Appendix H

2010 and 2015 Geotechnical Investigation Results

City: SYR Div/Group: SWG Created By: K.IVES Last Saved By: kives
Q:\Dupont\PomptonLake\2015_AssessmentforEPADiscussions\mxd\GeotechnicalBoringLocations_v2.mxd 8/12/2015 4:16:30 PM

GT-1
GT-15-01
GT-2
GT-15-05
ACID BROOK
DELTA AREA
GT-3
GT-15-04
GT-4
GT-15-02
GT-15-03A
GT-15-03
GT-5
AREA A

0 75 150 Feet
GRAPHIC SCALE

LEGEND
- ACTUAL 2015 GEOTECHNICAL BORING LOCATION
- 2010 GEOTECHNICAL BORING LOCATION
- APPROXIMATE FULL POOL ELEVATION (201.4')
- 0.5-FOOT TOPOGRAPHIC CONTOUR
- 1-FOOT TOPOGRAPHIC CONTOUR
- SEDIMENT REMOVAL AREA

NOTES:
1. THE BASE MAP WAS PREPARED BY R.C.C DESIGN, INC. AND IS BASED UPON ACTUAL FIELD SURVEY AND AERIAL PHOTOGRAPHY PERFORMED ON DECEMBER 28, 2007, AND REPRESENTS THE CONDITIONS FOUND EXCEPT SUCH EASEMENTS OF IMPROVEMENTS, IF ANY, BELOW THE SURFACE LANDS AND NOT VISIBLE. HORIZONTAL AND VERTICAL DATUMS ARE BASED ON NAD 83 AND NAVD 88, RESPECTIVELY.
2. THE TOPOGRAPHIC SURVEY IS BASED ON AN UPDATED SURVEY COMPLETED BY URS IN 2011 IN THE AREA NEAR ACID BROOK.

DUPONT POMPTON LAKES WORKS
POMPTON LAKES, NEW JERSEY

GEOTECHNICAL BORING LOCATIONS

ARCADIS

FIGURE
1

Date Start/Finish: 8/4/2015- 8/5/2015
Drilling Company: Parratt-Wolff
Driller's Name: M. Wilson, D. Page
Drilling Method: Drive casing
Casing Size: 3"
Rig Type: Tripod
Sampling Method: 2" x 2' Split Spoon

Northing: 791163.2
Easting: 553266.9
Sediment Elevation: 196.91 feet

Borehole Depth: 14 feet bss
Water Depth: 4.4 feet

Descriptions By: Kyle Warren

Well/Boring ID: **GT-15-01**

Client: Chemours

Location: Pompton Lakes, New Jersey

DEPTH (bss) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description
0 / 195	1	0-1.5	0.3	WOH WOH WOH	0		[MUCK] Dark gray SILT with fine SAND, few Clay, faint odor, very soft, wet.
							Stiff, mottled.
	2	2-3.5	0.5	2 13 20	33		Mottled brown SAND with SILT, some Gravel, faint odor, very dense, wet.
							No odor.
	3	4-4.9	0.5	7 80/5"	100+		
5 / 190							Probable COBBLE, possible very dense Sand and Gravel.
	4	6-6.3	0.2	50/3"	50+		
	5	8-9.5	0.8	55 45 36	81		Brown SAND with CLAY, little Gravel, very dense, wet.
10 / 185	6	10-11.5	NR	100/4"	100+		No recovery. From cuttings: Brown SANDY GRAVEL, few Cobbles fragments, little Clay and Silt, very dense, wet.
							From cuttings: Brown lean CLAY, overconsolidated, very hard, wet.
15							End of boring at 14 feet bss. Boring backfilled on 8/5/2015.

Well/Boring Construction: Borehole backfilled with bentonite/grout to sediment surface.

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Remarks: bss = below sediment surface; NA = not applicable/available; NR = no recovery; WOH = weight of hammer.

Vertical reference datum is the North American Vertical Datum of 1988 (NAVD 88).

