APPENDIX II. SOIL BORINGS AND SOIL BORING LOCATION MAP

ONONDAGA LAKE WETLANDS SUBSURFACE INVESTIGATION - BORING LOGS

Boring B-3

Depth	Description	PID Reading	Sample Notes
0-2'	2" black loose SAND; 8" fine brown SAND, some silt; no odor	<0.5 ppm	1 2
2-4'	moist loose dark brown fine-medium SAND; trace silt no odor	<0.5 ppm	2 2
4-6'	moist-wet loose dark brown fine-medium SAND; some fine gravel; no odor; wet at 4.5'	<0.5 ppm	2 2
6-8'	wet loose dark brown med-coarse SAND; trace fine gravel; no odor	<0.5 ppm	2 2
8-10'	wet loose dark brown med-coarse SAND; trace fine gravel; 2" fine black SAND w/ tar odor	1.2 ppm	3 3

Boring B-4W

Depth	Description	PID Reading	Sample Notes
0-2'	3" black topsoil; 21" light brown fine-med. SAND, trace silt; no odor	<0.5 ppm	1 2
2-4'	moist light-brown fine-med. sandy MARL w/ shells; no odor	<0.5 ppm	2 2
4-6'	wet light-brown fine-med. sandy MARL w/ shells; no odor thin 1" seams of black sand w/some tar odor; wet at 4.5'	2.3 ppm	2 2
6-8'	12" wet light-brown fine-med. sandy MARL w/ shells; no odor 4" black SILT and CLAY; trace tar odor	1.7 ppm	2 2
8-10'	12" wet brown sandy MARL; layer of tar odor SILT at 9-9.5' 2" wet brown sandy MARL w/ no odor	7.0 ppm	3 3
10-12'	wet brown fine-med. sandy MARL w/ shells; no odor Installed 2" PVC monitoring well; 10-slot; 5-foot length screen set at 6 to 11 ft. below grade		3

SAMPLE NOTES: (1) upper interval; (2) middle interval (composite); (3) [illegible]

ONONDAGA LAKE WETLANDS SUBSURFACE INVESTIGATION - BORING LOGS

Boring B-5

Depth	Description	PID Reading	Sample Notes
0-2'	dry light brown loose fine SAND, some silt; no odor	<0.5 ppm	1 2
2-4'	dry light brown loose fine SAND, some silt; no odor	<0.5 ppm	2 2
4-6'	wet light brown loose fine SAND, some silt; no odor wet at 4.5'	<0.5 ppm	2 2
6-8'	12" wet layer black loose SILT w/ significant tar odor (discrete sample collected for analysis*)	7.9 ppm	2* 2*
8-10'	wet brown loose fine-coarse SAND, some silt	1.3 ppm	3 3

Boring B-6

Depth	Description	PID Reading	Sample Notes
0-2'	dry light brown sandy SILT; no odor	<0.5 ppm	1 2
2-4'	moist light brown sandy SILT; no odor	<0.5 ppm	2 2
4-6'	wet dark brown-grey silty CLAY w/ thin <1" black dark brown layers; trace tar odor; wet at 4.5'	2.5 ppm	2 2
6-8'	wet brown-grey silty CLAY; no odor	<0.5 ppm	2 2
8-10'	wet brown-grey silty CLAY; grey MARL (w/shells) at 8.9'; no odor	<0.5 ppm	2 2
10-12'	wet grey MARL; no odor	<0.5 ppm	3 3

SAMPLE NOTES: (1) upper interval; (2) middle interval (composite); (3) [illegible]

ONONDAGA LAKE WETLANDS SUBSURFACE INVESTIGATION - BORING LOGS

Boring B-7

Depth	Description	PID Reading	Sample Notes
			1
0-2'	dry grey-brown fine SAND, some silt, trace gravel; no odor	<0.5 ppm	2
			2
2-4'	moist grey-brown fine-med. SAND, some silt, trace gravel; no odor	<0.5 ppm	2
			2
4-6'	moist grey-brown fine-med. SAND, some silt, trace gravel; no odor	<0.5 ppm	2
			2
6-8'	wet dark brown fine-coarse SAND, little fine gravel; no odor; wet at 6'	<0.5 ppm	2
			2
8-10'	wet dark brown fine-coarse SAND, little fine gravel; no odor	<0.5 ppm	2
			2
10-12'	wet dark brown fine-coarse SAND, little fine gravel; no odor	<0.5 ppm	2
			3

Boring B-8W

Depth	Description	PID Reading	Sample Notes
0-2'	3" black topsoil; 8" grey brown SAND and SILT (some shells); no odor	<0.5 ppm	1
			2
2-4'	moist grey brown loose fine-coarse SAND and SILT (some shells); no odor; wet at 4'	<0.5 ppm	2
			2
4-6'	moist grey brown loose fine-coarse SAND and SILT (some shells); no odor	<0.5 ppm	2
			2
6-8'	grey then dark brown-black fine-coarse SAND and SILT no odor	<0.5 ppm	2
			2
8-10'	grey then dark brown-black fine-coarse SAND, some SILT trace tar odor	<0.5 ppm	2
			3
10-12'	8" wet black fine-med. SAND and SILT; significant tar odors at 10-11.5'	14 ppm	3
	Installed 2" PVC monitoring well; 10-slot; 5-foot length screen set at 6 to 11 ft. below grade		

SAMPLE NOTES: (1) upper interval; (2) middle interval (composite); (3) lower interval

ONONDAGA LAKE WETLANDS SUBSURFACE INVESTIGATION - BORING LOGS

Boring B-9

Depth	Description	PID Reading	Sample Notes
0-2'	dry light brown fine-med. SAND w/ trace small shells; no odor	<0.5 ppm	1 2
2-4'	dry light brown fine-med. SAND w/ trace small shells; no odor	<0.5 ppm	2 2
4-6'	moist-wet light brown-grey fine-med. SAND w/ small shells no odor	<0.5 ppm	2 2
6-8'	8" wet light brown-grey fine sandy MARL over 0.5" black SAND and SILT; trace tar odor	2.4 ppm	2 2
8-10'	2" wet brown-grey sandy MARL; no odor	<0.5 ppm	2 2
10-12'	4" wet black sand; 4" grey MARL; no odor	<0.5 ppm	3 3

Boring B-10W

Depth	Description	PID Reading	Sample Notes
0-2'	moist brown fine-med. SAND, some silt; no odor	<0.5 ppm	1 2
2-4'	moist brown fine-med. SAND, some silt; no odor	<0.5 ppm	2 2
4-6'	moist brown fine-med. SAND, some silt; wet at 5.8'; no odor	<0.5 ppm	2 2
6-8'	wet coarse brown SAND and fine GRAVEL; no odor	<0.5 ppm	2 2
8-10'	wet coarse brown SAND and fine GRAVEL; no odor	<0.5 ppm	3 3
	Installed 2" PVC monitoring well; 10-slot; 5-foot length screen set at 6 to 11 ft. below grade		

SAMPLE NOTES: (1) upper interval; (2) middle interval (composite); (3)lower interval

ONONDAGA LAKE WETLANDS SUBSURFACE INVESTIGATION - BORING LOGS

Boring B-11

Depth	Description	PID Reading	Sample Notes
0-2'	2" dry dark brown fine-coarse SAND and fine GRAVEL no odor	<0.5 ppm	1 2
2-4'	3" dark brown loose fine-coarse SAND, some fine gravel no odor	<0.5 ppm	2 2
4-6'	2" dark brown loose fine-coarse SAND, some fine gravel no odor	<0.5 ppm	2 2
6-8'	wet brown fine-coarse SAND and fine GRAVEL, some silt; wet at 6'; no odors	<0.5 ppm	2 2
8-10'	wet dark-brown fine-med. SAND, little fine gravel; no odor	<0.5 ppm	2 2
10-12'	wet dark-brown fine-med. SAND, little fine gravel; no odor	<0.5 ppm	2 2
12-14'	wet dark-brown fine-med. SAND, some fine gravel; 1.5" layer of black fine sand w/ tar odor	15 ppm	2 2
14-16'	wet fine SAND, little fine gravel mixed w/ 2-3 thin layers of black fine sand w/tar odor	3.0 ppm	3
16-18'	wet fine SAND, little fine gravel mixed w/ 2-3 thin layers of black fine sand w/tar odor	1.9 ppm	3

Boring B-12

Depth	Description	PID Reading	Sample Notes
0-2'	1" dry dark brown sandy TOPSOIL; 4" sandy MARL (w/shells); no odor	<0.5 ppm	1 2
2-4'	4" moist fine-brown sandy MARL	<0.5 ppm	2 2
4-6'	6"wet brown fine sandy MARL; 6" wet brown fine-med. sandy MARL; wet at 5.5'; no odors	<0.5 ppm	2 2
6-8'	wet brown fine sandy MARL	<0.5 ppm	2 2
8-10'	no recovery	<0.5 ppm	2 3
10-12'	6" wet brown sandy MARL; 3" wet black fine sandy MARL w/musty odor	1.1 ppm	3

SAMPLE NOTES: (1) upper interval; (2) middle interval (composite); (3) lower interval

ONONDAGA LAKE WETLANDS SUBSURFACE INVESTIGATION - BORING LOGS

Boring B-13

Depth	Description	PID Reading	Sample Note
0-2'	moist black-brown fine-coarse SAND and SILT; no odor	<0.5 ppm	1 2
2-4'	moist dark brown sandy SILT; trace clay; black silt seam at 3.5 to 3.7'; no odor	<0.5 ppm	2 2
4-6'	moist-wet dark brown coarse SAND, some silt; no odor wet at 5.5'	<0.5 ppm	2 2
6-8'	wet brown fine-coarse SAND, some fine silt; no odor	<0.5 ppm	2 2
8-10'	wet dark brown fine-coarse SAND, some silt	<0.5 ppm	2 3
10-12'	wet dark brown fine-coarse SAND, some silt; 2" grey-brown MARL at 11.8'; no odors	<0.5 ppm	3

SAMPLE NOTES: (1) upper interval; (2) middle interval (composite); (3)lower interval

ONONDAGA LAKE WETLAND SUBSURFACE INVESTIGATION
SUBSURFACE BORING DATA AND SAMPLING INTERVALS

Boring	Grade Elevation		Second Interval 1 foot below grd	Second Interval Depth to 360.5'	Third Interval Depth to 360.5'	Third Interval Depth to 358.5'	Approx. Bottom Depth (ft.)
B-1	369.21		1.00	8.71	8.71	10.71	11
B-2	369.02	*	1.00	8.52	8.52	10.52	11
B-3	368.82		1.00	8.32	8.32	10.32	11
B-4W	369.05		1.00	8.55	8.55	10.55	11
B-5	369.00		1.00	8.50	8.50	10.50	11
B-6	370.59		1.00	10.09	10.09	12.09	12
B-7	371.90		1.00	11.40	11.40	13.40	14
B-8W	370.10	*	1.00	9.60	9.60	11.60	12
B-9	369.83		1.00	9.33	9.33	11.33	12
B-10W	368.31		1.00	7.81	7.81	9.81	10
B-11	376.09		1.00	15.59	15.59	17.59	18
B-12	369.60		1.00	9.10	9.10	11.10	11
B-13	369.29		1.00	8.79	8.79	10.79	11

NOTES: Elevation Could Not Be Obtained via Survey;
Estimated elevation established from interpolation of nearby borings.

