

Appendix F

Geologic Logs



Phase I Geotechnical Boring Logs

Boring Log

BORING #: SB1

Client	: PEPCO)			Location	: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch				
		ng Road Fa	cility		Northing					
<u> </u>	ct #: 602		,			Elevation (ft): 30.18 Groundwater Level (ft bgs): 23.87	7			
<u> </u>	Date: 3/1					Method: HSA Corrected Groundwater Elevation				
					Drinning I		(11). 0.31			
rinish	Date: 3	12012013			1	Total Depth (ft): 99				
O Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval			
			0.4	CR CL	\$696969696 7777777777	0.5 CRUSHER RUN Gray to brown fine sandy CLAY, lean, dry, firm				
2			0.4			Gray to brown line sarrey of Art, reall, dry, linin				
			0.2	1						
4			0.1			4				
-			0.1	CL		Gray to brown fine sandy CLAY, lean, moist, firm				
 				CL	<i>\\\\\\\</i>	Yellow-brown silty CLAY, lean, dry, stiff				
6_	24	3-6-7-10 (13)	0.2			7	SS 5-7			
				СН		Yellow-brown silty CLAY, fat, dry, very stiff				
8	24	8-9-11-10 (20)	0.3			9				
_ 10	24	3-6-11-23 (17)	0.5	CL		Brown silty CLAY, lean, dry, very stiff				
12	22	27-21-17-13 (38)	0.3	SP		Brown gravely SAND, dry, coarse, dense				
14	22	11-14-10-10 (24)	0.3	SW	1./27./27	14.5 Yellow SAND, fine to medium, moist, loose				
16	22					17	ST 15-17			
18	22	3-5-5-7 (10)	0.0	SP		Yellow SAND, medium, moist, loose, some gravel				
20	18	3-4-7-8 (11)	0.0	SP		20 Brown coarse SAND, wet, medium dense, some gravel				
22										
24										
			marka	Air Kni	fed to 5 ft I	25 26				
						793				
832	20 Guilfor	d Road Sui	te L		lit Spoon elby Tube					
	lumbia, N	ID 21U46								
	<u>CB</u> -					Core Barrel				

Boring Log

BORING #: SB1

Sheet 2 of 4

Client	: PEPC()			Location	: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch	
		ing Road Fa	cility		Northing:		
	t#: 602				_	Elevation (ft): 30.18 Groundwater Level (ft bgs): 23.87	7
	Date: 3/					lethod: HSA Corrected Groundwater Elevation	
		3/20/2013				Total Depth (ft): 99	(14)1
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval
26	22	6-10-19-17 (29)	0.3	SW		Brown SAND with silt, some gravel, fine to medium, wet, medium dense	SS 25-27
28							
30				SW	- 7777	30 Brown SAND with silt, fine to medium, wet, medium dense	
32	18	10-5-6-8 (11)	0.3	-		Blown of the marting line to mediant, well integral to the	
34						35	
36	24	5-9-8-7 (17)	0.0	SP		Light brown coarse SAND, wet, medium dense	
38							
40				SC	777777	40 Gray clayey SAND, fine, wet, medium dense	
42	24	1-6-5-5 (11)	0.3	СН		41.5 Gray sandy CLAY, fine, wet, fat, stiff	
44						45	
46	20			SP		Gray SAND with clay, fine, wet, medium dense	ST 45-47
48							
50						50	
		Re	marks:	Air Kni	fed to 5 ft k	ogs	
	СОМ			SS - Sp	olit Spoon		
	20 Guilfor Iumbia, N	rd Road Sui ID 21046	te L	ST - Sh	nelby Tube		
	, ••			CB - C	ore Barrel		
				-		(Continued Next Page)	

Boring Log

BORING #: SB1

Sheet 3 of 4

Client	: PEPCC)			Location	: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch	
Projec	t: Benni	ng Road Fa	cility		Northing	: 448080.88 Easting : 1324565.68	Drilling Company: Eichelberger	
Projec	t#: 602	87343			Surface	Elevation (ft): 30.18	Groundwater Level (ft bgs): 23.87	•
Start [Date: 3/1	19/2013			Drilling N	Method: HSA	Corrected Groundwater Elevation	(ft): 6.31
Finish	Date: 3	3/20/2013					Total Depth (ft): 99	
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock l Classification So	Description cheme: USCS	Soil Sample Method & Interval
30				SP		Gray SAND with clay, medium, wet, micaceous, loos	e	
 52 	18	5-5-4-4 (9)	2.3					
_ 54								
56 		3-4-4-10 (8)	0.0	_				
58 								
60				SP		Brown gravely SAND, coarse wet, medium dense		
62	12	7-14-12-19 (26)	1.9	-		Brown gravely OAND, coarse wet, medium dense		
64						65		
66	6	14-23-50/2"	1.1	SC		Gray clayey SAND, medium, wet, very dense		SS 65-67
68 								
	24	21-17-34-	0.4	SC		Gray clayey SAND, medium, wet, very dense, clay ler	ises	
<u>72</u> -		50/4"	0.4	-				
74						75		
		Re	emarks:	Air Kni	fed to 5 ft k	ogs		
	COM			SS - Sp	lit Spoon			
	8320 Guilford Poad Suite I			ST - Sh	elby Tube			
	, ••			CB - Co	ore Barrel			
						(Continued Newt Page)		