Water depth: 4.4 feet

Date Start/Finish: 8/7/2015
Drilling Company: Parratt-Wolff
Driller's Name: M. Wilson, D. Page
Drilling Method: Drive casing
Casing Size: 3"
Rig Type: Tripod
Sampling Method: 2" x 2' Split Spoon

Northing: 789922.44
Easting: 553210.76
Sediment Elevation: 192.0 feet

Borehole Depth: 10.5 feet bss
Water Depth: 8 feet

Descriptions By: Kyle Warren

Well/Boring ID: **GT-15-02**

Client: Chemours

Location: Pompton Lakes, New Jersey

DEPTH (bss) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 190	1	0-1.5	0.3	WOH WOH WOH	0		[MUCK] Dark brown SILT, trace Sand, Organics, very soft, nonplastic, wet.	
	2	2-3.5	0.3	WOH WOH WOH	0			
5	3	4-5.5	1.2	WOH WOH 1	1		SILT, trace Sand, few clay, lots of Organics (leaves, seaweed, wood), organic odor, very soft, nonplastic to low plasticity, wet.	Borehole backfilled with bentonite/grout to sediment surface.
185	4	6-7.5	1.2	16 9 8	17		Dark brown SILTY SAND, little Gravel, medium dense, nonplastic, wet.	
	5	8-9.5	0.3	44 20 21	41		Brown GRAVEL, Cobble fragments, little Sand, wet, very dense.	
10	6	10-10.5	0.3	72/5"	100+		Brown SAND and GRAVEL, very dense, wet.	
							End of boring at 10.5 feet bss. Boring backfilled on 8/7/2015.	
180								
15								

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Remarks: bss = below sediment surface; NA = not applicable/available; NR = no recovery; WOH = weight of hammer.

Vertical reference datum is the North American Vertical Datum of 1988 (NAVD 88).

Water depth: 8 feet

Date Start/Finish: 8/5/2015
Drilling Company: Parratt-Wolff
Driller's Name: M. Wilson, D. Page
Drilling Method: Drive casing
Casing Size: 3"
Rig Type: Tripod
Sampling Method: 2" x 2' Split Spoon

Northing: 789694.8
Easting: 553190.24
Sediment Elevation: 190.78 feet

Borehole Depth: 5 feet bss
Water Depth: 2.5 feet

Descriptions By: Kyle Warren

Well/Boring ID: **GT-15-03**

Client: Chemours

Location: Pompton Lakes, New Jersey

DEPTH (bss) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 190	1	0-1.5	NR	1 1 WOH	1		No recovery. Probable Muck, organics, seaweed, very soft, wet.	
	2	2-3.5	0.5	30 28 9	37		Dark brown GRAVEL with some Sand, little Silt, trace Cobble fragments, dense, wet.	Borehole backfilled with bentonite/grout to sediment surface.
5 / 185	NA	NA	NA	NA	NA		Casing refusal. Probable ROCK. End of boring at 5 feet bss. Boring backfilled on 8/5/2015.	
10 / 180								
15 / 175								

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Remarks: bss = below sediment surface; NA = not applicable/available; NR = no recovery; WOH = weight of hammer.

Vertical reference datum is the North American Vertical Datum of 1988 (NAVD 88).

Water depth: 2.5 feet

Date Start/Finish: 8/5/2015
Drilling Company: Parratt-Wolff
Driller's Name: M. Wilson, D. Page
Drilling Method: Drive casing
Casing Size: 3"
Rig Type: Tripod
Sampling Method: 2" x 2' Split Spoon

Northing: 789723.1
Easting: 553156.79
Sediment Elevation: 190.78 feet

Borehole Depth: 4.3 feet bss
Water Depth: 6.3 feet

Descriptions By: Kyle Warren

Well/Boring ID: **GT-15-03A**

Client: Chemours

Location: Pompton Lakes, New Jersey

DEPTH (bss) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 190	NA	NA	NA	NA	NA		Drive casing, no samples taken.	Borehole backfilled with bentonite/grout to sediment surface.
	1	3-4.3	NR	22 52 100/2"	100+		Casing refusal, probable Rock.	
5 / 185							End of boring at 4.3 feet bss. Boring backfilled on 8/5/2015.	
10 / 180								
15 / 175								

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Remarks: bss = below sediment surface; NA = not applicable/available; NR = no recovery; WOH = weight of hammer.