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-01
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/18/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/18/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	Sample No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1 - 1 - 1 - 1	2 / 0.5'	2	0.5' Dark Yellowish Brown (10 YR 4/2) damp, very loose, FMC SAND w/ one 0.75" fine SAND, SILT, CLAY band. Plant fragments.	Fill	\	0.1	0.000
2	2	4	1 - 2 - 2 - 1	2 / 0.75'	4	0.75' SAA		\	0.3	0.000
4	3	6	w - w - w - w	2 / 0.25'	1	0.15' SAA 0.10' Medium Dark Gray (N4) moist, very loose, FM SAND, SILT. Petroleum like odor.	Stained Fill	\	0.9	0.000
6	4	8	2 - 2 - 2 - 2	2 / 1.5'	4	0.75' Medium Dark Gray (N4) to Black (N1) moist, loose, FM SAND, SILT. Strong petroleum odor. 0.75' Medium Gray (N5) moist to saturated, FM SAND, SILT. One band of peat.		\	0.8	0.000
8	5	10	2 - 5 - 6 - 5	2 / 1.75'	11	1.75' SAA w/ two peat bands.		\	0.3	0.000
10	6	12	2 - 2 - 2 - 2	2 / 1.25'	4	1.25' SAA w/ trace shell fragments, slight sulfur odor.	Stained Marl	\	0.5	0.004
12	7	14	2 - 1 - 2 - 2	2 / 1.0'	3	1.0' Olive Gray (5Y 4/1) wet, very loose, FMC SAND, SILT, w/ trace shell fragments.	Marl	\	0.4	0.005
14	8	16	w - w - w - w	2 / 0.75'	1	0.75' Olive Gray (5y 4/1) wet, very loose, fine SAND, SILT, trace CLAY and shell fragments. Slight sulfur odor.		\	0.2	0.005
16	9	18	w - w - w - w	2 / 0.0'	1	NO RECOVERY		\	NA	NA
18	10	20	w - w - w - w	2 / 2.0'	1	2.0' Olive Gray (5Y 4/1) wet, very loose, FM SAND, SILT, trace CLAY and shell fragments. Faint sulfur odor.		\	0.1	0.004
20	11	22	w - w - w - w	2 / 2.0'	1	2.0' Olive Gray (5Y 4/1) wet, very loose / soft, SILT, some fine SAND, little CLAY. Few Light Olive Gray (5Y 6/1) laminations containing shell fragments. Slight methane odor.	Transitional Marl	\	0.0	0.018
22	12	24	w - w - w - w	2 / 1.25'	1	1.25' Olive Gray (5Y 4/1) wet, very soft, SILT, some fine SAND and CLAY. One Light Olive Gray (5Y 6/1) band w/ shell fragments.		\	0.0	0.017
24	13	26	w - w - w - w	2 / 1.75'	1	1.75' Olive Gray (5Y 4/1) moist, very soft, SILT, some CLAY, little fine SAND, trace shell fragments. Methane odor		\	0.0	0.027
26	14	28	w - w - w - w	2 / 2.0'	1	2.0' SAA		\	0.0	0.007
28	15	30	w - w - w - w	2 / 2.0'	1	2.0' SAA		\	0.0	0.009
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water = 7.0'
Analytical Sample Interval = 6.0' to 8.0' @ 0916
Discrete Water Sample Interval = 8.0' to 10.0' @ 0950

Discrete Sampling Water Quality Measurements
Temp. = 9.7°C
pH = 9.47
Conductivity = 13.79 mS/cm
Specific Gravity = 1.007 @ 11.7°C

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-02
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/18/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/18/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	W - W - 1 - 1	2 / 1.0'	1	0.1' Dark Yellowish Brown (10YR 4/2) damp, very loose, fine SAND, SILT, trace CLAY and plant material. 0.9' Light Olive Gray (5Y 6/1) damp, very loose, FM SAND, SILT, trace shell fragments.	Silty Sand Loam / Sandy Marl	\	0.0	0.000
2	2	4	1 - 2 - 2 - 3	2 / 1.25'	4	1.25' Light Olive Gray (5Y 6/1) damp, very loose, FM SAND, SILT, trace shell fragments, w/ one 0.75" band of Olive Gray (5Y 4/1).	Sandy Marl	\	0.0	0.000
4	3	6	1 - 1 - 1 - 1	2 / 1.75'	2	1.75' SAA		\	0.1	0.000
6	4	8	1 - 3 - 2 - 1	2 / 1.0'	5	0.75' Light Olive Gray (5Y 6/1) damp, very loose, FM SAND, SILT, trace shell fragments, w/ few Light Olive Brown (5Y 5/6) horizontal laminations. 0.25' Medium Gray (N5) wet, loose, FM SAND, SILT, trace shell fragments.		\	0.0	0.000
8	5	10	2 - 2 - 2 - 1	2 / 1.25'	4	1.25' SAA w/ Yellowish Gray (5Y 8/1) to light Olive Brown (5Y 5/6) laminations.		\	0.0	0.000
10	6	12	W - W - W - W	2 / 1.5'	1	1.5' Olive Gray (5Y 4/1) saturated, very loose, FM SAND, SILT, trace CLAY and shell fragments.		\	0.1	0.000
12	7	14	2 - 2 - 3 - 4	2 / 1.25'	5	0.25' SAA 1.0' Medium Gray (N5) saturated, loose, FMC SAND, SILT, trace shell fragments. Olive Gray (5Y 4/1) laminations common.		\	0.0	0.000
14	8	16	W - W - W - 1	2 / 1.5'	1	1.5' Olive Gray (5Y 4/1) saturated, very loose, FM SAND, SILT, trace CLAY and shell fragments.		\	0.1	0.000
16	9	18	2 - 3 - 2 - 3	2 / 1.25'	5	0.25' SAA 1.0' Laminated Light Olive Gray (5Y 6/1) and Olive Gray (5Y 4/1) saturated, loose, fine SAND, SILT, trace CLAY and shell fragments.	Silt and Sand Marl	\	0.0	0.000
18	10	20	2 - 1 - 2 - 1	2 / 1.0'	3	1.0' SAA		\	0.0	0.000
20	11	22	W - W - W - W	2 / 1.25'	1	1.25' Olive Gray (5Y 4/1) saturated, very loose, fine SAND, SILT, trace CLAY, trace shell fragments, trace plant material. Few Light Olive Gray (5Y 6/1) laminations.		\	0.0	0.003
22	12	24	W - W - W - W	2 / 1.5'	1	1.5' Olive Gray (5Y 4/1) saturated, very loose / soft, fine SAND, SILT, little CLAY, trace shell fragments and plant material.		\	0.1	0.003
24	13	26	W - W - W - W	2 / 2.0'	1	2.0' Olive Gray (5Y 4/1) moist, very soft, SILT, fine SAND, some CLAY. Trace shell fragments and plant material.	Transitional Marl	\	0.1	0.000
26	14	28	W - W - W - W	2 / 2.0'	1	2.0' SAA		\	0.0	0.000
28	15	30	W - W - W - W	2 / 2.0'	1	2.0' SAA		\	0.0	0.006
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water = 7.0'
Analytical Sample Interval = 6.0' to 8.0' @ 0916
Discrete Water Sample Interval = 8.0' to 10.0' @ 0950

Discrete Sampling Water Quality Measurements
Temp. = 9.7°C
pH = 9.47
Conductivity = 13.79 mS/cm
Specific Gravity = 1.007 @ 11.7°C

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-03
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/19/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/19/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1 - w - 1 - w	2 / 1.0'	1	0.5' Light Olive Gray (5Y 6/1) w/ Light Brown (5YR 5/6) mottling, damp, very loose, fine SAND, little SILT, trace plant fragments and roots. 0.5' Olive Gray (5Y 4/1) moist, soft, SILT, fine SAND, trace CLAY, trace plant fragments.	Silty Sand Fill	\ \ \	0.0	0.000
2	2	4	1 - 2 - 1 - 1	2 / 1.0'	3	1.0' SAA w/ one Yellowish Gray (10YR 8/1) band of fine SAND, SILT.	Silty Sand Fill	\ \ \	0.0	0.000
4	3	6	2 - 3 - 3 - 4	2 / 0.75'	6	0.75' Dark Yellowish Brown (10YR 4/2) moist, very loose, FMC SAND, little SILT, trace medium GRAVEL. No odor.	Sandy Gravel Fill	\ \ \	0.0	0.000
6	4	8	2 - 2 - 2 - 1	2 / 1.25'	4	1.25' Dark Yellowish Brown (10YR 4/2) moist to wet, very loose, FMC SAND, little SILT, trace medium GRAVEL. One 1.5" band stained Black (N1) w/ slight petroleum odor.	Sandy Gravel Fill	\ \ \	0.0	0.000
8	5	10	2 - 1 - 1 - 1	2 / 0.75'	2	0.5' Dark Yellowish Brown (10YR 4/2) wet, very loose, FMC SAND, little SILT, trace medium GRAVEL. 0.25' Light Olive Gray (5Y 6/1) wet, very soft, SILT, little CLAY, trace fine SAND, trace shell fragments.	Sandy Gravel Fill / Marl	\ \ \	0.0	0.000
10	6	12	1 - 2 - 1 - 1	2 / 1.0'	3	0.75' Light Olive Gray (5Y 6/1) grading to Olive Gray (5Y 4/1) moist, very soft, SILT, little CLAY, trace fine SAND. 0.25' Olive Gray (5Y 4/1) wet, very loose, FMC SAND, SILT, trace shell fragments.	Marl	\ \ \	0.8	0.000
12	7	14	1-w-1-w	2 / 2.0'	1	2.0' Olive Gray (5Y 4/1) laminated w/ Medium Gray (N5) wet, very loose, FMC SAND, SILT.	Marl	\ \ \	0.0	0.000
14	8	16	w - w - w - w	2 / 1.5'	1	0.25' SAA 0.5' Olive Gray (5Y 4/1) wet, very loose, FM SAND, SILT, trace CLAY and shell fragments. Sulfur Odor. 0.75' Light Olive Gray (5Y 6/1) wet, very loose, FM SAND, little SILT, trace CLAY and shell fragments. Sulfur odor.	Marl	\ \ \	0.0	0.000
16	9	18	w-w-w-w	2 / 1.0'	1	1.0' SAA	Marl	\ \ \	0.0	0.000
18	10	20	w - w - w - w	2 / 0.75'	1	0.75' SAA, w/ Olive Gray (5Y 4/1) laminations. Increasing clay content with depth.	Marl	\ \ \	0.0	0.005
20	11	22	w - w - w - w	2 / 1.5'	1	1.5' Olive Gray (5Y 4/1) moist, very soft, clayey SILT, trace shell fragments. Five Light Olive Gray (5Y 6/1) bands (0.25" to 0.5") w/ fine SAND, shell fragments.	Transitional Marl	\ \ \	0.0	0.005
22	12	24	w - w - w - w	2 / 1.0'	1	1.0' SAA w. only one Light Olive Gray (5Y 6/1) band.	Transitional Marl	\ \ \	0.0	0.007
24	13	26	w - w - w - w	2 / 1.5'	1	1.5' Olive Gray (5Y 4/1) moist, very soft, clayey SILT, trace shell and plant fragments	Transitional Marl	\ \ \	0.0	0.012
26	14	28	w - w - w - w	2 / 1.75'	1	1.75' SAA w/ slight methane odor	Transitional Marl	\ \ \	0.0	0.006
28	15	30	1 - w - 1 - w	2 / 2.0'	1	2.0' SAA w/ slight methane odor	Transitional Marl	\ \ \	0.0	0.003
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water = 7.0'
Analytical Sample Interval = 6.0' to 8.0' @ 0841
Discrete Water Sample Interval = 8.0' to 10.0' @ 0910

Discrete Sampling Water Quality Measurements
Temp. = 7.3°C
pH = 6.81
Conductivity = 3.41 mS/cm
Specific Gravity = 1.003 @ 12.6°C

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-04
Client: Honeywell Proj. Loc: Syracuse, NY File No.: 1163/39597	Sampler: 2" Split Spoon Hammer: 140 lb Fall: 30"	Location: Harbor Brook / SYW-12 Start Date: 12/20/2006 End Date: 12/20/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w - w - w - 1	2 / 0.25'	1	0.1' Dark Yellowish Brown (10YR 4/2) damp, very soft / loose, fine SAND, SILT, little CLAY, plant fragments and roots. 0.15' Light Olive Gray (5Y 5/2) damp, loose, fine SAND, SILT,	Sand-Silt Fill	\	0.0	0.000
2	2	4	1 - 2 - 1 - 2	2 / 1.75'	3	0.5' SAA 1.0' Pale Yellowish Brown (10YR 6/2) damp to moist, FM SAND, SILT, little shell fragments. 0.25' Dark Gray (N3) to Black (N1) moist to wet, soft, SILT, fine SAND, in a sludgy matrix. Petroleum like odor.	Sand-Silt Fill / Sludgy Fill	\	0.0	0.000
4	3	6	2 - 2 - 1 - 3	2 / 0.5'	3	0.5' Dark Yellowish Brown (10YR 4/2) wet, loose, FMC SAND, little SILT, trace fine GRAVEL, little shell fragments.	Sand-Gravel Fill	\	0.3	0.000
6	4	8	2 - 1 - 2 - 1	2 / 1.5'	3	0.25' SAA 1.0' Light Olive Gray (5Y 6/1) wet, very loose, FMC SAND, some SILT, trace fine GRAVEL and shell fragments. Two 0.5" bands stained Black (N1) w/ a petroleum like odor.	Sand-Gravel Fill / Stained Marl Fill	\	0.2	0.000
8	5	10	1 - 1 - 1 - 1	2 / 1.25'	2	0.25' SAA 1.0' Olive Gray (5Y 4/1) wet, very loose / soft, FM SAND, SILT, trace CLAY and shell fragments. Two 0.5" bands of a Black (N1) SILT in a sludgy matrix.		\	0.1	0.000
10	6	12	w - w - w - w	2 / 1.0'	1	1.0' SAA w/ only one Black (N1) stained band.	Stained Marl	\	0.6	0.000
12	7	14	w - w - w - w	2 / 1.5'	1	1.5' Light Olive Gray (5Y 6/1) saturated, very soft, SILT, fine SAND, trace CLAY and shell fragments. Strong sulfur odor.	Marl	\	0.0	0.133
14	8	16	w - w - w - w	2 / 1.75'	1	0.5' SAA 1.25' Light Olive Gray (5Y 6/1) saturated, very loose, FMC SAND, SILT, trace fine GRAVEL, trace fine gravel sized Concretions and shell fragments. Strong sulfur odor.		\	0.5	0.008
16	9	18	w - w - w - w	2 / 2.0'	1	0.75' SAA 1.25' Light Olive Gray (5Y 6/1) saturated, very loose, fine SAND, SILT, trace CLAY and shell fragments. Strong sulfur odor.		\	0.2	0.000
18	10	20	w-w-w-w	2 / 2.0'	1	2.0' SAA		\	0.0	0.018
20	11	22	w-w-w-w	2 / 1.75'	1	1.75' SAA		\	0.1	0.000
22	12	24	w-w-w-w	2 / 2.0'	1	2.0' SAA w/ a trace plant material		\	1.7	0.000
24	13	26	w-w-w-w	2 / 1.75'	1	1.75' SAA		\	0.2	0.000
26	14	28	w-w-w-w	2 / 0.0'	1	NO RECOVERY		\	NA	NA
28	15	30	w-w-w-w	2 / 2.0'	1	2.0' Light Olive Gray (5Y 6/1) saturated, very loose, fine SAND, SILT, little CLAY, trace shell and plant fragments. Sulfur odor.		\	0.2	0.000
30	16	32	w-w-w-w	2 / 2.0'	1	0.5' SAA, grading to 1.5' Light Olive Gray (5Y 5/2) wet, very soft, SILT, some CLAY, trace fine SAND and shell fragments.	Marl / Transitional Marl	\	0.0	0.000
32	17	34	w-w-w-w	2 / 2.0'	1	2.0' SAA ----- BOTTOM OF BORING @ 34' -----		\	0.0	0.000

