0 - 3' Riser: 0 - 6' #00 Sand: 3 - 4' / 38 - 40'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-13
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/12/2010

Boring Company: Parratt-Wolff
Foreman: Joe Perry
OBG Geologist: Jonathan Bone

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed			Field Testing PID (ppm)	Field Testing Time
0	1	2	3-4-6-5	2.0/2.0	10	0-2 - Soft, moist, very light gray (N8) silt-sized, fine sand sized particles, consolidated matrix	Solvay Waste	\		\	0	1510
2	2	4	1-2-2-1	2.0/0	4	No recovery		\		\	NA	1512
4	3	6	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 AA (0-2 ft)		\		\	0	1515
6	4	8	WH-WH-WH-WH	2.0/0.7	WH	0-0.5 SAA, wet. 0.5-0.7 SAA Dark greenish gray, paste-like matrix.	8'				3.6	1520
8	5	10	WH-WH-WH-WH	2.0/2.0	WH	0-2 soft, saturated, greenish gray silt, little f. sand, few shells	Marl				29.8	1525
10	6	12	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA, the root matter			=		6	1535
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			=		41	1540
14	8	16	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Very soft, saturated, dark greenish gray SILT, little f. sand and shells			=		45.9	1545
16	9	18	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, very soft/runny			=		29.2	1550
18	10	20	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, soft			=		19.1	1600
20	11	22	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, very soft			=		8	1603
22	12	24	WH-WH-WH-WH	2.0/0.2	WH	0-0.2 SAA, very soft/runny			=		17.1	1605
24	13	26	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA, soft			=		5.4	1615
26	14	28	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 soft, wet, olive gray SILT, little f. sand, trace shells	Marl		=		0.1	1620
28	15	30	WH-WH-WH-WH	2.0/1	WH	0-1 SAA			=		0	1625
30	16	32	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			=		0	830
32	17	34	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			=		0	835
34	18	36	WH-WH-1-1	2.0/2.0	1	0-2 soft, moist, olive gray, SILT, trace shells			=		4.3	900
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			=		14.3	910
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			=		0.3	920
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA Trace f. SAND			=		2.1	930
42	22	44	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			=		15.3	935
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, Trace clay, no f. sand			=		14.6	950
46	24	48	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, Trace f. sand and trace organic matter			=		2.5	955
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no f. sand			=		0	1005

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-13
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/12/2010
Boring Company: Parratt-Wolff Foreman: Joe Perry OBG Geologist: Jonathan Bone		Screen =, Riser, Grout \ / Sand Choke, Sand Pack, Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
50	26	52	NA	NA	NA	No sample. Rods and Roller bit dropped from 50-52' on their own		=	NA	1015
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA (48-50)		=	0.8	1020
54	28	56	WOR 2 ft	2.0/2.0	WR	0-2 Very soft, moist, light olive gray (5Y 6/1) SILT, trace f. sand and clay)	Silt	=	0	1040
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no f. sand some black mottling		=	0	1045
58	30	60	WH-WH-WH-WH	2.0/2.0	WH	0-2 soft, saturated, light olive gray SILT, some clay. Thin bands (~1/8") of black silt and trace clay throughout, increasing with depth	60'	=	0	1110
60	31	62	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA Increase in clay content black mottling throughout	Silt and Clay		0	1125
62	32	64	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1135

BOB @ 64' bgs

Piezometer construction:
Screen: 10-60' bgs
Riser: 0-10'
Sand Choke: 60-64'
Sand: 8-60'
Sand Choke: 6-8'
Grout: 0-6'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-14 / WB18-SB-211
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/14/2010**
File No.: 1163/45082	**Fall: 30"**	**End Date: 1/15/2010**
Boring Company: Parratt-Wolff		**Screen = Choke Sand**
Foreman: Mark Eaves		**Riser Sand Pack**
OBG Geologist: Jonathan Bone		**Grout \ Bentonite**

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed			Field Testing PID (ppm)	Field Testing Time
0	1	2	1-WH-WH-WH	2.0/0	WH	No Recovery	Solvay Waste	\		\	NA	1455
2	2	4	WH-1-WH-WH	2.0/2.0	1	0-2 Soft, wet, Yellowish gray (5Y 8/1) SILT sized particles. Consolidated and paste matrix		\		\	6.4	1500
4	3	6	1-WH-1-WH	2.0/2.0	1	0-2 SAA, Very light gray (N8), consolidated, mothball odor		\		\	0.8	1505
6	4	8	1-1-1-WH	2.0/2.0	2	0-2 SAA		\		\	1.9	1509
8	5	10	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		\		\	0	151
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA					1.2	1520
12	7	14	1-2-2-2	2.0/2.0	4	0-1.2 SAA 1.2-1.6 Soft, moist olive black (5Y 2/1) SILT, some fine-medium sand, trace shells and thin roots. 1.6-2 Soft, wet, Dark greenish gray (5GY 4/1) SILT, some fine-medium sand, few shells	Silt				1.8	1523
14	8	16	WH-WH-1-1	2.0/1.0	1	0-1 Soft/loose, saturated Greenish gray (5GY 6/1) SILT and small gravel sized concretions, some fine-medium coarse sand. Few shells	Marl		=		0	1532
16	9	18	WH-1-WH-WH	2.0/1.5	1	0-0.8 SAA. 0.8-1.5 Soft, saturated, Greenish gray (5G 6/1) SILT, little fine sand, few shells			=		0	1535
18	10	20	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA (0.8-1.5)			=		0	1543
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, some fine-medium SAND			=		2.7	1550
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated, Greenish gray (5GY 6/1) SILT, some fine-medium sand, few shells			=		5	1553
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			=		5.3	1600
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Medium gray (N5) SILT, little fine sand, few shells			=		0	1605
28	15	30	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace shells			=		0	1615
30	16	32	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA			=		0.7	1618
32	17	34	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 Very soft, saturated Brownish gray (5YR 4/1) SILT, some clay, little fine sand			=		0	1620
34	18	36	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 Soft, saturated, Brownish gray (5YR 4/1) SILT & CLAY, black mottling	Silt and Clay				0	1632
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA					0	1635

Piezometer Construction:

		00 Sand:	34-38
Screen:	14-34	00 Sand:	10-12
Riser:	0-14	0 Sand:	12-34

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-15
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/6/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/7/2010

Boring Company: Parratt-Wolff
Foreman: Joe Percy
OBG Geologist: Jonathan Bone

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	7-4-5-3	2.0/0.4	9	0-0.4 Stiff, moist, Dark yellowish brown (10YR 4/2) SILT, trace fine sand, little medium coarse sand, trace roots at top	Silt	\ \	0	1520
2	2	4	4-5-4-3	2.0/1.1	9	0-1.1 Stiff, moist-wet, brownish gray (5YR 4/1) thinly laminated SILT, trace clay. Dark yellowish orange mottling at end		\ \	0	1525
4	3	6	WH-WH-2-2	2.0/1.5	2	0-1.5 SAA, trace fine sand		\ \	0	1530
6	4	8	WH-5-5-4	2.0/1.0	10	0-1.0 Stiff, moist,Brownish gray (5YR 4/1) SILT, trace thin roots, black mottling in top 0.5		\ \	0	1535
8	5	10	6-5-4-5	2.0/1.5	9	0-1.5 Stiff, moist, Brownish gray (5YR 4/1) SILT, black and yellowish orange mottling		\ \	0	1610
10	6	12	WH-WH-2-3	2.0/1.5	2	0-1.5 SAA, trace shells			0	1618
12	7	14	WH-4-5-4	2.0/1.2	9	0-1.2 SAA, increase in mottling, trace clay			0	1623
14	8	16	WH-WH-WH-WH	2.0/1.3	<1	0-1.3 Soft, moist, Brownish gray (5YR 4/1) SILT, some black mottling throughout		=	0	1630
16	9	18	WH-7-5-4	2.0/2.0	12	0-1 SAA, wet. 1-2 stiff, wet, Brownish gray (5YR 4/1) SILT, trace fine sand		=	0	1635
18	10	20	NA	NA	NA	No Recovery		=	0	800
						EOB 20 ft.				
						Lithology for WB18-PZ-15 was taken from boring log for WB18-SB-224 which was approximately 5 ft. away				

Well completion: Screen 15-20', riser 0-15', sand 13-20', sand choke 11-13', grout 0-11'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-16 / WB18-SB-222
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/5/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/5/2010

Boring Company: Parratt-Wolff
Foreman: Joe Percy
OBG Geologist: Jonathan Bone

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-2-2	2.0/2.0	4	0-2 Soft, moist, Greenish gray (5GY 6/1) SILT, little fine sand. Thin band about 0.3 feet thick of soft, moist, silt-sized particles in paste-like matrix (Solvay waste) from 0.7-1. Few shells throughout	Solvay Waste, fill	\ \	0	840
2	2	4	NA	2.0/2.0	NA	Shelby tube Shot at 850, recovery at 915			NA	850
4	3	6	NA	2.0/2.0	NA	Shelby tube Shot at 930, recovery at 955		=	NA	930
6	4	8	3-3-4-5	2.0/2.0	7	0-1.7 Soft, saturated, greenish gray (5GY 6/1) SILT, little fine sand, few shells, sulfer odor. 1.7-2 Soft, moist, Brownish black (5YR 2/1) SILT, high organic matter content	Marl	=	0	1000
8	5	10	WH-WH-WH-2	2.0/1.1	WH	0-0.6 SAA (1.7-2). 0.6-1.1 Soft, saturated, Greenish gray (5GY 6/1) SILT, trace fine sand, some shells, sulfer odor	Silt and organic rich	=	0	1008
10	6	12	WH-WH-WH-WH	1.0/1.8	WH	0-1.8 SAA, some fine sand	Marl	=	0	NA
12	7	14	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA		=	0	1015
14	8	16	WOR-2	2.0/2.0	WOR	0-2 SAA, decrease in fine sand. Trace shells and organics		=	0	1023
16	9	18	5-5-3-3	2.0/1.5	8	0-1.5 Medium stiff, saturated, Brownish gray (5YR 4/1) SILT, some fine sand	Silt and some fine sand	=	0	1025
18	10	20	9-11-13-10	2.0/1.5	24	0-1.5 Very stiff, saturated, Brownish gray (5YR 4/1) SILT, little fine sand		=	0	1040
20	11	22	4-7-8-8	2.0/1.3	15	0-1.3 Stiff, saturated, Brownish gray (5YR 4/1) SILT, some fine sand	Silt and fine sand	=	0	1045
22	12	24	12-12-12-6	2.0/2.0	24	0-2 SAA, decrease in fine sand. Trace shells and organics		=	0	1050
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-0.8 SAA, trace fine sand. 0.8-1 Very soft, saturated Brownish gray (5YR 4/1) SILT, some clay. Moderately cohesive		=	0	1105
26	14	28	WH-4-3-1	2.0/2.0	7	0-2 SAA, few thin (0.2) bands of higher silt content. Very cohesive	Silt and clay		0	1110
28	15	30	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, no silt bands. Extremely cohesive			0	1120
						BOB at 30' bgs				
						Piezometer Construction				
						Screen: 5-25' bgs				
						Riser: 2-5' bgs				
						00 Sand: 25-30' bgs				
						0Sand: 3-25' bgs				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-17 / WB18-SB-220
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/12/2010**
File No.: 1163	**Fall: 30"**	**End Date: 1/12/2010**
Boring Company: Parratt-Wolff		**Screen = Sand Choke**
Foreman: Joe Percy		**Riser Sand Pack**
OBG Geologist: Jonathan Bone		**Grout \ Bentonite**

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-2	2.0/1.0	2	0-0.2 Soft, moist, brownish gray (5YR 4/1) SILT, little fine SAND trace thin roots. 0.2-1.0 Soft, moist greenish gray (5GY 6/1), silt, little fine SAND, few shells	Marl	\ \	0	820
2	2	4	NA	2.0/0	NA	Shelby tube, no recovery		\ \	NA	840
4	3	6	NA	2.0/2.0	NA	Shelby tube, full recovery		\ \	NA	910
6	4	8	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, wet greenish gray SILT, little fine sand, few shells, strong sulfur odor. Trace black mottling near bottom			0	935
8	5	10	WH-WH-1-WH	2.0/2.0	1	0-0.3 SAA, transition to dark greenish gray (5GY 4/1). 0.3-1.3 Very soft, wet, dark brownish black SILT and organic material, trace thin roots			0	945
10	6	12	WH-WH-WH-1	2.0/2.0	WH	0-1 Very soft, saturated greenish gray SILT, little fine-medium sand, few c. sand-sized concretions. 1-2 Loose, saturated greenish gray SILT, some small gravel-sized concretions. Little fine-medium sand. Shells throughout, marl odor.		=	0	950
12	7	14	WH-WH-1-1	2.0/2.0	1	0-0.2 SAA. 0.2-2 Soft, wet, greenish gray SILT, trace fine sand, little shells. Marl odor. Yellowish gray (5Y 8/1) mottling throughout		=	0	955
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA Some fine sand. Less mottling		=	0	1005
16	9	18	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Very soft, saturated light greenish gray (5GY 8/1) SILT, trace fine sand, trace shells marl odor	18'	=	0	1010
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA Dark greenish gry	Trans Marl	=	0	1020
20	11	22	WOR 2.0	2.0/1.0	WR	0-1 Very soft, saturated dark greenish gray SILT little fine sand-sized shells. Marl odor		=	0	1025
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace clay, slightly cohesive		=	0	1030
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, greenish gray, little yellowish gray mottling		=	0	1040
26	14	28	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, no mottling, trace fine sand		=	0	1042
28	15	30	WH-WH-WH-WH	2.0/1.0	WH	0-1 Very soft, saturated dark greenish gray, SILT, trace thin roots, trace fine SAND. Marl odor		=	0	1050
30	16	32	WOR 2.0	2.0/1.0	WR	0-0.8 SAA, little clay cohesive. 0.8-1 Very soft, saturated brownish gray (5YR 4/1) SILT & CLAY. Black mottling. Very cohesive	32'		0	1100
32	17	34	WOR 2.0	2.0/1.5	WR	0-1.5 SAA (0.8-1) Extremely cohesive			0	1103
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	Silt and Clay		0	1110

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-18
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/15/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Sand Choke Riser Sand Pack Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	11-1-1-1	2.0/0.5	2	White (N9) and yellowish gray (5Y 8/1) SILT & SAND sized particles in cemented matrix. Dampe, stiff to very soft	Solvay Waste	\ \	0	1100
2	2	4	1-2-1-2	2.0/1.0	3	White (N9) and yellowish gray (5Y 8/1) SILT & SAND sized particles in a consolidated matrix, moist, soft, slight benzene odor		\ \	40.7	1103
4	3	6	WH/2 ft	2.0/1.5	WH	0.5 SAA, Last 1 - Greenish Gray (5G 6/1) SILT & FINE SAND, some shells, wet, very soft slight benzen and sulfur odor.	Marl		170	1108
6	4	8	WH/2 ft	2.0/0.5	WH	Greenish gray (5G 6/1) SILT & FINE SAND, some shells, 0.25 of black (N1) SILT & FINE SAND with some fine gravel twigs, wet slight benzene odor.			128	1110
8	5	10	1-WH-1-WH	2.0/1.5	1	Greenish gray (5GY 6/1) Silt and fine gravel sized oncolites. Some fine sand, saturated, very loose		=	64	1121
						Screen 10-9				
						Sand 10-7				
						00Sand 7-5				
						Grout to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-19
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/15/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Sand Choke Riser Sand Pack Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2				See WB18-PZ-18 Boring Log		\ \	0	1100
2	2	4						\ \	40.7	1103
								=	170	1108
									128	1110
									64	1121
						Screen 4-3				
						Sand 4-2.5				
						00Sand 2.5-1.5				
						Grout to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-20
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/13/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/13/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Sand Choke Riser Sand Pack Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-WH-WH-WH	2.0/0	WH	No Recovery	Solvay Waste	\ \	NA	1015
2	2	4	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 Soft, saturated, yellowish gray (5Y 8/1) Silt sized particles past like matrix		\ \	11.7	1018
4	3	6	WH-WH-9-8	2.0/2.0	9	0-1.3 SAA. 1.3-2 Firm, moist, dark greenish gray (5GY 4/1) Silt, little fine sand, few small shells and trace roots		\ \	92.6	1025
6	4	8	2-2-1-1	2.0/2.0	3	0-1 Soft, saturated, yellowish gray silt-sized particles. Paste matrix. 1-1.8 SAA (1.3-2) some solvay waste mixed in. 1.8-2 Soft, moist, brownish black, SILT little fine sand, high organic content. Dark color appears natural.	Solvay Waste/Silt 1.8-2.0'		148	1028
8	5	10	WH-WH-WH-WH	2.0/0.7	WH	0-0.7 Very soft, saturated white silt sized particles. Paste like matrix	Solvay waste		26.7	1045
10	6	12	1-WH-WH-WH	2.0/2.0	WH	0-2 Soft-loose, saturated dark greenish gray f-m SAND, some silt, few coarse sand to small gravel size concretions. Black mottling throughout, few shells.	Marl	=	12	1050
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		=	11.4	1055
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, olive gray (5Y 4/1) SILT, some fine sand, trace shells, trace roots		=	68.6	1105
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		=	23.1	1110
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace fine sand		=	1.5	1120

BOB at 20 bgs. Piezometer construction:
Screen 10-20
#0 Sand: 8-20
Grout 0-6
Riser -2.5-10
#00 Sand 6-8

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-21
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/13/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/13/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Robert Trent		Screen = Sand Choke Riser Sand Pack Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH/1.0-4-3	2.0/0.5	4	White (N1) Silt and sand-sized particles in a cemented matrix, wet, soft	Solvay Waste	\	NA	NA
2	2	4	WH/1.0-3-6	2.0/1.5	3	White silt and sand sized particles in a consolidated matrix with 1 inch banding of cemented matrix throughout. Wet, soft		\	NA	NA
4	3	6	WH/1.5-1	2.0/1.0	1	White (N1) Silt and sand-sized particles in a consolidated matrix, wet, very soft	Marl			
6	4	8	WH/2.0	2.0/1.5	WH	0.5 ft SAA. 1 ft Dark, greenish gray (5G 4/1) and greenish black (5G 2/1) SILT & FINE SAND, saturated very loose to very soft, sulfur odor, trace vegetation.				
8	5	10	WH/2.0	2.0/0.0	WH	No recovery		=		
						Screen 10-9				
						Sand 10-7				
						00 Sand 7-5				
						Grout to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-PZ-22
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/13/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/13/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Robert Trent		Screen =, Riser, Grout \ — Sand Choke, Sand Pack, Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2				See WB18-PZ-21 boring log for lithology		\ \	NA	NA
2	2	4					Solvay Waste	=	NA	NA
						Well construction:				
						Screen 4-3'				
						Sand 4-2.5'				
						Choke sand 2.5-1.5'				
						Grout 5-0'				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-179
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/18/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/18/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	5-3-3-33	2.0/1.3	6	0-1.2 Light gray (N7), damp, stiff, sand sized particles	Solvay Waste		23.0	1307
2	2	4	19-5-6-3	2.0/1.2	11	0-1.2 SAA			10.0	1310
4	3	6	4-3-2-2	2.0/1.6	5	0-0.6 SAA, 0.6-1.6 White (N9), wet, soft to firm, SILT sized particles			4.5	1317
6	4	8	WH-WH-1-1	2.0/1.0	1	0-1 SAA			15.0	1325
8	5	10	4-3-2-2	2.0/0.1	5	0-0.1 SAA (poor recovery)			3.5	1330
10	6	12	WH-WH-1-1	2.0/1.0	1	0-1 Light olive gray(5Y 6/1), wet, very soft, MARL (sandy) some shells	11'		0.1	1335
12	7	14	1-WH-1-WH	2.0/1.0	1	0-1 SAA			0.1	1338
14	8	16	NA	NA	NA	Shelby tube. Recovery - 2 ft	Marl		NA	1420
16	9	18	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 SAA, silty, some roots			0.0	1430
18	10	20	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.0	1446
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			0.0	1450
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.0	1455
24	13	26	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			0.1	1501
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 Light olive gray(5Y 6/1), wet, very soft, MARL, (silty), some shells, roots			0.0	1508
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.0	1510
30	16	32	WH-WH-WH-WH	2.0/1.5	WH	0-0.5 SAA. 0.5-1.5 Olive gray(5Y 4/1), wet, very soft, SILT, some clay, little shells	31'		0.0	1520
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.0	1525
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA	Trans Marl		0.0	1537
36	19	38	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.0	1540
38	20	40	WH-WH-WH-WH	2.0/1.0	WH	0-1 Brownish gray(5YR 4/1), wet, soft, SILT & CLAY	39'		0.0	1555
40	21	42	WH-WH-2-2	2.0/1.5	2	0-0.5 SAA. 0.5-1.5 Brownish gray(5YR 4/1), wet, soft, SILT & CLAY, some fine sand.	Silt and clay		0.0	1600
							42'			
						EOB - 42 ft bg.	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-180
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/11/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	6-6-16-16	2/0.5	22	0-0.2 - Top soil. 0.2-0.5 - Light Gray (N7), hard dry, SILT & FINE SAND particles	Top soil/ Solvay Waste		0	928
2	2	4	3-3-6-6	2/0.2	9	0-0.2 - SAA			0	934
4	3	6	8-9-12-12	2/1.0	21	0-1 - Light Gray (N7), wet, firm, medium size particles			23.5	943
6	4	8	6-8-6-8	2/1.5	14	0.15 - Very light gray (N8), wet, soft, SILT size particles			16.8	950
8	5	10	WH-WH-1-1	2/1.2	1	0-0.2 - SAA. 0.2 - 1.0 - greenish gray, wet, soft, MARL, some shells (marl-silt f. sand particles)	8.2'		89.2	1000
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0 - 0.2 - SAA	Marl		9.2	1012
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0 - 0.2 - SAA			32.9	1016
14	8	16	WH-WH-WH-WH	2/0.5	WH	0 - 0.5 - SAA			2.5	1025
16	9	18	WH-WH-WH-WH	2/0.5	WH	0 - 0.5 - SAA			10.9	1033
18	10	20	WH-WH-WH-WH	2/1.0	WH	0 - 0.1 - SAA			3.7	1045
20	11	22	WH-WH-WH-WH	2/1.0	WH	0 - 1 - Greenish gray, wet soft, MARL (silt size particles), shells and roots			0.9	1048
22	12	24	WH-WH-WH-WH	2/1.0	WH	0 - 1 - SAA			3.5	1055
24	13	26	WH-WH-WH-WH	2/0.5	WH	0 - 0.5 - SAA			2.7	1108
26	14	28	WH-WH-WH-WH	2/1.3	WH	0 - 1.3 - SAA			0.7	1110
28	15	30	WH-WH-WH-WH	2/1.5	WH	0 - 1 - SAA. 1.5-2 - olive gray, wet, soft, SILT, some shells	29.5'		0.2	1125
30	16	32	WH-WH-WH-WH	2/1.0	WH	0 - 1 - Olive gray, damp, soft, SILT, some shells	Marl and Silt		0.2	1133
32	17	34	WH-WH-WH-WH	2/0.5	WH	0 - 0.5 - SAA			0.3	1140
34	18	36	WH-WH-WH-WH	2/0.5	WH	0 - 0.5 - Grayish red, damp, wet, SILT, some clay	35.5'		0.2	1150
36	19	38	WH-WH-WH-WH	2/1.0	WH	0 - 1 - Brownish gray, wet, soft, SILT, some clay, few dark gray mottling	Silt and Clay		0.2	1157
38	20	40	NA	NA	NA	Shelby tube - NR			NA	NA
40	21	42	NA	NA	NA	Shelby tube - NR	ST		NA	NA
42	22	44	NA	NA	NA	Shelby tube - NR			NA	NA
44	23	46	NA	NA	NA	Shelby tube - 2ft recovery			NA	1430
46	24	48	WH-WH-WH-WH	2/1.0	WH	Brownish gray, wet, soft, SILT and clay	Silt and Clay		0	1434
							48'			
						EOB - 48' bg	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-181
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/12/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	4-4-4-3	2/1.0	8	0-0.1 - Topsoil. 0.1-1 - yellowish gray, dry loose, find to medium SAND particles	Top soil/ Solvay Waste		0	1607
2	2	4	6-3-2-2	2/0.7	5	0-0.5 - SAA. 0-0.7 - white, damp, soft, SILT size particles			0	1610
4	3	6	24-5-1-1	2/0.5	6	0-0.5 - Light gray, damp, very hard, SAND size particles			29.4	1619
6	4	8	2-7-2-1	2.0/2.0	9	0-1.8 - very light gray, wet firm, silt size particles. 1.8-2 - greenish gray, wet, firm, MARL (sand size particles)	8'		29.5	1623
8	5	10	WH-WH-WH-WH	2.0/2.0	WH	0-2 - greenish gray, wet, soft, MARL (coarse sand, medium size particles), shells, roots	Marl		37.1	1635
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 - SAA			35.2	1642
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 - SAA			24.1	1645
14	8	16	WH-WH-WH-WH	2/0.5	WH	0-0.5 - Greenish gray, wet, soft, MARL(fine sand and silt particles) some shells			0	810
16	9	18	WH-WH-WH-WH	2/0.5	WH	0-0.5 - SAA			2.2	815
18	10	20	WR-WR-WR-WR	2/1.8	WR	0-1.8 - SAA			4.5	825
20	11	22	WR-WR-WR-WR	2/1.5	WR	0-1.5 - SAA			4.1	839
22	12	24	WR-WR-WR-WR	2/1.5	WR	0-1.5 - SAA - increase silt/clay particles			1	843
24	13	26	WR-WR-WR-WR	2/1.5	WR	0-1.5 - SAA - increase silt/clay particles			0	855
26	14	28	WR-WR-WR-WR	2/2.0	WR	0-2 - SAA - increase silt/clay particles			0	900
28	15	30	WR-WR-WR-WR	2/1.8	WR	0-1.8 - SAA - some roots, silty			0	915
30	16	32	WR-WR-WR-WR	2/1.5	WR	0-1.5 - SAA - some roots, silty			0.2	925
32	17	34	WH-WH-WH-WH	2/1.5	WH	0-1.5 - SAA - silty	34'		0	930
34	18	36	WH-WH-WH-WH	2/1.8	WH	0-1.8 - Olive gray, wet, very soft, SILT, some clay, few shells	Marl and Silt		0.1	938
36	19	38	WH-WH-WH-WH	2/1.8	WH	0-1.8 - SAA			0	940
38	20	40	WH-WH-WH-WH	2/1.5	WH	0-1.5 - SAA			0	955
40	21	42	WH-WH-WH-WH	2/1.5	WH	0-1.5 - SAA	42'		0	1000
42	22	44	WH-WH-WH-WH	2/1.5	WH	0-1.5 - brownish gray, wet, very soft, SILT, some clay, few black mottling	Silt and Clay		0	1013
44	23	46	WH-WH-WH-WH	2/1.5	WH	0-1.5 - SAA	46'		0	1035
						Borehole grouted to grade	EOB			