Vertical reference datum is the North American Vertical Datum of 1988 (NAVD 88).

Water depth: 6.3 feet

Date Start/Finish: 8/6/2015 - 8/7/2015
Drilling Company: Parratt-Wolff
Driller's Name: M. Wilson, D. Page
Drilling Method: Drive casing
Casing Size: 3"
Rig Type: Tripod
Sampling Method: 2" x 2' Split Spoon

Northing: 790419.71
Easting: 553272.54
Sediment Elevation: 194.97 feet

Borehole Depth: 14 feet bss
Water Depth: 7 feet

Descriptions By: Kyle Warren

Well/Boring ID: **GT-15-04**

Client: Chemours

Location: Pompton Lakes, New Jersey

DEPTH (bss)	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	195	1	0-1.5	0.3	WOH WOH WOH	0		[MUCK] Dark brown SILT, little Sand, Organics, very soft, nonplastic, wet.	
		2	2-3.5	0.8	WOH WOH WOH	0		Dark brown SILTY CLAY, little Sand, Organics, very soft, low plasticity, wet.	
5	190	3	4-5.5	1.2	2 1 1	2			
		4	6-7.5	1.0	1 3 5	8		Dark brown SANDY CLAY, very soft, low plasticity, wet.	Borehole backfilled with bentonite/grout to sediment surface.
		5	8-9.5	0.2	3 5 5	10		Brown SAND, few Gravel, trace Clay, medium dense, nonplastic, wet.	
10	185	6	10-11.5	0.2	3 3 3	6		Brown SAND and GRAVEL, medium dense, wet.	
		7	12-13.5	1.0	4 20 24	44		Dense.	
15	180							End of boring at 14 feet bss. Boring backfilled on 8/7/2015.	

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Remarks: bss = below sediment surface; NA = not applicable/available; NR = no recovery; WOH = weight of hammer.

Vertical reference datum is the North American Vertical Datum of 1988 (NAVD 88).

Water depth: 7 feet

Date Start/Finish: 8/7/2015
Drilling Company: Parratt-Wolff
Driller's Name: M. Wilson, D. Page
Drilling Method: Drive casing
Casing Size: 3"
Rig Type: Tripod
Sampling Method: 2" x 2' Split Spoon

Northing: 790761.38
Easting: 553309.92
Sediment Elevation: 196.80 feet

Borehole Depth: 13.5 feet bss
Water Depth: 4 feet

Descriptions By: Kyle Warren

Well/Boring ID: **GT-15-05**

Client: Chemours

Location: Pompton Lakes, New Jersey

DEPTH (bss) / ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0 / 195	1	0-1.5	0.5	WOH WOH WOH	0		[MUCK] Dark brown SILT and SAND, Organics, very soft, wet.	
	2	2-3.5	0.5	WOH 2 9	11		Dark brown SILTY SAND with Gravel, Organics, organic odor, loose, wet.	
5 / 190	3	4-5.5	0.7	42 36 43	79		Brown SAND, some Gravel, very dense, wet.	
	4	6-7.5	NR	48 25 15	40		No recovery from 6-8 feet bss.	
	5	8-9.5	1.3	21 20 12	32		Brown SAND, some Gravel, dense, wet.	
10 / 185	6	10-11.5	NR	8 19 32	51		Brown GRAVEL, some Sand, dense, wet. No recovery from 10-12 feet bss.	
	7	12-13.5	0.7	73 23 19	42		Brown GRAVEL, some Sand, dense, wet. Brown fine SAND, little Silt, very dense, wet.	
15							End of boring at 13.5 feet bss. Boring backfilled on 8/7/2015.	

Borehole backfilled with bentonite/grout to sediment surface.