Depth to Water = 4.0'
Analytical Sample Interval = 2.0' to 4.0' @ 0851
Discrete Water Sample Interval = 8.0' to 10.0' @ 0920

Discrete Sampling Water Quality Measurements
Temp. = 4.6°C
pH = 6.94
Conductivity = 6.88 mS/cm
Specific Gravity = 1.002 @ 13.1°C

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-05
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/11/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/11/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1 - 1 - 2 - 1	2 / 0.75'	3	0.5' Grayish Brown (5YR 3/2) damp, very loose, FM SAND, little SILT, trace fine GRAVEL, trace plant fragments. 0.25' Pale Yellowish Brown (10YR 6/2) damp, very loose, FMC SAND, little FM GRAVEL, trace SILT, trace plant fragments.	Sand-Gravel Fill	\	0.2	0.000
2	2	4	2 - 2 - 1 - 1	2 / 1.0'	3	1.0' SAA		\	0.2	0.000
4	3	6	w - w - 1 - 1	2 / 1.75'	1	1.0' SAA 0.5' Dark Yellowish Brown (10YR 4/2) damp, very loose, FM SAND, little SILT, trace CLAY. 0.25' Black (N1) moist, very soft/loose, fine SAND, SILT, trace CLAY. Petroleum like odor.	Sand-Gravel Fill / Stained Sandy Fill	\	0.0	0.000
6	4	8	w - w - w - w	2 / 1.5'	1	0.25' SAA 1.0' Olive Gray (5Y 4/1) moist, very loose, fine SAND, SILT, little medium SAND, trace root fragments. Petroleum like odor.		\	0.5	0.000
8	5	10	w - w - w - w	2 / 1.25'	1	0.25' Olive Gray (5Y 4/1) damp, very loose, FM SAND, SILT, trace shell fragments. Petroleum like odor. 1.0' Light Olive Gray (5Y 6/1) damp, very loose, FMC SAND, little SILT, trace shell fragments. Sulfur odor.	Stained Marl / Marl	\	0.4	0.000
10	6	12	w - w - w - w	2 / 1.5'	1	1.5' Light Olive Gray (5Y 6/1) wet, very loose, FMC SAND, FM GRAVEL, little SILT, trace shell fragments. Sulfur odor.		\	0.1	0.000
12	7	14	w - w - w - w	2 / 0.1'	1	0.1' SAA POOR RECOVERY		\	0.3	0.000
14	8	16	w - w - w - w	2 / 0.25'	1	0.25' Light Olive Gray (5Y 6/1) wet, very loose, FMC SAND, trace fine GRAVEL, trace shell fragments. Sulfur odor.		\	0.1	0.000
16	9	18	w - w - w - w	2 / 2.0'	1	2.0' SAA, w/ one 3.0" layer SILT and FM SAND.		\	0.1	0.000
18	10	20	w - w - w - w	2 / 0.1'	1	0.1' SAA POOR RECOVERY		\	0.1	0.000
20	11	22	w - w - w - w	2 / 1.0'	1	1.0' Light Olive Gray (5Y 6/1) wet, very loose, fine SAND, SILT, trace CLAY, trace shell fragments. Sulfur odor.		\	0.1	0.000
22	12	24	w - w - w - w	2 / 2.0'	1	2.0' Light Olive Gray (5Y 6/1) wet, very loose, FM SAND, SILT, trace shell fragments. Sulfur odor.	Marl	\	0.3	0.000
24	13	26	w - w - w - w	2 / 1.75'	1	1.75' Olive Gray (5Y 4/1) wet, very soft, SILT, fine SAND, trace CLAY, trace shell fragments. Slight sulfur odor.	Transitional Marl	\	0.1	0.000
26	14	28	w-w-w-w	2 / 1.75'	1	1.75' SAA		\	0.3	0.000
28	15	30	w - w - w - w	2 / 1.25'	1	1.25' Olive Gray (5Y 4/1) wet, very soft, SILT, little fine SAND, trace CLAY, trace shell fragments. Slight sulfur odor.		\	0.2	0.000
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water = 10.0'
Analytical Sample Interval = 4.0' to 6.0' @ 1320
Discrete Water Sample Interval = 10.0' to 12.0' @ 1358
Note: This boring is located on one of the mounds.
Note: Sampled ground water reacted intensely with Nitric Acid

Discrete Sampling Water Quality Measurements
Temp. = 9.0°C
pH = 6.65
Conductivity = 2.90 mS/cm
Specific Gravity = 1.002 @ 17.4°C

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-06
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/15/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/15/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	Sample No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	2 - 2 - 1 - 1	2 / 1.0'	3	0.1' Dusky Yellowish Brown (10YR 4/2) damp, very loose, FM SAND, SILT, trace CLAY. Plant fragments. 0.9' Light Gray (N7) damp, very loose, FMC SAND.	Sandy Fill	\	0.0	0.000
2	2	4	1 - 2 - 1 - 2	2 / 1.25'	3	0.15' SAA 1.0' Pale Yellowish Brown (10YR 6/2) damp, very loose, FM SAND, little SILT. No odor. 0.1' Black (N1) to Dark Yellowish Brown (10YR 4/2) damp, loose, FMC SAND, SILT, coal fragments common. No odor.	Sandy Fill w/ Coal Fragments	\	0.0	0.000
4	3	6	1 - 1 - 1 - 1	2 / 1.25'	2	0.75' Grayish Brown (5YR 3/2) w/ Light Brown (5YR 5/6) mottling, moist, loose, FM SAND, some SILT. 0.5' Dusky Yellowish Brown (10YR 2/2) w/ Light Brown (5YR 5/6) mottling, FM SAND, some SILT, little CLAY.		\	0.0	0.000
6	4	8	2 - 1 - 1 - 1	2 / 1.75'	2	1.75' SAA, moist to wet		\	0.0	0.000
8	5	10	5 - 3 - 3 - 1	2 / 1.5'	6	0.5' Dark Yellowish Brown (10YR 4/2) wet, loose, FMC SAND, little SILT, trace CLAY, trace shell fragments. 0.1' Light Olive Gray (5Y 6/1) wet, loose, medium gravel-sized concretions (many broken). 0.9' Black (N1) stained, wet, loose, FMC SAND, little SILT, trace shell fragments. Petroleum like odor.	Sandy Fill / Stained Marl	\	0.0	0.000
10	6	12	1 - 1 - 1 - 1	2 / 0.75'	2	0.75' Medium Dark Gray (N4) to Olive Black (5Y 2/1) wet, very loose FMC SAND, little SILT, trace shell fragments. Petroleum like odor.	Stained Marl	\	0.0	0.000
12	7	14	2 - 1 - 1 - 1	2 / 0.75'	2	0.75' SAA		\	0.0	0.000
14	8	16	w - w - 2 2	2 / 1.0'	2	1.0' SAA w/ one 4.0" layer of peat.		\	0.0	0.000
16	9	18	3 - 4 - 3 - 2	2 / 1.5'	7	1.5' Medium Dark Gray (N4) wet, very loose, FMC SAND, little SILT, trace shell fragments. Three 1.0" to 1.5" layers of peat.	Marl	\	0.0	0.000
18	10	20	w - w - w - w	2 / 0.5'	1	0.5' SAA, but only one peat layer.		\	0.1	0.000
20	11	22	w - w - w - w	2 / 0.5'	1	0.5' Olive Gray (5Y 4/1) moist, very loose, FMC SAND, little SILT, trace shell fragments. No odor.		\	0.1	0.005
22	12	24	w - w - w - w	2 / 1.75'	1	1.75' SAA, w/ few Medium Light Gray (N6) laminations.		\	0.0	0.009
24	13	26	w - w - w - w	2 / 1.25'	1	1.25' Olive Gray (5Y 4/1) moist,very soft, SILT, fine SAND, CLAY, trace shell fragments. Medium Light Gray (N6) laminations of fine SAND common. Methane odor.	Transitional Marl	\	0.0	0.011
26	14	28	w - w - w - w	2 / 1.25'	1	1.25' SAA		\	0.0	0.016

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-06
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/15/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/15/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
28	15	30	w - w - w - w	2 / 2.0'	1	2.0' SAA, Methane odor		\	0.0	0.010
30	16	32	w - w - w - w	2 / 1.25'	1	0.25' SAA 1.0' Olive Gray (5Y 4/1) moist, very soft, SILT, some CLAY, trace fine SAND. One 0.5" Dark Gray (N3) band. Methane odor.	Transitional Marl	\	0.0	0.028
32	17	34	w - w - w - w	2 / 1.5'	1	1.5' Olive Gray (5Y 4/1) moist, very soft, SILT, some CLAY trace fine SAND. Three 0.5" Dark Gray (N3) band. Methane odor. ----- BOTTOM OF BORING @ 34' -----		\	0.0	0.007

Depth to Water = 7.5'
Analytical Sample Interval = 28.0' to 30.0' @ 1046
Discrete Water Sample Interval = 8.0' to 10.0' @ 0935

Discrete Sampling Water Quality Measurements
Temp. = 11.7°C
pH = 6.75
Conductivity = 2.26 mS/cm
Specific Gravity = 1.001 @ 11.7°C

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-07
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/14/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/14/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	2 - 1 - 2 - 1	2 / 0.25'	3	0.25' Dark Yellowish Brown (10YR 4/2) damp, loose, FM SAND, some SILT, trace fine GRAVEL and plant fragments.	Sandy Fill	\	0.0	0.000
2	2	4	3 - 3 - 2 - 2	2 / 0.5'	5	0.1' SAA 0.4' Pale Yellowish Brown (10YR 6/2) to Medium Gray (N5) damp, loose, FMC SAND, trace SILT, trace fine GRAVEL, one coarse GRAVEL in nose.		\	0.0	0.000
4	3	6	1 - 2 - 2 - 2	2 / 1.0'	4	0.25' SAA 0.75' Dusky Yellow (5Y 6/4) moist, very loose, FMC SAND, some SILT, little CLAY, trace shell fragments.		\	0.1	0.000
6	4	8	2 - 2 - 3 - 3	2 / 1.0'	5	0.75' SAA 0.25' Medium Gray (N5) wet, loose FMC SAND, SILT, shell fragments. Slight chemical odor.		\	0.3	0.000
8	5	10	2 - 1 - 2 - 3	2 / 1.25'	3	0.9' SAA 0.35' Black (N1) wet, loose, fine SAND, SILT, in a sludgy matrix. Petroleum like odor.	Sandy Fill / Sludgy Fill	\	1.2	0.000
10	6	12	w - w - w - w	2 / 0.5'	1	0.5' SAA		\	9.1	0.000
12	7	14	2 - 4 - 5 - 2	2 / 1.25'	9	0.25' SAA 0.25' Black (N1) to Olive Gray (5Y 4/1) wet, loose, FMC SAND, shell fragments. Strong petroleum like odor. 0.75' Light Olive Gray (5Y 6/1) moist, stiff, laminated fine SAND, trace shell fragments, in a matrix of SILT w/ trace CLAY.	Sludgy Fill / Stained Marl / Marl	\	1.4	0.000
14	8	16	1 - 1 - w - w	2 / 1.75'	1	0.25' SAA 1.5' Light Olive Gray (5Y 6/1) wet, very loose, FM SAND, SILT, trace CLAY, trace shell and plant fragments. One 0.5" band of peat.	Marl	\	1.0	0.000
16	9	18	w - w - 1 - 1	2 / 2.0'	1	2.0' SAA w/ one 1.5" band of peat.		\	0.3	0.000
18	10	20	w - w - w - w	2 / 1.0'	1	1.0' SAA		\	0.4	0.000
20	11	22	w - w - w - w	2 / 1.75'	1	1.75' SAA		\	0.1	0.000
22	12	24	w - w - w - w	2 / 1.75'	1	1.75' SAA, w/ few Yellowish Gray (5Y 7/2) laminations.		\	5.3	0.004
24	13	26	w - w - w - w	2 / 1.75'	1	1.75' SAA		\	21.0	0.000
26	14	28	w - w - w - w	2 / 2.0'	1	0.5' SAA 1.5' Olive Gray (5Y 4/1) moist, soft, clayey SILT, trace fine SAND, trace shell and plant fragments. Methane odor.	Marl / Transitional Marl	\	1.8	0.000
28	15	30	w - w - w - w	2 / 1.5'	1	1.5' SAA		\	7.5	0.000
30	16	32	w - w - w - w	2 / 2.0'	1	2.0' SAA		\	34.6	0.000
32	17	34	w - w - w - w	2 / 1.5'	1	1.5' SAA	Transitional Marl	\	13.6	0.000
						----- BOTTOM OF BORING @ 34' -----				