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-182
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/18/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	6-6-3-3	2.0/1.2	9	0-0.1 - Topsoil. 0.1-1.2 - Yellowish gray (5Y 8/1), dry, loose, SAND sized particles			0	1400
2	2	4	2-19-12-5	2.0/0.8	31	0-0.8 - Light gray (N7), damp soft, SILT sized particles	Solvay Waste		12.9	1405
4	3	6	5-2-1-1	2.0/1.2	3	0-1.2 White (N9), wet, soft, SILT sized particles			10	1413
6	4	8	1-2-2-1	2.0/1.7	4	0-1.7 - Light gray (N7), wet, soft, SILT sized particles			31	1420
8	5	10	1-WH-1-WH	2.0/2.0	1	0-2 White (N9), wet, soft, SILT sized particles			6	1425
10	6	12	1-1-WH-WH	2.0/1.0	1	0-1 SAA	12.1'		27.4	1430
12	7	14	WH-WH-1-1	2.0/1.9	1	0-1.9 Dark greenish gray (5GY 4/1), damp, soft, MARL (sandy), some shells	Marl		18.7	1435
14	8	16	NA	2.0/2.0	NA	0-1 Greenish gray (5GY 6/1), wet, soft, MARL (sandy), some shells. 1-2 - Greenish gray (5GY 6/1), wet, soft, MARL (silty), some shels			6	1443
16	9	18	NA	NA	NA	Shelby tube - recovery 2-ft			NA	1445
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 - Light olive gray (5Y 6/1), wet, very soft, MARL (silty), some shells			NA	815
20	11	22	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 SAA			0.8	820
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.3	828
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0	840
26	14	28	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0	850
28	15	30	WH-WH-WH-WH	2.0/1.7	WH	0-1.7 SAA	30.3'		0.3	855
30	16	32	WH-WH-WH-WH	2.0/1.7	WH	0-1.7 Olive gray (5Y 4/1), wet, very soft, SILT, some clay, some shells	Marl and Silt		0	900
32	17	34	WH-WH-WH-WH	2.0/1.8	WH	0-1.8 SAA			0	910
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0	1000
36	19	38	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0	1010
38	20	40	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA	41'		0	1025
40	21	42	WH-WH-WH-WH	2.0/1.5	WH	0-0.5 SAA. 0.5-1.5 Brownish gray (5YR 4/1), wet, soft, SILT & CLAY, little black mottling	Silt and Clay		0	1033
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA	44'		0	1035
							EOB			
						EOB - 44-ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-183
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/15/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	4-4-8-12	2.0/1.0	12	0-0.1 Topsoil 0.1-1 Moderate yellowish brown (10YR 5/4), dry, loose, SAND sized particles	Topsoil		0	930
2	2	4	12-12-17-10	2.0/0.5	29	0-0.5 Light gray (N7), dry, firm, SILT sized particles	Solvay Waste		0	934
4	3	6	12-1-1-1	2.0/1.0	2	0-1 SAA			3.7	945
6	4	8	4-2-WH-WH	2.0/1.0	NA	0-1 White (N9), wet, very soft silt sized particles			19	950
8	5	10	1-WH-1-WH	2.0/0.8	1	0-0.1 Grayish black (N2), wet, very soft, SILT, little organic matter. 0.1-0.8 Dark greenish gray (5GY 4/1), wet, soft, marl (Sandy), some shells	9.3'		14.5	1005
10	6	12	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Greenish gray (5GY 6/1), wet, very soft, MARL (silty)	Marl		4.5	1009
12	7	14	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			3	1012
14	8	16	WH-WH-WH-WH	2.0/1.0	WH	0-1 Light olive gray (5Y 6/1), wet, very soft, MARL (silty), some shells			3.7	1020
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			2.5	1023
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			1.1	1026
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			1	1032
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			1.1	1036
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			0.9	1045
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			0	1055
28	15	30	WH-WH-WH-WH	2.0/1.2	WH	0-1.2 SAA			0	1107
30	16	32	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	33'		1.6	1115
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-0.5 SAA, 0.5-1.5 Olive gray (5Y 4/1), wet, very soft, SILT, some clay, trace shells	Marl and silt		1	1125
34	18	36	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			1	1135
36	19	38	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			1.2	1140
38	20	40	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Brownish gray (5YR 4/1), wet, very soft, SILT & CLAY, few black mottling	39.5'		0	1148
40	21	42	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA	Silt and clay		0	1155
						EOB - 42 ft.	42'			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-184 / WB18-PZ-10
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/11/2010**
File No.: 1163/45082	**Fall: 30"**	**End Date: 1/11/2010**
Boring Company: Parratt-Wolff		**Screen = Sand Choke**
Foreman: Joe Percy		**Riser Sand Pack**
OBG Geologist: Jonathan Bone		**Grout \ Bentonite**

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed			Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-2-3	2.0/0.8	4	0-0.8 - Loose, dry, pale yellowish brown (10YR 6/2) fine-medium SAND. Few thin bands of reworked Solvay waste.	Sand 2.0'	\		\	0	935
2	2	4	4-3-2-3	2.0/0.8	5	0-0.8 - Dense, dry, very light gray (N8) SILT & FINE SAND-sized particles. Consolidated matrix. Few cemented layers.	Solvay Waste				3.1	940
4	3	6	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 Very soft, saturated, white (N9) SILT-sized particles. Paste matrix.						950
6	4	8	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA, transition to light greenish gray color. 1.5-2 - Soft, saturated, dark greenish gray to greenish black SILT & FINE SAND. Little shells	7.5'		=		28.3	952
8	5	10	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 - Soft-loose, saturated greenish gray (5GY 6/1) SILT & FINE-MEDIUM SAND, some clay sand & small gravel-sized concretions, few shells.	Marl		=		52	958
10	6	12	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, loose			=		65	1000
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 Soft, saturated, greenish gray fine SAND & SILT, few shells			=		6.9	1005
14	8	16	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace organic matter			=		2.2	1012
16	9	18	WH-WH-WH-WH	2.0/0.1	WH	0-0.1 SAA, mostly all sluff material			=		3.2	1015
18	10	20	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA			=		14.9	1020
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 Very soft, saturated greenish gray SILT, some fine sand, few shells			=		1.3	1025
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	24'		=		1	1028
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated medium dark gray (N4) SILT, few fine sand-sized shells, trace sand	Trans. Marl		=		0	1035
26	14	28	WH-WH-WH-WH	2.0/1.4	WH	0-1.1 Soft, saturated, Dark greenish gray (5GY 4/1) SILT, some fine sand & fine sand-sized shells			=		0	1038
28	15	30	WH-WH-WH-WH	2.0/0.7	WH	0-0.7 Very soft, saturated dark greenish gray SILT, little fine sand	30'		=		0.6	1040
30	16	32	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 Soft, saturated, brownish gray (5YR 4/1) SILT, some fine sand and fine sand-sized shells	Silt 32'		=		3.7	1050
32	17	34	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Soft, saturated, brownish gray SILT & CLAY. Some black mottling throughout	Silt and Clay				0.4	1055
34	18	36	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA, very soft					0	1100
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, brownish gray SILT & CLAY. Extremely cohesive, little black mottling					0	1105

Well completion: Screen 7-32', riser 0-7', sand 5-32', sand choke 32-38' and 3-5', grout 0-3'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-185
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/12/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/12/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-7-6	2/1.0	9	0-0.1 - Frozen Topsoil. 0.1-0.8 - Yellowish gray, dry firm, coarse SAND particle. 0.8-1 - White, damp, soft, SILT-size particles	Top soil/ Solvay Waste		0	1325
2	2	4	2-2-1-2	2/1.0	3	0-1 - White, damp, soft, SILT-size particles			0	1330
4	3	6	1-1-1-1	2/0.3	2	0-0.3 - SAA, wet			0	1334
6	4	8	WH-WH-WH-1	2/1.0	WH	0-0.5 - SAA. 0.5-0.7 - dark gray, wet, very soft, SILT & FINE SAND. Chemical odor, organic content. 0.7-1 - Greenish gray, wet, very soft, MARL (fine/med sand, some silt particles)	6.5'		10	1338
8	5	10	WH-WH-1-1	2.0/2.0	1	0-2 - Greenish gray, wet, very soft MARL (fine/med sand size particles), abundant shells	Black silt 6.7'		6.5	1345
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 - SAA, silty	Marl		7.7	1350
12	7	14	WH-WH-WH-WH	2/1.8	WH	0-1.8 - SAA, silty			7.6	1355
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-2 - SAA, silty			6.5	1359
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 - SAA, silty			5	1406
18	10	20	WH-WH-WH-WH	2/1.0	WH	0-1 - SAA, very soft			3.1	1413
20	11	22	WH-WH-WH-WH	2/1.5	WH	0-1 - SAA, silty			0.6	1422
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 - SAA, silty			0.5	1425
24	13	26	WH-WH-WH-WH	2/1.0	WH	0-2 - SAA, silty			0.1	1435
26	14	28	WH-WH-WH-WH	2/1.0	WH	0-1 - light olive gray, wet, very soft, MARL (silty)	28'		0.9	1440
28	15	30	WH-WH-WH-WH	2/1.5	WH	0-1.5 - Olive gray, wet, very soft, SILT, some clay, few shells	Marl and Silt		0	1450
30	16	32	WH-WH-WH-WH	2/1.5	WH	0-1.5 - SAA			0	1458
32	17	34	WH-WH-WH-WH	2/1.5	WH	0-1.5 - SAA	34'		0	1500
34	18	36	WH-WH-WH-WH	2/1.0	WH	0-1.5 - Grayish brown, wet, very soft, SILT, some clay	Silt and Clay		0	1525
36	19	38	WH-WH-WH-WH	2/1.0	WH	0-1.5 - SAA			0	1530
38	20	40	NA	NA	NA	Shelby tube - recovery 2ft	ST		0	1535
40	21	42	WH-WH-WH-WH	2/1.0	WH	0-1 - Grayish brown, wet, very soft, SILT, some clay	Silt and Clay		0	1610
						EOB - 42' bg	42' EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-186
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/13/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/13/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-3-3	2.0/1.0	5	0-1 Yellowish gray (5Y 8/1), dry loose, medium to coarse sand sized particles			0	930
2	2	4	9-6-2-3	2.0/0.75	9	0-0.25 SAA. 0.25-0.75 Greenish gray (5GY 6/1), damp, loose, coarse SAND sized particles, some marl	Solvay Waste		6.7	936
4	3	6	2-2-2-1	2.0/1.2	4	0-0.2 SAA. 0.2-1.2 Grayish black (N2), damp, soft, SILT and some fine sand, organic content, odor	6'		33.5	941
6	4	8	1-1-1-1	2.0/0.3	2	0-0.3 Greenish gray (5GY 6/1), wet, soft, MARL (sandy)	Marl		4.5	945
8	5	10	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Dark greenish gray (5GY 4/1), wet, very soft, MARL (silty)			10	955
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 Greenish gray (5GY 6/1), wet, soft MARL (sandy), abundant shells			33.3	1002
12	7	14	WH-WH-WH-WH	2.0/1.6	WH	0-1.6 SAA, silty			20	1008
14	8	16	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, silty			19.2	1014
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			10	1017
18	10	20	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 SAA, silty			3.5	1023
20	11	22	WH-WH-WH-WH	2.0/1.25	WH	0-1.25 SAA			6.7	1030
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			1.7	1037
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, silty, some roots			2.5	1040
26	14	28	WH-WH-WH-WH	2.0/1.6	WH	0-1.6 SAA, silty			1.7	1050
28	15	30	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, silty			0.2	1055
30	16	32	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, silty			2.7	1102
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, silty	34.8'		0	1108
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-0.8 SAA, 0.8-2 Olive gray (5Y 4/1), damp, very soft, SILT, some clay, little shells	Marl and Silt		0	1115
36	19	38	WH-WH-WH-WH	2.0/1.2	WH	0-1.2 Brownish gray (5YR 4/1), damp, very soft, SILT, some clay, few black mottling	36'		0	1120
38	20	40	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA	Silt and Clay		0	1123
40	21	42	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	42'		0	1126
							EOB			
						EOB - 42 ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-187
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/13/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/13/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-2-2	2.0/1.0	4	0-1 Yellowish gray (5Y 8/1), dry, loose coarse and medium sized particles			0	1410
2	2	4	2-2-2-1	2.0/0.6	4	0-0.1 Grayish black (N2), wet, loose, SAND & SILT, little organic matter. 0.1-0.6 Greenish gray (5GY 6/1), wet, soft, MARL (sandy)	Solvay Waste		2.5	1415
4	3	6	WH-1-WH-1	2.0/0.5	1	0-0.5 Yellowish gray (5Y 8/1), damp, soft, fine SAND particles, some marl			5.4	1420
6	4	8	1-2-1-2	2.0/1.0	3	0-1 Light greenish gray (5GY 8/1), wet, very soft SILT sized particles, some marl	8.9'		9.5	1425
8	5	10	WH-WH-WH-WH	2.0/1.5	WH	0-0.4 SAA. 0.4-1.5 Greenish gray (5GY 6/1), wet, very soft, MARL (sandy, some silt particles)	Marl		2.5	1435
10	6	12	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 Greenish gray (5GY 6/1), wet, very soft (sandy and silty), some shells			7.7	1443
12	7	14	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			8.1	1450
14	8	16	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, silty			30.4	1455
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1.5 SAA, silty			8.9	1500
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			2	1510
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			4.5	1515
22	12	24	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, silty			2.1	1525
24	13	26	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, silty			2	1535
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			1	1540
28	15	30	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, silty			0.5	1550
30	16	32	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, silty	33'		0	1557
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-1 SAA. 1-2 Olive gray (5Y 4/1), damp, very soft, SILT, some clay, little shells	Marl and Silt		0	1600
34	18	36	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	37'		0	1612
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-1 SAA. 1-2 Brownish gray (5YR 4/1), damp, very soft SILT & CLAY	Silt and Clay		0	1615
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	40'		0	1625
							EOB			
						EOB - 40 ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-188 / WB18-PZ-11
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/15/2010**
File No.: 1163/45082	**Fall: 30"**	**End Date: 1/18/2010**

Boring Company: Parratt-Wolff
Foreman: Joe Percy
OBG Geologist: Jonathan Bone/Robert Trent

Screen = Sand Choke
Riser Sand Pack
Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-1	2.0/2.0	2	Light gray (5Y 6/1) SILT, some fine sand with roots. Damp, very loose, white (N9) silt and sand sized particles in consolidated matrix. Damp	Solvay Waste	\ \	0	1400
2	2	4	8-5-1-1	2.0/1.5	6	White (N9) light gray (N7) SILT & SAND sized particles in permeated matrix wet, firm		\ \	113	1401
4	3	6	WH/2	2.0/0.2	WH	Poor recovery Slop & Wood fibers			58.6	1409
6	4	8	WH-3-4-4	2.0/2.0	7	1.5 ft Dark greenish gray (5GY 4/1) and yellowish gray (5Y 8/1) SILT & FINE SAND with shells. 0.5 ft Greenish gray (5GY 6/1) SILT & FINE SAND with shells, moist, sulfer odor, trace sand	Marl	=	7.6.	1410
8	5	10	WH/2	2.0/0	WH	No recovery		=	NA	1415
10	6	12	WH/2	2.0/2.0	WH	Greenish gray (5GY 6/1) fine SAND & m/c SAND, some silt, little to some fine gravel sized oncolites, saturated, very loose		=	131	1420
12	7	14	WH/1 1-1	2.0/2.0	1	Greenish gray (5GY 6/1) fine SAND & f/m gravel sized oncolites, some silt, saturated, very loose sulfur odor, slight mothball odor		=	65.2	1422
14	8	16	WH/2	2.0/0.3	WH	Door recovery, Greenish gray (5GY 6/1) SILT & fine SAND, some m/c sand saturated shells, saturated, very loose sulfur odor, mothball odor		=	375	1425
16	9	18	WH/2	2.0/0.5	WH	SAA, mothball odor		=	578	1430
18	10	20	WH/2	2.0/0.5	WH	SAA		=	337	1440
20	11	22	WH/2	2.0/0.5	WH	SAA		=	289	1445
22	12	24	WH/2	2.0/0.5	WH	SAA		=	292	1450
24	13	26	WH/2	2.0/0.3	WH	SAA poor recovery		=	191	1500
26	14	28	WH/2	2.0/0	WH	No recovery		=	NA	1510
28	15	30	WH/2	2.0/1.0	WH	SAA		=	NA	1515
30	16	32	WH/2	2.0/2.0	WH	SAA little clay		=	239	1525
32	17	34	WH/2	2.0/1.0	WH	Light olive gray (5Y 6/1) SILT, some clay, little to some shells, wet, very soft	Trans marl	=	25.2	1530
34	18	36	WH/2	2.0/2.0	WH	Brownish gray (5YR 4/1) with little black (N1) mottling throughout, SILT & CLAY, cohesive, damp, very soft	Silt/Clay		0	1545
36	19	38	WH/2	2.0/2.0	WH	SAA			0	1555

Well Construction Details:

Screen: 6 - 34' Sand: 4 - 34' Grout: 0 - 2'
Riser: +2.5 - 6' #00 Sand Choke: 2 - 4'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-189
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/14/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/14/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-4-5	2.0/1.0	6	0-0.1 Topsoil. 0.1-1 Yellowish gray (5Y 8/1), dry, loose, medium to coarse SAND sized particles.	Solvay Waste		0	1355
2	2	4	2-1-2-1	2.0/1.3	3	0-1.3 White (N9), damp, soft, SILT sized particles			22	1358
4	3	6	1-WH-1-WH	2.0/0.5	1	0-0.5 SAA	7'		9.1	1402
6	4	8	WH-WH-1-WH	2.0/1.0	WH	0-1 Dark greenish gray (5G 4/1), wet, firm, MARL (sandy), some shells and little roots	Marl		18.8	1405
8	5	10	WH-WH-WH-WH	2.0/1.2	WH	0-1.2 Greenish gray (5GY 6/1), wet, loose, MARL (gravelly), some shells.			6	1410
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-1.1 SAA. 1.1-2 Greenish gray (5GY 6/1), wet, soft MARL (sand and silty), some shells			10	1413
12	7	14	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			6.5	1425
14	8	16	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			4.5	1430
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			2.5	1435
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			2.5	1448
20	11	22	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			1	1452
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA	24'		1	1500
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 Olive gray (5Y 4/1), wet, soft, SILT, some clay, shells	Marl and Silt		1	1505
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-1.6 SAA. 1.6-2 Olive gray (5Y 4/1), wet, soft, MARL (silty), some shells			2	1510
28	15	30	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Olive gray (5Y 4/1), wet, very soft, SILT, some clay, trace shells	31'		0	1520
30	16	32	WH-WH-WH-WH	2.0/1.0	WH	0-1 Brownish gray (5YR 4/1), wet, very soft, SILT & CLAY, little black mottling	Silt and Clay		0	1533
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1537
34	18	36	NA	NA	NA	Shelby tube, recovery 2 ft			NA	1615
36	19	38	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	38'		0	1620
							EOB			
						EOB - 38 ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-190
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/18/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/19/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-2-1	2.0/0.5	3	0-0.5 Soft, moist, white (N9) SILT sized particles. Consolidated matrix	Solvay Waste		0	1545
2	2	4	1-3-2-1	2.0/1.5	5	0-1.5 Medium, moist, Very light gray (N8) SILT sized particles, some fine sand sized particles. Consolidated matrix			2.4	1550
4	3	6	WH-1-WH-WH	2.0/2.0	1	SILT sized particles, some fine sand sized particles. Consolidated and paste matrix			0	1555
6	4	8	WH-WH-WH-WH	2.0/1.0	WH	0-0.8 SAA. 0.8-1 Soft, saturated, Grayish black (N2) SILT, some fine sand, some organic material	Silt		6.1	1600
8	5	10	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 Soft/loose, saturated Greenish gray (5GY 6/1) SILT & f/m SAND, some small-med sized concretions, some shells	Marl		1.2	1605
10	6	12	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA			1.3	1612
12	7	14	WH-WH-WH-WH	2.0/1.3	WH	0-1.5 SAA, soft			0.2	1615
14	8	16	WH-WH-1-WH	2.0/0.5	WH	0-0.5 Soft, wet, Greenish gray (5GY 6/1) SILT, few shells, trace fine sand			5.2	1625
16	9	18	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 Very soft. SAA			0.6	1630
18	10	20	NA	NA	NA	Shelby tube - recovery 1.3 ft			NA	800
20	11	22	WH-WH-WH-WH	2.0/0.2	WH	0-0.4 Soft, saturated, Light olive gray (5Y 6/1) SILT, little f/m sand. Few shells			27.4	840
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-0.2 Very soft, saturated Light olive gray (5Y 6/1) SILT, little fine sand. Few shells			14.1	850
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, soft			0.3	855
26	14	28	WOR 2.0	2.0/0.3	WR	0-0.3 SAA			6.1	900
28	15	30	WOR 2.0	2.0/1.0	WR	0-0.7 Very soft, saturated, Medium gray (N5) SILT, little clay. 0.7-1 Soft, saturated, Brownish gray (5YR 4/1) SILT, some clay, cohesive	Trans marl		0.2	910
30	16	32	WOR 2.0	2.0/1.5	WR	0-1.5 Soft, saturated, Brownish gray (5YR 4/1) SILT & CLAY. Black mottling. Extremely cohesive	Silt and clay		0.1	916
32	17	34	WOR 2.0	2.0/2.0	WR	0-2 SAA			0	918
						Boring grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-191
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/19/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/19/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-2-1-2	2.0/1.3	3	0-1.3 Soft, wet, Yellowish gray (5Y 8/1) f-m SAND sized particles, some silt sized	Solvay Waste		0.7	1440
2	2	4	5-4-2-1	2.0/0.1	6	0-0.1 SAA, hard, cemented matrix			1.1	1442
4	3	6	2-1-WH-WH	2.0/0.1	1	0-0.1 SAA, hard, cemented matrix			0.3	1448
6	4	8	WH-WH-WH-WH	2.0/0.1	WH	0-1 Very soft, saturated, Yellowish gray (5Y 8/1) SILT sized particles. Paste matrix			4.7	1450
8	5	10	2-1-1-1	2.0/1.6	2	0-0.1 SAA 0.1-0.5 Soft, wet, black (N1) SILT little fine sand, some organic material. 0.5-1.6 Soft, wet, Greenish gray (5GY 6/1) SILT, fine-med SAND, some small gravel sized concretions. Few shells	Silt		13.6	1455
10	6	12	WH-WH-WH-WH	2.0/1.2	WH	0-1.2 Soft, saturated, Olive gray (5Y 4/1) SILT, some fine-medium sand, few shells	Marl		0.5	1502
12	7	14	1-1-1-1	2.0/0.4	2	0-0.4 SAA, black mottling			19.4	1505
14	8	16	WH-WH-WH-1	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray (5Y 6/1) SILT, some fine-medium sand, few shells. Few small gravel sized concretions			11.1	1511
16	9	18	WH-WH-1-1	2.0/1.0	WH	0-1 Soft, saturated, Greenish gray (5GY 6/1) SILT, some fine-medium sand, few shells			17.1	1515
18	10	20	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 SAA			27	1520
20	11	22	WOR 2	2.0/1.8	WH	0-1.8 Very soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand, few shells			45.5	1527
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand, few shells			7.1	1530
24	13	26	WH-WH-WH-WH	2.0/1.3	WH	0-0.8 SAA. 0.8-1.3 Soft, saturated, Olive gray (5Y 4/1) SILT, little clay,trace fine sand and shells, slightly cohesive	Trans Marl		6.6	1540
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA (0.8-1.3)			1.1	1544
28	15	30	WOR 2	2.0/2.0	WH	0-2 Very soft, Light olive gray (5Y 6/1) SILT, little fine-medium sand, very trace shells			0	1550
30	16	32	WOR 2	2.0/2.0	WH	0-2 Very soft, Olive gray (5Y 4/1) SILT, little clay, trace fine sand			0.2	1557
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Brownish gray (5YR 4/1) SILT & CLAY, black mottling. Extremely cohesive	Silt and Clay		0	1600
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1610