Boring Log

BORING #: SB1

Sheet 4 of 4

	DEDC					0400 B	
	:: PEPC		-1114 .			3400 Benning Road NE, Washington, DC Logged By: Sean Crouch	
		ing Road Fa	cility		Northing:		
	ct #: 602					Elevation (ft): 30.18 Groundwater Level (ft bgs): 23.8	
	Date: 3/				Drilling N	Method: HSA Corrected Groundwater Elevation	(ft): 6.31
Finish		3/20/2013		<u> </u>		Total Depth (ft): 99	
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval
76 _	24	12-15-21-27 (36)	1.1	CL-CH		Gray sandy CLAY, medium, lean to fat, wet, hard	SS 75-77
78							
80 _	0	24-30-50/4"					
82							
84						85	
86	24	20-19-31-34 (50)	0.6	СН		Gray silty CLAY, some fine sand, moist, fat, hard	
88 _							
90 -	24	9-13-20-26 (33)	0.6	СН		90 Gray to red brown CLAY, fat, dry, hard (Arundel Clay)	
94							
96	24	7-10-13-19 (23)	0.7				SS 95-97
98	24	26-27-25-23 (52)	0.3			99	SS 97-99
				A ! ! Z !	160d 40 F & 1	End of Boring at 99 ft bgs	
832	COM 20 Guilfoi Iumbia, N	rd Road Sui	emarks:	SS - Sp ST - Sh	ifed to 5 ft boolit Spoon nelby Tube ore Barrel	ogs	

A=COM

Boring Log

BORING #: SB2

Client	: PEPCC)			Location	: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch	
Projec	t: Bennir	ng Road Fa	acility		Northing	: 448732.22 Easting: 1323673.92 Drilling Company: Eichelberger	
Projec	t#: 6028	87343			Surface	Elevation (ft): 14.01 Groundwater Level (ft bgs): 7.94	
Start I	Date: 3/2	7/2013				Method: HSA Corrected Groundwater Elevation	(ft): 6.07
Finish	Date: 3	/27/2013				Total Depth (ft): 93	
O Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval
			0.0	SM		Yellow-brown SAND, some gravel, moist , medium to fine, transitioning to fine with depth	
2			0.0				
			0.0				
4			0.0				
			0.0			5	
6	10	1-2-1-3 (3)	0.0	SM		Yellow-brown SAND, some gravel, moist , fine, very loose	
8	16	5-9-9-10 (18)	0.2	SM		Yellow-brownSAND with gravel, moist , fine, very loose, micaceous	
10	16	3-3-5-6 (8)	0.4	SP		Brown SAND, coarse, moist, loose, trace gravel	
12	16	3-2-3-3 (5)	0.2	SP		Brown SAND with gravel, coarse, wet, loose	SS 11-13
14							
16	18	2-2-4-5 (6)	0.9				
18							
20				SP		20 Brown gravely SAND, coarse, wet, loose	
 22				Oi ⁻		2.5 gratery of the course, the course	ST 20-22
 24							
	Remarks: Air Kn					bgs	
	СОМ				lit Spoon		
	20 Guilfor Iumbia, M	d Road Su	iite L		elby Tube		
	unibia, M	D 2 1040			ore Barrel		
				- JD - O(Daniel		

Boring Log

BORING #: SB2

Sheet 2 of 4

Client: PEPCO Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Cro	ouch
	J
Project:Benning Road FacilityNorthing:448732.22Easting:1323673.92Drilling Company:Easting:	ichelberger
Project #: 60287343 Surface Elevation (ft): 14.01 Groundwater Level ((ft bgs): 7.94
Start Date: 3/27/2013 Drilling Method: HSA Corrected Groundwa	ater Elevation (ft): 6.07
Finish Date: 3/27/2013 Total Depth (ft): 93	
£	
Recovery Length (Inches) (Inch	Soil Sample Method & Interval
SP Brown gravely SAND, coarse, wet, loose (continued) 26 26	
24 (9) 1.1 GP (26.5 GRAVEL, loose, wet, coarse	
SPG SPG Brown gravely SAND, coarse, wet, medium dense	
28	
30 SDC	
SPG Brown gravely SAND, coarse, wet, medium dense, very loose	
24 0-0-0-5 (0) 0.8 CH Yellow brown silty CLAY, some sand, moist, fat, fine, soft	
34	
36 0.0-0-3	SS 35-37
24 000 0.8	35-37
40	
24 0-1-1-2 0.6 SC Gray-brown clayey SAND, moist, fine, loose	SS 40-42
42 42	
46	
48	
Remarks: Air Knifed to 5 ft bgs	I
AECOM SS - Split Spoon	
8320 Guilford Road Suite L Columbia, MD 21046 ST - Shelby Tube	
CB - Core Barrel	