Depth to Water = 7.0'
Analytical Sample Interval = 8.0' to 10.0' @ 0847
Discrete Water Sample Interval = 8.0' to 10.0' @ 0928

Discrete Sampling Water Quality Measurements
Temp. = 9.4°C
pH = 7.05
Conductivity = 1.54 mS/cm
Specific Gravity = 1.002 @ 13.4°C

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O'BRIEN & GERE ENGINEERS, INC.						SOIL BORING LOG	REPORT OF BORING HB-GWS-08				
Client: Honeywell Proj. Loc: Syracuse, NY File No.: 1163/39597						Sampler: 2" Split Spoon Hammer: 140 lb Fall: 30"	Location: Harbor Brook / SYW-12 Start Date: 12/13/2006 End Date: 12/13/2006				
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer							Screen / Riser Grout Sand Pack Bentonite				
Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed			Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w - w - 1 1	2 / 0.75'	1	0.25' Dark Yellowish Brown (10YR 4/2) damp, very loose, FM SAND, little SILT, trace CLAY, reed tubor and root fragments. 0.5' Pale Yellowish Brown (10YR 6/2) damp, very loose, fine SAND, SILT. No odor.	Sandy Fill		\		0.0	0.000
2	2	4	1 - 1 - 1 - 1	2 / 1.0'	2	0.25' SAA 0.75' Pale Yellowish Brown (10YR 6/2) damp, very loose, FMC SAND, SILT, shell fragments. No odor.			\		0.0	0.000
4	3	6	1 - w - 1 - w	2 / 0.1'	1	0.1' SAA POOR RECOVERY, Medium Dark Gray (N4) stained. Petroleum like odor.	Sandy Stained Fill		\		0.2	0.000
6	4	8	1 - w - 1 - w	2 / 1.25'	1	1.25' Medium Dark Gray (N4) wet, very loose, FM SAND, SILT, shell fragments, petroleum like odor.			\		0.1	0.000
8	5	10	1 - 1 - 1 - 2	2 / 1.25'	2	1.25' Medium Dark Gray (N4) to Black (N1) wet, very loose, FM SAND, SILT, trace CLAY, trace shell and plant fragments. Petroleum like odor.			\		0.0	0.000
10	6	12	w - w - w - 1	2 / 0.5'	1	0.5' SAA			\		0.0	0.000
12	7	14	5 - 11 - 1 - 1	2 / 0.75'	12	0.1' SAA 0.65' Very Light Gray (N8) to Light Gray (N7), wet, medium dense, consolidated FMC SAND in a White (N9) SILT matrix. Chemical odor.	Fill / Solvay Waste		\		0.0	0.116
14	8	16	w - w - w - w	2 / 1.25'	1	1.25' Light Olive Gray (5Y 6/1) saturated, very loose, FMC SAND, SILT, trace CLAY, trace shell fragments. Strong sulfur odor.	Marl		\		0.0	0.000
16	9	18	w - w - w - w	2 / 1.0'	1	1.0' Light Olive Gray (5Y 6/1), saturated, very loose, MC SAND, fine GRAVEL, trace SILT, trace fine to medium gravel-sized concretions, trace shell fragments. Strong sulfur odor.			\		0.1	0.000
18	10	20	w - w - w - w	2 / 1.25'	1	1.25' SAA			\		0.0	0.007
20	11	22	w - w - w - w	2 / 0.1'	1	0.1' SAA Poor Recovery			\		0.0	0.026
22	12	24	w - w - w - w	2 / 0.1'	1	0.1' SAA Poor Recovery			\		0.0	0.036
24	13	26	w - w - w - w	2 / 1.25'	1	1.25' Light Olive Gray (5Y 6/1) saturated, very loose, FMC SAND, some SILT, trace CLAY, trace shell and plant fragments. Strong sulfur odor.			\		32.2	0.000
26	14	28	w - w - w - w	2 / 2.0'	1	1.50' SAA 0.5' Light Olive Gray (5Y 6/1) wet, very loose, SILT, some fine SAND, little CLAY, trace shell and plant fragments.			\		16.2	0.000
28	15	30	w - w - w - w	2 / 2.0'	1	2.0' SAA			\		1.1	0.000
30	16	32	w - w - w - w	2 / 2.0'	1	2.0' SAA			\		8.3	0.000

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-GWS-08
Client: Honeywell Proj. Loc: Syracuse, NY File No.: 1163/39597	Sampler: 2" Split Spoon Hammer: 140 lb Fall: 30"	Location: Harbor Brook / SYW-12 Start Date: 12/13/2006 End Date: 12/13/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
32	17	34	w - w - w - w	2 / 2.0'	1	0.25' SAA 1.75' Light Olive Gray (5Y 6/1) wet, very loose, fine SAND, SILT, trace CLAY, trace shell and plant fragments. Strong sulfur odor.		\	2.2	0.000
34	18	36	w - w - w - w	2 / 2.0'	1	2.0' SAA	Marl	\	0.2	0.000
36	19	38	w - w - w - w	2 / 2.0'	1	0.75' SAA 1.25' Light Olive Gray (5Y 6/1) moist, very soft, clayey SILT, trace fine SAND, trace shell fragments. Slight sulfur odor.	Marl / Transitional Marl	\	0.0	0.000
38	20	40	w - w - w - w	2 / 2.0'	1	0.25' SAA, grading to 1.75' Olive Gray (5Y 4/1) moist, very soft, Clayey SILT, trace shell fragments.	Transitional Marl	\	0.3	0.000
						----- BOTTOM OF BORING @ 40' -----				

Depth to Water = 7.0'
Analytical Sample Interval = 8.0' to 10.0' @ 1339
Discrete Water Sample Interval = 8.0' to 10.0' @ 1410

Discrete Sampling Water Quality Measurements
Temp. = 13.1°C
pH = 6.48
Conductivity = 3.90 mS/cm
Specific Gravity = 1.002 @ 11.7°C

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O'BRIEN & GERE ENGINEERS, INC.						SOIL BORING LOG	REPORT OF BORING HB-GWS-09			
Client: Honeywell Proj. Loc: Syracuse, NY File No.: 1163/39597						Sampler: 2" Split Spoon Hammer: 140 lb Fall: 30"	Location: Harbor Brook / SYW-12 Start Date: 12/12/2006 End Date: 12/12/2006			
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer							Screen = \ Grout Riser Sand Pack Bentonite			
Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1 - 1 - w - w	2 / 0.33'	1	0.33' Dark Yellowish Brown (10YR 4/2) moist, very loose, fine SAND, SILT, trace CLAY. Reed fragments.	Fill	\ \ \	0.0	0.000
2	2	4	1 - 1 - 1 - 1	2 / 0.25'	2	0.25' SAA, but no reed fragments.		\ \ \	0.2	0.000
4	3	6	1 - w - 1 - w	2 / 0.75'	1	0.25' SAA 0.5' Pale Olive (10Y 6/2) moist, very loose, FM SAND, little SILT, trace coarse GRAVEL, trace shell fragments. Sulfur odor.	Fill / Marl	\ \ \	0.1	0.000
6	4	8	w - w - w - w	2 / 1.75'	1	1.75' SAA, w/ one 1.5" band of MC SAND, little shell fragments.	Marl	\ \ \	0.0	0.000
8	5	10	w - w - w - w	2 / 1.75'	1	0.5' SAA 1.25' Light Olive Gray (5Y 6/1) saturated, very loose, FM SAND, little SILT, trace shell fragments. Sulfur odor.		\ \ \	0.0	0.000
10	6	12	w - w - w - w	2 / 0.1'	1	0.1' Light Olive Gray (5Y 6/1) saturated, very loose, FM SAND, little SILT, trace shell fragments. Sulfur odor.		\ \ \	0.2	0.000
12	7	14	w - w - w - w	2 / 0.1'	1	0.1' Poor Recovery		\ \ \	0.1	0.000
14	8	16	w - w - w - w	2 / 1.25'	1	0.25' SAA 1.0' Light Olive Gray (5Y 6/1) saturated, very loose, FMC SAND, SILT, trace CLAY, trace fine GRAVEL, trace shell fragments. Strong sulfur odor.		\ \ \	0.0	0.000
16	9	18	w - w - w - w	2 / 1.75'	1	1.75' SAA		\ \ \	0.0	0.000
18	10	20	w - w - w - w	2 / 0.35'	1	0.25' SAA 0.10' Medium Dark Gray (N4) saturated, very loose, FMC SAND, little SILT, trace shell fragments. Sulfur odor. POOR RECOVERY		\ \ \	0.1	0.000
20	11	22	w - w - w - w	2 / 0.1'	1	0.1' SAA POOR RECOVERY		\ \ \	0.0	0.000
22	12	24	w - w - w - w	2 / 1.75'	1	1.75' Olive Gray (5Y 4/1) wet, very loose, SILT, fine SAND, trace CLAY, trace shell fragments. No odor.		\ \ \	0.0	0.000
24	13	26	w - w - w - w	2 / 2.0'	1	2.0' SAA	Transitional Marl	\ \ \	0.0	0.000
26	14	28	w - w - w - w	2 / 1.75'	1	1.75' SAA		\ \ \	0.0	0.000
28	15	30	w - w - w - w	2 / 0.75'	1	0.75' SAA		\ \ \	0.0	0.000
30	16	32	w - w - w - w	2 / 1.25'	1	1.25' SAA		\ \ \	0.0	0.000
						----- BOTTOM OF BORING @ 32' -----				

Depth to Water = 9.25'
Analytical Sample Interval = 30.0' to 32.0' @ 1036
Discrete Water Sample Interval = 10.0' to 12.0' @ 0930

Discrete Sampling Water Quality Measurements
Temp. = 9.4°C
pH = 6.48
Conductivity = 2.03 mS/cm
Specific Gravity = 1.001 @ 17.4°C

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-MW-22
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/26/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/26/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w - w - 1 1	2 / 0.85	1	0.1' Dusky Yellowish Brown (10YR 2/2) moist, loose, fine SAND, SILT, CLAY, Plant fragments. 0.5' Dark Yellowish Brown (10YR 4/2) damp, very loose, fine SAND, little SILT. No odor. 0.25' Black (N1) damp, very loose, FMC SAND sized coal fragments. No odor.	Thin Sandy Loam / Sandy Fill		0.0	0.000
2	2	4	2 - 3 - 3 - 2	2 / 1.75	6	0.1' SAA 0.35' Dark Yellowish Brown (10YR 4/2) moist, loose, fine SAND, some SILT. Plant fragments. 0.8' Dark Yellowish Brown (10YR 4/2) moist, loose, FMC SAND, trace SILT and fine GRAVEL. Brick fragments.	Sand - Fine Gravel Fill		0.0	0.000
4	3	6	w - w - w - w	2 / 0.75	1	0.25' SAA, but wet. 0.5' Black (N1) to Medium Dark Gray (N4), wet, very loose, FM SAND, SILT. Strong petroleum like odor.	Stained Sandy Fill	=	0.1	0.000
6	4	8	2 - 2 - 2 - 3	2 / 0.25	4	0.25' Medium Dark Gray (N4) wet, loose, FM SAND, some SILT, trace shell fragments. Petroleum like odor. POOR RECOVERY	Stained Marl	=	0.0	0.000
8	5	10	3 - 3 - 4 - 2	2 / 1.0	7	0.1' SAA 0.9' Medium Gray (N5) w/ thin (0.125") bands of Light Gray (N7) every 2.0". Wet, loose, FM SAND, little SILT, and shell fragments. Slight sulfur odor.	Marl	=	0.3	0.000
10	6	12	3 - 2 - 2 - 3	2 / 0.75	4	0.75' Medium Gray (N5) to Olive Gray (5Y 4/1), wet, loose, FM SAND, some SILT, little shell fragments. Slight petroleum like odor in upper sediments, slight sulfur odor throughout.		=	0.4	0.005
12	7	14	6 - 6 - 5 - 7	2 / 2.0	11	2.0' Olive Gray (5Y 4/1) wet, medium dense, FM SAND, trace SILT, some shell fragments. Sulfur odor.		=	0.2	0.004
						----- BOTTOM OF BORING @ 14' -----				

Depth To Water ~ 4.0	Screen Interval = 4.0' to 14.0' Below Grade	Sand Pack Interval = 2.5' to 15.0' Below Grade
Analytical Sample Interval = 4 to 6' Below Grade	Sump Interval = 14.0' to 15.0' Below Grade	Bentonite/Grout Pack Interval = 0.0' to 2.5'
Bottom of Boring 14.0'	Riser Interval = 4.0' to -2.0' Below Grade	