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-192
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/19/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-3-3-3	2.0/2.0	6	0-2 Soft, moist, Very light gray (N8) SILT sized particles, consolidated matrix	Solvay Waste		0	1643
2	2	4	1-1-1-1	2.0/2.0	2	0-2 SAA, little fine SAND sized particles			0	1645
4	3	6	1-WH-WH-WH	2.0/0.1	WH	0-0.1 SAA saturated			0.1	1652
6	4	8	WH-WH-WH-WH	2.0/1.3	WH	0-0.4 SAA 0.4-1.3 Soft, saturated Black (N1) SILT, some organic content			42	1653
8	5	10	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Greenish gray (5GY 6/1) SILT & f-m-c SAND, some small gravel sized concretions and shells	Silt, high organics		47.8	1655
10	6	12	WH-WH-1-1	2.0/1.5	1	0-1.5 Dark greenish gray(5G 4/1), wet, soft MARL (sandy, gravelly), some shells	Marl		100	820
12	7	14	WH-WH-2-1	2.0/1.5	2	0-1.5 Dark greenish gray to greenish gray, wet, soft MARL (sandy), fine sand and silt, some shells, some sand			52.1	823
14	8	16	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			135	830
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			237	834
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, silty			136	840
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	SAA			90.3	845
22	12	24	WR/2	2.0/2.0	WH	SAA			0	848
24	13	26	WR/2	2.0/2.0	WH	Olive gray (5Y 4/1) SILT, some clay, little fine sand, little vegetative matter, trace shells, cohesive, wet, very soft, sulfer odor			0	850
26	14	28	WR/2	2.0/2.0	WH	SAA			0	855
28	15	30	WR/2	2.0/2.0	WR	SAA			0	905
30	16	32	WR/2	2.0/1.0	WR	SAA, increased fine gravel sized content			0	907
32	17	34	WR/2	2.0/1.5	WR	Brownish Gray (5YR 4/1) SILT and CLAY with black (N6) mottling throughout, very soft, wet	Silt and clay		0	915
34	18	36	NA	NA	NA	Shelby Tube			NA	930
36	19	38	WH/2	2.0/2.0	WH	0-2 SAA (32-34 ft)			0	950

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-193 / WB18-PZ-12
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/14/2010**
File No.: 1163/45082	**Fall: 30"**	**End Date: 1/14/2010**
Boring Company: Parratt-Wolff		**Screen =** / **Riser** / **Grout **
Foreman: Joe Percy		**Choke Sand** / **Sand Pack** / **Bentonite**
OBG Geologist: Jonathan Bone		

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-3-2-1	2.0/1.5	5	0-1 Loose, dry, Pale yellowish-orange (10YR 8/6) f-m SAND, some shell fragments. 1-1.5 Loose, dry, f-m sand and sand-sized particles	Sand	\ \	0	805
2	2	4	1-WH-1-WH	2.0/1.3	1	0-1.3 Soft, wet, Very light gray (N8) SILT & f. SAND sized particles, consolidated and paste matrix	Solvay Waste	\ \	5.8	807
4	3	6	WH-WH-WH-WH	2.0/1.5	WH	0-1 Very soft, wet, Moderate blue green (5BG 4/6) SILT sized particles, paste matrix. 1-1.3 Soft, wet, Brownish black (5YR 2/1) SILT, trace fine sand. High organic content, chemical like odor. 1.3-1.5 Soft, wet, Greenish gray (5GY 6/1) SILT, trace fine sand, trace shells	Organic rich Silt		37.2	818
6	4	8	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, wet, Light olive gray (5Y 6/1) SILT, some fine sand, some shells, trace organic material. Thin bands (1/8 inches) of Yellowish gray (5YR 8/1) mottling	Marl	=	14.7	820
8	5	10	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, saturated		=	215	830
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, very soft, increase fine sand		=	2.7	835
12	7	14	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, saturated		=	26.8	838
14	8	16	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 SAA		=	16.9	845
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, very soft/runny		=	61.5	848
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand, few shells. Thin (1/8 inch) bands of Yellowish gray (5Y 8/1) mottling		=	40.1	855
20	11	22	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, trace fine sand, less mottling		=	17.1	900
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		=	46.1	903
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray SIILT, trace fine sand, few shells		=	24.7	912
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no fine sand, trace shells		=	10.7	915
28	15	30	WH-WH-WH-WH	2.0/1.8	WH	0-1.8 SAA< little fine sand, few shells		=	7.2	925
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		=	6.7	930
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-2 SAA, some fine sand		=	32.1	935
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, moist, Brownish gray SILT, little clay, trace shells and thin roots	Trans Marl	=	0.3	945
36	19	38	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, trace fine sand, less mottling		=	0	948
38	20	40	WOR 2	2.0/1.0	WH	0-1 Very soft, saturated Brownish gray SILT & CLAY. Some black mottling. Very cohesive	Silt and Clay		0	953
40	21	42	WOR 2	2.0/2.0	WH	0-2 SAA, extremely cohesive			0	1000

Well Construction Details: Screen: 6 - 38' #0 Sand: 4 - 38' Grout: 0 - 3' Riser: 0 - 6' #00 Sand: 3 - 4' / 38 - 40'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-194
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	6-4-2-1	2.0/2.0	6	0-1.5 Loose, dry, Grayish orange (10YR 7/4) f-m SAND, some shell fragments. 1.5-2 Soft, moist, Yellowish gray (5Y 8/1) SILT sized particles. Consolidated	Sand		0	1105
2	2	4	1-1-WH-WH	2.0/0.5	1	0-0.5 SAA (1.5-2)	Solvay Waste		0	1107
4	3	6	WH-WH-WH-WH	2.0/0.5	WH	0-0.3 Very soft, saturated, Olive gray SILT sized particles. 0.3-0.5 Very soft, saturated, Brownish black (5YR 2/1) SILT, some organic material			0	1115
6	4	8	WH-WH_1-1	2.0/1.5	1	0-1.5 Soft, moist, Light olive gray (5Y 6/1) SILT & fine SAND, few shells, trace roots	Organic rich Silt		8.9	1117
8	5	10	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA	Marl		14.3	1125
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, less fine sand content			4.2	1127
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			36.1	1130
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			16.7	1137
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			22.8	1140
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			6.8	1145
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			25.7	1315
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			8.4	1317
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, decrease in fine sand content			6.4	1330
26	14	28	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Olive gray (5Y 4/1) SILT, trace clay, trace shells			4	1332
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, saturated, Light olive gray (5Y 6/1) SILT, some f-m sand, few shells			3.1	1335
30	16	32	WH-WH-WH-1	2.0/0.5	WH	0-0.5 Soft-loose, saturated Medium gray (N5) SILT & f-m-c sand, some small gravel sized concretions, few shells			10.1	1343
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.4	1345
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-0.8 SAA			0	1353
36	19	38	WH-WH-WH-WH	2.0/1.0	WH	0.8-1 Soft, wet, Brownish gray (5YR 4/1) SILT, trace clay			0	1355
38	20	40	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, wet, Olive gray (5Y 4/1) SILT, trace fine sand			0	1403
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA. 1.5-2 Soft, wet, Brownish gray (5YR 4/1) SILT, some clay cohesive			0	1410
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Brownish gray (5YR 4/1), SILT & CLAY. Black mottling. Extremely cohesive	Silt and Clay		0	1415
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Brownish gray (5YR 4/1), SILT & CLAY. Black mottling. Extremely cohesive	Silt and Clay		0	1415
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1422

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-195
Client: Honeywell Proj. Loc: Wastebeds 1-8 Syracuse, NY File No.: 1163/45082	Sampler: 2" Split Spoon Hammer: 140-lb drop Fall: 30"	Location: Start Date: 1/20/2010 End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	4-3-1-1	2.0/0.3	4	0-0.3 Loose, dry, Yellowish gray (5Y 8/1) f-m SAND	Solvay Waste		0	1521
2	2	4	1-WH-1-WH	2.0/2.0	1	0-2 Soft, saturated, Yellowish gray SILT sized particles, paste to consolidated matrix			11.9	1523
4	3	6	WH-WH-WH-WH	2.0/1.0	WH	0-0.5 SAA. 0.5-1 Soft, saturated dark greenish gray (5GY 4/1)SILT, some fine sand, few shells	Marl		46.7	1530
6	4	8	1-1-WH-WH	2.0/1.5	1	0-1.5 Soft, wet, Light olive gray (5Y 6/1) SILT, some f-m sand, few shells, trace thin roots			67.8	1535
8	5	10	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA			44.1	1541
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			13.1	1547
12	7	14	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			15.4	1550
14	8	16	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			19	1557
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			7.8	1600
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			6.4	1605
20	11	22	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			2.5	1613
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			8.9	1615
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, trace clay			156	1618
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Light olive gray (5Y 6/1) SILT, little fine sand, fine shells			33.5	1620
28	15	30	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Olive gray (5Y 4/1) SILT, trace fines and and shells			2	1625
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, saturated			10.7	740
32	17	34	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			1	745
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	800
36	19	38	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0	805
38	20	40	WH-WH-WH-WH	2.0/0.5	WH	0-0.3 Soft-runny, saturated, Light olive gray (5Y 6/1) SILT, trace fine sand			2.3	812
40	21	42	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Soft, wet, Olive gray (5Y 4/1) SILT, little clay, trace fine sand, slightly cohesive	Trans Marl		0	818
42	22	44	WH-WH-WH-WH	2.0/2.0	WH	0-1.8 SAA. 1.8-2 Soft, wet, Brownish gray (5YR 4/1) SILT & CLAY. Very cohesive			0	822
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA (1.8-2) Extremely cohesive blade mottling	Silt and Clay		0	830
46	24	48	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	833

Boring grouted to grade

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-196
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-2-3	2.0/1.0	4	0-0.5 Loose, moist, Dark yellowish orange (10YR 6/6) f-m SAND. 0.5-1 Soft, moist, Very light gray (N8) SILT sized particles. Consolidated matrix	Sand		16.6	1432
2	2	4	1-1-1-WH	2.0/1.5	2	0-1.5 SAA (0.5-1) wet	Sovay Waste		5.3	1435
4	3	6	WH-WH-WH-2	2.0/0.5	WH	0-0.5 SAA, saturated			71.4	1444
6	4	8	WH-WH-WH	2.0/2.0	WH	0-0.8 SAA, Greenish gray (5GY 6/1) SILT, little fine sand, few shells, trace thin roots at top			67.2	1445
8	5	10	WH-WH-WH-WH	2.0/0	WH	No recovery	Marl		NA	1450
10	6	12	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand, few shells			2.1	1455
12	7	14	WH-WH-WH-WH	2.0/1.5	NA	0-1.5 SAA (0.5-1) wet			0.7	1500
14	8	16	NA	2.0/2.0	WH	Shelby tube Recovered 2			NA	1510
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Greenish gray (5GY 6/1) SILT, few shells, trace fine sand			6.1	1535
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.5	1543
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, trace shells and fine sand			1.3	1548
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			5.5	1550
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, few shells			5.8	1558
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			18.6	1600
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			15	1605
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA trace clay, trace shells			18.9	1610
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			3.1	1615
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			2.7	1620
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no clay, Light olive gray (5GY 6/1)			4.9	1622
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			2.4	1627
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			8.8	1633
42	22	44	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			4.5	1636
44	23	46	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			12	1644
46	24	48	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1647

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-196
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
48	25	50	WH/2	2.0/2.0	WR	Brownish gray (5YR 2/1) SILT & CLAY with many medium distinct patches of Black (N6) SILT & CLAY, cohesive wet, very soft	Silt and Clay		NA	800
50	26	52	WR/2	2.0/2.0	WR	SAA			NA	810
						Boring grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-197
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/22/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Robert Trent		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-2-2-1	2.0/2.0	4	White (N9) SILT sized particls in a consolidated matrix moist, very soft	Solvay Waste		51.9	1045
2	2	4	2-2-1-2	2.0/0.5	3	SAA			211	1050
4	3	6	WH/1 1-1	2.0/0.5	1	SAA			299	1100
6	4	8	WH/2	2.0/2.0	WH	0-0.5 SAA, Greenish gray (5G 6/1) SILT sized particles in paste like matrix. 0.5 Olive gray (5Y 4/1) SILT & f SAND with root matter, little shells, very loose, wet	Marl		38.8	1105
8	5	10	WH/2	2.0/1	WH	Greenish gray (5GY 6/1) SILT, some fine sand and shells, saturated, little gravel sized concretions, very soft, sulfur odor			135	1110
10	6	12	WH/2	2.0/1.5	WH	SAA, Decrease in m/c gravel sized concretions			94.2	1115
12	7	14	WH/2	2.0/1.0	WH	Greenish gray (5GY 6/1) Fine SAND, little medium sand, little silt, trace vegetation, sulfur odor			50	1125
14	8	16	WH/2	2.0/1.5	WH	Greenish gray (5GY 6/1) SILT, some fine sand, some shells, little vegetation, saturated very loose, strong sulfur odor			156	1130
16	9	18	WH/2	2.0/1.5	WH	SAA			246	1135
18	10	20	WH/2	2.0/1.5	WH	SAA, increased SILT content, decreased fine sand content			358	1140
20	11	22	WH/2	2.0/1.75	WR	Light olive gray (5Y 6/1) SILT, some little clay, little fine sand, little vegation, little shells, saturated, very soft, sulfur odor			300	1145
22	12	24	WH/2	2.0/2.0	WH	1.5 ft SAA, 0.4 ft SILT & Fine SAND band, 1 ft SAA			70	1150
24	13	26	WH/2	2.0/2.0	WH	Light olive gray (5Y 6/1) SILT, little fine sand, little shells, little vegetation, wet, strong sulfur odor			139	1155
26	14	28	WH/2	2.0/2.0	WH	SAA			152	1200
28	15	30	WH/2	2.0/2.0	WH	SAA			4.7	1240
30	16	32	WH/2	2.0/2.0	WH	SAA			1.3	1245
32	17	34	WH/2	2.0/2.0	WH	SAA			6.6	1300
34	18	36	WH/2	2.0/2.0	WH	SAA			0	1310
36	19	38	WH/2	2.0/2.0	WH	SAA			0.2	1315
38	20	40	WR/2	2.0/1.5	WR	SAA, no vegation, trace shells			5.8	1320
40	21	42	WR/2	2.0/2.0	WR	SAA			0.4	1325
42	22	44	WR/2	2.0/2.0	WR	SAA increasing clay			0	1330
44	23	46	WR/2	2.0/2.0	WR	SAA no shells			0	1335
46	24	48	WR/2	2.0/2.0	WR	SAA Trace shells, some clay			0	1345
48	25	50	WR/2	2.0/2.0	WR	Black (N9) with Brownish gray lenses with SILT and some clay, wet, very soft	Silt and Clay		0	1350
50	26	52	NA	2.0/1.5	NA	Shelby tube, 1.5 Recovered			NA	1450
52	27	54	WR/2	2.0/2.0	WR	Grayish black (N2) SILT & CLAY with fine (1/4 inches) bands of fine sand and vegetation throughout			0	1500

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-198
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-WH-WH-WH	2.0/0.5	WH	0-0.3 Soft, wet, Very light gray (N8) SILT & f-m SAND. Consolidated matrix	Solvay Waste		1	950
2	2	4	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Yellowish gray (5Y 8/1) SILT sized particles, consolidated matrix			8.9	953
4	3	6	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA. Paste matrix			1.3	958
6	4	8	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, consolidated matrix			0	1000
8	5	10	4-2-2-1	2.0/1.3	4	0-1 Soft, moist, Dark greenish gray (5GY 4/1) and Brownish black (5YR 2/1) SILT, some f-m sand, few shells, some organic content. 1-1.3 Soft, moist, Greenish gray (5GY 6/1) SILT, some f-m sand, few shells, black mottling	Marl high organics		41.6	1007
10	6	12	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated Olive gray (5Y 4/1) SILT, some fine and medium sand, few shells	Marl		4.2	1015
12	7	14	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated, Olive gray (5Y 4/1) SILT & fine-medium SAND. Black (N1) mottling, few shells			26.2	1017
14	8	16	NA	2.0/2.0	NA	Shelby tube, pushed: 1030, pulled 1050, Recovered 2.0			NA	1030
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray (5Y 6/1) SILT, little fine-medium sand, few shells			28.8	1100
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			19.4	1105
20	11	22	WOR 2	2.0/2.0	WH	0-2 Very soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand and shells			41.1	1111
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, soft			77.5	1113
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			122	1124
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace clay, trace fine sand			42.5	1127
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-1.8 SAA. 1.8-2 Soft/loose, saturated, fine-medium-coarse SAND & SILT. Few small corn sized concretions. Light olive gray (5Y 6/1), few shells			44.7	1135
30	16	32	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA (1.8-2)			11.8	1138
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-1.4 SAA. 1.4-1.6 Soft, saturated, Light olive gray (5Y 6/1) SILT & fine-medium SAND, few shells, trace small sized concretions			93	1142

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-198
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
34	18	36	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA (1.4-1.6) No concretions	Marl		41.1	1148
36	19	38	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Light olive gray (5Y 6/1) SILT, little fine sand, trace shells			58.4	1150
38	20	40	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 SAA			60.9	1157
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, trace fine sand, trace clay, trace shells	Trans marl		0	1207
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.3 Soft, wet, Olive gray (5Y 4/1) SILT, some clay, trace shells			0	1210
44	23	46	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Brownish gray (5YR 4/1) SILT & CLAY. Black mottling. Extremely cohesive	Silt and Clay		0	1218
46	24	48	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1220

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-199
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/19/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/19/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-4-2-1	2.0/0.5	6	0-0.5 Soft, moist, Yellowish gray (5Y 8/1) SILT sized particles, consolidated matrix	Solvay Waste		0	1055
2	2	4	WH-2-1-WH	2.0/2.0	3	0-1.7 SAA. 1.702 Soft, moist, moderate Blue green (5BG 4/6) SILT & Fine SAND sized particles. Chemical-like odor			41.7	1057
4	3	6	WH-WH-WH-WH	2.0/1.0	WH	0-0.7 Soft, wet, Yellowish gray (5Y 8/1) SILT sized particles, paste like matrix. 0.7-1 SAA. Grayish blue green (5BG 5/2)			90.3	1103
6	4	8	WH-WH-WH-WH	2.0/2.0	WH	0-1 SAA (0-0.7). 1-1.5 Soft, saturated, Greenish black (5GY 2/1) SILT, some fine sand, some organic material. 1.5-2 Soft, wet, Light olive gray (5Y 6/1) SILT, some fine sand,			55.1	1105
8	5	10	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA (1.5-2)	Silt, organic rich		29.5	1110
10	6	12	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 Soft to lose, saturated Greenish gray (5GY 6/1) SILT & fine-medium SAND, few small gravel sized concretions, few shells	Marl		26.3	1115
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			3.4	1117
14	8	16	WH-WH-WH-WH	2.0/0.1	WH	0-0.1 Loose, saturated, Greenish gray (5GY 6/1) SILT and fine medium coarse SAND, few small gravel sized concretions, shells			46.2	1122
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Light olive gray (5Y 6/1) SILT, some fine medium sand, few shells, few concretions			24.6	1125
18	10	20	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated, Light olive gray (5Y 6/1) SILT, some fine medium sand, few shells			27.1	1130
20	11	22	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			42.2	1135
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace clay			6.3	1137
24	13	26	WOR 2	2.0/2.0	WH	0-1.5 SAA, 1.5-2 Soft, saturated, Olive gray (5Y 4/1) SILT, some clay, trace shells, cohesive			3.8	1145
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated Olive gray (5Y 4/1) SILT, little clay trace shells and thin roots	Trans Marl		1.4	1147
28	15	30	WOR 2	2.0/0.5	WH	0-0.5 SAA, very trace shells, slightly cohesive			1.2	1153
30	16	32	WOR 2	2.0/1.5	WH	0-1.5 SAA, no roots, cohesive			0.1	1200
32	17	34	WOR 2	2.0/1.5	WH	0-1.5 SAA, some clay			0	1208
34	18	36	WOR 2	2.0/1.5	WH	0-1.5 Very soft, wet, Brownish gray (5YR 4/1) SILT & CLAY. Some blak mottling	Silt and Clay		0	1215
36	19	38	NA	2.0/2.0	NA	Shelby tube, SILT & CLAY in bottom of tube			NA	1245

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-200
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/18/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/18/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	8-1-1-3	2.0/0.2	2	0-0.2 Hard, dry, Brownish gray (5YR 4/1), SILT sized particles, cemented matrix	Solvay Waste		0	1125
2	2	4	1-WH-WH-1	2.0/0.5	WH	0-0.5 Soft, moist, Light gray (N7) SILT and fine SAND sized particles, consolidated matrix			8.8	1130
4	3	6	WH-WH-WH-WH	2.0/2.0	WH	saturated, Greenish black (5GY 2/1) SILT sized particles, some organics material			25.8	1140
6	4	8	WH-WH-1-WH	2.0/0.4	1	0-0.4 Soft/runny, saturated, Dark greenish gray (5GY 4/1) SILT, some fine-medium sand, few small gravel sized concretions	Marl		28.9	1143
8	5	10	WH-WH-WH-WH	2.0/0	WH	No recovery			NA	1150
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft/loose, saturated SILT, fine-medium-coarse sand, some small to medium gravel sized concretions, few shells. Light olive gray (5Y 6/1)			7.7	1155
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray (5Y 4/1) SILT, some fine-medium sand, some shells			5	1200
14	8	16	NA	2.0/0	NA	Shelby tube, pushed at 1210, no recovery			NA	1210
16	9	18	NA	2.0/1.8	NA	Shelby tube, 1.8 recovery			NA	1325
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, saturated Light olive gray (5Y 6/1) SILT, some fine-medium sand. Few shells			1.5	1355
20	11	22	WOR 2	2.0/2.0	WH	0-2 Runny, saturated, Light olive gray SILT (5Y 6/1), little fine-medium sand. Few shells			33.8	1405
22	12	24	WOR 2	2.0/2.0	WH	0-2 Very soft, saturated Light olive gray (5Y 6/1) SILT, some fine-medium sand, few shells			1	1408
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Olive gray (5Y 4/1) SILT, little clay, slightly cohesive. Trace fine sand and shells	Trans marl		2.9	1415
26	14	28	WOR 2	2.0/2.0	WH	0-2 SAA			0.1	1418
28	15	30	WOR 2	2.0/1.0	WH	0-1 Soft, saturated Medium gray (N5) SILT, some clay content, trace fine sand			0.1	1428
30	16	32	WOR/0.5 WH	2.0/2.0	WH	0-2 Very soft, saturated Brownish gray (5YR 4/1) SILT & CLAY, black mottling. Extremely cohesive	Silt and Clay		0	1435
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1440