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Remarks: bss = below sediment surface; NA = not applicable/available; NR = no recovery; WOH = weight of hammer.

Vertical reference datum is the North American Vertical Datum of 1988 (NAVD 88).

Water depth: 4 feet

Date Start/Finish: 6/9/10-6/10/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 791360.6
Easting: 553207.3

Borehole Depth: 30' bss
Surface Elevation: 200.0

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-1**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	200	S-1	0-2	0.50	WOH WOH WOH WOH	NA		Black PEAT, some fine Sand, some Silt, trace organics (very soft, wet)	
		S-2	2-4	0.83	WOH WOH WOH WOH	NA		SAA (very soft, wet)	
5	195	S-3	4-6	0.50	WOH WOH 3 9	3		SAA (very soft, wet)	
		S-4	6-8	1.00	20 32 27 40	59		Gray to brown coarse to fine subround GRAVEL and coarse to fine SAND, trace silt (very dense, wet)	
		S-5	8-10	0.00	35 18 15 7	33		No Recovery	
10	190	S-6	10-12	0.08	6 9 9 21	18		Orange coarse to fine SAND, little fine subangular to subround gravel, trace silt (medium dense, wet) 3" Rock in shoe	
		S-7	12-14	1.33	17 15 15 10	30		Brown fine SAND, little silt (medium dense, wet)	
15	185	S-8	14-16	1.33	6 10 10 8	20		Gray fine SAND (uniformly graded, medium dense, wet)	Backfilled with bentonite chips from 0 - 30' bss.
		S-9	16-18	1.17	8 9 8 8	17		SAA (medium dense, wet)	
		S-10	18-20	1.50	8 10 11 13	21		SAA (medium dense, wet)	
20	180								

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Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/9/10-6/10/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 791360.6
Easting: 553207.3

Borehole Depth: 30' bss
Surface Elevation: 200.0

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-1**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
20	180	S-11	20-22	1.00	8 10 14 8	24		Brown to gray fine SAND, trace silt (uniformly graded medium dense, wet)	
		S-12	22-24	1.50	8 10 6 5	16		Gray medium plasticity SILT (slow dilatancy, very stiff, wet)	
25	175	S-13	24-26	1.33	9 11 12 13	23		SAA (medium plasticity, slow dilatancy, very stiff, wet)	
		S-14	26-28	1.00	7 7 8 7	15		SAA (medium plasticity, slow dilatancy, very stiff, wet)	
		S-15	28-30	0.83	4 8 8 10	16		SAA (medium plasticity, slow dilatancy, very stiff, wet)	
30	170							End of boring at 30' bss	
35	165								
40	160								

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Remarks: Modified Burmister classification system used.
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Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Project Number:
Data File:GT-1.dat
Template:H:\DuPont\boring_well HSA 2007.ldfx
Date: 11/15/2010
Created/Edited by:G.Mott

Date Start/Finish: 6/7/10-6/8/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D5186

Northing: 790918.1
Easting: 552991.0

Borehole Depth: 30' bss
Surface Elevation: 200.5

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-2**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	200	S-1	0-2	0.67	WOH WOH WOH WOH	NA		Black PEAT and silty CLAY, organics (very soft, wet)	
		S-2	2-4	1.17	WOH WOH 3 10	3		Brown clayey SILT, little fine gravel, little coarse to fine sand, organics (soft, wet) Brown coarse to fine SAND, little fine gravel, trace silt (loose, wet)	
5	195	S-3	4-6	0.67	40 20 20 23	40		Brown coarse to fine subangular to subround GRAVEL and coarse to fine SAND, trace silt (dense, wet)	
		S-4	6-8	0.50	15 23 35 34	58		SAA (very dense, wet)	
		S-5	8-10	1.00	35 30 25 23	55		Orange coarse to fine subangular GRAVEL and coarse to fine SAND, little silt (very dense, wet)	
10	190	S-6	10-12	0.00	20 10 7 4	17		No Recovery	
		S-7	12-14	0.00	6 6 3 4	9		No Recovery 3" rock in tip of shoe Attempted S-7 twice with sampler, no recovery	
15	185	S-8	14-16	1.67	10 7 8 8	15		Gray coarse to fine SAND, trace silt (medium dense, wet)	Backfilled with bentonite chips from 0 - 30' bss.
		S-9	16-18	1.00	4 5 7 8	12		Brown medium to fine SAND, trace silt (medium dense, wet)	
20		S-10	18-20	2.00	3 3 7 9	10		Brown coarse to fine SAND (loose, wet)	