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-MW-23
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/26/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/26/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w - w - w - w	2 / 0.1	1	0.1' Pale Yellowish Brown (10YR 6/2) damp, very loose, FM SAND, some SILT. Poor Recovery.	Fill		0.0	0.000
2	2	4	1 - 1 - 1 - 1	2 / 1.0	2	0.5' SAA 0.5' Dark Yellowish Brown (10YR 4/2) damp, very loose, fine SAND, some SILT, little CLAY. Plant fragments.	Fill		0.0	0.000
4	3	6	2 - 1 - 2 - 2	2 / 0.75	3	0.75' Dark Yellowish Brown (10YR 4/2) wet, very loose, FM SAND, some SILT, trace CLAY.	Fill	=	0.0	0.000
6	4	8	2 - 3 - 3 2	2 / 1.25	6	0.5' SAA 0.75' Olive Gray (5Y 4/1) to laminated Medium Dark Gray (N4) and Medium Light Gray (N6) wet, loose, FMC SAND, some SILT, trace shell fragments.	Fill / Marl	=	0.0	0.000
8	5	10	2 - 2 - 3 - 4	2 / 1.25	5	0.25' SAA 1.0' Medium Dark Gray (N4) FMC Sand, some SILT, trace CLAY and shell fragments. One 0.25" Black (N1) band w/ petroleum like odor. Two (0.5") Pale Brown (5YR 5/2) fine SAND, SILT, CLAY bands.	Stained Marl	=	0.7	0.000
10	6	12	w - w - w - w	2 / 0.0	1	No Recovery	NA	=	NA	NA
12	7	14	3 - 3 - 4 - 2	2 / 1.5	7	1.5' Medium Dark Gray (N4) wet, loose, FMC SAND, some SILT, trace CLAY and shell fragments. One 2.0" and one 0.25" band of plant fragments. Slight petroleum like odor.	Stained Marl	=	0.2	0.000
						----- BOTTOM OF BORING @ 14' -----				

Depth to Water ~4.0' | Screen Interval = 4.0' to 14.0' Below Grade | Sand Pack Interval = 2.5' to 15.0' Below Grade

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-MW-24
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/20/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/20/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w - w - 1 - 1	2 / 1.0'	1	0.25' Dark Yellowish Brown (10YR 4/2) damp, very loose/soft, fine SAND, SILT, little CLAY, plant fragments. 0.75' Pale Yellowish Brown (10YR 6/2) damp, very loose, fine SAND, SILT.	Fill		0.0	0.000
2	2	4	1 - 2 - 2 - 2	2 / 1.25'	4	0.5' SAA 0.75' Light Brown (5YR 5/6) to Moderate Brown (5YR 4/4) damp to wet, loose, MC SAND, Fine GRAVEL, some FM gravel-sized concretions, and little shell fragments. Rust staining, no odor.			0.0	0.000
4	3	6	1 - 2 - 2 - 1	2 / 0.0'	4	NO RECOVERY			NA	NA
6	4	8	w - w - w - w	2 / 0.1'	1	0.1' Dark Yellowish Brown (10YR 4/2) saturated, very loose, MC SAND, FM angular to well rounded GRAVEL and gravel-sized concretions and concretion pieces. POOR RECOVERY			0.1	0.000
8	5	10	w - w - w - w	2 / 1.25'	1	0.5' SAA 0.75' Light Olive Gray (5Y 6/1) wet, very loose, FMC SAND, SILT, trace CLAY and shell fragments.	Fill / Marl		0.2	0.000
10	6	12	w - w - w - w	2 / 0.0'	1	NO RECOVERY	NA		NA	NA
12	7	14	w - w - w - w	2 / 0.0'	1	NO RECOVERY	NA		NA	NA
						----- BOTTOM OF BORING @ 14' -----				

Depth To Water ~ 4.0	Screen Interval = 4.0' to 14.0' Below Grade	Sand Pack Interval = 2.0' to 15.0' Below Grade
Analytical Sample Interval = 8 to 10' Below Grade	Sump Interval = 14.0' to 15.0' Below Grade	Bentonite/Grout Pack Interval = 0.0' to 2.0'
Bottom of Boring 14.0'	Riser Interval = 4.0' to -2.0' Below Grade	

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-MW-25
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/21/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/21/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1 - 1 - 2 - 2	2 / 1.0'	3	0.25' Dark Yellowish Brown (10YR 4/2) damp, very loose, fine SAND, SILT, trace CLAY. Trace plant material. 0.75' Pale Yellowish Brown (10YR 6/2) damp, very loose, FM SAND, SILT, trace plant fragments, w/ one 0.75" band of Brownish Black (5YR 2/1) FMC SAND w/ roots.	Fill		0.0	0.000
2	2	4	2 - 1 - 2 - 1	2 / 1.25'	3	0.5' SAA 0.75' Pale Yellowish Brown (10YR 6/2) damp to wet, very loose, FM SAND, SILT, trace CLAY and shell fragments. Laminations of Dark Yellowish Orange (10YR 6/6) and Light Olive Gray (5Y 5/2) common.			0.1	0.000
4	3	6	w - w - w - w	2 / 1.5'	1	0.25' SAA 1.25' Olive Gray (5Y 4/1) moist, very soft, SILT, fine SAND, little CLAY. Three 0.5" Black (N1) sludge bands w/ vertical stringers common. Petroleum like odor.	Fill w/ sludge material	=	0.2	0.000
6	4	8	w - 1 - 1 - 1	2 / 0.75'	2	0.50' SAA 0.25' Black (N1) stained wet, very loose, FMC SAND, SILT, little shell fragments. Strong petroleum like odor.	Stained Fill	=	0.1	0.000
8	5	10	2 - 3 - 3 - 2	2 / 1.25'	6	1.25' Dark Gray (N3) to Black (N1) wet, loose, FMC SAND, angular fine gravel size industrial fragments. Slight petroleum like odor.		=	0.1	0.000
10	6	12	w - w - w - w	2 / 0.0'	1	NO RECOVERY		=	NA	NA
12	7	14	w - w - w - w	2 / 0.25'	1	0.25' SAA POOR RECOVERY ----- BOTTOM OF BORING @ 14' -----		=	0.0	0.000

Depth To Water ~ 3.5'
Analytical Sample Interval = 4 to 6' Below Grade
Bottom of Boring 14.0'

Screen Interval = 4.0' to 14.0' Below Grade
Sump Interval = 14.0' to 15.0' Below Grade
Riser Interval = 4.0' to -2.0' Below Grade

Sand Pack Interval = 2.5' to 15.0' Below Grade
Bentonite/Grout Pack Interval = 0.0' to 2.5'
Protective Casing = 1.7' to -1.3' Below Grade

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-MW-26
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/21/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/21/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	Sample No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1 - 1 - 2 - 1	2 / 1.25	3	0.1' Dark Yellowish Brown (10YR 4/2) damp, very loose, FM SAND, SILT, trace CLAY. Plant Fragments. 1.15' Yellowish Gray (5Y 8/1) to Light Olive Gray (5Y 6/1) damp loose, fine SAND, SILT, trace CLAY and shell fragments. Trace root and plant fragments. No Odor.	Fill		0.0	0.000
2	2	4	1 - 2 - 2 - 2	2 / 1.5	4	1.5' SAA			0.1	0.000
4	3	6	2 - 2 - 1 - 1	2 / 1.5	3	1.25' SAA but moist to wet. 0.25' Olive Gray (5Y 4/1) moist, soft, SILT, little CLAY, trace fine SAND. Few Light Brown (5YR 5/6) flecks			0.0	0.000
6	4	8	3 - 6 - 6 - 4	2 / 1.75	12	0.5' SAA but saturated. 1.25' Light Brown (5YR 5/6) to Moderate Brown (5YR 3/4) saturated, medium dense, MC SAND, medium GRAVEL, SILT.			0.0	0.000
8	5	10	3 - 3 - 2 - 2	2 / 1.25	5	0.25' SAA 1.0' Dark Gray (N3) to Black (N1) saturated, loose, FMC SAND, SILT. Petroleum like odor.			0.5	0.000
10	6	12	1 - 2 - 2 - 1	2 / 0.25	4	0.25' SAA POOR RECOVERY	Stained Fill		2.5	0.000
12	7	14	2 - 2 - 3 - 2	2 / 1.25'	5	1.25' Black (N1) to Medium Dark Gray (N4) saturated, loose, FM SAND, SILT, trace shell fragments. Strong petroleum like odor.	Stained Marl		1.8	0.000
14	8	16	2 - 1 - 2 - 2	2 / 0.0'	3	NO RECOVERY			NA	NA
						----- BOTTOM OF BORING @ 16' -----				

Depth To Water ~ 5'	Screen Interval = 5.0' to 15.0' Below Grade	Sand Pack Interval = 3.0' to 16.0' Below Grade
Analytical Sample Interval = 8 to 10' Below Grade	Sump Interval = 15.0' to 16.0' Below Grade	Bentonite/Grout Pack Interval = 0.0' to 3.0'
Bottom of Boring 16.0'	Riser Interval = 5.0' to -2.0' Below Grade	

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-MW-27
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook / SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/28/2006
File No.: /1163/39597	Fall: 30"	End Date: 12/28/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen / Riser; Grout / Sand Pack / Bentonite

Depth Below Grade	Sample No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	4 - 6 - 6 - 7	2 / 1.0'	12	0.5' Dusky Yellowish Brown (10YR 2/2) damp, medium dense, FM SAND, SILT, and trace CLAY, little plant and root fragments. 0.5' Olive Gray (5Y 4/1) damp, medium dense, FMC SAND, FM coarse angular GRAVEL and brick/coal fragments.	Fill		0.0	0.000
2	2	4	6 - 4 - 3 - 3	2 / 1.25'	7	0.5' SAA w/ one 0.5" Light Brown 5YR 5/6) band. 0.75' Light Olive Gray (5Y 6/1) damp, loose, FMC SAND, SILT, some FM gravel-sized concretions, trace shell fragments. .	Fill / Marl		0.0	0.000
4	3	6	w - w - w - 1	2 / 1.25'	1	1.25' Light Olive Gray (5Y 6/1) wet, very loose, FM gravel-size concretions, little shell fragments. Sulfur odor.	Marl		0.0	0.000
6	4	8	1 - 1 - 1 - 1	2 / 0.75'	2	0.75' SAA			0.0	0.000
8	5	10	1 - w - 1 - w	2 / 0.1'	1	0.1' Sluff, POOR RECOVERY			0.0	0.000
10	6	12	w - w - w - w	2 / 0.25'	1	0.25' Light Olive Gray (5Y 6/1) saturated, very loose, FM SAND, SILT, FM gravel size concretions. Trace shell fragments. Sulfur odor.			0.6	0.000
12	7	14	w - w - w - w	2 / 0.1'	1	0.1' SAA POOR RECOVERY			0.8	0.000
14	8	16	w - w - w - w	2 / 1.0'	1	1.0' SAA w/ trace plant fragments. ----- BOTTOM OF BORING @ 16' -----			0.8	0.000

Depth To Water ~ 5'
Analytical Sample Interval = 14 to 16' Below Grade
Bottom of Boring 16.0'

Screen Interval = 4.0' to 14.0' Below Grade
Sump Interval = 14.0' to 15.0' Below Grade
Riser Interval = 4.0' to -2.0' Below Grade

Sand Pack Interval = 2.5' to 15.0' Below Grade
Bentonite/Grout Pack Interval = 0.0' to 2.5'
Protective Casing =

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O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-51
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/19/2006
File No.: 1163 / 39597	Fall: 30"	End Date: 12/19/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w-w-w-1	2/1.0	1	1.0' Dark yellowish brown (10YR 4/2) damp very loose, FMC sand, silt, plant fragments.	Fill	\ \ \	0.0	0.000
2	2	4	w-1-w-1	2/1.0	1	0.5' SAA. 0.25' Yellowish orange (5Y 8/1) FM sand, FM gravel-size concretions and fragments, little silt. No odor.		\ \ \	0.1	0.000
4	3	6	w-w-w-1	2/1.75	1	1.75' Dark yellowish brown (10YR 4/2) moist very loose, FMC sand, silt. 2" layer with shell fragments.		\ \ \	0.1	0.000
6	4	8	w-w-w-w	2/2.0	1	0.25' SAA. 1.75' Pale yellowish brown (10YR 6/2) moist to wet, very loose, laminated FM sand and silt, trace clay and shell fragments. Black (N1) and light brown (5YR 5/6) laminations in lower 0.5'		\ \ \	0.0	0.000
8	5	10	1-w-w-w	2/1.0	1	1.0' SAA, but one 2" band with black (N1) laminations with a petroleum like odor.		\ \ \	0.2	0.000
10	6	12	w-w-w-w	2/1.0	1	1.0' Medium dark gray (N4) to dark gray (N3) wet, loose FM sand, silt. Petroleum like odor	Stained Fill	\ \ \	0.1	0.000
12	7	14	w-w-w-w	2/2.0	1	0.75' SAA. 1.0' Black (N1) moist, soft, fine sand in a sludgy matrix (shoe polish consistency) strong petroleum like odor. 0.25' Dark gray (N3) FM sand, silt, wet/loose.		\ \ \	0.4	0.000
14	8	16	w-w-w-w	2/1.0	1	0.25' SAA. 0.5' Olive gray (5Y 4/1) moist, soft, silty clay 0.1' Black (N1) wet, loose, FM sand, shell fragments. 0.1' light olive gray (5Y 2/1) wet, loose, FM sand, silt, shell fragments. Petroleum like odor.		\ \ \	0.3	0.000
16	9	18	w-w-w-w	2/1.25	1	0.1' Black (N1), wet, loose, FM sand with shell fragments, silt. 1.15' Olive gray (5Y 4/1), fine sand, silt, trace clay, shell fragments. Sulfur odor.	Stained Marl	\ \ \	0.4	0.019
18	10	20	w-w-w-w	2/1.75	1	0.25' Dark gray (N3) to black (N1), wet, loose, FM sand, silt, trace clay, petroleum like odor, shell fragments. 1.15' Light olive gray (5Y 6/1) wet, loose, FM sand, silt and trace clay, shell fragments. Vertical medium dark gray (N4) stringer with petroleum like odor.		\ \ \	0.1	0.017
20	11	22	w-w-w-w	2/1.5	1	1.5' SAA with no vertical stringers	Marl	\ \ \	0.0	0.023
22	12	24	w-w-w-w	2/1.0	1	1.0' alternating bands of Light olive gray/olive gray (5Y 4/1) wet, soft, fine sand, silt, trace clay and shell fragments. Slight sulfur odor.	Transitional Marl	\ \ \	0.2	0.023
24	13	26	w-w-w-w	2/1.75	1	1.75' Olive gray (5Y 4/1) moist, soft, clayey silt, trace fine sand, Light olive gray (5Y 6/1) laminations every 2"-3" slight methane odor, fine sand, silt, shell fragments.		\ \ \	0.0	0.009
26	14	28	w-w-w-w	2/2.0	1	2.0' SAA with 3" layer of Light olive gray (5Y 6/1) fine sand, silt, trace clay, shell and plant fragments.		\ \ \	0.1	0.015
28	15	30	w-w-w-w	2/2.0	1	2.0' Olive gray (5Y 6/1) moist, soft, silt, some clay, trace fine sand, shell and plant fragments.		\ \ \	0.1	0.015
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water ~7'
Analytical Sample Interval = 12 to 14' @ 1310