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-201
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/14/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/14/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-2-3	2.0/0.6	4	0-0.3 Medium gray (N5), dry, loose, SAND sized particles. 0.3-0.6 Light gray (N7), damp, very soft, SILT sized particles	Solvay Waste		0	846
2	2	4	2-3-2-3	2.0/1.5	5	0-1.5 Light gray (N7), wet, very soft, SILT sized particles			1.1	850
4	3	6	1-WH-1-WH	2.0/1.5	1	0-1 SAA. 1-1.5 Dark greenish gray (5G 4/1), wet, loose, medium to coarse SAND, some broken shells			2.5	900
6	4	8	WH-WH-1-1	2.0/0.7	1	0-0.2 Dark gray (N3), wet, soft SILT, some organic matter, some odor. 0.2-0.7 Dark greenish gray (5G 4/1), wet, soft MARL (sandy), some shells	7.5'		10	905
8	5	10	WH-WH-WH-1	2.0/2.0	WH	0-1 Olive gray (5Y 4/1), wet, soft, MARL (sandy), some shells. 1-2 Greenish gray (5GY 6/1), wet, soft MARL (sandy), some shells, pockets of gravelly marl	Marl		2.5	915
10	6	12	1-WH-1-WH	2.0/1.7	1	0-1.7 Greenish gray (5GY 6/1), wet, firm MARL (sandy and gravelly), some shells			25	923
12	7	14	1-WH-WH-WH	2.0/1.5	WH	0-0.3 SAA. 0.3-1.5 Greenish gray (5GY 6/1), wet, soft, MARL (sandy and silty), some shells			31.5	925
14	8	16	NA	NA	NA	Shelby tube, recovery 1.9 ft			NA	1005
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1 Greenish gray (5GY 6/1), wet, soft MARL (silty)			12.5	1015
18	10	20	WH-WH-WH-WH	2.0/1.2	WH	0-1.2 SAA			19.5	1023
20	11	22	WH-WH-WH-WH	2.0/1.6	WH	0-1.2 SAA. 0-1.6 SAA, some roots			10.5	1030
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			7.2	1039
24	13	26	WH-WH-WH-WH	2.0/1.2	WH	0-0.5 SAA, 0.5-1.2 Olive gray (5Y 4/1), wet, very soft, SILT, some clay, little shells	25.7'		8.1	1045
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	Marl and Silt		7.9	1050
28	15	30	WH-WH-WH-WH	2.0/1.0	WH	0-1 Greenish gray (5GY 6/1), wet, very soft, MARL (silty)			2.5	1055
30	16	32	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Olive gray (5Y 4/1), wet, very soft, SILT, some clay, trace shells	33.2'		1.7	1105
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-1.2 SAA. 1.2-2 Brownish gray (5YR 4/1), wet, very soft, SILT & CLAY, some black mottling	Silt and Clay		0.9	1115
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0	1120
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	38'		0	1123
						EOB - 38 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-202
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/19/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-1	2.0/1.3	2	0-0.2 Topsoil. 0.2-1.6 Light gray (N7), damp, loose, SAND sized particles	Solvay Waste		0	1520
2	2	4	50/0.3	2.0/0.3	>50	0-0.5 SAA, layer of hard SAND sized particles			0	1525
4	3	6	33-50/0.2	2.0/0.7	>50	0-0.7 Medium light gray (N6), damp, very hard, SAND sized particles			8.5	1535
6	4	8	5-6-2-3	2.0/0.5	8	0-0.5 SAA, softer	8.5'		9.5	1555
8	5	10	4-1-1-1	2.0/1.5	2	0-1.5 Light olive gray (5Y 6/1), wet, soft, MARL (sandy and gravelly), some shells	Marl		1.5	1610
10	6	12	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			0	1620
12	7	14	NA	NA	NA	Shelby tube, recovery 2 ft			NA	NA
14	8	16	WH-WH-WH-WH	2.0/1.0	WH	0-1 Greenish gray (5GY 6/1), wet, soft, MARL (sandy)	16'		0	820
							EOB			
						EOB - 16 ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-203
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-WH-WH-WH	2/1.0	WH	0-0.1 Topsoil. 0.1-1 Light gray (N7) to White (N9), damp, soft, SILT sized particles	Solvay Waste		0	925
2	2	4	1-WH-WH-WH	2/1.0	WH	0-0.5 SAA. 0.5-1 Greenish gray (5G 6/1), wet, soft, MARL (sandy), some shells	3.5'		1.5	930
4	3	6	WH-WH-WH-WH	2/1.0	WH	0-0.6 SAA. 0.6-1 Dark gray (N3), damp, soft, SILT, some sand and organic matter	Marl		7.5	937
6	4	8	WH-2-2-2	2/1.0	4	0-1 Greenish gray (5GY 6/1), wet, loose, MARL (sandy), some shells			50.3	940
8	5	10	2-2-1-1	2/1.0	3	0-1 SAA			51	945
10	6	12	WH-WH-WH-WH	2/1.0	WH	0-1 SAA			47	947
12	7	14	1-WH-1-1	2/1.5	1	0-1.5 SAA			35	957
14	8	16	1-1-1-1	2/1.5	2	0-1.5 SAA	16'		42	1000
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-204
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-1	2/0.5	2	0-0.5 Moderate brown (5YR 4/4), damp, loose, topsoil	Solvay Waste		0	1035
2	2	4	1-WH-1-WH	2/1.5	1	0-1.5 White (N9), wet, soft, SILT sized particles			0	1040
4	3	6	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA			1	1043
6	4	8	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA			1.2	1050
8	5	10	1-2-1-WH	2.0/0	3	No recovery, Solvay Waste in top of spoon	10'		NA	1053
10	6	12	1-1-WH-WH	2.0/1	1	0-1 Greenish gray (5GY 6/1), wet, loose MARL (sandy) thin layer of dark black SILT, organic matter	Marl		10.2	1055
12	7	14	WH-WH-WH-WH	2/0.5	WH	0-0.5 Greenish gray (5GY 6/1), wet, loose MARL (sandy gravelly) some shells			5	1100
14	8	16	NA	NA	NA	Shelby tube, recovery 1.2 ft	16'		NA	1110
							EOB			
						EOB - 16 ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-205
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-WH-WH	2.0/1.0	1	0-1 White (N9), damp, soft, SILT sized particles	Solvay Waste		0.3	1318
2	2	4	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			0.2	1320
4	3	6	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA	7.5'		0.5	1335
6	4	8	WH-1-2-2	2.0/1.0	3	0-0.5 SAA. 0.5-1 Greenish gray (5GY 6/1), wet, soft, MARL (Sandy), some shells	Marl		0.7	1340
8	5	10	WH-1-1-1	2.0/1.0	2	0-0.5 SAA. 0.5-1 Dark gray (N3), wet, soft, SILT and organic matter			6.5	1350
10	6	12	1-2-1-1	2.0/0.8	3	0-0.8 Dark greenish gray (5GY 4/1), wet, loose, MARL (sandy and gravelly), some shells			7	1355
12	7	14	1-WH-1-WH	2.0/1.6	1	0-1 SAA. 1-1.6 Greenish gray (5GY 6/1), wet, soft, MARL (silty), some shells			3.5	1357
14	8	16	2-1-2-2	2.0/1	3	0-1 Greenish gray (5GY 6/1), wet, loose, MARL (sandy), some shells	16'		3	1400
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-206
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-WH-WH-WH	2.0/1.0	WH	0-1 Yellowish gray (5Y 8/1), damp, loose, SAND sized particles	Solvay Waste		0.1	1440
2	2	4	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 White (N9), damp, soft, SILT sized particles			0.2	1443
4	3	6	WH-WH-WH-WH	2.0/1.2	WH	0-1.2 SAA	7.2'		0.1	1445
6	4	8	WH-WH-1-1	2.0/0.8	1	0-0.8 Greenish gray (5GY 6/1), wet, loose, MARL (sandy), some shells, thin layer of Black (N1) SILT	Marl		0.7	1450
8	5	10	WH-1-2-3	2.0/1.0	3	0-1 Dark greenish gray (5GY 4/1) wet, loose, MARL (sandy, gravelly), some shells, thin layer of Dark gray SILT & SAND			3.5	1500
10	6	12	WH-1-1-1	2.0/1.0	2	0-1 Greenish gray (5GY 6/1), wet, loose, MARL (sandy, gravelly), some shells			1.1	1505
12	7	14	WH-WH-1-2	2.0/1.0	1	0-0.5 SAA			2.5	1508
14	8	16	1-1-1-1	2.0/1.4	2	0-1.4 SAA	16'		10	1510
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-207
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/20/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/20/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-1-WH	2.0/1.0	3	0-1 Light gray (N7), damp, loose, SAND sized particles	Solvay Waste		0	1540
2	2	4	2-1-2-1	2.0/2.0	3	0-2 Light gray (N7) to White (N9), damp, soft, SILT sized particles			0.9	1543
4	3	6	2-2-1-1	2.0/1.2	3	0-0.7 SAA. 0.7-1.2 Light gray (N7), wet, loose, SAND sized particles			2	1547
6	4	8	1-WH-1-WH	2.0/1.5	1	0-1.5 White (N9), damp, soft, SILT sized particles			2	1550
8	5	10	WH-WH-1-1	2.0/1.7	1	0-1.7 SAA	11.7'		3	1600
10	6	12	WH-WH-7-3	2.0/1.7	7	0-1 SAA. 1-1.7 Dark greenish gray (5GY 4/1), damp, loose, MARL (sandy), some shells	Marl		6.1	1608
12	7	14	2-2-3-2	2.0/1.3	5	0-0.3 SAA. 0.3-1.3 Dark gray (N3), wet, loose, SILT & SAND, some organic matter			3	1612
14	8	16	1-2-2-3	2.0/1.3	4	0-1.3 Dark greenish gray (5GY 4/1), damp, loose, MARL (sand some silt), some shells	16'		15	1615
							EOB			
						EOB - 16 ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-208
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-1-1	2.0/0.5	3	0-0.5 Topsoil	Solvay Waste		0	816
2	2	4	1-1-2-1	2.0/0.8	3	0-0.8 White (N9), damp, soft SILT sized particles			0	820
4	3	6	2-3-3-2	2/1.0	6	0-1 SAA			1	823
6	4	8	NA	2/1.5	NA	0-1.5 SAA			10	825
8	5	10	2-3-2-1	2/2.0	5	0-2 SAA			12	838
10	6	12	1-2-1-1	2/2.0	3	0-2 SAA	13.3'		27	840
12	7	14	WH-1-2-2	2/0.7	3	0-0.7 Dark greenish gray (5GY 4/1), wet, loose MARL (sandy-gravelly), some shells, dark gray mottling, odor	Marl		60	850
14	8	16	2-1-2-1	2/2.0	3	0-2 Dark greenish gray (5GY 4/1), wet, loose MARL (sandy), some shells, dark gray mottling, odor	16'		50	858
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-209
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-WH-WH-WH	2/1.3	NA	0-1.3 Light gray (N7) to White (N9), damp, soft, SILT sized particles	Solvay Waste		1.1	925
2	2	4	1-1-WH-1	2/2.0	1	0-2 SAA			11	928
4	3	6	1-1-1-1	2/2.0	2	0-2 SAA			26	935
6	4	8	1-WH-WH-1	2/2.0	WH	0-2 SAA			15	938
8	5	10	1-WH-1-WH	2/2.0	1	0-2 SAA			12	957
10	6	12	WH-WH-WH-WH	2/1.0	WH	0-1 SAA	13'		14	1003
12	7	14	2-2-2-3	2/1.5	4	0-0.5 SAA 0.5-1.5 Dark greenish gray (5GY 4/1), damp, medium dense MARL (sandy, gravely), some shells	Marl		19	1008
14	8	16	1-1-2-2	2/1.8	3	0-1.8 Dark greenish gray (5GY 4/1), wet, medium dense MARL (sandy, gravely), some shells, black mottling	16'		10	1012
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-210
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-WH-WH	2.0/0.2.0	1	0-0.2 Light gray (N7), damp, hard, SAND sized particles	Solvay Waste		0	1037
2	2	4	1-2-3-4	2.0/2.0	5	0-2 Very light gray (N8), damp, dense, SILT sized particles			0.7	1040
4	3	6	2-2-1-2	2.0/2.0	3	0-2 SAA			1.1	1050
6	4	8	1-WH-1-WH	2.0/1.0	1	0-1 SAA, wet			2.7	1054
8	5	10	WH-3-2-1	2.0/1.0	5	0-1 SAA			2	1059
10	6	12	WH-WH-2-2	2.0/2.0	2	0-1.8 SAA 1.8-2 Dark greenish gray (5GY 4/1), damp, dense MARL (sandy), some shells	11.8'		3.5	1108
12	7	14	2-2-3-2	2.0/1.3	5	0-1.3 Dark greenish gray (5GY 4/1), wet, medium dense MARL (sandy), some shells, black mottling	Marl		10	1111
14	8	16	NA	NA	NA	Shelby tube, recovery 1.6 ft	16'		NA	1120
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-211 / WB18-PZ 14
Client: Honeywell	**Sampler: 2" Split Spoon**	**Location:**
Proj. Loc: Wastebeds 1-8 Syracuse, NY	**Hammer: 140-lb drop**	**Start Date: 1/14/2010**
File No.: 1163/45082	**Fall: 30"**	**End Date: 1/15/2010**
Boring Company: Parratt-Wolff		**Screen =** / **Riser** / **Grout **
Foreman: Mark Eaves		**Choke Sand** / **Sand Pack** / **Bentonite**
OBG Geologist: Jonathan Bone		

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-WH-WH-WH	2.0/0	WH	No Recovery	Solvay Waste	\ \	NA	1455
2	2	4	WH-1-WH-WH	2.0/2.0	1	0-2 Soft, wet, Yellowish gray (5Y 8/1) SILT sized particles. Consolidated and paste matrix		\ \	6.4	1500
4	3	6	1-WH-1-WH	2.0/2.0	1	0-2 SAA, Very light gray (N8), consolidated, mothball odor		\ \	0.8	1505
6	4	8	1-1-1-WH	2.0/2.0	2	0-2 SAA		\ \	1.9	1509
8	5	10	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA		\ \	0	151
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1.2	1520
12	7	14	1-2-2-2	2.0/2.0	4	0-1.2 SAA 1.2-1.6 Soft, moist olive black (5Y 2/1) SILT, some fine-medium sand, trace shells and thin roots. 1.6-2 Soft, wet, Dark greenish gray (5GY 4/1) SILT, some fine-medium sand, few shells	Silt		1.8	1523
14	8	16	WH-WH-1-1	2.0/1.0	1	0-1 Soft/loose, saturated Greenish gray (5GY 6/1) SILT and small gravel sized concretions, some fine-medium coarse sand. Few shells	Marl	=	0	1532
16	9	18	WH-1-WH-WH	2.0/1.5	1	0-0.8 SAA. 0.8-1.5 Soft, saturated, Greenish gray (5G 6/1) SILT, little fine sand, few shells		=	0	1535
18	10	20	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA (0.8-1.5)		=	0	1543
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, some fine-medium SAND		=	2.7	1550
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated, Greenish gray (5GY 6/1) SILT, some fine-medium sand, few shells		=	5	1553
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA		=	5.3	1600
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Medium gray (N5) SILT, little fine sand, few shells		=	0	1605
28	15	30	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace shells		=	0	1615
30	16	32	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA		=	0.7	1618
32	17	34	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 Very soft, saturated Brownish gray (5YR 4/1) SILT, some clay, little fine sand		=	0	1620
34	18	36	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 Soft, saturated, Brownish gray (5YR 4/1) SILT & CLAY, black mottling	Silt and Clay		0	1632
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1635

Piezometer Construction:
Screen: 14-34
Riser: 0-14
00 Sand: 34-38
00 Sand: 10-12
0 Sand: 12-34

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-212
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-WH-WH	2.0/2	1	0-2 Very light gray (N8), wet, soft, SILT sized particles	Solvay Waste		2	1355
2	2	4	1-2-1-2	2.0/2	3	0-2 SAA			6	1400
4	3	6	1-WH-WH-WH	2.0/0	WH	No recovery			NA	1402
6	4	8	WH-WH-1-WH	2/1.7	1	0-1.7 Very light gray (N8), wet, soft, SILT sized partices			20	1411
8	5	10	WH-WH-1-WH	2/2.0	1	0-2 SAA			1.5	1420
10	6	12	1-WH-1-1	2/1.7	1	0-1.7 SAA	13.2'		1.1	1425
12	7	14	1-1-1-1	2/0.8	2	0-0.8 Dark greenish gray (5GY 4/1), wet, loose MARL (sandy, gravelly), few shells	Marl		1.7	1428
14	8	16	WH-1-1-1	2/1.0	2	0-1 SAA	16'		1	1430
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-213
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/21/2010
File No.: 1163	Fall: 30"	End Date: 1/21/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	4-2-1-WH	2.0/0	3	No Recovery	No Recovery		NA	1500
2	2	4	WH-WH-WH-WH	2/0.5	WH	0-0.5 Light gray (N7), wet, loose, SAND & GRAVEL sized particles			0.2	1506
4	3	6	1-WH-1-WH	2/1.5	1	0-1.5 SAA	Solvay Waste		1.5	1512
6	4	8	WH-WH-1-1	2.0/2	1	0-2 SAA	9.1'		6.5	1518
8	5	10	WH-WH-1-1	2.0/1	1	0-0.1 SAA. 0.1-1 Dark greenish gray (5GY 4/1), wet, medium dense MARL (sandy), some shells	Marl		2.5	1527
10	6	12	WH-1-1-WH	2.0/1	2	0-1 Greenish black (5G 2/1), wet, medium dense MARL (sandy, gravely), some shells			2.5	1535
12	7	14	1-1-WH-WH	2.0/1.2	1	0-1.2 Dark greenish gray (5GY 4/1), wet, loose MARL (sandy, gravelly), few shells			3.3	1538
14	8	16	1-WH-WH-WH	2.0/1.8	WH	0-1.8 SAA	16'		6.8	1540
						EOB - 16 ft	EOB			
						Grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-214
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/22/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-1-WH	2.0/1	3	0-1 Light gray, (N7) damp, soft, SILT sized particles	Solvay Waste		0	820
2	2	4	1-WH-1-WH	2.0/2	1	0-2 SAA			0	828
4	3	6	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA, some hard, SILT sized particles			0	833
6	4	8	WH-WH-WH-WH	2.0/1	WH	0-1 White (N9), wet, soft SILT sized particles			0	845
8	5	10	WH-WH-2-2	2.0/1	2	0-0.9 SAA. 0.9-1 Dark greenish gray (5GY 4/1), damp, loose, MARL (sandy), some shells	9.9'		6.5	850
10	6	12	1-WH-WH-WH	2.0/0.8	WH	0-0.3 SAA. 0.3-0.8 Dark gray (N3), damp, soft, SILT, some sand and organic matter	Marl		20.5	855
12	7	14	1-1-WH-1	2.0/0.9	1	0-0.9 Greenish gray (5GY 6/1), wet, loose MARL (sandy), some shells			10	858
14	8	16	WH-WH-1-1	2.0/1.3	1	0-1.3 Greenish gray (5GY 6/1), wet, loose, MARL (sandy, gravely), some shells, few black mottling	16'		15.1	901
						EOB - 16 ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-215
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/22/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-WH	2/0.3	1	0-0.3 Light gray (N7), damp, dense, SAND sized particles	Solvay Waste		0	930
2	2	4	WH-WH-WH-WH	2/0.8	WH	0-0.8 White (N9), wet, soft SILT sized particles			3.5	937
4	3	6	WH-WH-WH-WH	2/0.7	WH	0-0.7 SAA			4	940
6	4	8	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA			15	945
8	5	10	WH-WH-WH-WH	2/1.5	WH	0-1.5 White (N9), wet, very soft, SILT sized particles			4.1	955
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	12.7'		5.9	1000
12	7	14	NA	2.0/2.0	NA	0-0.6 SAA. 0.6-0.7 Greenish black (5GY 2/1) wet, loose, SILT & SAND, some organic matter. 0.7-2 Greenish gray (5GY 6/1), wet, loose, MARL (sandy) little shells, black mottling	Marl		29	1005
14	8	16	NA	2.0/2.0	NA	Shelby Tube. Recovery - 2 ft	16'		NA	1010
						EOB - 16-ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-216
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/22/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-WH-WH-WH	2.0/1	WH	0-1 Light gray (N7), wet, soft, SAND & SILT sized particles	Solvay Waste		0.6	1200
2	2	4	WH-WH-WH-WH	2.0/1.7	WH	0-1.7 Very light gray (N8), wet, soft, SILT sized particles			2	1205
4	3	6	WH-WH-WH-WH	2/0.9	WH	0-0.9 SAA			51	1210
6	4	8	WH-WH-WH-WH	2.0/0	WH	No recovery	No Recovery 9.2'		NA	1213
8	5	10	1-2-WH-WH	2.0/2	2	0-1.2 SAA. 1.2-2 Dark greenish gray (5GY 4/1) damp, medium dense MARL, little shells, layers of Dark gray silt	Marl		12	1335
10	6	12	WH-WH-1-1	2.0/1.5	1	0-0.5 Black (N1), damp, soft SILT and organic matter. 0.5-1.5 Greenish gray (5GY 6/1), wet, loose, MARL (sandy), some shells			15	1340
12	7	14	1-2-1-2	2.0/1	3	0-1 Greenish gray (5GY 6/1), wet, loose, MARL (sandy, gravelly), little shells			25	1347
14	8	16	1-1-1-1	2.0/1	2	0-1 SAA	16'		30	1350
						EOB - 16-ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-217
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/22/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-WH-WH-WH	2/1.5	WH	0-1.5 White (N9), wet, soft, SILT sized particles	Solvay Waste		3	1420
2	2	4	WH-WH-WH-WH	2.0/0	WH	No recovery	No Recovery		NA	1425
4	3	6	1-WH-1-WH	2.0/2.0	1	0-2 White (N9), wet, soft, SILT sized particles	Solvay Waste		20	1433
6	4	8	WH-WH-WH-1	2.0/1.4	WH	0-1.4 SAA			30	1437
8	5	10	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	11.4'		64	1442
10	6	12	WH-WH-1-1	2.0/1.2	1	0-0.6 SAA. 0.6-0.9 Black (N1), damp, soft SILT and organic matter. 0.9-1.2 Dark greenish gray (5GY 4/1), wet to damp, loose marl (sandy), little shells	Marl		30	1448
12	7	14	1-1-1-1	2/1.5	2	0-1.5 Dark greenish gray (5GY 4/1), wet, loose, MARL (sandy, gravelly), little shells, few black mottling			25	1455
14	8	16	WH-WH-WH-WH	2.0/.0.7	WH	0-0.7 SAA, silty	16'		20	1458
						EOB - 16-ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-218
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/5/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/5/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	23-35-12-3	2/1.0	47	0-1.0 Yellowish gray (5Y 8/1), damp, loose (crushed cemented material), SAND sized particles in a cemented matrix	Solvay Waste		0.0	1413
2	2	4	4-7-2-1	2/0.3	9	0-0.3 Yellowish gray (5Y 8/1), wet, hard, SAND and SILT sized particles			0.0	1420
4	3	6	WH-WH-WH-WH	2/0.0	WH	No Recovery			NA	1428
6	4	8	WH-WH-WH-WH	2/1.0	WH	0-0.5 Soft, wet Yellowish gray (5Y 8/1) SILT sized particles in a pastelike matrix. 0.5-1.0 soft, wet, black (N1) SILT, trace f sand and roots, chemical like odor	8'		104.0	1430
8	5	10	WH-WH-WH-WH	2/1.0	WH	0-1.0 Soft, saturated, greenish gray (5GY 6/1) SILT, little f-m sand, few shells	Marl		16.4	1435
10	6	12	WH-WH-WH-WH	2/2.0	WH	0-1.0 Soft, saturated, yellowish gray (5Y 8/1) SILT and F-M SAND, few shells, black mottling. 1.0-2.0 soft, saturated light olive gray (5Y 6/1), SILT, some f sand, few shells			0.3	1442
12	7	14	WH-WH-WH-WH	2/1.0	WH	0-1.0 SAA (1.0-2.0')			1.0	1445
14	8	16	WH-WH-1-1	2/1.0	1	0-1.0 SAA	16'		NA	1447
							EOB			
						EOB - 16-ft				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-219
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/5/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/5/2010
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-WH-WH	2/0.0	1	No Recovery	Solvay Waste		0.0	1413
2	2	4	1-WH-WH-WH	2/1.0	WH	0-0.1 Hard, wet, yellowish gray (5Y8/1) SILT sized particles in a cemented matrix. 0.1-1.0 soft, saturated, light olive gray (5Y 6/1) silt, some f. sand, few shells, black mottling	Marl		0.0	1420
4	3	6	WH-WH-1-WH	2/0.4	1	0-0.4 SAA (0.1-1.0)			NA	1428
6	4	8	WH-WH-WH-WH	2/2.0	WH	0-2.0 soft, saturated, light olive gray (5Y6/1) SILT, some fine sand and shells, black (N1) mottling			104.0	1430
8	5	10	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA, little m-c sand, no mottling			16.4	1435
10	6	12	WH-WH-WH-WH	2/2.0	WH	0-2.0 SAA, trace vegetation			0.3	1442
12	7	14	WH-WH-WH-WH	2/0.3	WH	0-0.3 SAA, very loose			1.0	1445
14	8	16	2-1-1-1	2/2.0	2	0-2.0 Soft/very loose, saturated, olive gray (5Y 4/1), f SAND and SILT, trace shells			NA	1447
						EOB - 16-ft	EOB			
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-220/ WB18-PZ-17
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/12/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/12/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Riser Grout \
		Sand Choke Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-2	2.0/1.0	2	0-0.2 Soft, moist, brownish gray (5YR 4/1) SILT, little fine SAND trace thin roots. 0.2-1.0 Soft, moist greenish gray (5GY 6/1), silt, little fine SAND, few shells	Marl	\ \	0	820
2	2	4	NA	2.0/0	NA	Shelby tube, no recovery		\ \	NA	840
4	3	6	NA	2.0/2.0	NA	Shelby tube, full recovery		\ \	NA	910
6	4	8	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, wet greenish gray SILT, little fine sand, few shells, strong sulfur odor. Trace black mottling near bottom			0	935
8	5	10	WH-WH-1-WH	2.0/2.0	1	0-0.3 SAA, transition to dark greenish gray (5GY 4/1). 0.3-1.3 Very soft, wet, dark brownish black SILT and organic material, trace thin roots			0	945
10	6	12	WH-WH-WH-1	2.0/2.0	WH	0-1 Very soft, saturated greenish gray SILT, little fine-medium sand, few c. sand-sized concretions. 1-2 Loose, saturated greenish gray SILT, some small gravel-sized concretions. Little fine-medium sand. Shells throughout, marl odor.		=	0	950
12	7	14	WH-WH-1-1	2.0/2.0	1	0-0.2 SAA. 0.2-2 Soft, wet, greenish gray SILT, trace fine sand, little shells. Marl odor. Yellowish gray (5Y 8/1) mottling throughout		=	0	955
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA Some fine sand. Less mottling		=	0	1005
16	9	18	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Very soft, saturated light greenish gray (5GY 8/1) SILT, trace fine sand, trace shells marl odor	18'	=	0	1010
18	10	20	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA Dark greenish gry	Trans Marl	=	0	1020
20	11	22	WOR 2.0	2.0/1.0	WR	0-1 Very soft, saturated dark greenish gray SILT little fine sand-sized shells. Marl odor		=	0	1025
22	12	24	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace clay, slightly cohesive		=	0	1030
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, greenish gray, little yellowish gray mottling		=	0	1040
26	14	28	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, no mottling, trace fine sand		=	0	1042
28	15	30	WH-WH-WH-WH	2.0/1.0	WH	0-1 Very soft, saturated dark greenish gray, SILT, trace thin roots, trace fine SAND. Marl odor		=	0	1050
30	16	32	WOR 2.0	2.0/1.0	WR	0-0.8 SAA, little clay cohesive. 0.8-1 Very soft, saturated brownish gray (5YR 4/1) SILT & CLAY. Black mottling. Very cohesive	32'		0	1100
32	17	34	WOR 2.0	2.0/1.5	WR	0-1.5 SAA (0.8-1) Extremely cohesive			0	1103
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	Silt and Clay		0	1110