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Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/7/10-6/8/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D5186

Northing: 790918.1
Easting: 552991.0

Borehole Depth: 30' bss
Surface Elevation: 200.5

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-2**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
20	180	S-11	20-22	1.33	7, 7, 7, 7	14		Brown medium to fine SAND (loose, wet)	
		S-12	22-24	1.00	6, 3, 6, 4	9		Brown medium to fine SAND, trace silt (loose, wet)	
25	175	S-13	24-26	1.00	1, 1, 3, 3	4		Gray low plasticity SILT (slow dilatancy, soft, wet) Pocket Penetrometer = 500 psf	
		S-14	26-28	1.17	7, 9, 5, 10	14		Gray fine SAND and SILT (medium dense, wet)	
30	170	S-15	28-30	1.67	3, 4, 3, 4	7		SAA (loose, wet)	
								End of boring at 30' bss	
35	165								
40									

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Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Project Number:
Data File:GT-2.dat
Template:H:\DuPont\boring_well HSA 2007.ldfx
Date: 11/15/2010 Created/Edited by:G.Mott

Date Start/Finish: 6/8/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: SPT

Northing: 790532.1
Easting: 553152.2

Borehole Depth: 30' bss
Surface Elevation: 200.0

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-3**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	200	S-1	0-2	0.00	WOH WOH WOH WOH	NA		No Recovery	
		S-2a	2-3	1.00	WOH WOH	NA		Black silty CLAY (very soft, wet, sediment)	
		S-2b	3-4		WOH WOH			Gray coarse to fine SAND and SILT (very dense, wet)	
5	195	S-3	4-6	1.00	3 3 15 20	18		Blue coarse to fine SAND, some Silt, little fine subangular gravel (organic odor, medium dense, wet)	
		S-4	6-8	1.17	20 20 29 15	49		Blue coarse to fine subround GRAVEL and coarse to fine SAND, little silt (dense, wet)	
		S-5	8-10	0.50	15 14 9 5	23		Coarse to fine angular to subround GRAVEL, some coarse to fine poorly graded Sand, trace silt (medium dense, wet)	
10	190	S-6	10-12	1.00	17 22 27 12	49		Coarse to fine subangular GRAVEL and coarse to fine SAND, trace silt (dense, wet)	
		S-7	12-14	0.67	10 11 5 7	16		Fine SAND and SILT (uniformly graded, medium dense, wet)	
15	185	S-8	14-16	0.83	15 13 9 7	22		Fine SAND, trace silt (uniformly graded, medium dense, wet)	Backfilled with bentonite chips from 0 - 30' bss.
		S-9	16-18	0.83	10 12 10 7	22		Fine SAND and SILT (uniformly graded, medium dense, wet)	
20	180	S-10	18-20	0.50	4 6 7 5	13		Coarse to fine SAND, little coarse to fine angular gravel, little silt (medium dense, wet)	

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Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/8/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: SPT

Northing: 790532.1
Easting: 553152.2

Borehole Depth: 30' bss
Surface Elevation: 200.0

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-3**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
20	180	S-11	20-22	1.00	5 4 1 1	5		Gray fine SAND and SILT (loose, wet)	
								Gray SILT and fine SAND (loose, wet)	
		S-12	22-24	1.67	5 3 5 15	8		Gray medium plasticity clayey SILT (slow dilatancy, medium stiff, wet) Pocket Penetrometer = 500 psf	
25	175	S-13	24-26	1.33	10 15 9 7	24		Brown fine SAND, little silt (medium dense, wet)	
		S-14	26-28	1.33	7 10 15 16	15		Gray to brown medium plasticity SILT (slow dilatancy, stiff, wet)	
		S-15	28-30	0.67	10 10 7 8	17		SAA (very stiff, wet)	
30	170							End of boring at 30' bss	
35	165								
40	160								