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-52
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/13/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/13/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w-w-w-w	2/0.15	1	0.1' Dark yellowish brown (10YR 4/2), damp, very loose, fine sand, some silt, trace clay, plant and root fragments. 0.65' Pale yellowish brown (10YR 6/2), damp, very loose, FMC sand trace silt	Fill	\ \ \	0.0	0.000
2	2	4	1-1-1-1	2/1.25	2	0.25' SAA. 1.0' Light olive gray (5Y 5/2), damp, wet, very loose, FM sand, some silt, trace clay, trace shell fragments. One 3" layer dusky yellow brown (10YR 2/2)		\ \ \	0.0	0.000
4	3	6	w-w-1-1	2/1.5	1	1.5' SAA	Reworked Marl Fill	\ \ \	0.0	0.000
6	4	8	1-1-1-1	2/1.125	2	0.1' SAA. 1.15' Olive gray (5Y 3/2) wet, very loose, FM sand, some silt, trace shell fragments.		\ \ \	0.1	0.000
8	5	10	1-1-1-1	2/1.5	2	0.25' SAA. 1.25' Black (N1), wet, very loose/soft, fine sand and silt with plant fragments in a sludgy matrix. Petroleum odor		\ \ \	4.4	0.000
10	6	12	w-w-w-w	2/0.75	1	0.75' Medium dark gray (N4) to black (N1) wet, very loose/soft, fine sand and silt with plant fragments in a sludgy matrix. Petroleum like odor.		\ \ \	1.8	0.000
12	7	14	w-1-w-1	2/1.25	1	0.1' SAA. 0.15' Olive gray (5Y 3/2), wet, very loose, FM sand, trace silt, shell fragments. 1.0' Light olive gray (5Y 6/1) wet, very loose/ soft, FM sand in a silt matrix with trace clay, sulfur odor		\ \ \	0.1	0.000
14	8	16	w-w-w-w	2/1.25	1	1.25' SAA	Marl	\ \ \	0.4	0.000
16	9	18	w-w-w-w	2/2.0	1	0.5' SAA. 0.5' Olive gray (5Y 4/1), wet, very loose, fine sand, silt, trace shell fragments. 1.0' Light olive gray (5Y 6/1) FM sand, silt, shell fragments. Olive gray (5Y 4/1) bands common (0.125" to 0.5") thick. Strong sulfur odor		\ \ \	0.4	0.000
18	10	20	w-w-w-w	2/1.75	1	0.5' SAA. 1.25' Olive gray (5Y 4/1) wet, very loose, fine sand, silt, trace clay, shell fragments, strong sulfur odor, one band shell fragments, trace plant materials		\ \ \	0.0	0.000
20	11	22	w-w-w-w	2/1.25	1	1.25' SAA		\ \ \	0.0	0.000
22	12	24	w-w-w-w	2/1.5	1	1.5' Olive gray (5Y 4/1) moist, very loose/ soft, silt, fine sand with little clay. Trace shell fragments plant and material. Strong methane odor, few light olive gray (5Y 6/1) bands.	Transitional Marl	\ \ \	0.3	0.000
24	13	26	w-w-w-w	2/2.0	1	2.0' SAA		\ \ \	0.1	0.000
26	14	28	w-w-w-w	2/2.0	1	2.0 SAA with one 0.25" bands (grayish Black (N2))		\ \ \	0.4	0.000
28	15	30	w-w-w-w	2/2.0	1	2.0' Olive gray (5Y 4/1) moist, very soft, clayey silt with little fine sand. Strong methane with sulfur odor. Three 0.5" Black (N1) bands		\ \ \	0.7	0.000
						—— BOTTOM OF BORING @ 30' ——				

Depth to Water = 3'
Analytical Sample Interval = 8 to 10' @ 13:46

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.						SOIL BORING LOG	REPORT OF BORING HB-SB-53			
Client: Honeywell						Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12			
Proj. Loc: Syracuse, NY						Hammer: 140 lb	Start Date: 12/13/2006			
File No.: 1163/39597						Fall: 30"	End Date: 12/13/206			
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer							Screen = \ Grout Riser Sand Pack Bentonite			
Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1-1	2/1.0	2	0.25' Grayish brown (5YR 3/2) damp, very loose, fine sand, little silt, trace clay, plant matter, roots. 0.75' Moderate olive brown (5Y 4/4) damp, very loose, FM sand, little silt, little coarse sand, shell fragments, no odor.	Fill	\ \ \	0.0	0.000
2	2	4	1-1	2/0.75	2	0.75' Dusky yellowish brown (10YR 2/2) damp, very loose, FMC sand, silt, shell fragments.		\ \ \	0.0	0.000
4	3	6	1-1	2/1.25	2	1.25 SAA with long root, 2" band dominated by shells/fragments		\ \ \	0.0	0.000
6	4	8	1-1	2/1.5	2	0.75' SAA. 0.75' Olive gray (5Y 4/1), wet, very loose, FM sand, silt, trace clay, One medium rounded gravel, shell fragments. 2" band of Dark gray (N3) to Black (N1). Strong petroleum like odor.	Fill / Reworked Marl Fill	\ \ \	0.0	0.000
8	5	10	1-1	2/0.75	2	0.75' SAA, with 3" stained Dark gray (N3) to Black (N1). Strong petroleum like odor.		\ \ \	0.0	0.000
10	6	12	w-w	2/1.0	1	1.0' Dark gray (N3) to Black (N1) wet, very loose, fine sand, silt, shell fragments, petroleum like odor		\ \ \	1.5	0.000
12	7	14	w-w	2/1.25	1	0.75' SAA. 0.5' Light olive gray (5Y 6/1), wet, very loose, FM sand, silt, trace clay, shell fragments. Sulfur odor.		\ \ \	0.4	0.000
14	8	16	w-w	2/1.25	1	1.25' SAA saturated	Marl	\ \ \	0.0	0.000
16	9	18	w-w	2/1.0	1	1.0' SAA with one 2" band of FMC sand, fine gravel, shell fragments.		\ \ \	0.0	0.000
18	10	20	w-w	2/2.0	1	2.0' Light olive gray (5Y 6/1) wet, very loose, FMC sand, silt, trace clay, shell fragments. Strong sulfur odor.		\ \ \	0.0	0.000
20	11	22	w-w	2/1.5	1	1.5' SAA		\ \ \	0.0	0.000
22	12	24	w-w	2/2.0	1	2.0' SAA plant fragments		\ \ \	0.3	0.000
24	13	26	w-w	2/1.25	1	1.25' SAA plant fragments		\ \ \	0.5	0.000
26	14	28	w-w	2/2.0	1	2.0' Light olive gray (5Y 6/1) wet, very loose, , fine sand, silt, trace clay, shell and plant fragments. Strong sulfur odor		\ \ \	0.2	0.000
28	15	30	w-w	2/1.25	1	1.25' SAA		\ \ \	0.2	0.000
30	16	32	w-w	2/1.75	1	1.75' SAA		\ \ \	0.3	0.000
32	17	34	w-w	2/2.0	1	2.0' SAA with one 0.5" peat layer		\ \ \	0.3	0.000
34	18	36	w-w	2/1.75	1	1.75' Light olive gray (5Y 6/1) wet, very soft, silt, fine sand, trace clay, trace shell fragments. Sulfur odor		\ \ \	0.5	0.000
36	19	38	w-w	2/2.0	1	2.0' SAA		\ \ \	0.4	0.000
38	20	40	w-w	2/2.0	1	2.0' Light olive gray (5Y 6/1) moist, very soft, silt, little clay, little fine sand, trace shell fragments. Sulfur odor.	Transitional Marl	\ \ \	0.3	0.029
40	21	42	w-w	2/2.0	1	2.0' Light olive gray (5Y 6/1) moist, very soft, clayey silt, trace shell fragments, slight sulfur odor		\ \ \	0.1	0.000
42	22	44	w-w	2/2.0	1	2.0' SAA		\ \ \	0.1	0.000
						----- BOTTOM OF BORING @ 44' -----				

Depth to Water ~9.0'
Analytical Sample Interval = 10 to 12'

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-54
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/12/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/12/206
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w-w	2/0.25	1	0.1 Brownish black (5YR 2/1) damp, very loose, FM sand, silt, trace clay, plant and root fragments. 0.15' Light olive gray (5Y 5/2) damp, very loose, FM sand, little silt, no odor	Fill	\ \ \	0.0	0.000
2	2	4	w-w	2/0.1	1	0.1' SAA, POOR RECOVERY		\ \ \	0.0	0.000
4	3	6	w-w	2/0.25	1	0.25' SAA with Dark yellowish orange (10YR 6/6) mottling and trace shell fragments, no odor		\ \ \	0.1	0.000
6	4	8	w-w	2/1.25	1	1.25' Light olive gray (5Y 6/1) wet, very loose, FM sand, silt, shell fragments, three bands, black (N1), stained with petroleum like odor		\ \ \	0.0	0.000
8	5	10	1-w	2/1.75	1	1.5' Black (N1), saturated, very loose, FM sand, silt, plant material, strong petroleum like odor. 0.25' Light olive gray (5Y 6/1), saturated, very loose, FM sand, silt, shell fragments, sulfur odor	Reworked Marl Fill / Marl	\ \ \	0.9	0.000
10	6	12	w-w	2/1.25	1	1.5' Light olive gray(5Y 6/1), saturated, very loose, FM sand, silt, little shell fragments, strong sulfur odor.	Marl	\ \ \	0.3	0.000
12	7	14	w-w	2/1.25	1	1.25' SAA with one 3" layer of CFM sand, trace shell fragments		\ \ \	0.1	0.000
14	8	16	w-w	2/0.5	1	0.5' Light olive gray (5Y 6/1) saturated, very loose, fine gravel, FM sand, trace silt, few shell fragments, and sulfur odor, concretions		\ \ \	0.2	0.000
16	9	18	w-w	2/0.0	1	NO RECOVERY		\ \ \		
18	10	20	w-w	2/0.1	1	0.1' SAA, POOR RECOVERY		\ \ \	0.5	0.000
20	11	22	w-w	2/1.25	1	1.25' Light olive gray (5Y 6/1), saturated, very loose, FM sand, with silt, shell fragments, strong sulfur odor		\ \ \	0.0	0.000
22	12	24	w-w	2/0.25	1	0.25' SAA		\ \ \	0.1	0.052
24	13	26	w-w	2/2.0	1	2.0' Light olive gray (5Y 6/1) saturated, very loose, FM sand, little silt, shell fragments, trace plant material, sulfur odor		\ \ \	0.0	0.000
26	14	28	w-w	2/2.0	1	2.0' SAA		\ \ \	0.0	0.000
28	15	30	w-w	2/2.0	1	2.0' SAA		\ \ \	0.0	0.000
30	16	32	w-w	2/2.0	1	0.5' SAA. 1.5' Light olive gray (5Y 6/1), wet, very soft, silt, little fine sand, little clay, shell fragments, few laminations of plant fragments		\ \ \	0.0	0.000
32	17	34	w-w	2/2.0	1	1.0' SAA. 1.0 Light olive gray (5Y 6/1), wet, very loose, fine sand, silt, trace clay, shell fragments, plant fragments, sulfur odor		\ \ \	0.0	0.000
34	18	36	w-w	2/2.0	1	2.0' SAA		\ \ \	0.0	0.000
36	19	38	w-w	2/2.0	1	1.5' SAA. 0.5' Olive gray (5Y 4/1) moist, very soft, clayey silt, shell fragments, no odor	Marl / Transitional Marl	\ \ \	0.0	0.000
38	20	40	w-w	2/2.0	1	2.0' SAA ----- BOTTOM OF BORING @ 40' -----	Transitional Marl	\ \ \	0.0	0.000