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-221
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 12/31/2009
File No.: 1163/45082	Fall: 30"	End Date: 1/4/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-3-5-2	2.0/1.0	8	0-1 Loose, moist med. Light gray (N6) f. SAND & SILT sized particles. Consolidated matrix	Solvay Waste		NA	1340
2	2	4	10-10-20-8	2.0/1.0	30	0-1 SAA, partially cemented			NA	1345
4	3	6	9-5-3-2	2.0/0.3	8	0-0.3 SAA, wet			NA	1355
6	4	8	3-1-1-10	2.0/1.3	2	0-0.6 SAA, consolidated matrix. O.6-0.9 Soft, saturated greenish gray (5GY 6/1) SILT, some fine sand, little shells. 0.9-1.3 Stiff, moist, dark greenish gray SILT, little f. sand			NA	1400
8	5	10	7-3-2-1	2.0/1.0	5	0-1 SAA, partially cemented	Fill		NA	1415
10	6	12	WH-WH-WH-WH	2.0/0.0	WH	No Recovery			NA	1420
12	7	14	WH-1-WH-1	2.0/0.1	1	0-0.1 Very soft, saturated, greenish gray SILT. Little f. sand, one large piece of gravel			NA	1425
14	8	16	WH-WH-WH-WH	2.0/0	WH	No Recovery			NA	1440
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very loose, saturated greenish gray medium coarse SAND & SILT, some small gravel, some small-med gravel sized concretions. Few shells			NA	1445
18	10	20	NA	2.0/2.0	NA	Shelby tube shot@1450, rec @ 1510	Marl		NA	1450
20	11	22	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated, greenish gray SILT, little fine sand, trace shells. Sulfur odor			NA	1512
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, increase fine sand content			NA	1515
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-1 Very soft, saturated, olive gray SILT, little fine sand, trace shells, increasing silt content with depth	Trans Marl		NA	1100
26	14	28	5-4-10-10	2.0/1.5	14	0-1.5 medium stiff, saturated olive gray (5Y 4/1) SILT & FINE SAND, trace thin root matter. V. trace shells	Silt & Fine Sand		NA	1110
28	15	30	5-6-2-1	2.0/1.0	8	0-1 Medium stiff, saturated brownish gray fine SAND, some silt. Decreasing silt content with depth. Trace thin root matter			NA	1120
30	16	32	WH-WH-5-4	2.0/1.5	5	0-1.5 Soft to medium, saturated, brownish gray SILT, some fine sand, trace clay, transitioning to no clay, decrease SILT and increase fine sand			NA	1125
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	No Recovery			NA	1130
34	18	36	WOR 2.0	2.0/2.0	WH	0-2 Very soft, wet, brownish gray (5YR 4/1) SILT & CLAY. Some black mottling throughout. Cohesive	Silt and Clay		NA	1152
36	19	38	NA	2.0/0.5	NA	Shelby tube shot @ 1200, Rec. @ 1245			NA	1245
38	20	40	NA	2.0/2.0	NA	Shelby Tube Shot @ 1315, Rec@ 1335			NA	1335
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, wet, brownish gray SILT & CLAY. Block mottling. Very cohesive			NA	1340

BOB at 42 bgs, grouted to grade

Extreamly cold PID not working

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-222 / WB18-PZ-16
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/5/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/5/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Sand Choke Riser Sand Pack Grout \ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-2-2-2	2.0/2.0	4	0-2 Soft, moist, Greenish gray (5GY 6/1) SILT, little fine sand. Thin band about 0.3 feet thick of soft, moist, silt-sized particles in paste-like matrix (Solvay waste) from 0.7-1. Few shells throughout	Solvay Waste, fill	\ \	0	840
2	2	4	NA	2.0/2.0	NA	Shelby tube Shot at 850, recovery at 915			NA	850
4	3	6	NA	2.0/2.0	NA	Shelby tube Shot at 930, recovery at 955		=	NA	930
6	4	8	3-3-4-5	2.0/2.0	7	0-1.7 Soft, saturated, greenish gray (5GY 6/1) SILT, little fine sand, few shells, sulfer odor. 1.7-2 Soft, moist, Brownish black (5YR 2/1) SILT, high organic matter content	Marl	=	0	1000
8	5	10	WH-WH-WH-2	2.0/1.1	WH	0-0.6 SAA (1.7-2). 0.6-1.1 Soft, saturated, Greenish gray (5GY 6/1) SILT, trace fine sand, some shells, sulfer odor	Silt and organic rich	=	0	1008
10	6	12	WH-WH-WH-WH	1.0/1.8	WH	0-1.8 SAA, some fine sand	Marl	=	0	NA
12	7	14	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA		=	0	1015
14	8	16	WOR-2	2.0/2.0	WOR	0-2 SAA, decrease in fine sand. Trace shells and organics		=	0	1023
16	9	18	5-5-3-3	2.0/1.5	8	0-1.5 Medium stiff, saturated, Brownish gray (5YR 4/1) SILT, some fine sand	Silt and some fine sand	=	0	1025
18	10	20	9-11-13-10	2.0/1.5	24	0-1.5 Very stiff, saturated, Brownish gray (5YR 4/1) SILT, little fine sand		=	0	1040
20	11	22	4-7-8-8	2.0/1.3	15	0-1.3 Stiff, saturated, Brownish gray (5YR 4/1) SILT, some fine sand	Silt and fine sand	=	0	1045
22	12	24	12-12-12-6	2.0/2.0	24	0-2 SAA, decrease in fine sand. Trace shells and organics		=	0	1050
24	13	26	WH-WH-WH-WH	2.0/1.0	WH	0-0.8 SAA, trace fine sand. 0.8-1 Very soft, saturated Brownish gray (5YR 4/1) SILT, some clay. Moderately cohesive		=	0	1105
26	14	28	WH-4-3-1	2.0/2.0	7	0-2 SAA, few thin (0.2) bands of higher silt content. Very cohesive	Silt and clay		0	1110
28	15	30	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, no silt bands. Extremely cohesive			0	1120
						BOB at 30' bgs				
						Piezometer Construction				
						Screen: 5-25' bgs				
						Riser: 2-5' bgs				
						00 Sand: 25-30' bgs				
						0Sand: 3-25' bgs				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-223
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 12/21/2009
File No.: 1163/45082	Fall: 30"	End Date: 12/31/2009
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-1-2-3	2.0/1.0	3	0-0.8 Soft, moist, brownish gray (5YR 4/1) fine SAND, some silt,trace root matter. 0.8-1 - Soft, white, solvay waste, fine sand-sized	Fill/Solvay Waste		0	845
2	2	4	5-2-2-2	2/0.1	4	0-0.1 Soft-medium stiff, moist brownish gray SILT, trace fine sand, some yellowish brown mottling throughout.	Silt		0	850
4	3	6	WH-1-1-2	2/1.3	2	0-1.3 SAA, some black mottling as well, trace shells at bottom, wet			0	900
6	4	8	WH-3-3-3	2/1.5	6	0-1.5 Soft, wet, brownish gray SILT, some fine sand. Black mottling throughout. Trace shells			0	905
8	5	10	WH-WH-4-2	2.0/1.0	4	0-0.3 SAA. 0.3-1 Soft, moist, brownish black (5YR 2/1) SILT, trace fine sand and root matter.			0	920
10	6	12	WH-WH-2-3	2.0/1.0	2	0-1 SAA, trace fine sand, some black mottling			0	925
12	7	14	3-5-5-7	2.0/2.0	10	0-1.3 Soft, moist, brownish gray SILT, finely laminated little organic matter and roots. Black mottling from 1-1.3. 1.3-2 Soft, wet light olive gray (5Y 6/1) silt, some fine sand some shells, sulfer odor	13.3'		0	928
14	8	16	NA	2.0/1.75	NA	Shelby tube, shot at 950, recovery at 1020	Marl		NA	1000
16	9	18	WH-WH-2-1	2.0/2.0	2	0-2 Soft, saturated. Brownish gray, silt, some fine sand. Black mottling throughout	Trans Marl		NA	1022
18	10	20	8-10-12-10	2.0/2.0	22	0-2 SAA, trace fine shells 1-1.3			0	1030
20	11	22	6-8-9-7	2.0/1.0	17	0-1 Soft, saturated, brownish gray SILT, some fine sand			0	1040
22	12	24	7-9-10-7	2.0/2.0	19	0-2 SAA, increase fine sand content			0	1045
24	13	26	WH-WH-2-1	2.0/1.0	2	0-1 Soft, saturated, brownish gray SILT, little fine sand, some clay slightly cohesive.			0	1055
26	14	28	WH/20	2/1.5	WH	0-1.5 Very soft, saturated brownish gray SILT & CLAY, black mottling throughout	Silt and Clay		0	1100
28	15	30	WH-WH-WH-2	2.0/2.0	WH	0-2 SAA			NA	1105
30	16	32	WH-3-3-1	2.0/2.0	6	0-2 SAA, trace fine sand			NA	NA
						BOB 32' bgs. Grout to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-224
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/6/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/7/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen =, Riser, Grout \ — Sand Choke, Sand Pack, Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	7-4-5-3	2.0/0.4	9	0-0.4 Stiff, moist, Dark yellowish brown (10YR 4/2) SILT, trace fine sand, little medium coarse sand, trace roots at top			0	1520
2	2	4	4-5-4-3	2.0/1.1	9	0-1.1 Stiff, moist-wet, brownish gray (5YR 4/1) thinly laminated SILT, trace clay. Dark yellowish orange mottling at end			0	1525
4	3	6	WH-WH-2-2	2.0/1.5	2	0-1.5 SAA, trace fine sand			0	1530
6	4	8	WH-5-5-4	2.0/1.0	10	0-1.0 Stiff, moist,Brownish gray (5YR 4/1) SILT, trace thin roots, black mottling in top 0.5			0	1535
8	5	10	6-5-4-5	2.0/1.5	9	0-1.5 Stiff, moist, Brownish gray (5YR 4/1) SILT, black and yellowish orange mottling			0	1610
10	6	12	WH-WH-2-3	2.0/1.5	2	0-1.5 SAA, trace shells			0	1618
12	7	14	WH-4-5-4	2.0/1.2	9	0-1.2 SAA, increase in mottling, trace clay			0	1623
14	8	16	WH-WH-WH-WH	2.0/1.3	<1	0-1.3 Soft, moist, Brownish gray (5YR 4/1) SILT, some black mottling throughout			0	1630
16	9	18	WH-7-5-4	2.0/2.0	12	0-1 SAA, wet. 1-2 stiff, wet, Brownish gray (5YR 4/1) SILT, trace fine sand			0	1635
18	10	20	NA	NA	NA	No Recovery			0	800
20	11	22	2-1-1-1	2.0/2.0	2	0-2 Very soft, wet, Brownish gray (5YR 4/1) SILT & CLAY, little black mottling	20'		0	820
22	12	24	WH-WH-WH-WH	2.0/2.0	<1	0-2 SAA	Silt and clay		0	900
24	13	26	NA	2.0/2.0	NA	Shelby Tube, full recovery			0	910
26	14	28	3-3-4-3	2.0/2.0	7	0-2 Soft, saturated, Brownish gray (5YR 4/1) SILT & CLAY. Few thin bands (~0.2) of higher silt and less clay content. Very cohesive			0	940
28	15	30	WH-WH-2-1	2.0/2.0	2	0-2 Soft, saturated SILT, Brownish gray (5YR 4/1), some clay, slightly cohesive, thinly laminated			0	950
30	16	32	WH-2-1-2	2.0/2.0	3	0-2 SAA			0	955
32	17	34	WH-WH-WH-WH	2.0/1.0	<1	0-1 SAA	Silt some clay		0	1015
34	18	36	WH-WH-WH-WH	2.0/1.0	<1	0-1 SAA			0	1025
36	19	38	2-2-2-2	2.0/1.5	4	0-1 Soft, saturated brownish gray SILT, little fine sand, trace clay, thinly laminated			0	1030
38	20	40	WH-WH-WH-WH	2.0/1.0	<1	0-0.6 SAA, increasing amounts of fine sand with depth. 0.6-1 Loose, saturated, Brownish gray (5YR 4/1) fine sand, trace silt			0	1045
40	21	42	2-3-3-4	2.0/1.5	6	0-1.5 SAA (0.6-1)	Fine sand		0	1055
42	22	44	4-4-2-2	2.0/1.5	6	0-1.5 SAA			0	1100
						BOB at 44. Boring grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-225
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 12/28/2009
File No.: 1163/45082	Fall: 30"	End Date: 12/30/2009
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	5-3-2-2	2.0/2.6	5	0-0.6 Soft, moist, moderate brown (5YR 3/4) SILT, trace medium coarse sand, trace small gravel, trace vegetation	Silt		0	1145
2	2	4	2-2-2-1	2.0/1.5	4	0-1.2 SAA, very moist, few small-medium rounded gravel. 1.2-1.5 Hard, dry, very light gray (N8) cemented, fine-medium sand sized particles (solvay waste)			0	1150
4	3	6	NA	2.0/2.0	NA	Shelby tube - shot at 1210, recovered at 1240			0	1210
6	4	8	2-2-2-2	2.0/1.0	4	0-1 Soft, wet, medium gray (N5) SILT, some clay, trace fine sand. Black mottling throughout			0	1250
8	5	10	WH-2-2-2	2.0/1.5	4	0-1.5 SAA, very trace shells			0	1300
10	6	12	WH-WH-2-3	2.0/1.2	2	0-1.2 Very soft, saturated, medium gray (N5) SILT, some clay, trace fine sand. Black and moderate brown mottling throughout			0	1310
12	7	14	WH-WH-1-1	2.0/0.8	1	0-0.8 very soft, saturated, brownish gray (5YR 4/1) SILT & CLAY. Very trace fine sand. Some black mottling			0	1315
14	8	16	WH-WH-3-4	2.0/1.0	3	0-0.5 SAA. 0.5-1 Soft, moist, medium gray (N5) SILT, some clay - Light brown 95YR 5/6) mottling throughout			0	1320
16	9	18	7-8-9-8	2.0/1.0	17	0-1 Very stiff, moist, grayish brown (5YR 3/2) SILT, some clay, light brown mottling throughout			0	1325
18	10	20	WH-WH-2-1	2.0/2.0	2	0-1 Soft, wet, brownish gray (5YR 4/1) SILT, little clay, some dark brown organic material 19-19.2. 1-2 Soft, wet, light olive gray (5Y1) SILT, trace fine sand and shells. Increasing shells with depth	19'		0	1335
20	11	22	NA	2.0/2.0	NA	Shelby tube. Shot at 1345, recovered at 1415	Marl		0	1345
22	12	24	4-3-2-2	2.0/2.0	5	0-0.3 Soft, moist, medium dark gray (N4) SILT. 0.3-2 Soft, wet, brownish gray (5YR 4/1) SILT, little fine sand, trace clay. Slightly cohesive			0	1420
24	13	26	NA	2.0/2.0	NA	Shelby tube (shot at 1430, recovered at 1500)	Transitional Marl		0	1430
26	14	28	WH-2-1-1	2.0/2.0	3	0-1.5 Very loose, saturated brownish gray (5YR 4/1) fine-medium SAND, little silt, trace organic material			0	1455
28	15	30	1-1-1-3	2.0/2.0	2	0-2 Soft, loose, saturated, brownish gray (5YR 4/1). F/M SAND, little silt, trace medium sand. Very trace fine shells and organic material	30'		0	1505
30	16	32	WR-WR-2-3	2.0/0.8	2	0-0.8 Loose, wet, dark gray (N3) F/M SAND, little coarse sand	F/M Sand		0.4	1515

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-225
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 12/28/2009
File No.: 1163/45082	Fall: 30"	End Date: 12/30/2009
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
32	17	34	2-2-3-3	2.0/1.0	5	0-1 SAA, some coarse sand, trace small gravel	F/M Sand		0.1	1518
34	18	36	14-27-18-12	2.0/1.0	45	0-1 Dense, moist, moderate brown (5YR 4/4) fine SAND, trace silt			0.1	1530
36	19	38	25-22-20-18	2.0/1.5	42	0-1.5 SAA, wet			0	1535
38	20	40	5-2-3-3	2.0/2.0	5	0-2 Medium dense, saturated, brown fine SAND, little silt. Increasing silt content with depth, 1.5-2 is soft			0	1545
40	21	42	5-3-3-3	2.0/1.8	6	0-1.8 Soft, saturated, moderate brown (5YR 4/4) fine-medium SAND, trace silt			0	1555
42	22	44	3-4-3-3	2.0/1.5	7	0-1.5 Soft, loose, saturated, moderate brown fine-medium SAND, little silt			0	1600
44	23	46	3-2-6-5	2.0/1.5	8	0-1.5 SAA			0	1610
46	24	48	3-8-6-8	2.0/1.5	14	0-1.5 SAA decreasing SILT content			0	1615
48	25	50	5-4-3-5	2.0/1.5	7	0-1.5 SAA			0	1630
50	26	52	5-4-5-7	2.0/2.0	9	0-0.9 SAA, 0.9-2 Soft, saturated, brownish gray (5YR 4/1) SILT and FINE SAND, slightly cohesive			0	820
52	27	54	6-6-6-7	2.0/2.0	12	0-2 Medium dense, saturated, moderate brown (5YR 4/4) F/M SAND, trace silt			0	835
54	28	56	5-5-5-14	2.0/1.3	10	0-1.3 SAA			0	857
56	29	58	5-6-18-25	2.0/2.0	24	0-2 Medium dense, saturated, brownish gray (5YR 4/1) fine SAND, trace silt			0	905
58	30	60	10-5-5-8	2.0/1.8	10	0-1.8 SAA			0	930
60	31	62	2-4-5-8	2.0/1.8	9	0-1.8 SAA			0	1000
62	32	64	10-12-13-8	2.0/2.0	25	0-2 SAA			0	1015
64	33	66	4-4-3-5	2.0/1.8	9	0-1.2 SAA. 1.2-1.8 Soft, saturated, grayish brown (5YR 3/2), SILT & FINE SAND			0	1030
66	34	68	5-6-7-6	2.0/2.0	13	0-2 Soft, saturated grayish brown (5YR 3/2) SILT & FINE SAND			0	1035
68	35	70	11-10-9-10	2.0/2.0	19	0-1 SAA. 1-2 Medium dense, moderate brown (5YR 3/4) fine SAND, trace silt			0	1100
70	36	72	5-4-3-3	2.0/2.0	7	0-2 SAA, very trace SILT, loose			0	1115
72	37	74	6-7-11-10	2.0/2.0	18	0-2 SAA, no silt. trace medium sand			0	1125
74	38	76	5-5-8-10	2.0/1.5	13	0-1.5 SAA			0	1155
76	39	78	10-12-08-22	2.0/2.0	30	0-2 Dense, saturated, moderate brown (5YR 3/4) fine-medium sand			0	1200
78	40	80	7-7-10-12	2.0/2.0	17	0-2 medium dense, saturated, moderate brown (5YR 3/4), fine-medium SAND, little coarse sand			0	1325
80	41	82	4-6-8-12	2.0/1.0	14	0-1 SAA			0	1347
82	42	84	4-10-10-12	2.0/2.0	20	0-2 SAA	F/M Sand		0	1355