ARCADIS
Infrastructure, environment, buildings

Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Project Number:
Data File:GT-3.dat
Template:H:\DuPont\boring_well HSA 2007.ldfx
Date: 11/15/2010
Created/Edited by:G.Mott

Date Start/Finish: 6/9/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 790213.8
Easting: 552942.1

Borehole Depth: 30' bss
Surface Elevation: 200.2

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-4**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	200	S-1	0-2	0.17	WOH WOH WOH WOH	NA		Black SILT, trace organics, trace fine sand (very soft, wet, sediment)	
		S-2	2-4	1.17	WOH WOH 12 8	12		Olive to gray medium to fine SAND and SILT (organic odor, medium dense, wet) Olive to gray medium plasticity SILT, some medium to fine Sand (organic odor, stiff, wet)	
5	195	S-3	4-6	1.00	35 25 15 28	40		Gray coarse to fine subround GRAVEL and coarse to fine SAND, trace silt (dense, wet)	
		S-4	6-8	1.50	30 30 25 30	55		Orange coarse to fine subround GRAVEL and coarse to fine SAND, trace silt (dense, wet)	
		S-5	8-10	0.50	35 21 15 9	36		Orange coarse to fine SAND, some fine subangular to subround Gravel, trace silt (dense, wet)	
10	190	S-6	10-12	1.00	10 12 14 28	26		Brown fine SAND (uniformly graded, medium dense, wet)	
		S-7	12-14	1.00	12 15 15 19	30		SAA (medium dense, wet)	
15	185	S-8	14-16	1.00	25 25 22 23	47		SAA (dense, wet)	Backfilled with bentonite chips from 0 - 30' bss.
		S-9	16-18	1.00	10 10 7 3	17		Gray to brown fine SAND and SILT (uniformly graded, medium dense, wet) (Silt and fine sand layered 1/2" to 1" in thickness)	
20		S-10	18-20	1.00	8 3 7 8	10		Gray brown fine SAND, trace silt (uniformly graded, loose, wet)	

ARCADIS
Infrastructure, environment, buildings

Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/9/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 790213.8
Easting: 552942.1

Borehole Depth: 30' bss
Surface Elevation: 200.2

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-4**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
20	180	S-11	20-22	1.00	8 7 4 5	11		SAA (medium dense, wet)	
		S-12	22-24	1.67	2 5 7 4	12		Gray fine SAND and SILT (medium dense, wet)	
25	175	S-13	24-26	2.00	3 8 14 10	22		SAA (medium dense, wet)	
		S-14	26-28	2.67	5 9 9 8	18		SAA (medium dense, wet)	
		S-15	28-30	2.50	7 10 11 8	21		SAA (medium dense, wet)	
30	170							End of boring at 30' bss	
35	165								
40									

ARCADIS
Infrastructure, environment, buildings

Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Project Number:
Data File:GT-4.dat
Template:H:\DuPont\boring_well HSA 2007.ldfx
Date: 11/15/2010 Created/Edited by:G.Mott

Date Start/Finish: 6/9/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 789677.2
Easting: 553046.1

Borehole Depth: 5.2' bss
Surface Elevation: 200.3

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-5**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	200	S-1	0-2	0.50	WOH WOH 2 7	2		Brown SILT, some coarse to fine Gravel, little coarse to fine sand, trace organics (very soft, wet)	
		S-2	2-4	1.00	29 35 40 60	75		Brown coarse to fine subround GRAVEL and coarse to fine SAND, some Silt (very dense, wet)	Backfilled with bentonite chips from 0 - 6' bss.
5	195	S-3	4-6	0.17	75/2"	NA		SAA (very dense, wet)	
								End of boring at 5.2' bss due to spoon refusal	
10	190								
15	185								
20									