Depth to water ~6.0'
Anaylytical Sample Interval = 8 to 10'

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-55
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/8/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/8/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Nate Kranes		Screen / Riser; Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1-w-1-w	2/0.6	1	0.4' Brownish black, silt and vegetative matter. 0.2' Yellowish gray (5Y 7/2) fine sand, little silt, moist, very loose	Fill	\ \ \	0.0	
2	2	4	1-w-1-w	2/0.1	1	SAA		\ \ \	0.0	
4	3	6	1-w-1-w	2/0.5	1	Light olive gray (5Y 6/1), very loose, saturated, CMF sand, little silt, trace vegetative matter, trace shells, trace brick fragments		\ \ \	0.0	
6	4	8	2-1-1-1	2/0.3	2	SAA		\ \ \	0.0	
8	5	10	1-1-1-1	2/0.2	2	SAA	Sandy Marl Fill	\ \ \	0.0	
10	6	12	w-w-w-w	2/0.7	1	Greenish gray (5GY 6/1) CMF sand, some silt, little shell material, sulfur odor	Marl	\ \ \	0.0	
12	7	14	w-w-w-1	2/0.1	1	SAA		\ \ \	0.0	
14	8	16	w-w-w-w	2/2.0	1	SAA		\ \ \	0.0	
16	9	18	w-w-w-w	2/1.2	1	Greenish gray (5GY 6/1), saturated, very soft, silt and MF sand, trace shell material, sulfur odor		\ \ \	0.0	
18	10	20	w-w-w-w	2/2.0	1	SAA		\ \ \	0.0	
20	11	22	w-w-w-w	2/2.0	1	SAA CMF sand and silt, sulfur odor, shell material		\ \ \	0.0	
22	12	24	w-w-w-w	2/2.0	1	SAA silt and CMF sand, trace root fiber, sulfur odor, shell material		\ \ \	0.0	
24	13	26	w-w-w-w	2/2.0	1	Light olive gray (5Y 5/2), wet, very soft, silt, little clay, trace shell material	Transitional Marl	\ \ \	0.0	
26	14	28	w-w-w-w	2/2.0	1	Light olive gray (5Y 5/2), wet, very soft, silt, little clay, some root fibers, trace shell material		\ \ \	0.0	
28	15	30	w-w-w-w	2/2.0	1	Olive gray (5Y 3/2) silt, little clay, trace roots.		\ \ \	0.0	
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water ~4.0'
Analytical Sample Interval = 10 to 12'

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-56
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/11/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/11/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	w-w-1-1	2/0.5	1	0.5' Dark yellowish brown (10YR 4/2) moist, loose, fine SAND and SILT, trace CLAY, reed tubors. No odor.	Fill	\ \ \	0.0	0.000
2	2	4	1-1-1-1	2/0.5	2	0.5' SAA . No reed tubors		\ \ \	0.0	0.000
4	3	6	W-W-W-W	2/0.1	1	0.1' SAA, POOR RECOVERY		\ \ \	0.0	0.000
6	4	8	1-1-1-1	2/2.0	2	0.1' SAA. 1.9' Light olive gray (5Y 5/2), damp, very loose, FMC SAND, with little SILT and trace CLAY, little sheli fragments. Sulfur odor.	Fill / Marl	\ \ \	0.0	0.000
8	5	10	W-W-W-W	2/2.0	1	2.0' Light olive gray (5Y 5/2) wet, very loose, FMC SAND, little SILT, trace fine GRAVEL, few sheli fragments. Sulfur odor.	Marl	\ \ \	0.0	0.000
10	6	12	1-1-W-W	2/0.1	1	0.1' SAA with wood fragments and one 0.25" concretion. POOR RECOVERY		\ \ \	0.0	0.000
12	7	14	W-W-1-1	2/0.5	1	0.5' Light olive gray (5Y 5/2) wet, loose, FMC SAND, little fine GRAVEL, little SILT, shell fragments, trace plant fragments.		\ \ \	0.0	0.000
14	8	16	W-W-W-W	2/1.25	1	1.25' Light olive gray (5Y 6/1) saturated, very loose, FM SAND, with little SILT, trace fine GRAVEL, trace shell fragments. Sulfur odor.		\ \ \	0.0	0.000
16	9	18	W-W-W-W	2/0.5	1	0.5' Light olive gray (5Y 6/1) saturated, very loose, FMC SAND, little SILT, little fine GRAVEL, trace coarse GRAVEL, sheli fragments. Sulfur odor.		\ \ \	0.0	0.000
18	10	20	W-W-W-W	2/0.1	1	0.1' SAA, POOR RECOVERY		\ \ \	0.0	0.000
20	11	22	W-W-W-W	2/2.0	1	1.0' Light olive gray (5Y 6/1) wet, FMC SAND, little SILT, trace fine GRAVEL, shell fragments, sulfur odor. 1.0' Olive gray (5Y 4/1) wet, very loose, fine SAND and SILT, trace CLAY, shell fragments. Sulfur odor.	Marl / Transitional Marl	\ \ \	0.0	0.000
22	12	24	W-W-W-W	2/0.1	1	0.1' SAA, POOR RECOVERY	Transitional Marl	\ \ \	0.0	0.000
24	13	26	W-W-W-W	2/1.75	1	1.75' SAA with four 0.25" bands of MC SAND and plant fragments.		\ \ \	0.0	0.000
26	14	28	W-W-W-W	2/1.75	1	1.75' Olive gray (5Y 6/1) wet, very loose, fine SAND, SILT, trace CLAY, shell fragments, peat layers. Sulfur odor.		\ \ \	0.0	0.000
28	15	30	W-W-W-W	2/2.0	1	0.5' SAA. 1.5' Olive gray (5Y 6/1) wet, very soft, SILT, little CLAY, trace fine SAND, trace shell fragments. Sulfur odor		\ \ \	0.0	0.000
						— BOTTOM OF BORING @ 30' —				

Depth to water ~8'
Analytical Sample Interval = 6 to 8'

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-57
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/27/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/27/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen / Riser / Grout / Sand Pack / Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	1-1-1-1	2/1.0	2	0.25' Dark Yellowish Brown (10YR 2/2), damp, very loose, SILT, fine SAND, trace CLAY some plant/reed fragments. 0.75' Dark Yellowish Brown (10YR 4/2) damp, very loose, FM SAND, SILT	Fill		0.0	0.000
2	2	4	1-1-1-1	2/1.25	2	0.5' SAA 0.75' Light Olive Gray (5Y 6/1) wet, loose, FMC SAND, FM GRAVEL, medium gravel-sized concretions, no odor			0.0	0.000
4	3	6	3-2-1-1	2/1.25	3	0.25' SAA. 0.75' Olive gray (5Y 4/1) with light brown (5YR 5/6) mottling, wet, loose, fine SAND, fine GRAVEL, some medium gravel size concretions. 0.25' SAA stained Black (N1)			91.5	0.000
6	4	8	1-w-1-w	2/1.75	1	0.1' SAA. 1.65 Light olive gray (5Y 6/1) saturated, loose, FM SAND, little SILT and shell fragments, trace medium gravel-size concretions.	Marl		2.9	0.000
8	5	10	1-1-1-1	2/1.0	2	1.0' SAA			2.9	0.000
10	6	12	w-w-w-w	2/1.25	1	1.25' SAA			0.1	0.000
12	7	14	w-w-w-w	2/0.75	1	0.75 SAA			0.1	0.000
14	8	16	w-w-w-w	2/0.5	1	0.5' Light olive gray (5Y 6/1) saturated, very loose, FM SAND, SILT trace CLAY, some shell fragments. Strong sulfur odor.			0.0	0.000
16	9	18	w-w-w-w	2/0.75	1	0.75' SAA			0.0	0.000
18	10	20	2-1-2-1	2/1.5	3	0.75' SAA abrupt transition to 0.75' Light olive gray (5Y 5/2), moist, soft, SILT, some CLAY, trace fine SAND, trace plant fragments. Slight sulfur odor.	Marl / Transitional Marl		0.1	0.000
20	11	22	w-w-w-w	2/1.0	1	1.0' Medium olive gray (5Y 5/1), moist, soft, SILT, some CLAY, trace fine SAND, and plant fragments, slight sulfur odor	Transitional Marl		0.0	0.000
22	12	24	1-1-1-1	2/1.0	2	1.0' SAA			0.0	0.000
24	13	26	w-w-w-w	2/0.5	1	0.5' SAA with trace shell fragments			0.0	0.000
26	14	28	w-w-w-w	2/1.25	1	1.25 SAA with trace shell fragments			0.0	0.000
28	15	30	w-w-w-w	2/0.0	1	NO RECOVERY				
						—— BOTTOM OF BORING @ 30' ——				

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-58
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 1/2/2007
File No.: 1163/39597	Fall: 30"	End Date: 1/2/2007
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser SAND Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	3-3-4-4	2/1.25	7	0.25' Dark yellowish brown (10YR 4/2) damp, SILT, little fine SAND and CLAY, roots. 1.0' Dark to Dusky yellowish brown (10YR 4/2 to 2/2) damp, loose, FMC SAND-sized particles, little SILT, trace medium GRAVEL, coal, brick, other industrial fragments	Fill	\ \ \	0.1	0.000
2	2	4	3-5-4-4	2/1.25	9	1.0' SAA. 0.25 Grayish red (10R 4/2) damp, loose/stiff, SILT, little fine SAND and CLAY		\ \ \	0.0	0.000
4	3	6	2-2-1-2	2/1.25	3	1.25' Grayish red (10R 4/2) to Dark yellowish gray (10YR 4/2), damp to moist, very loose, FM SAND, SILT, trace CLAY and medium GRAVEL, no odor.		\ \ \	0.0	0.000
6	4	8	1-1-1-1	2/1.0	2	1.0 Grayish brown (5YR 3/2) with black (N1) mottling, wet, soft, SILT, little fine SAND and CLAY, trace FM gravel, black areas have no odor. Trace plant material.		\ \ \	0.0	0.000
8	5	10	1-2-2-2	2/1.25	4	0.25' SAA. 0.25' grayish red (10R 4/2) wet, loose, FMC SAND, SILT, trace CLAY and fine gravel. 0.5' Dusky yellowish brown (10YR 2/2) moist, loose, SILT, fine SAND, little CLAY, trace root, plant and shell fragments, no odor. 0.25' Light Olive Gray (5Y 6/1), moist, loose, FMC SAND, SILT, trace CLAY and shell fragments		\ \ \	0.0	0.000
10	6	12	1-1-w-w	2/1.0	1	1.0' Light Olive Gray (5Y 6/1) wet, very loose, FM SAND, SILT, some FM gravel-size concretions, trace shell fragments, slight sulfur odor	Marl	\ \ \	0.0	0.000
12	7	14	w-w-w-w	2/1.75	1	1.75' SAA		\ \ \	0.0	0.000
14	8	16	w-w-w-w	2/1.0	1	1.0' SAA		\ \ \	0.0	0.000
16	9	18	w-w-w-w	2/1.75	1	1.75' SAA		\ \ \	0.0	0.000
18	10	20	w-w-w-w	2/0.0	1	No recovery		\ \ \		
20	11	22	w-w-w-w	2/0.5	1	0.5' Light olive gray (5Y 6/1) wet, very loose, FM SAND, SILT, trace CLAY, little shell fragments, sulfur odor		\ \ \	0.0	0.000
22	12	24	4-5-5-8	2/1.75	10	0.25' SAA. 1.5' Light olive gray (5Y 6/1) to olive gray (5Y 4/1) wet, medium dense/stiff, SILT, fine SAND, trace CLAY, shell fragments, and plant material.		\ \ \	0.0	0.000
24	13	26	w-w-w-w	2/1.25	1	1.25' olive gray (5Y 4/1) moist, soft, SILT, some CLAY, little fine SAND, traces of shell fragments and plant materials	Transitional Marl	\ \ \	0.0	0.000
26	14	28	w-w-w-w	2/2.0	1	2.0 Olive gray (5Y 4/1) moist, clayey SILT, trace plant materials and shell materials		\ \ \	0.0	0.000
28	15	30	w-w-w-w	2/2.0	1	2.0' SAA		\ \ \	0.0	0.000
						----- BOTTOM OF BORING @ 30' -----				

Depth to Water ~ 6'
Analytical Sample Interval = 16 to 18' w/ field duplicate @ 0911