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-225
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 12/28/2009
File No.: 1163/45082	Fall: 30"	End Date: 12/30/2009
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
84	43	86	12-18-20-11	2.0/1.0	38	0-0.3 Dense, saturated, moderate brown (5YR 3/4) fine SAND matrix with small to medium gravel supported. 0.3-1 SAA (82-84)	84' Coarse Sand		0	1420
86	44	88	8-12-15-15	2.0/1.0	27	0-0.5 Loose, saturated, brownish gray (5YR 4/1) fine-medium SAND, grading to medium coarse sand from 0.5-0.8. 0.8-1 medium dense, saturated brownish gray medium coarse sand, some soft silt matrix, few small-medium subangular gravel	coarse sand and gravel 88'		0	1435
88	45	90	13-16-19-19	2.0/1.5	35	0-1.5 Dense, saturated, brownish gray fine-medium sand, trace coarse sand			0	1500
90	46	92	9-7-6-8	2.0/1.5	13	0-1.5 Loose, saturated, brownish gray fine-medium SAND, trace coarse sand	F/M Sand		0	1530
92	47	94	23-43-50/0.4	1.4/1.4	>93	0-1.3 SAA. 1.3-1.4 Very dense, moist reddish brown (10R 3/4) SILT matrix, supporting small medium-coarse gravel and coarse sand			0	1550
94	48	96	44-56-80-50/0.2	1.8/1.8	136	0-1.5 Very dense, moist, reddish brown fine-medium SAND, grading to medium coarse sand at bottom. 1.5-1.8 Extremely dense, moist brownish gray fine-medium SAND & SILT matrix, supporting small-medium angular gravel, and coarse sand	95.5'		0	750
96	49	98	56-100/0.3	0.8/0.3	>156	0-0.2 Green weathered shale pieces. 0.2-0.3 Very dense, brownish gray with greenish gray and reddish gray fleks SILT & FINE SAND matrix. Weathered shale pieces from 0.3-0.5	Till		0	930
98	50	100	70-70/0.5	1.0/1.0	>140	0-1 Very dense. SAA with small, medium, large gravel supported by SILT & FINE SAND matrix. Weathered shale pieces from 0.3-0.5			0	935
100	51	102	37-75/0.5	1.0/0.8	>112	0-0.8 SAA increase in coarse sand and small, medium angular gravel			0	950
102	52	104	18-38-50/0.2	1.2/1.2	>85	0-0.2 SAA			0	1020
104	53	106	30-76-50/0.1	1.1/0.8	>132	0-0.8 SAA increase in coarse SAND and small, medium angular gravel			0	1110
106	54	108	100/0.4	0.4/0.4	>100	0-0.3 SAA. 0.3-0.4 Reddish brown weathered SHALE piece			0	1130
108	55	110	105/0.5	0.5/0.2	105	0-0.2 Very dense, moist brownish gray FINE SAND & SILT matrix, supporting medium-coarsesand, some small-medium gravel, trace large gravel			0	1150
110	56	112	100/0.2	0.2/0.2	>100	0-0.2 SAA	112'		0	1245
112	57	114	100/0.4	0.4/0.1	>100	0-0.1 Greenish gray weathered SHALE	Bedrock		0	1310
						EOB - 112' bg				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-226
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/25/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/26/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-WH-1-WH	2.0/0.6	1	0-0.3 Soft, saturated brownish black SILT, roots. 0.3-0.6 Soft, moist, Very light gray (N8), silt sized particles	Solvay Waste		0	1023
2	2	4	WH-WH-2-3	2.0/2.0	2	0-1.5 SAA (0.3-0.6), wet. 1.5-2 Soft, wet, Medium gray (N5) fine-medium SAND & SILT	4'		11.6	125
4	3	6	WH-WH-WH-WH	2.0/1.0	WH	0-1 Soft, saturated, Medium dark gray (N4) SILT, some fine-medium sand, few shells	Marl		3.7	1028
6	4	8	1-1-1-1	2.0/1.0	2	0-1 Soft-loose, saturated medium-coarse SAND, medium gray (N4), some fine sand and silt, few shells			4.2	1030
8	5	10	WH-WH-WH-WH	2.0/0	WH	No Recovery			NA	1110
10	6	12	WH-WH-WH-WH	2.0/0	WH	No Recovery			NA	1112
12	7	14	WOR 2.0	2.0/0	WOR	No Recovery			NA	1113
14	8	16	WOR 2.0	2.0/0	WOR	No Recovery			NA	1114
16	9	18	WOR 2.0	2.0/1	WOR	0-1 Very soft, saturated Light gray (N7) SILT, little fine sand. Trace shells			0	1135
18	10	20	WH-WH-2-3	2.0/2.0	2	0-1.5 SAA. 1.5-2 Soft, saturated Brownish gray (5YR 4/1) SILT, some fine sand	19.5'		0	1138
20	11	22	8-5-4-8	2.0/1.5	9	0-1.5 Medium dense, wet, Brownish gray (5YR 4/1), fine SAND, some silt	Silt and fine sand		0	1155
22	12	24	NA	2.0/1.85	NA	Shelby tube			NA	1210
24	13	26	3-1-1-1	2.0/1.5	2	0-1.5 Soft, saturated Brownish gray (5YR 4/1) fine SAND & SILT			0	1312
26	14	28	2-1-1-1	2.0/1	2	0-1 Soft, saturated, Brownish gray (5YR 4/1) SILT, some fine sand			0	1315
28	15	30	2-3-1-2	2.0/1.5	4	0-1.5 SAA			0	1336
30	16	32	WH-WH-WH-1	2.0/1.5	WH	0-1.5 SAA, little clay content			0	1340
32	17	34	WOR 2.0	2.0/1.5	WOR	0-1.5 Very soft, saturated Brownish gray (5YR 4/1) SILT & CLAY. Few thin (0.1) bands with higher silt content. Very cohesive	32'		0	1347
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, less silt. Extremely cohesive	Silt and Clay		0	1353
36	19	38	NA	2.0/2.0	NA	Shelby tube			NA	1405
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated Brownish gray (5YR 4/1) SILT & CLAY. Very cohesive			0	1440
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, less silt. Extremely cohesive			0	1442
42	22	44	WOR 2.0	2.0/2.0	WOR	0-2 SAA, slight increase in silt content			0	1515
44		46	WH-WH-5-5	2.0/2.0	5	0-1.5 SAA. 1.5-2 Loose, wet, Brownish gray (5YR 4/1) fine-medium sand, trace silt	45'		0	1518
46		48	WH-1-2-2	2.0/1.5	3	0-1.5 Loose, saturated, Brownish gray (5YR 4/1). Fine-medium sand, trace coarse sand	Fine-medium sand		0	1530

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-226
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/25/2010
File No.: 1163/45082	Fall: 30"	End Date: 1/26/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
48		50	3-4-5-5	2.0/2.0	9	0-2 SAA, medium dense			0	1535
50		52	4-4-3-8	2.0/1.0	7	0-1 SAA			0	1555
52		54	7-7-6-7	2.0/1.5	13	0-1.5 Medium dense, saturated, Brownish gray (5YR 4/1) fine-medium-coarse SAND, trace small sub-angular gravel	F/M/C Sand, trace gravel 54'		0	1600
54		56	11-14-14-20	2.0/1	28	0-1 Medium dense, saturated Brownish gray (5YR 4/1) medium-coarse SAND, few small-medium angular gravel	Sand and gravel		0	0:00
56		58	20-20-18-15	2.0/1.5	38	0-1.5 SAA			4.4	945
58		60	14-20-24-20	2.0/1	44	0-1 Dense, saturated, Brownish gray (5YR 4/1) medium-coarse SAND matrix supporting small-medium and large angular gravel pieces. Few large Greenish gray (5GY 6/1) angular gravel pieces	60'		3.3	1025
60		62	10-18-34-47	2.0/0.5	52	0-0.5 Very dense, wet, Brownish gray (5YR 4/1) SILT matrix, supporting little fine-medium sand and few small to medium angular gravel pieces. Large, medium gray shale pice in end of spoon nose	Till		0	1035
62		64	22-56-76-50/0.3	1.8/0.5	132	0-0.3 SAA. 0.3-0.5 Greenish gray (5GY 6/1), very weathered shale			0	1110
64		66	34-50/0.4	0.9/0.4	<104	0-0.2 Extremely dense, moist Reddish brown SILT supporting weathered Greenish gray (5GY 6/1) shale pieces. 0.2-0.4 Weathered, Greenish gray (5GY 6/1) shale	64'		0	1205
							EOB			
						EOB - 64' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-227
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/27/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/1/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-WH-1-WH	2.0/2.0	1	0-0.5 Soft, moist, Brownish black (5YR 2/1) SILT, little fine sand, some rots and vegetation. 0.5-1.5 Soft, moist, Very light gray SILT & fine-medium SAND sized particles, consolidated matrix.	Solvay Waste 2.5'		0	825
2	2	4	1-WH-1-WH	2.0/2.0	1	0-0.5 SAA (0.5-1.5). 0.5-2 Soft, wet, Olive black (5Y2/1) SILT & Fine SAND, little medium sand, trace shells	Marl		0	830
4	3	6	1-2-3-2	2.0/0.5	5	0-0.5 SAA (0.5-1.5). 0.5-2 Soft, wet, Olive black (5Y2/1) SILT & Fine SAND, little medium sand, trace shells			0	832
6	4	8	1-2-1-1	2.0/1.0	3	0-1 SAA, increase in fine-medium sand, few shells, trace organic material			0	835
8	5	10	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 Soft, wet, Olive gray (5Y 4/1) SILT, little ifne sand, few shells, trace organic material			0	838
10	6	12	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, saturated			0	938
12	7	14	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Very soft, saturated, Olive gray (5Y 4/1) fine SAND & SILT, few shells, little organic material			0	941
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-1 SAA. 1-2 Soft, saturated, Greenish gray (5GY 6/1) SILT, little fine sand, few shells			0	950
16	9	18	WOR 2	2.0/2.0	WOR	0-2 SAA (1-2)			0	952
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 SAA	21'		0	1001
20	11	22	WH-WH-2-4	2.0/1.5	2	0-0.5 Soft, saturated, Greenish gray (5GY 6/1) SILT, little fine sand, trace shells. 0.5-1.5 Loose, saturated, Medium dark gray (N4) medium-coarse sand, trace small gravel	F-M-C Sand		0	1005
22	12	24	NA	2.0/2.0	NA	Shelby tube			NA	1040
24	13	26	WH-2-2-2	2.0/0.5	4	0-0.5 Loose, saturated, Medium gray (N5) fine-medium-coarse SAND			0	1055
26	14	28	1-2-2-2	2.0/2.0	4	0-2 Loose, saturated, Medium gray (N5) fine-medium-coarse SAND			0	1100
28	15	30	WH-WH-WH-1	2.0/2.0	WH	0-1 SAA, no coarse sand. 1-2 Soft, saturated, Medium gray (N5) fine SAND, some silt, little medium sand			0	1104
30	16	32	WH-WH-1-1	2.0/0	1	No recovery			NA	1121
32	17	34	1-1-1-WH	2.0/2.0	2	0-0.5 Loose, saturated, Medium dark gray (N4) medium-coarse SAND, trace small rounded gravel and trace shells. 0.5-2 Alternating bands. 0.2 inch-thick of soft, saturated, fine sand, some silt, little sand, trace shells throughout			0	1125

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-227
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/27/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/1/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
34	18	36	WH-WH-WH-WH	2.0/0	WH	No recovery			NA	1140
36	19	38	WH-3-2-3	2.0/2.0	5	0-1.5 Soft to loose, saturated Medium dark gray (N4) fine SAND, little silt, few organics. 1.5-1.8 Loose/runny, saturated fine sand, some silt, trace medium sand. 1.8-2 Soft, saturated, Brownish gray (5YR 4/1) SILT, little fine sand	38'		0	1142
38	20	40	3-2-3-3	2.0/2.0	5	0-2 Alternating bands (0.3 inches thick) of soft, wet, Medium dark gray (N4) SILT, little fine sand, and Medium dark gray (N4) fine-medium sand with trace organics.	Silt and Sand		0	1420
40	21	42	WH-2-1-2	2.0/1.0	3	0-1 Soft, wet, Olive gray (5Y 4/1) SILT, little clay. Black mottling			0	1425
42	22	44	3-3-4-6	2.0/2.0	7	0-2 Alternating thin (1/4 inch) bands of soft, wet, Medium dark gray (N4) SILT & Medium dark gray (N4) fine-medium SAND, with trace silt organics			0	1442
44	23	46	2-3-3-4	2.0/1.5	6	0-0.5 SAA. 0.5-1 Loose, saturated, Medium dark gray (N4) fine-medium sand			0	1445
46	24	48	WOR 2	2.0/0	WOR	No Recovery			NA	1455
48	25	50	WOR 2	2.0/2.0	WOR	0-2 Very soft/runny. Saturated Medium dark gray (N4) SILT & fine SAND			0	1458
50	26	52	WH-1-2-1	2.0/2.0	3	0-2 SAA, soft			0	1513
52	27	54	1-2-5-4	2.0/2.0	7	0-0.5 Loose, saturated Medium dark gray (N4) fine sand. 0.5-2 Soft, saturated, Olive gray (5Y 4/1) SILT, some fine sand, few organics			0	1516
54	28	56	WH-WH-1-3	2.0/1.5	1	0-1.5 SAA (0.5-2)			0	1530
56	29	58	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Loose, saturated, Medium dark gray (N4) fine SAND, trace silt. 1.3-1.5 Soft, saturated Medium dark gray (N4) SILT, little fine sand, trace clay in end			0	1533
58	30	60	WH-WH-WH-WH	2.0/0.2	WH	0-2 Soft, saturated Brownish black (5YR 2/1) SILT, trace fine sand, trace roots			0	851
60	31	62	WH-WH	2.0/0.2	WH	No Recovery	62'		NA	855
62	32	64	4-3-1-1	2.0/0	4	0-2 Soft, saturated Brownish gray (5YR 4/1) SILT, some thin lamination (1/8 inches) of little fine sand. Trace clay in silt, lack mottling	Silt		0	910
64	33	66	2-1-2-1	2.0/2.0	3	0-2 SAA, thinly laminated fine SAND from 1-1.5			0	915
66	34	68	WOR 2	2.0/0	WOR	No Recovery			NA	928
68	35	70	WOR 2	2.0/1.0	WOR	0-1 Very soft, runny, saturated Dark gray (N3) SILT, some interval of fine sand			0	931
70	36	72	WH-3-3-3	2.0/2.0	6	0-3 Soft, saturated Grayish black (N2) thin (1/10 inch) lamination of SILT, trace clay. Intervals of fine sand throughout			0	948

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-227
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/27/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/1/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
72	37	74	7-5-5-7	2.0/1.0	10	0-1 Stiff, saturated, Brownish gray (5YR 4/1) SILT, thin (1/2 inch) laminations of fine sand (black) throughout			0	955
74	38	76	3-1-1-3	2.0/1.5	2	0-1.5 Soft, saturated Brownish gray (5YR 4/1) SILT, little fine sand			0	1010
76	39	78	5-1-1-1	2.0/2.0	2	0-2 Loose, soft, saturated Medium dark gray (N4) fine SAND, some silt			0	1019
78	40	80	WOR 2	2.0/1.0	WOR	0-1 SAA			0	1040
80	41	82	WOR 2	2.0/2.0	WOR	0-2 Very soft, saturated Brownish gray (5YR 4/1) fine-medium sand	82'		0	1045
82	42	84	WOR 2	2.0/2.0	WOR	0-2 Soft, wet, Brownish gray (5YR 4/1) SILT & CLAY. Extremely cohesive, black mottling	Silt and Clay		0	1200
84	43	86	NA	2.0/2.0	NA	0-2 SAA			0	1210
86	44	88	NA	2.0/0	NA	Shelby tube, No recovery			0	1355
88	45	90	WOR 2	2.0/0	WOR	Shelby tube, No recovery			0	1430
90	46	92	WOR 2	2.0/2.0	WOR	0-2 Very soft, wet, Brownigh gray (5YR 4/1) SILT & CLAY			0	1530
92	47	94	WOR 2	2.0/2.0	WOR	0-2 SAA, slight increase in silt			0	1540
94	48	96	WOR 2	2.0/2.0	WOR	0-2 SAA			0	905
96	49	98	WH-3-2-2	2.0/2.0	5	0-2 Soft, wet, Pale brown (5YR 5/2) SILT, some clay. Slightly cohesive			0	916
98	50	100	WH-3-3-3	2.0/2.0	6	0-2 SAA, trace fine SAND bands, 1/2 inch thick throughout			0	945
100	51	102	WH-2-2-2	2.0/2.0	4	0-2 SAA			0	951
102	52	104	WOR 2	2.0/2.0	WOR	0-2 SAA	104'		0	1015
104	53	106	WH-WH-7-7	2.0/2.0	7	0-1 SAA, little fine sand. 1-2 Loose, saturated Moderate brown (5yR 3/4) fine sand, little silt	F-M Sand		0	1020
106	54	108	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 Loose, saturated, Moderate brown (5YR3/4) fine-medium SAND			0	1050
108	55	110	6-5-7-5	2.0/1.5	12	0-1.5 SAA, medium dense			0	1100
110	56	112	7-10-15-12	2.0/1.5	25	0-1.5 SAA			0	1126
112	57	114	8-13-13-12	2.0/1.5	26	0-1.5 SAA			0	1135
114	58	116	4-8-8-9	2.0/1.5	16	0-1.5 SAA			0	1315
116	59	118	8-9-15-14	2.0/2.0	24	0-2 SAA			0	1325
118	60	120	10-14-16-21	2.0/1.8	30	0-1.8 SAA			0	1355
120	61	122	17-18-26-29	2.0/2.0	44	0-2 SAA, Dense			0	1407
122	62	124	15-14-15-23	2.0/2.0	29	0-2 SAA, medium dense			0	1438
124	63	126	16-15-23-34	2.0/2.0	38	0-2 SAA, dense			0	1450
126	64	128	4-9-15-12	2.0/1.5	24	0-1.5 SAA, medium dense			0	1500
128	65	130	12-12-18-19	2.0/2.0	30	0-1 SAA. 1-2 Dense, saturated, Dark reddish brown (10R 3/4) fine sand			0	928

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-227
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 1/27/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/1/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
130	66	132	8-4-16-18	2.0/1.5	20	0-0.5 SAA (1-2) 0.5-1.5 Dense, saturated Moderate brown (5YR 3/1) fine-medium sand			0	1030
132	67	134	6-14-24-14	2.0/2.0	38	0-2 Dense, saturated, Dark reddish brown (10R 3/9), fine-medium SAND	134'		0	1045
134	68	136	12-17-22-52	2.0/1	39	0-1 Dense, moist, Dark reddish brown (10R 3/4) SILT & Fine SAND matrix supporting small-medium angular and subangular gravel, some coarse sand	Till		0	1115
136	69	138	28-40-50/0.3	1.3/0.8	<90	0-0.8 SAA			0	1130
138	70	140	24-14-14-16	2.0/1	28	0-0.5 SAA. 0.5-1 Dense, saturated, Dark reddish brown (10R 3/4) fine-medium SAND, little coarse sand	140'		0	1210
140	71	142	50/0.3	0.3/0.3	<50	0-0.3 Weathered Dark reddish brown (10R 3/4) Shale	Shale 140.3'		0	1220
							EOB			
						EOB - 142' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-228
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/3/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/3/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	3-1-1-1	2.0/0	2	No Recovery	Solvay Waste		NA	845
2	2	4	WH-WH-WH-1	2.0/2.0	WH	0-2 Very soft, wet, White (N9) SILT sized particles. Consolidated matrix			0.7	845
4	3	6	NA	2.0/2.0	NA	Shelby tube, Recovered 2 ft			NA	915
6	4	8	WH-WH-WH-WH	2.0/1	WH	0-1 Very soft, moist, White (N9) SILT sized particles. Consolidated matrix			0	945
8	5	10	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 SAA			0	957
10	6	12	WH-WH-WH-WH	2.0/1.3	WH	0-1.3 SAA			0.6	1005
12	7	14	2-1-2-2	2.0/2.0	3	0-1 SAA. 1-2 Soft, moist, Dark greenish gray (5GY 4/1) SILT, little fine sand, trace shells and roots	13'		3.6	1007
14	8	16	WH-WH-WH-WH	2.0/1	WH	0-1 SAA (1-2) increase fine sand content, and shells	Marl		0	1015
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1015
18	10	20	NA	2.0/0	NA	Shelby tube, no recovery			NA	1043
20	11	22	NA	2.0/2.0	NA	Shelby tube, Recovered 2 ft			NA	1130
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, wet, Olive gray (5Y 4/1) SILT, little fine sand, few shells			0.2	1305
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA. 0.1 ft Thick band of organics from 1.2-1.5 ft			0	1315
26	14	28	WH-WH-2-2	2.0/2.0	2	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, little fine sand, few organics throughout, few 0.1 ft thick bands of fine sand and shells			0	1317
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no sand bands			1.3	1327
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1	1336
32	17	34	WH-WH-WH-WH	2.0/1	WH	0-1 Soft, wet, Olive gray (5Y 4/1) SILT, trace vine sand and shells	Trans Marl		0.3	1340
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.5	1347
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, little fine sand			0	1349
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1400
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1405
42	22	44	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace fine sand			0	1407
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-1 Soft, saturated, Olive gray (5Y 4/1) SILT, little clay, trace black mottling			0	1424

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-228
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/3/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/3/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
46	24	48	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Olive gray (5Y 4/1) SILT, trace clay. Thin (1/8 inch) lamination of fine-medium sand and few shells every 0.3 ft			0	1428
48	25	50	WH-WH-2-WH	2.0/2.0	2	0-2 Soft, saturated, Medium gray (N5) SILT, little clay, black mottling. 1-1.2 Loose, fine-medium sized shells and sand			0	1443
50	26	52	WOR 2	2.0/1	WOR	0-1 Very soft, wet, Medium gray (N5) SILT, little clay. Thin lamination of fine sand every 0.3 ft	52'		0	1455
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Medium dark gray (N4) alternating bands (0.3 ft) thick of SILT, trace fine sand, and fine-medium sand, trace silt. Trace organics throughout.	Silt and fine sand		0	1458
54	28	56	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1512
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA trace clay in silt intervals	58'		0	1517
58	30	60	WH-WH-3-3	2.0/2.0	3	0-2 Soft, saturated, Medium dark gray (N4) SILT & CLAY. Cohesive	Silt and Clay		0	1520
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-229
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/4/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/4/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Riser \ Grout : : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	4-3-2-1	2.0/1	5	0-1 Soft, wet, White (N9) SILT sized particles, consolidated matrix	Solvay Waste		0	925
2	2	4	1-1-1-1	2.0/0.1	2	0-0.5 Hard, cemented SILT sized particles			0	928
4	3	6	WH-WH-WH-5	2.0/0.3	WH	0-0.3 SAA			0	940
6	4	8	11-1-1-WH	2.0/2.0	2	0-2 Very soft, saturated, White (N9) SILT sized particles, paste matrix			0	942
8	5	10	WH-1-WH-1	2.0/1.5	1	0-1.5 Soft, saturated, White (N9) SILT sized particles, consolidated matrix			0	955
10	6	12	WH-1-WH-1	2.0/1.0	WH	0-1 SAA			0	1005
12	7	14	WH-WH-WH-WH	2.0/1.0	WH	0-0.7 SAA. 0.7-1 Soft, wet, Olive black (5Y 2/1) SILT, trace organics	13.7'		0.1	1008
14	8	16	WH-WH-WH-WH	2.0/0.8	WH	0-0.5 Soft, wet, Dark greenish gray (5GY 4/1) SILT & Fine SAND, trace shells	Marl		0	1022
16	9	18	WH-WH-WH-2	2.0/1	WH	0-1 SAA, few bands, 0.1 ft thick black mottling			0	1024
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Light olive gray (5Y 6/1) SILT, some fine sand, few shells, trace organics, sulfur odor			8.3	1035
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, less fine sand content			0	1045
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, thinly laminated varying in color and content. Range from Yellowish gray (5Y 8/1) to Dark greenish gray (5GY 4/1)			0	1048
24	13	26	WH-WH-WH-WH	2.0/1	WH	0-1 Soft wet, Olive gray (5Y 4/1) SILT, little fine sand, few shells, few bands of 0.1 ft thick of organic material			0	1100
26	14	28	WH-2-1-1	2.0/2.0	3	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, trace fine sand and sehlls. Few bands, 0.2 ft thick of organic material			5.2	1109
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, trace shells. One band 0.3 ft thick of organics of sand			4.9	1120
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, trace shells. One band 0.3 ft thick of organics of sand	Trans marl		0	1255
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1300
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, moist, trace clay			0	1315
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace organics			0.3	1317
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1330
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no clay content			0	1340

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-229
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/4/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/4/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
42	22	44	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1343
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1357
46	24	48	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, little fine sand			0	1400
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	50'		0	1415
50	26	52	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT & Trace CLAY bands (0.3 ft) alternating with 0.2 ft thick bands of silt, some fine sand. Black mottling	Silt, clay and fine sand bands		0	1427
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet Olive gray (5Y 4/1) SILT, trace fine sand, few bands of silt with some fine sand, trace organics	Silt and fine sand		0	1432
54	28	56	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Brownish gray (5YR 4/1) SILT, little clay. Black mottling	Silt and little clay		0	1446
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA decrease clay content with depth			0	1452
58	30	60	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet Brownish gray (5YR 4/1) SILT, litte fine sand, black mottling	Silt, little fine sand		0	1458
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-230
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/24/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/25/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	12-4-1-1	2.0/0.0	5	No Recovery	Solvay Waste		-	1400
2	2	4	4-2-2-2	2.0/2.0	4	0-2 Soft, wet, white (N9) SILT sized particles, paste-like matrix			0	1403
4	3	6	-	2.0/0.0	-	Shelby Tube			-	1500
6	4	8	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA (2-4 ft.)			0	1512
8	5	10	1-1-1-1	2.0/2.0	2	0-2 SAA consolidated matrix			0	1515
10	6	12	-	2.0/0.0	-	Shelby Tube	12'		-	1525
12	7	14	1-2-1-2	2.0/2.0	3	0-2 Loose, wet, olive gray (5Y4/1) Fine SAND, trace silt and shells	Marl		0	904
14	8	16	WH-WH-WH-WH	2.0/0.0	WH	No Recovery			-	910
16	9	18	WH-WH-WH-WH	2.0/0.4	WH	0-0.4 Very Soft, saturated, olive gray (5Y 4/1) SILT, little fine sand			0	914
18	10	20	WH-WH-WH-WH	2.0/0.0	WH	No Recovery			-	916
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, light olive gray (5Y 6/1) SILT, little fine sand, few shells			0.3	923
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	926
24	13	26	-	2.0/0.0	-	Shelby Tube			-	1020
26	14	28	2-2-4-4	2.0/2.0	6	0-2 Soft, wet, olive gray (5Y 4/1) SILT & Fine SAND, intervals of organics			0	1024
28	15	30	1-2-5-6	2.0/2.0	7	0-2 SAA, decrease in fine sand content with depth, trace clay, no organics			0	1026
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, olive gray (5Y 4/1) SILT, few shells, trace clay	Trans Marl		0	1030
32	17	34	7-3-3-3	2.0/2.0	6	0-2 SAA, medium			0	1040
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, soft			0	1045
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1055
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace organics			0.1	1105
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.6	1109
42	22	44	2-2-2-2	2.0/2.0	4	0-2 SAA			0	1121