ARCADIS
Infrastructure, environment, buildings

Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/9/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 789677.2
Easting: 553046.1

Borehole Depth: 0.3' bss
Surface Elevation: 200.3

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-5A**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
0	200	S-1	0-0.3	0.17	100/3"	NA		Brown coarse to fine subround GRAVEL and coarse to fine SAND, little silt (very dense, wet)	Backfilled with bentonite chips from 0 - 0.3' bss.
								End of boring at 0.3' bss due to spoon refusal	
5	195								
10	190								
15	185								
20									

ARCADIS
Infrastructure, environment, buildings

Remarks: Boring GT-5A was offset from Boring GT-5 approximately 20 feet to the north.
Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/15/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASTM D1586

Northing: 789677.2
Easting: 553046.1

Borehole Depth: 12.7' bss
Surface Elevation: 200.3

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-5B**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description
0	200							Advanced to 4' bss
5	195	S-1	4-6	1.17	7 9 12 33	21		Light brown low plasticity SILT, trace fine sand (very stiff, wet)
		S-2	6-8	1.00	29 27 35 39	62		Light brown SILT, trace medium to fine SAND (very stiff, wet)
		S-3	8-10	0.67	17 13 9 5	22		Light brown low plasticity SILT, trace coarse to fine SAND (medium dilatancy, very stiff, wet)
10	190	S-4	10-12	1.33	10 5 6 23	11		SAA (stiff, wet)
		S-5	12-12.7	0.83	34 213/2.5"	213+		Light brown low plasticity SILT, trace fine gravel, trace coarse to fine sand (medium dilatancy, very stiff, wet)
								End of boring at 12.7' bss due to spoon refusal
15	185							
20								

Well/Boring Construction: Backfilled with bentonite chips from 0 - 12.7' bss

ARCADIS
Infrastructure, environment, buildings

Remarks: Boring GT-5B offset from GT-5A.
Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Date Start/Finish: 6/3/10 - 6/4/10
Drilling Company: Parratt Wolff Inc.
Driller's Name: Bill Rice
Drilling Method: Donut Hammer
Auger Size: 2.5" casing
Rig Type: Drilling Barge with Tripod
Sampling Method: ASDM D1586

Northing: 790857.8
Easting: 552643.6

Borehole Depth: 30' bss
Surface Elevation: 200.1

Descriptions By: Jeff Gaspar

Well/Boring ID: **GT-6**

Client: DuPont Acid Brook Delta

Location: Pompton Plains, NJ

DEPTH	ELEVATION	Sample Run Number	Sample/Int/Type	Recovery (feet)	Blow Counts	N - Value	Geologic Column	Stratigraphic Description	Well/Boring Construction
20	180	S-11	20-22	1.17	3 7 7 8	14		SAA (medium dense, wet)	
		S-12	22-24	1.33	10 10 11 12	21		SAA (medium dense, wet)	
25	175	S-13	24-26	1.33	10 8 5 5	13		Brown medium to fine SAND, trace silt (uniformly graded, medium dense, wet)	
		S-14	26-28	0.17	9 5 4 3	9		Brown medium to fine SAND, trace silt (uniformly graded, loose, wet)	
		S-15	28-30	0.17	12 8 10 9	18		Brown coarse to fine SAND, trace silt (poorly graded, medium dense, wet)	
30	170							End of boring at 30' bss	
35	165								
40									

ARCADIS
Infrastructure, environment, buildings

Remarks: Modified Burmister classification system used.
bgs = below ground surface; bss = below sediment surface; NA = Not Available; WOH = weight of hammer; SAA = same as above.

Coordinates are based on the North American Datum of 1983, New Jersey Zone, US Survey Foot. Elevations are based on the North American Vertical Datum of 1988.

Project Number:
Data File:GT-6.dat
Template:H:\DuPont\boring_well HSA 2007.ldfx
Date: 11/15/2010 Created/Edited by:G.Mott