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.						SOIL BORING LOG	REPORT OF BORING HB-SB-59			
Client: Honeywell						Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12			
Proj. Loc: Syracuse, NY						Hammer: 140 lb	Start Date: 12/28/2006			
File No.: 1163/39597						Fall: 30"	End Date: 12/28/2006			
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul freyer							Screen / Riser		Grout Sand Pack Bentonite	
Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change / General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	5-6-6-4	2/1.25	12	0.5' Dusky Yellowish Brown (10YR 2/2) damp, loose/soft, FM SAND, SILT, little CLAY, some plant fragments, roots. 0.75' Pale Yellowish Brown (10YR 6/2) damp, trace MC GRAVEL, little CLAY	Fill	\ \ \	0.0	0.000
2	2	4	3-4-3-4	2/1.5	7	0.5' SAA with Dark Yellowish Orange (10YR 6/6) mottling. 1.0' Dark Yellowish Brown (10YR 4/2) damp, very loose, FMC SAND, some SILT, trace MC GRAVEL, coal, brick fragments, glass shards.		\ \ \	0.0	0.000
4	3	6	w-w-1-1	2/1.0	1	0.75' Dusky Yellowish Brown (10YR 2/2) damp, very loose, FM SAND, SILT, little CLAY, trace coal and brick fine GRAVEL sized fragments. 0.25' Light Olive Gray (5Y 6/1) moist, very loose, FM SAND, SILT, some fine GRAVEL size concretions, shell fragments, sulfur odor	Fill / Marl	\ \ \	0.0	0.000
6	4	8	1-w-w-1	2/1.25	1	1.25' SAA saturated	Marl	\ \ \	0.0	0.000
8	5	10	w-w-1-1	2/0.1	1	0.1' SAA, POOR RECOVERY		\ \ \	0.0	0.000
10	6	12	w-w-w-w	2/1.0	1	1.0' Light Olive Gray (5Y 6/1) saturated, very loose, FM SAND, SILT, fine gravel size concretions, trace shell fragments. Poor Recovery		\ \ \	0.0	0.000
12	7	14	w-w-w-w	2/0.1	1	0.1' SAA, POOR RECOVERY		\ \ \	0.0	0.000
14	8	16	w-w-w-2	2/1.25	1	1.25' SAA, w/ strong sulfur odor		\ \ \	0.0	0.000
16	9	18	1-2-2-3	2/1.5	4	0.1' SAA. 1.4' Olive Gray (5Y 4/1) moist, soft, SILT, fine SAND, little CLAY, trace shell and plant fragments, sulfur odor		\ \ \	0.0	0.000
18	10	20	2-3-2-3	2/1.5	5	1.5' SAA, but firm		\ \ \	0.0	0.000
20	11	22	w-w-w-w	2/0.25		0.25' SAA, POOR RECOVERY		\ \ \	0.0	0.000
22	12	24	w-w-w-w	2/2.0	1	2.0' Olive Gray (5Y 4/1) wet, very soft, SILT, CLAY, little fine SAND, trace shell and plant fragments, two 0.25" to 0.5" bands of FM SAND, SILT, little plant fragments, sulfur odor	Transitional Marl	\ \ \	0.0	0.000
24	13	26	w-w-w-w	2/2.0	1	2.0' Olive Gray (5Y 4/1) wet, very soft, SILT, CLAY, trace fine SAND, trace shell and plant fragments. Slight sulfur odor.		\ \ \	0.0	0.000
26	14	28	w-w-w-w	2/2.0	1	2.0' SAA		\ \ \	0.0	0.000
28	15	30	w-w-w-w	2/2.0	1	2.0' SAA		\ \ \	0.0	0.000
						—— BOTTOM OF BORING @ 30' ——				
Depth to Water ~6' Analytical Sample Interval = 16 to 18' (w/ Field Duplicate)										

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1 of 1

O'BRIEN & GERE ENGINEERS, INC.	SOIL BORING LOG	REPORT OF BORING HB-SB-60
Client: Honeywell	Sampler: 2" Split Spoon	Location: Harbor Brook/SYW-12
Proj. Loc: Syracuse, NY	Hammer: 140 lb	Start Date: 12/21/2006
File No.: 1163/39597	Fall: 30"	End Date: 12/21/2006
Boring Company: Parratt-Wolff Foreman: Mark Eaves OBG Geologist: Paul Freyer		Screen = \ Grout Riser Sand Pack Bentonite

Depth Below Grade	No.	Depth (feet)	Blows /6"	Penetr/ Recovery	"N" Value	Sample Description	Stratum Change General Descript	Equip. Installed	Field Testing PID (ppm)	Field Testing MVA (Hg)
0	1	2	2-2-2-5	2/1.5	4	0.5' Dark Yellowish Brown (10YR 4/2) damp, loose, FM SAND, SILT, little CLAY with roots and plant material. 1.0' Moderate Brown 5YR 4/4) damp, loose, FM SAND with SILT matrix, with one 3" layer consolidated	Fill	\ \ \	0.0	0.000
2	2	4	5-5-7-8	2/1.5	12	1.5' SAA medium dense with one 3" layer consolidated in a SILT matrix		\ \ \	0.0	0.000
4	3	6	8-10-17-16	2/1.25	27	1.25' SAA with 2.5" band of consolidated material in nose.		\ \ \	0.2	0.006
6	4	8	11-14-17 17	2/1.75	31	1.75' Moderate Brown (5YR 4/4) damp, dense, FM SAND with a silty matrix. One 5" layer consolidated with Yellowish Gray (5Y 8/1) mottling.		\ \ \	0.2	0.000
8	5	10	19-21-21 24	2/1.25	42	1.5' SAA, with two consolidated layer 2" and 3"		\ \ \	0.7	0.000
10	6	12	4-5-7-10	2/1.5	12	1.5' Moderate Brown (5YR 4/4) with bands of Pale Yellowish Brown (10YR 6/2) damp to moist, dense, FM SAND, with a clayey SILT matrix		\ \ \	0.6	0.000
12	7	14	7-4-21-20	2/1.75	30	0.5' SAA. 0.75' Grayish Red (5R 4/2) damp, dense, coarse SAND, fine GRAVEL, supported silty CLAY matrix. 0.5' Light Olive Gray (5Y 6/1) wet, loose, coarse SAND, FM GRAVEL. (subangular to angular)		\ \ \		0.000
14	8	16	12-15-17 26	2/1.75	32	1.75' Light Olive Gray (5Y 6/1) saturated, dense, FM GRAVEL, some MC SAND.		\ \ \	0.0	0.000
16	9	18	10-9-10-14	2/1.5	19	1.5' SAA medium dense		\ \ \	0.0	0.000
18	10	20	15-16-10 5	2/1.0	26	1.0' SAA with coarse GRAVEL sized sandstone fragment in nose		\ \ \	0.0	0.000
20	11	22	1-1-1-1	2/1.75	2	1.75' Light Olive Gray (5Y 6/1) saturated, very loose, FM SAND, SILT, little fine GRAVEL, little FM gravel size Concretions. Sulfur odor	Marl	\ \ \	0.0	0.000
22	12	24	1-2-1-1	2/1.75	3	1.75' SAA		\ \ \	0.0	0.000
24	13	26	1-1-1-1	2/1.0	2	1.0' Light Olive Gray (5Y 6/1) wet, very loose, FM SAND, SILT, trace shell fragments, strong sulfur odor		\ \ \	0.0	0.000
26	14	28	w-w-1-1	2/1.25	1	1.25' SAA with trace medium GRAVEL		\ \ \	0.0	0.000
28	15	30	3-4-4-6	2/1.0	8	0.25' SAA. 0.75' Olive Gray (5Y 4/1) to Medium Dark Gray (N4) wet, loose, SILT and fine SAND, little CLAY, slight sulfur odor.	Marl / Transitional Marl	\ \ \	0.0	0.000
30	16	32	w-w-2-2	2/1.25	2	1.25' SAA, with two 0.5" bands of plant material.	Transitional Marl	\ \ \	0.0	0.000
32	17	34	w-w-1-1	2/1.25	1	0.5' SAA with one 0.25" band of plant material. 0.75' Olive Gray (5Y 4/1) wet, very soft, clayey SILT, with trace plant material		\ \ \	0.0	0.000
						— BOTTOM OF BORING @ 34' —				

Depth to Water ~14'
Analytical Sample Interval = 20 to 22' @ 1248 with MS / MSD

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NAME: RedUS

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This document was developed in color. Reproduction in B/W may not represent the data as intended.

FIGURE 8

LEGEND

- FORMER ONONDAGA CREEK CHANNEL LOCATION (Source: USGS Topo map 1898)

HISTORICAL LOCATIONS

- MONITORING WELL
- WETLAND SOIL BORING
- WETLAND SEDIMENT
- WETLAND DELINEATION SAMPLE PLOTS

SAMPLED LOCATIONS

- WETLAND SOIL BORING/ GROUND WATER SCREENING
- MONITORING WELL
- WETLAND SOIL BORING
- WETLAND SEDIMENT

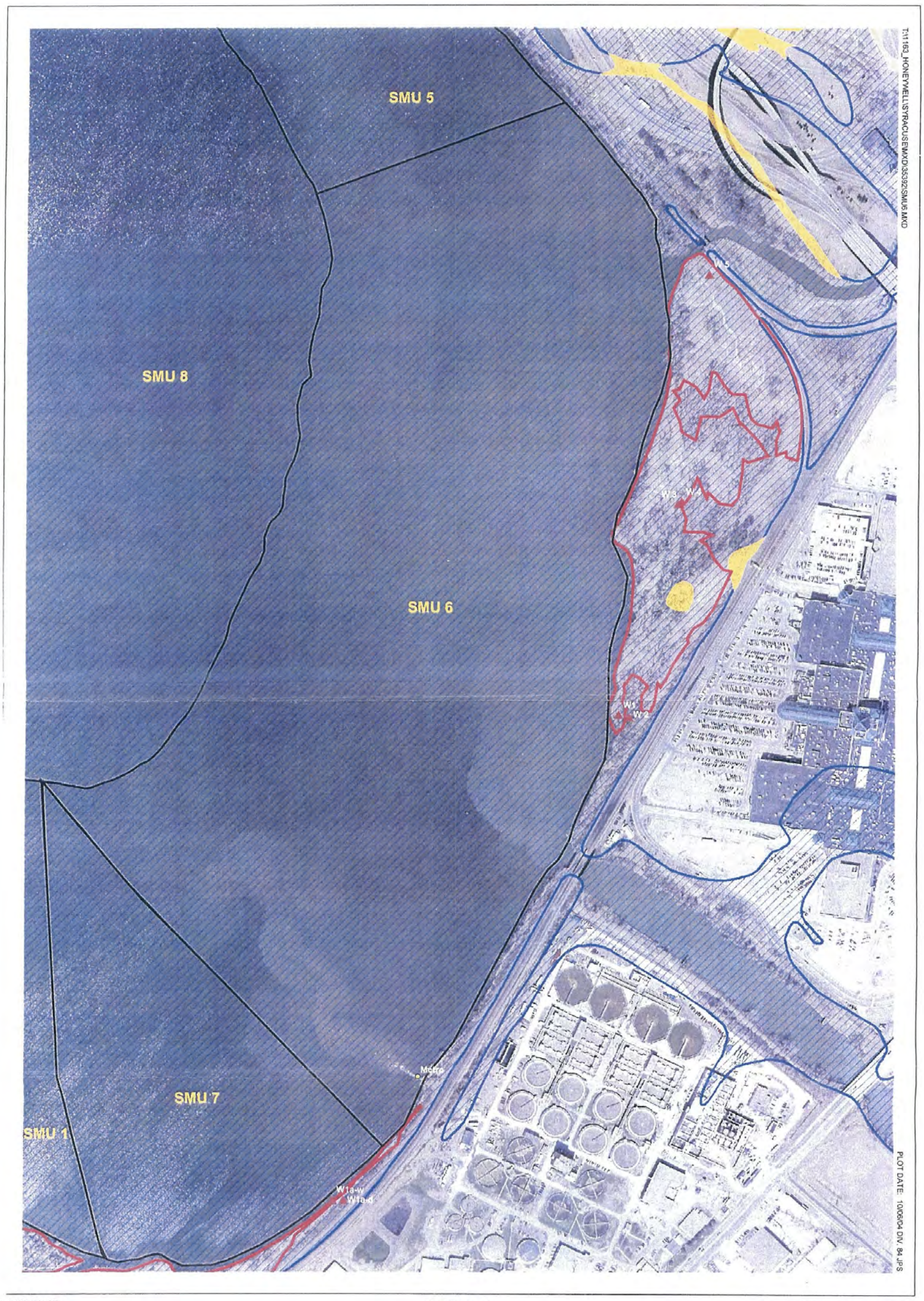
HONEYWELL
WASTEBED B/HARBOR BROOK
REMEDIAL INVESTIGATION
GEDDES AND SYRACUSE, NY

SYW-12 SAMPLE LOCATIONS

0 100 200 400
Feet

JUNE 2009
1163.39597

O'BRIEN & GERE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SMU 5
SMU 8
SMU 6
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SMU 1
W1
W2
W3
W4
W1a-w
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Metro
PLOT DATE: 10/06/04 DIV: 84 JPS
LEGEND
WETLAND DELINEATION SAMPLE PLOTS
METRO OUTFALL
DELINEATED WETLAND
SMU BORDER
FLOOD ZONE
100 YEAR
500 YEAR
TOBER 2004
63.35392
SMU 6
SYW-12 and SYW-19 AREA
HONEYWELL
ONONDAGA LAKE
SYRACUSE, NEW YORK
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Feet
FIGURE 14
O'BRIEN & GERE ENGINEERS, INC.
PARSONS