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-230
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/24/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/25/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, brownish gray (5YR 4/1) SILT, little clay, trace fine sand	Silt		0	1125
46	24	48	-	2.0/0.0	-	Shelby Tube			-	1300
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, brownish gray (5YR 4/1) SILT, little clay, trace fine sand, black mottling			0	1320
50	26	52	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1323
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, brownish gray (5YR 4/1) SILT, little clay, black mottling			0	1338
54	28	56	5-4-6-8	2.0/2.0	10	0-2 Medium, wet, brownish gray (5YR 4/1) SILT, few thin bands of fine sand & silt, trace organics			0	1345
56	29	58	-	2.0/0.0	-	Shelby Tube			-	1430
58	30	60	2-1-2-1	2.0/1.5	3	0-1.5 SAA (54-56 ft.)	60'		0	1445
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-231
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/23/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/24/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	6-1-1-1	2.0/0.0	2	No Recovery	Solvay Waste		-	1530
2	2	4	2-2-1-1	2.0/2.0	3	0-1.5 Very soft, saturated, yellowish gray (5Y 8/1) SILT sized particles, paste matrix. 1.5-2 Soft, saturated, greenish black (5GY 2.1) SILT, some organics, few shells, trace fine sand	3.5'		0	1535
4	3	6	4-3-2-2	2.0/1.5	5	0-1.5 Soft, wet, grayish black (N2) Fine SAND, little silt, few shells	Marl		0	1555
6	4	8	2-3-1-1	2.0/1.0	4	0-1 SAA			0	1600
8	5	10	2-1-2-1	2.0/2.0	3	0-1 SAA. 1.0-2 Soft, saturated, light olive gray (5Y 6/1) SILT & fine SAND, few shells			0.6	1604
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 SAA (1.0-2.0 ft.) little medium sand			2.4	1608
12	7	14	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1.2	1610
14	8	16	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.3	1612
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.2	1615
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1	1618
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	814
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.5	817
24	13	26	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, light olive gray (5Y 6/1) SILT, little fine sand, few shells			2.3	830
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			3.2	832
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, decrease in fine sand content, trace organics			0.5	837
30	16	32	WH-WH-3-3	2.0/2.0	3	0-2 SAA, trace clay			1.3	840
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.1	850
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace fine sand			0.3	855
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.5	858
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, little fine sand	40'		0	903
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, brownish gray (5YR 4/1) SILT, little black mottling throughout	Silt		0	935

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-231
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/23/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/24/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, little fine sand at bottom			0.4	937
44	23	46	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, no sand, trace clay			0	945
46	24	48	WH-3-1-1	2.0/2.0	4	0-2 SAA, increasing fine sand content with depth, no clay	48'		0	950
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 Alternating thin bands (0.1') of brownish gray (5YR 4/1) saturated, SILT, trace fine sand, with brownish gray, SILT & fine SAND, trace organics	Silt and Sand		0.3	1000
50	26	52	WH-WH-6-4	2.0/2.0	6	0-2 SAA			0	1006
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1043
54	28	56	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1048
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1120
58	30	60	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	60'		0	1125
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-232
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 3/3/2010
File No.: 1163/45082	Fall: 30"	End Date: 3/4/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	10-2-1-43	2.0/1.0	3	0-1 Soft, wet, while (N9) SILT sized particles, consolidated matrix, wood in spoon nose	Solvay Waste		0	1320
2	2	4	4-5-4-7	2.0/0.0	9	No Recovery	4'		-	1325
4	3	6	3-1-6-8	2.0/1.0	7	0-1 Loose, saturated, olive gray (5Y 4/1) Fine to medium SAND, few shells	Marl		0	1415
6	4	8	6-17-30-17	2.0/2.0	47	0-2 SAA, Dense			0.7	1420
8	5	10	6-4-5-5	2.0/2.0	9	0-2 SAA, soft, trace silt			0	1435
10	6	12	4-8-10-7	2.0/2.0	18	0-2 SAA, medium dense			0	1439
12	7	14	1-1-1-3	2.0/2.0	2	0-2 SAA, soft, some silt			0	1530
14	8	16	WH-WH-1-2	2.0/2.0	1	0-2 SAA			0	1535
16	9	18	1-1-1-1	2.0/2.0	2	0-2 SAA			0	1540
18	10	20	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1543
20	11	22	-	2.0/0.8	-	Shelby Tube			-	905
22	12	24	2-1-2-3	2.0/2.0	3	0-2 Soft, wet, light olive gray (5Y 6/1) SILT & fine sand, few shells, trace organics			0	935
24	13	26	3-4-3-4	2.0/2.0	7	0-2 SAA			0	938
26	14	28	WH-WH-2-3	2.0/2.0	2	0-2 Soft, wet, olive gray (5Y 4/1) SILT, few shells	Trans Marl		0	950
28	15	30	2-3-4-4	2.0/2.0	7	0-2 Soft, wet, olive gray (5Y 4/1) SILT, little fine sand, few shells			0.9	1000
30	16	32	WH-WH-3-2	2.0/2.0	3	0-2 Soft, saturated, olive gray (5Y 4/1) SILT, trace shells			0	1005
32	17	34	WH-4-3-4	2.0/2.0	7	0-2 SAA			0	1009
34	18	36	3-2-3-3	2.0/2.0	5	0-2 SAA			0	1020
36	19	38	3-3-3-5	2.0/2.0	6	0-2 SAA			0	1023
38	20	40	1-2-1-3	2.0/2.0	3	0-2 SAA			0.1	1036
40	21	42	7-6-5-6	2.0/2.0	11	0-2 SAA, stiff			0.3	1105
42	22	44	2-1-2-2	2.0/2.0	3	0-2 SAA, soft			0	1125
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, brownish gray (5YR 4/1) SILT, trace clay, black mottling			0	1128
46	24	48	-	2.0/0.0	-	No Recovery			-	1345

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-232
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 3/3/2010
File No.: 1163/45082	Fall: 30"	End Date: 3/4/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
48	25	50	2-2-3-3	2.0/2.0	5	0-2 Soft, saturated, brownish gray (5YR 4/1) SILT, some clay, trace shells			0	1350
50	26	52	2-3-3-4	2.0/2.0	6	0-2 SAA	52'		0	1355
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 Very soft, saturated, brownish gray (5YR 4/1) SILT, some clay, black mottling, trace fine sand	Silt some clay 54'		0	1408
54	28	56	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, medium gray (N5) SILT, little fine sand, trace clay	Silt and Sand		0	1411
56	29	58	-	2.0/2.0	WH	Shelby Tube			-	1450
58	30	60	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, medium gray (N5) SILT, some fine sand, trace organics	60'		0	1510
							EOB			
						EOB - 60'				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-233
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/23/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-1-1	2.0/0.3	2	0-0.1 Broken up pieces of white (N9) silt sized particles, cemented matrix. 0.1-0.3 Soft, wet, brownish gray (5YR 4/1) SILT, trace shells and fine sand	Solvay Waste 2'		0	1122
2	2	4	6-7-6-8	2.0/2.0	13	0-2 Dense, wet, olive gray (5Y 4/1) Fine SAND, little silt, trace shells	Marl		0	1130
4	3	6	2-2-3-4	2.0/2.0	5	0-1 SAA, some black mottling. 1-2 Dense, wet, olive gray (5Y 4/1) SILT, trace shells and organics, black mottling throughout			0	1315
6	4	8	10-12-10-12	2.0/2.0	22	0-2 Dense, wet, light olive gray (5Y 6/1) Fine SAND, few shells			0	1319
8	5	10	10-12-15-15	2.0/2.0	27	0-2 SAA			0	1332
10	6	12	14-14-17-21	2.0/2.0	31	0-2 SAA, dark greenish gray (5GY 4/1)			0	1338
12	7	14	7-6-11-12	2.0/2.0	17	0-2 SAA, medium dense			0	1350
14	8	16	10-15-17-21	2.0/2.0	32	0-2 SAA, dense			0	1354
16	9	18	4-3-3-4	2.0/1.5	6	0-1.5 Soft, saturated, light olive gray (5Y 6/1) fine SAND & SILT, few shells, trace organics			0	1405
18	10	20	2-2-2-2	2.0/2.0	4	0-2 SAA			0.6	1408
20	11	22	2-2-2-3	2.0/0.8	4	0-2 Soft, wet, olive gray (5Y 4/1) and light olive gray (5Y 6/1) SILT & Fine SAND, trace shells and organics			0.5	1430
22	12	24	2-4-2-4	2.0/2.0	6	0-2 Soft, wet, olive gray (5Y 4/1) SILT, trace fine sand and shells			0.1	1432
24	13	26	1-1-2-4	2.0/2.0	3	0-2 Soft, wet, olive gray (5Y 4/1) SILT, trace fine sand, little organics, trace shells			0	1440
26	14	28	3-3-2-4	2.0/2.0	5	0-2 SAA			0	1444
28	15	30	2-2-3-4	2.0/2.0	5	0-2 SAA			0	1455
30	16	32	2-3-2-3	2.0/1.5	5	0-1.5 SAA			0	1503
32	17	34	2-3-4-5	2.0/2.0	7	0-2 SAA, medium			0	1530
34	18	36	3-3-4-4	2.0/2.0	7	0-2 SAA, slight increase in fine sand content			0.1	1534
36	19	38	2-3-4-4	2.0/2.0	7	0-2 Medium, wet, olive gray (5Y 4/1) SILT, trace fine sand and very trace shells	Trans Marl		0.1	1548
38	20	40	5-3-4-4	2.0/2.0	7	0-2 SAA			0	1552
40	21	42	4-4-6-6	2.0/2.0	10	0-2 SAA			0.2	915

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-233
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/22/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/23/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
42	22	44	5-4-4-5	2.0/2.0	8	0-2 SAA			0	920
44	23	46	3-3-4-5	2.0/2.0	7	0-2 SAA, trace clay			0	945
46	24	48	4-4-3-3	2.0/0.0	7	0-2 SAA			0	950
48	25	50	5-5-5-5	2.0/2.0	10	0-2 SAA			0.1	1005
50	26	52	3-4-3-4	2.0/2.0	7	0-2 SAA			0.2	1010
52	27	54	5-5-5-5	2.0/2.0	10	0-2 Soft, wet, medium light gray (N6) SILT, trace clay, trace shells			0.6	1040
54	28	56	5-5-4-3	2.0/2.0	9	0-2 SAA	56'		0.6	1048
56	29	58	WR-WR-WR-WR	2.0/2.0	WR	0-2 Very Soft, saturated, medium light gray (N6) SILT, little clay, very trace shells, very slightly cohesive	Silt		0	1120
58	30	60	WR-WR-WR-WR	2.0/2.0	WR	0-2 SAA, very little fine sand and organics at bottom	60'		0	1125
							EOB			
						EOB 60'				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-234
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 3/2/2010
File No.: 1163/45082	Fall: 30"	End Date: 3/3/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	3-8-14-18	2.0/0.3	22	0-0.3 Medium dense, moist, SILT & fine SAND sized particles, cemented matrix. 0.3-1.5 Medium dense, wet, fine SAND, trace silt and shells	Solvay Waste 2'		0	835
2	2	4	6-13-13-12	2.0/2.0	26	0-1 Medium dense, wet, fine to medium SAND, few shells	Marl		0	838
4	3	6	1-4-8-29	2.0/2.0	12	0-0.6 Soft, wet, olive gray (5Y 4/1) SILT, trace shells and fine sand. 0.6-2 Soft, saturated olive gray (5Y 4/1) SILT & fine SAND, few shells, decrease in silt with depth			0	911
6	4	8	10-12-10-17	2.0/2.0	22	0-2 Medium dense, saturated, olive gray (5Y 4/1) Fine SAND, little silt, few shells, trace organics at bottom			0	915
8	5	10	5-28-23-28	2.0/2.0	51	0-1.5 Very dense, wet, olive gray (5Y 4/1), Fine SAND, trace shells, thing laminations of varying olive gray (5Y 4/1) and light olive gray (5Y 6/1) colors			0	928
10	6	12	18-15-18-13	2.0/2.0	33	0-1 SAA, no laminations			0.2	932
12	7	14	1-1-2-3	2.0/2.0	3	0-2 Soft, saturated, light olive gray (5Y 6/1) Fine SAND & SILT, few organics, trace shells			0	942
14	8	16	1-3-2-4	2.0/2.0	5	0-2 SAA			0.4	945
16	9	18	-	2.0/1.5	-	Shelby Tube			-	1025
18	10	20	1-1-3-6	2.0/2.0	4	0-2 Soft, saturated, olive gray (5Y 4/1) Fine SAND & SILT, trace shells and organics			0	1038
20	11	22	2-3-5-10	2.0/0.8	8	0-2 SAA			0	1040
22	12	24	-	2.0/2.0	-	Shelby Tube			-	1115
24	13	26	1-3-6-7	2.0/2.0	9	0-2 Soft, saturated, olive gray (5Y 4/1) SILT & fine SAND, trace organics, trace shells			0	1135
26	14	28	3-5-6-6	2.0/2.0	11	0-2 Stiff, wet, olive gray (5Y 4/1) SILT, little fine sand and organics	Trans Marl		0	1143
28	15	30	2-4-4-5	2.0/2.0	8	0-2 Medium, wet, olive gray (5Y 4/1) SILT, some organics, trace fine sand and shells			0	1318
30	16	32	6-6-6-7	2.0/1.5	12	0-1 SAA. 1-2 Medium, wet, olive gray (5Y 4/1) SILT, little fine sand, few shells, trace organics			0	1325
32	17	34	WH-WH-1-2	2.0/2.0	1	0-1 SAA. 1-2 Same as 0-1, Soft			0	1335
34	18	36	2-3-4-6	2.0/2.0	7	0-2 SAA			0	1339
36	19	38	2-3-5-5	2.0/2.0	8	0-2 SAA, medium			0	1357
38	20	40	4-4-6-6	2.0/2.0	10	0-2 SAA			0	1405
40	21	42	2-3-4-6	2.0/2.0	7	0-2 Medium, saturated, olive gray (5Y 4/1) SILT, trace shells			0	1442

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-234
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 3/2/2010
File No.: 1163/45082	Fall: 30"	End Date: 3/3/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = Riser \ Grout : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
42	22	44	7-5-7-6	2.0/2.0	12	0-2 SAA			0	1448
44	23	46	3-4-4-6	2.0/2.0	8	0-2 SAA, trace clay			0	1502
46	24	48	4-5-5-5	2.0/0.0	10	0-2 SAA			0	1508
48	25	50	2-4-4-6	2.0/2.0	8	0-2 SAA			0	1525
50	26	52	4-5-5-6	2.0/2.0	10	0-2 SAA			0	1530
52	27	54	2-3-5-6	2.0/2.0	8	0-2 Medium, saturated, olive gray (5Y 4/1) SILT, trace clay, trace shells			0	833
54	28	56	WH-WH-4-4	2.0/2.0	4	0-2 SAA, soft			0	838
56	29	58	-	2.0/2.0	-	Shelby Tube			-	930
58	30	60	5-4-4-5	2.0/2.0	8	0-2 SAA (54-56 ft.)	60'		0	944
							EOB			
						EOB 60'				
						Grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-235
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/16/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-2-2	2.0/1.0	3	0-1 Loose, dry, Very pale orange (10YR 8/2) fine-medium-coarse SAND & SHELLS	F/M/C sand		0	1420
2	2	4	1-1-2-3	2.0/2.0	3	0-2 SAA, little silt			0	1422
4	3	6	WH-WH-1-1	2.0/2.0	1	0-2 Soft, saturated, Brownish gray (5YR 4/1) SILT, trace fine sand, few shells, trace organics	6'		0	1428
6	4	8	WH-WH-2-2	2.0/0.3	2	0-0.3 Loose, saturated, Medium dark gray (N4) fine-,medium sized shells, fine-medium sand, trace silt	Marl		0	1430
8	5	10	1-1-1-5	2.0/2.0	2	0-2 Loose, wet, Olive gray (5Y 4/1), fine SAND, trace shells			0	1440
10	6	12	4-4-4-5	2.0/2.0	8	0-2 Medium, SAA			0	1447
12	7	14	4-5-4-3	2.0/2.0	9	0-2 SAA			0	1450
14	8	16	3-3-1-1	2.0/2.0	4	0-2 SAA, trace silt			0	1501
16	9	18	WH-2-1-1	2.0/2.0	3	0-2 SAA			0	1503
18	10	20	WH-WH-WH-1	2.0/1.0	WH	0-1 SAA			2.1	1511
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, soft, little silt			0.6	1516
22	12	24	WH-WH-1-2	2.0/2.0	1	0-2 SAA			0	1518
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Loose, saturated, Olive gray (5Y 4/1) fine-medium-coarse sand, some shells			12.6	1526
26	14	28	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Loose/soft, saturated, Olive gray (5Y 4/1) fine-medium sand, little shells			1.2	1528
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT & Fine SAND, few organics throughout, trace shells			3.2	1535
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1542
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1544
34	18	36	WH-WH-3-2	2.0/2.0	3	0-2 SAA, some organics			0	1556
36	19	38	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			0	1559
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, trace fine sand			0	1610
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, slight increase in fine sand content			0.1	1619
42	22	44	WH-WH-2-2	2.0/2.0	2	0-2 SAA			0	1622

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-235
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/16/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Olive gray (5Y 4/1) SILT, thin layers of organics throughout. Trace fine sand, shells			0	830
46	24	48	WH-WH-5-3	2.0/2.0	5	0-2 SAA, no organics. Little fine sand			0.2	835
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	844
50	26	52	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Olive gray (5Y 4/1) SILT, trace fine sand and shells			0	852
52	27	54	WH-WH-5-3	2.0/2.0	5	0-2 Medium, wet, Olive gray (5Y 4/1) SILT, trace fine sand and shells	Trans marl		0.1	855
54	28	56	WH-WH-WH-2	2.0/2.0	WH	0-2 SAA, no fine sand			1.5	906
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			2.2	908
58	30	60	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace clay	60'		1.6	912
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-236
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/16/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/16/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-1-2	2.0/1.0	3	0-1 Loose, dry, very pale orange (10YR 8/2) fine to medium to coarse SAND & SHELLS, few layers of cemented solvay waste	Sand and SOLW		0	1050
2	2	4	3-4-7-6	2.0/2.0	11	0-1 Medium, moist, yellowish gray (5Y 8/1) Fine SAND & SILT sized particles, consolidated matrix, some fine to medium sand. 1-2 Medium, moist, dark greenish gray (5GY 4/1) Fine to medium to coarse SAND, trace shells, few thing bands of cemented solvay waste	Sand and Fill		0	1053
4	3	6	2-1-WH-1	2.0/0.3	1	0-0.1 Chunks of dark greenish gray (5GY 4/1) Fine SAND sized particles in cemented matrix. 0.1-0.3 Soft to loose, saturated dark gray (N3) fine to medium SAND, trace shells	6'		0	1102
6	4	8	WH-WH-WH-1	2.0/1.5	WH	0-1.5 Loose to soft, saturated light olive gray (5Y 6/1) Fine SAND, trace silt and shells	Marl		0	1105
8	5	10	WH-WH-WH-WH	2.0/0.0	WH	No Recovery			-	1111
10	6	12	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, olive gray (5Y 4/1) Fine SAND & SILT, few shells			0.1	1117
12	7	14	WH-2-1-2	2.0/1.5	3	0-1.5 SAA			0	1120
14	8	16	-	2.0/2.0	-	Shelby Tube			-	1230
16	9	18	WH-WH-WH-WH	2.0/1.0	WH	0-1.0 Soft, saturated, olive gray (5Y 4/1) SILT & Fine SAND, few shells, trace organics			0	1255
18	10	20	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Loose, saturated, light olive gray (5Y 6/1) Fine to medium SAND, some silt, trace shells			13.1	1258
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1.0 Loose, saturated, light olive gray (5Y 6/1) Fine to medium SAND, little silt, trace shells, trace organics			0.3	1307
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			1.6	1310
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			1.4	1315
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA			1.2	1318
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2.0 SAA			15.3	1323
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, increase in shell and organic material content			7.4	1330
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			2.6	1332
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1	1339

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-236
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/16/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/16/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1.1	1341
38	20	40	WH-WH-WH-3	2.0/2.0	WH	0-2 Soft, moist, olive gray (5Y 4/1) SILT, some organics, little fine sand, trace shells			0	1348
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			2.2	1356
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			1	1358
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.1	1408
46	24	48	WH-WH-4-3	2.0/2.0	4	0-2 Soft, wet, olive gray (5Y 4/1) SILT, little fine sand, few organics, trace shells			0.1	1410
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0.1	1418
50	26	52	-	2.0/1.5	-	Shelby Tube			-	1455
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, olive gray (5Y 4/1) SILT, trace shells	Trans marl		0	1503
54	28	56	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA trace shells and clay			0.2	1510
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			0	1517
58	30	60	WH-WH-WH-WH	2.0/1.0	WH	0-2 SAA	60'		0	1519
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-237
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/15/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-2-3	2.0/0.5	4	0-0.5 Loose, dry, Very pale orange (10YR 8/2) fine-medium SAND, some cemented silt sized particle layers	Fill		0	838
2	2	4	2-2-1-1	2.0/0.5	3	0-0.5 SAA			0	840
4	3	6	18-3-3-2	2.0/0.2	6	0-0.2 Loose, pasty, saturated Black (N1) medium-coarse SAND pieces and small gravel. Large pieces of wood in nose. Slight odor residue washes away with water	6'		25.1	846
6	4	8	2-3-2-2	2.0/1.5	5	0-1.5 Loose, wet, Dark greenish gray (5GY 4/1) fine-medium SAND, little shells, trace silt	Marl		0	849
8	5	10	2-2-2-1	2.0/0.1	4	0-0.1 SAA			0	901
10	6	12	3-2-2-2	2.0/0.1	4	0-0.1 SAA			0	907
12	7	14	2-1-1-2	2.0/1	2	0-1 SAA			0	910
14	8	16	WH-WH-WH-WH	2.0/0.3	WH	0-0.3 SAA, runny			0	917
16	9	18	WH-WH-WH-WH	2.0/0.1	WH	0-0.1 SAA			0	919
18	10	20	WH-WH-WH-1	2.0/1	WH	0-1 Soft, saturated, Light olive gray (5Y 6/1) fine SAND, some silt, trace shells			0.5	926
20	11	22	WH-1-1-1	2.0/0.5	2	0-0.5 SAA			0	932
22	12	24	WH-1-1-2	2.0/1	2	0-1 SAA			0.7	934
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, wet, Light olive gray (5Y 6/1) SILT, some fine sand, trace shells and organics			0	943
26	14	28	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			1.9	945
28	15	30	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			18.8	951
30	16	32	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, some layers of organics throughout			39.5	957
32	17	34	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			40.3	959
34	18	36	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, increase in fine sand content			15.8	1007
36	19	38	WH-WH-1-1	2.0/2.0	1	0-2 SAA			8.6	1009
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, little fine sand			48.8	1016
40	21	42	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA decrease in organic content, increase fine sand content			29.4	1022
42	22	44	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, decrease fine sand			5.8	1025
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, little fine sand, trace shells and organics	Trans Marl		1	1035
46	24	48	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			14.4	1039

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-237
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/15/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/15/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	SAA			9.2	1047
50	26	52	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, little fine sand, trace shells and organics			5.8	1054
52	27	54	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			21.9	1058
54	28	56	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA			3.2	1107
56	29	58	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, no fine sand, trace clay			2.1	1110
58	30	60	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA	60'		2.9	1113
							EOB			
						EOB - 60' bgs Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-238
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/12/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/12/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-2-6-7	2.0/1.0	8	0-1 Loose, moist, Grayish orange (10YR 7/4) fine-medium SAND and fine-medium sized shell fragments	Beach Deposits		0	853
2	2	4	4-4-5-6	2.0/1.3	9	0-0.4 SAA. 0.4-1.3 Loose, wet, Dark greenish gray (5GY 4/1) fine-medium SAND, few shells, trace silt	2.5'		0	855
4	3	6	2-1-1-1	2.0/0.1	2	0-0.1 Loose, saturated, Dark greenish gray (5GY 4/1) fine SAND, trace shells, trace silt	Marl		0	910
6	4	8	2-2-2-2	2.0/0.4	4	0-0.4 SAA			0	912
8	5	10	WH-WH-1-1	2.0/0.4	1	0-0.4 SAA, few shell fragments			0	918
10	6	12	WH-WH-WH-WH	2.0/0.5	WH	0-0.3 SAA, trace shells			0	927
12	7	14	WH-1-1-1	2.0/1.5	2	0-1.5 Soft/loose, saturated Greenish gray (5GY 6/1) fine SAND, little silt, trace shells			0	930
14	8	16	NA	2.0/1.5	NA	Shelby tube Shot @ 945			NA	945
16	9	18	WH-WH-WH-WH	2.0/2.0	WH	0-2 Loose, saturated, Dark greenish gray (5GY 4/1) fine-medium SAND, trace silt and shells			0.1	1025
18	10	20	WH-WH-WH-WH	2.0/0.5	WH	0-0.5 SAA			5.7	1035
20	11	22	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			1.3	1040
22	12	24	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			2.1	1045
24	13	26	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Loose, soft, saturated, Dark greenish gray (5GY 4/1) fine-medium SAND, trace shells			15.3	1053
26	14	28	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA, trace organics			12.8	1105
28	15	30	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			2	1108
30	16	32	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			8.9	1111
32	17	34	WH-WH-WH-WH	2.0/1.0	WH	0-1 SAA			2.5	1115
34	18	36	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, increase in silt content organic material 1.2-1.4			51.3	1122
36	19	38	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA. 1.5-2 Soft, wet, Light olive gray (5Y 6/1) SILT, little fine sand, few organics, trace shells			26.1	1126
38	20	40	WH-WH-WH-WH	2.0/2.0	WH	0-1 Loose, saturated, Dark greenish gray (5GY 4/1) fine sand, trace shells. 1-2 Soft, wet, Light Olive gray (5Y 6/1) SILT, little fine sand and organics, trace shells			0	1236
40	21	42	WH-WH-WH-WH	2.0/1.0	WH	0-2 SAA (1-2)			30	1240
42	22	44	4-3-2-2	2.0/1.0	5	0-1 SAA, high organic content			31.3	1248

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-238
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/12/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/12/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA (1-2)			17	1300
46	24	48	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			118	1303
48	25	50	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, wet, Olive gray (5Y 4/1) SILT, trace fine sand, organic shells			59.5	1312
50	26	52	WOR 2	2.0/1.0	WOR	0-1 SAA	Trans marl		13.4	1321
52	27	54	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA	54'		5.1	1325
						Encountered gas in boring while removing 52-54 ft. sample, borehole opened up down to approximately 63 ft.				
						Groued to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-239
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/11/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	2-3-8-15	2.0/1.0	11	0-1 Loose, dry, Grayish orange (10YR 7/4) fine-medium SAND & fine-medium sand sized shell fragments	Beach Sediment		0	835
2	2	4	12-8-7-6	2.0/1.0	15	0-1 SAA, last 0.2 ft Dark greenish gray (5GY 4/1)	4'		0	838
4	3	6	3-2-1-1	2.0/1.0	3	0-1 Soft, wet, Dark greenish gray (5GY 4/1) fine-medium sand, few shell fragments	Marl		0	845
6	4	8	1-1-1-1	2.0/1.0	2	0-1 Soft, wet, olive gray (5Y 4/1) fine sand, some silt, few shell fragments			0	848
8	5	10	WH-WH-1-1	2.0/0.5	1	0-0.5 SAA, less silt content			0	850
10	6	12	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 Soft, saturated, Olive gray (5Y 4/1) SILT & fine SAND, few shells, trace organics			0	857
12	7	14	WH-1-1-1	2.0/2.0	2	0-2 SAA			0	900
14	8	16	WH-4-4-3	2.0/1.0	8	0-1 Loose, saturated, Dark greenish gray (5GY 4/1) fine-medium sand, little shells			0	910
16	9	18	2-4-3-3	2.0/1.5	7	0-1.5 SAA			0	913
18	10	20	3-2-1-1	2.0/1.5	3	0-1.5 SAA			0	920
20	11	22	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA. 1.5-2 Soft, saturated, Light olive gray (5GY 6/1) SILT, some fine sand, few shells, trace organics			0.3	928
22	12	24	WH-WH-WH-WH	2.0/2.0	WH	0-1.5 SAA. 1.5-2 Soft, saturated, Greenish gray (5GY 6/1) fine sand, few shells. 1.5-2 Soft, saturated, Brownish gray (5YR 4/1) organic material and Yellowish gray (5Y 8/1) silt			0	930
24	13	26	WOR 1 WH WH	2.0/1.0	WH	0-1 Loose, saturated, Dark greenish gray (5GY 4/1) fine-medium sand, trace shells			0	939
26	14	28	WH-1-2-2	2.0/2.0	3	0-2 SAA			0.6	942
28	15	30	WH-WH-WH-WH	2.0/0.8	WH	0-0.8 SAA			0	951
30	16	32	WOR 1 1-1	2.0/2.0	1	0-2 SAA			0.3	1001
32	17	34	WH-WH-1-2	2.0/2.0	1	0-2 SAA			0	1004
34	18	36	WH-WH-WH-WH	2.0/2.0	WH	0-2 SAA, little silt, trace organics			1	1014
36	19	38	1-2-2-1	2.0/2.0	4	0-1.8 Soft, saturated, Light olive gray (5Y 6/1) SILT & Fine SAND, few shells. 1.8-2 Soft, saturated, Moderate brown (5YR 3/4) organics, little Light olive gray (5Y 6/1) silt and fine sand			1.6	1021
38	20	40	WH-WH-WH-2	2.0/2.0	WH	0-2 Soft, wet, Light olive gray (5Y 6/1), SILT little Fine SAND, some organic material throughout			22.6	1032
40	21	42	WOR 2	2.0/2.0	WOR	0-1 SAA. 1-2 Loose, saturated, Dark greenish gray (5GY 4/1), F/M sand, few shells			4.1	1040

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-239
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/11/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/11/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
42	22	44	WH-WH-2-2	2.0/1.0	2	0-1 SAA (1-2) Organic material 0.5-0.7 ft			3.1	1045
44	23	46	WH-WH-WH-WH	2.0/2.0	WH	0-2 Soft, saturated, Light olive gray (5Y 6/1) fine sand, trace silt, few shells, little organic throughout			1.4	1055
46	24	48	2-2-3-2	2.0/2.0	5	0-1.5 Loose, moist, Light olive gray (5Y 6/1) fine SAND, few shells. 1.5-2 Soft, moist, Brownish gray (5YR 4/1) silt, some organics material trace fine sand and shells			8.6	1102
48	25	50	WH-WH-3-3	2.0/1.0	3	0-1 Soft, wet, Moderate brown (5Y R 3/4) SILT, some organic material, trace fine sand and shells			44.3	1114
50	26	52	WH-WH-1-1	2.0/1.3	1	0-1.3 Soft, saturated and Light olive gray (5Y 6/1) fine sand and silt, trace shells and organics	53'		5.9	1122
52	21	54	WH-WH-WH-WH	2.0/2.0	WH	0-1 Loose, saturated, Dark greenish gray (5GY 4/1) fine SAND trace silt and shells. 1-2 Soft, wet, Olive gray (5Y 4/1), SILT, very trace fine sand, shells, and organics	Trans Marl		4	1126
54	22	56	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA (1.0-2)			9.4	1139
56	23	58	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA			0.4	1142
58	27	60	WH-WH-WH-WH	2.0/1.5	WH	0-1.5 SAA, trace clay, slightly cohesive	60'		0	1148
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-240
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/10/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/10/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	1-1-3-11	2.0/1.5	4	0-1.5 Loose, dry, Grayish orange (10YR 7/4) fine-medium SAND & fine-medium SAND sized shell fragments. Hard cemented layer at end	Sand and shell fragments		0	1008
2	2	4	12-7-3-3	2.0/1.0	10	0-1 SAA	4'		0	1000
4	3	6	2-1-1-2	2.0/1.0	2	0-1 Soft, wet, Olive gray (5Y 4/1) SILT & FINE SAND, few shells	Silt and fine sand		0	1015
6	4	8	2-2-2-2	2.0/1.5	4	0-1.5 Soft, wet, Greenish gray (5GY 6/1) SILT, some fine sand, few shells	Marl		0	1018
8	5	10	NA	2.0/2.0	NA	Shelby tube, Recovered 2 ft			NA	1045
10	6	12	WH-1-1-2	2.0/1.0	2	0-1 Soft, saturated, Olive gray (5Y 4/1) SILT, little fine sand, few shells, trace organics			0	1100
12	7	14	7-7-9-12	2.0/2.0	16	0-2 Dense, wet, Brownish gray (5YR 4/1) and Olive gray (5Y 4/1)			0.6	1104
14	8	16	3-3-3-2	2.0/1.0	6	0-1 Dense, wet, Dark greenish gray (5GY 4/1) and Olive gray (5Y 4/1) fine-medium sand, trace shells and organics			0.1	1118
16	9	18	2-WH-3-3	2.0/2.0	3	0-2 Soft, saturated, Olive gray (5Y 4/1) SILT, little fine-medium sand, few shells			0.1	1122
18	10	20	2-2-2-2	2.0/1.5	4	Loose, saturated, Olive gray (5Y 4/1) Fine SAND, some silt, some to little in sand, some shells. Sulfur odor			0.2	1240
20	11	22	2-2-2-1	2.0/	4	SAA			0.1	1245
22	12	24	2-2-2-2	2.0/1.5	4	SAA			0.5	1250
24	13	26	WH/1 1-1	2.0/1.5	1	SAA Very loose, little vegetation			0	1300
26	14	28	2-2-2-2	2.0/1.0	4	SAA No vegetation			1.7	1305
28	15	30	WH/1 1-1	2.0/1.0	1	SAA			1	1310
30	16	32	1-1-1-1	2.0/1.0	2	SAA Trace vegetation			0.1	1310
32	17	34	1-1-1-1	2.0/1.0	2	SAA No vegetation			0.5	1300
34	18	36	WH/1.5 1	2.0/1.25	WH	SAA			0	1330
36	19	38	WH/1 2-2	2.0/1.75	2	SAA with vegetation			0	1340
38	20	40	1-1-1-1	2.0/1.5	2	SAA			4.3	1405
40	21	42	1-1-1-2	2.0/2.0	2	SAA. Last 1 ft leaf matter in thick 1 inch bands			0.1	1415
42	22	44	WH/1 4-4	2.0/1	4	SAA Last 1 ft			1.2	1430
44	23	46	2-3-2-3	2.0/1	6	SAA			3.4	1445
46	24	48	4-3-3-1	2.0/1.25	6	SAA			2.9	1445
48	25	50	WH/2	2.0/2.0	WH	Olive gray (5Y 4/1) SILT, little fine sand, little clay, little shells, lots of vegetation, very soft, wet			1.4	1500

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-240
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/10/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/10/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: Jonathan Bone		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
50	26	52	NA	NA	NA	Shelby tube 1.5 Recovery, shot 1510, Recoverd 1530			NA	1530
52	21	54	WH/2	2.0/1.5	WH	SAA			NA	1540
54	22	56	WH/2	2.0/2.0	WH	SAA little organics, trace shells, little to trace clay	Trans marl		NA	1555
56	23	58	WH/2	2.0/2.0	WH	SAA			NA	1610
58	27	60	WH/2	2.0/2.0	WH	SAA	60'		NA	1620
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-241
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/9/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/9/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	4-2-8-8	2.0/1.0	10	0-1 - Loose, damp, Moderate yellowish brown (10YR 5/4) SAND sized particles	Solvay Waste 2'		0	1356
2	2	4	4-2-4-4	2.0/1.5	6	0-1.5 - Loose, damp to wet, Olive gray (5Y 4/1) fine SAND, little silt	F. Sand		0	1400
4	3	6	4-4-3-2	2.0/0	7	No Recovery	6'		NA	1408
6	4	8	WH-2-3-2	2/1.2	5	0-1.2 - Loose, damp, Olive gray (5Y 4/1), fine SAND, trace silt, some shells	Marl		0.9	1412
8	5	10	2-2-2-2	2.0/2	4	0-2 - SAA			1.5	1420
10	6	12	2-1-1-1	2.0/2	2	0-2 - SAA			0.5	1430
12	7	14	3-4-5-2	2/1.5	9	0-1.5 - Loose, wet, Dark greenish gray (5GY 4/1) fine SAND, some shells, black mottling, little leaves pieces			0.7	1435
14	8	16	3-6-4-3	2/1.4	10	0-1.4 - SAA			0.5	1445
16	9	18	2-2-3-1	2/0.8	5	0-0.8 - Loose, wet, Greenish gray (5G 6/1), fine SAND, trace silt, few shells			0	1450
18	10	20	WH-WH-2-1	2.0/0.8	2	0-0.8 - Loose, wet, Olive gray (5Y 4/1), fine SAND, trace silt, few shells			0	1455
20	11	22	1-2-1-1	2.0/1.1	3	0-1.1 - Loose, wet, dark greenish gray (5GY 4/1), fine SAND, trace silt, few shells, little leaves			0	1500
22	12	24	1-1-1-1	2.0/1.0	2	0-1.0 - SAA			0	1508
24	13	26	1-1-2-1	2.0/1.0	3	0-1.0 - SAA			10	1515
26	14	28	2-3-3-2	2/0.8	6	0-1.0 - SAA			19.6	1520
28	15	30	WH-1-1-1	2.0/1.5	2	0-1.0 - Loose, wet, Olive gray (5Y 4/1), fine SAND, trace silt and shells, little leaves pieces			6.7	1529
30	16	32	WH-WH-WH-1	2.0/0.7	WH	0-1.7-SAA			29.5	1532
32	17	34	1-2-2-2	2/1.7	4	0-1.7-SAA			19.5	1336
34	18	36	WH-WH-WH-1	2/1.5	WH	0-1.5 - Loose, wet, Brownish gray (5YR4/1). F. SAND, Tr. Silt, few shells and leaves pieces			74	1340
36	19	38	WH-2-2-1	52/0.8	4	0-0.8-loose, wet, olive gray (5Y4/1), F.sand, Trace Silt, few shells and leaves pieces			70	1346
38	20	40	WH-WH-WH-WH	2/1.0	WH	0-1.0-SAA			60	1355
40	21	42	WH-WH-WH-2	2/1.0	WH	0-1.0- Loose, wet, Olive gray (5Y4/1), F. sand, Tr. Silt, abundant mod. Brown (SYR3/4) leaves			99	1600
42	22	44	WH-2-3-2	2/1.5	5	0-1.5- Moderate brown (5YR 3/4), leaves, little, Olive gray (5Y 4/1), F.sand			60	1605
44	23	46	WH-WH-WH-WH	2/1.5	WH	0-1.5 Loose, wet, Olive gray (5Y 4/1), Fine sand, Trace silt, abundant leaves			27	1615
46	24	48	WH-WH-2-2	2/2.0	WH	0-2- Loose, wet, Olive gray (5Y 4/1), Fine sand, little silt, few shells and leaves	48'		15	1619
48	25	50	WH-WH-WH-WH	2/2.0	WH	0-2-soft, wet, Olive gray (5Y 4/1), silt, little clay, little F. sand, trace shells and leaves	Trans Marl		10	1630

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-241
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/9/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/9/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser : : Sand Pack ▒ Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
50	26	52	WH-WH-WH-WH	2/2.0	WH	0-2 - SAA			17	1635
52	27	54	WH-WH-2-2	2/1.5	2	0-1.5 - SAA			10	1640
54	28	56	WH-WH-WH-WH	2/2.0	WH	0-2 - Soft, wet, Olive gray (5Y 4/1), SILT, some clay, little f. sand			6.7	1645
56	29	58	WH-WH-WH-WH	2/2.0	WH	0-2-SAA			3	1650
58	30	60	WH-WH-WH-WH	2/2.0	WH	0-2-SAA	60'		3	1656
							EOB			
						EOB - 60' bgs				
						Borehole grouted to grade				

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-242
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/8/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/8/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	3-1-2-1	2/0.8	3	0-.08 Soft, loose, light olive gray(5Y 6/1), SILT and F. sand, few shells inorganics, moist	Silt, f. sand		0	848
2	2	4	3-4-6-9	2/2.0	10	0-2.0 SAA, stiff			0	850
4	3	6	6-7-7-5	2/2.0	14	0-2.0 SAA, stiff			0	905
6	4	8	2-2-2-1	2/1.0	4	0-1.0 SAA, Yellowish gray, (5Y 8/1) and black(N1) mottling, soft	6'		0.3	910
8	5	10	3-5-2-4	2/0.4	7	0-0.4 soft, wet, greenish gray (56Y 6/1) SILT some F. sand, few shells, black mottling, woody material	Marl		1.4	918
10	6	12	WH-WH-1-1	2/1.5	1	0-1.5 soft, wet, greenish gray (56Y 6/1) SILT some F. sand, little shells, yellowish gray mottling			0	925
12	7	14	1-1-2-1	2/2.0	3	0-2.0 SAA			0	630
14	8	16	2-1-3-4	2/1.0	4	0-1.0 loose, saturated, dark greenish gray (56Y 4/1) f. sand, silt, few shells			0	939
16	9	18	WH-3-1-2	2/1.5	4	0-1.5 SAA			0	941
18	10	20	WH-1-2-1	2/0.5	3	0-0.5 SAA			3.5	950
20	11	22	WH-1-WH-1	2/1.0	1	0-1.0 SAA			0.4	1040
22	12	24	2-3-2-2	2/1.0	5	0-1.0 SAA			1.6	1045
24	13	26	WH-WH-1-2	2/1.0	1	0-1.0 SAA			4.7	1050
26	14	28		2/1.3	2	0-1.3 SAA			1.6	1055
28	15	30	WH-1-1-1	2/1.0	WR	0-1.0 SAA			1.3	1103
30	16	32	WR-WR-WR-WR	2/1.0	2	0-1.0 loose, wet, dark greenish gray(5GY 4/1) F SAND trace silt, few shells, leave pieces			1	1110
32	17	34		2/1.0	WH	0-1.0 SAA			53	1116
34	18	36	WH-WH-2-1	2/1.0	2	0-1.0 loose, wet, olive gray (5Y 4/1), F SAND, trace silt, few shells, leave pieces			28.8	1123
36	19	38	WH-WH-WH-WH	2/1.0	WH	0-1.0 loose, saturated, light olive gray(5Y 6/1), F SAND, trace silt, few shells, leaves, pieces			20.4	1130
38	20	40	WH-WH-2-2	1/1.5	1	0-1.0 SAA			90	1140
40	21	42	WH-WH-WH-WH	2/1.5	1	0-1.0 loose, wet, dark greenish gray(5GY 4/1) F SAND, trace silt, trace shells, leave pieces			24	1300
42	22	44	WH-WH-1-1	2/1.3	3	0-1.3 soft, wet, light olive gray (5Y 6/1), F SAND and silt, trace shells, leaves, pieces			2.7	1305
44	23	46	WH-WH-1-1	2/2.0	WH	0-2.0 soft, wet, olive gray (5y 4/1), F SAND, some silt and little clay, trace shells, leaves,	Marl (f. sand)		29	1320
46	24	48	WH-1-2-3	2/2.0	WH	0-2.0 SAA			5	1323
48	25	50	WH-WH-WH-WH	2/1.5	WH	0-1.5 soft, wet to damp, olive gray (5y 4/1), SILT, little clay, trace shells	50'		12.5	1330
50	26	52	WH-WH-WH-WH	2/2.0	WH	0-2.0 med. Dence, damp, olive gray (5y 4/1), SILT, little clay and fine sand, trace shells	Silt f. sand		2.5	1340

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-242
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/8/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/8/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: C. Yuri Veliz		Screen = Riser \ Grout Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
52	27	54	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA			12.5	1345
54	28	56	WH-WH-WH-WH	2/2.0	WH	0-2.0 soft, wet, olive gray (5y 4/1), SILT, some clay, little fine sand, trace shells, layers of f. sand			10	1355
56	29	58	WH-WH-WH-WH	2/2.0	WH	0-2.0 SAA			12.5	1400
58	30	60	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA	60'		1.7	1405
						EOB-60' borehole grouted to grade	EOB			

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-243
Client: Honeywell Proj. Loc: Wastebeds 1-8 Syracuse, NY File No.: 1163/45082	Sampler: 2" Split Spoon Hammer: 140-lb drop Fall: 30"	Location: Start Date: 2/8/2010 End Date: 2/8/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
0	1	2	WH-1-1-1	2/2.0	2	0-2.0 loose, damp, olive gray(5y 4/1), fine sand and silt, few shells	F.sand silt		0	1605
2	2	4	WH-1-1-1	2/2.0	2	0-0.8 SAA 0.8-1.2 soft, wet, brownish black (5yr 2/1), silt, some organic matter 1.2-2.0 soft, wet, olive gray, f.sand and silt few shells			1	1610
4	3	6	WH-1-1-1	2/1.0	2	0-1.0 loose, wet, olive gray(5y 4/1), f, sand some silt, and shells			0	1615
6	4	8	1-WH-WH-2	2/1.0	WH	0-0.5 SAA 0.5-1.0 loose, wet, dark greenish gray(5gy 4/1), f sand, little silt few shells			0	1618
8	5	10	2-2-1-1	2/0.5	3	0-0.5 piece of wood	7.5'		3.5	1622
10	6	12	1-1-1-1	2/1.1	2	0-1.1 loose, wet, olive gray (5y 4/1), f. sand, trace silt, trace shells	marl (f. sand)		3	1430
12	7	14	4-1-1-1	2/1.0	2	0-1 loose saturated, olive gray (5y 4/1) f. sand and silt, little shells trace			4.5	1433
14	8	16	1-1-1-1	2/1.5	2	0-1.5 SAA			4.7	1438
16	9	18	WH-WH-WH-1	2/1.0	WH	0-1.0 SAA			6.5	1440
18	10	20	WH-WH-WH-1	2/1.0	WH	0-1.0 SAA			20	1445
20	11	22	WH-WH-WH-WH	2/0.1	WH	0-.1 SAA			0	830
22	12	24	1-1-1-1	2/0.5	2	0-0.5 loose, wet, dark greenish gray (5gy4/1), fine sand, trace silt, few shells			0	845
24	13	26	WH-WH-WH-WH	2/1.0	WH	0-1.0 SAA			45	905
26	14	28	WH-WH-2-2	2/1.0	2	0-1.0 SAA			154	915
28	15	30	WH-WH-2-1	2/1.2	2	0-1.2 loose, wet, dark greenish gray (56y 4/1), f. sand, trace silt, few shells some leave pieces			108	930
30	16	32	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA			10	940
32	17	34	WH-WH-WH-WH	2/0.0	WH	No Recovery				945
34	18	36	WH-WH-WH-WH	2/2.0	WH	0-2.0 loose, wet, olive gray (5y 4/1), fine sand, trace silt, few shells, little leave pieces			15	950
36	19	38	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA			58	1000
38	20	40	WH-WH-WH-WH	2/1.1	WH	0-1.1 SAA			15	1005
40	21	42	WH-WH-WH-WH	2/2.0	WH	0-2 loose, wet, olive gray(5y 4/1), f. sand, trace silt, few shells, layers of silt			10	1015
42	22	44	WH-WH-WH-WH	2/1.7	WH	0-1.7 soft, wet, olive gray (5y 4/1) , f. sand, some silt trace shells			52	1020
44	23	46	WH-WH-WH-WH	2/2.0	WH	0-2 SAA			50	1025

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING WB18-SB-243
Client: Honeywell	Sampler: 2" Split Spoon	Location:
Proj. Loc: Wastebeds 1-8 Syracuse, NY	Hammer: 140-lb drop	Start Date: 2/8/2010
File No.: 1163/45082	Fall: 30"	End Date: 2/8/2010
Boring Company: Parratt-Wolff Foreman: Joe Percy OBG Geologist: C. Yuri Veliz		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery (in ft)	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing Time
46	24	48	WH-WH-WH-WH	2/1.5	WH	0-1.5 SAA	marl (f. sand)		10	1030
48	25	50	WH-WH-WH-WH	2/2.0	WH	0-2 soft, wet, olive gray (5y 4/1), silt, some claym trace F.sand, and leave pieces	marl (silt) 50'		10	1048
50	26	52				shelby tube, Recovery 2 ft	ST 52'			1108
52	27	54	WH-WH-WH-WH	2/2.0	WH	0-2 soft, wet, olive gray (5y 4/1), silt, some clay layers of f. sand with shells	marl(silt)		54	1120
54	28	56	WH-WH-WH-WH	2/2.0	WH	0-2 SAA			12	1130
56	29	58	WH-WH-WH-WH	2/2.0	WH	0-2 soft, wet, olive gray (5y 4/1), silt, some clay layers of f. sand with shells and leave pieces			5	1138
58	30	60	WH-WH-WH-WH	2/2.0	WH	0-2 SAA			4	1140
						Bottom of boring 60'				
						Boring grouted to grade				