A=COM

Boring Log

BORING #: SB2

Sheet 3 of 4

Client	: PEPC)			Location	: 3400 Benning Road NE, Washington, DC L	.ogged By: Sean Crouch	
Projec	t: Benn	ing Road Fa	cility		Northing	448732.22 Easting : 1323673.92 D	Orilling Company: Eichelberger	
Projec	t#: 602	87343			Surface	Elevation (ft): 14.01	Groundwater Level (ft bgs): 7.94	
Start I	Date: 3/2	27/2013			Drilling I	Method: HSA C	Corrected Groundwater Elevation	(ft): 6.07
Finish	Date: 3	3/27/2013				Т	otal Depth (ft): 93	
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Des Classification Sche	scription me: USCS	Soil Sample Method & Interval
 _ 52 _	22	-		SC		Gray-brown clayey SAND, moist, fine, loose (continued)		ST 50-52
 _ 54						55		
56	24	10-12-16-18 (28)	0.3	SC		Gray-brown clayey SAND, moist with clay lenses, medium	n dense	SS 55-57
58								
60 62	24	3-5-6-9 (11)	0.8	sc		Brown to gray clayey SAND, fine, moist, stiff, decomposin	ng organic material at 61'	
64				МН		Brown to gray sandy SILT, fine, moist, stiff		
 _ 66 _	24	10-13-21-21 (34)	1.0	МН		Brown to gray sandy SILT, fine, moist, hard 66.5 Red-brown silty CLAY, dry, fat, hard		
68								
70 72	24	6-10-14-16 (24)	0.7	CL		70 Brown sandy CLAY, fine, moist, lean, very stiff		
74								
					<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>			
832	AECOM 8320 Guilford Road Suite L Columbia, MD 21046 ST - S				fed to 5 ft I plit Spoon nelby Tube ore Barrel	ogs		

Boring Log

BORING #: SB2

Sheet 4 of 4

Client: PEPCO Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch

Project: Benning Road Facility Northing: 448732.22 Easting: 1323673.92 Drilling Company: Eichelberger

Project #: 60287343 Surface Elevation (ft): 14.01 Groundwater Level (ft bgs): 7.94

Start Date: 3/27/2013 Drilling Method: HSA Corrected Groundwater Elevation (ft): 6.07

Finish Date: 3/27/2013 Total Depth (ft): 93

FINISH	Date: 3	12112013				Total Depth (π): 93	
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval
76	24	8-12-16-21 (28)	0.1	CL		Brown sandy CLAY, fine, moist, lean, very stiff (continued)	
78							
80						80	
 82	24	6-14-19-26 (33)	0.7	CL		Brown to red sandy CLAY, fine, moist, lean, hard	SS 80-82
 84							
_ 86 _	24	7-19-22-29 (41)	0.4	СН		85 Red-brown CLAY, dry, fat, hard (Arundel Clay)	
88							
90							CB 87-93
92						93	

End of Boring at 93 ft bgs

Remarks:

AECOM 8320 Guilford Road Suite L

Columbia, MD 21046

Air Knifed to 5 ft bgs

SS - Split Spoon

ST - Shelby Tube

CB - Core Barrel

Boring Log

BORING #: SB3

Client: PEPCO Project: Benning Road Facility Project #: 60287343		1: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch	
	Morthin	Northing: 449239.80 Easting: 1324624.88 Drilling Company: Eichelberger		
		<u> </u>	Groundwater Level (ft bgs): 19.14	
Start Date: 3/14/2013		Elevation (ft): 17.09 Method: HSA	Corrected Groundwater Elevation	
Finish Date: 3/15/2013	Dilling	wethod. Hoa	Total Depth (ft): 77	(11). 2.00
			rotal Dopal (ty)	
C Depth (ft bgs) Recovery Length (inches) Blow Counts (N Value) PID (ppm)	USCS Code	Soil and Rock I Classification Sc	Description heme: USCS	Soil Sample Method & Interval
3.6	CR SM	0.25_ CRUSHER RUN Gray to black silty SAND with gravel, medium, dry		
2 9.7				
13.0		3		
4 5.6	SM	Gray to black silty SAND with gravel and coal fragmer	ts, medium, dry	
7.8	СН	4.5 Brown CLAY with sand, fat, fine, brown, firm		
6	CH SM	5.5 Brown CLAY with sand, fat, fine, brown, firm Gray to black silty SAND with gravel, medium, dry		
12 1-1-2-3 (3) 1.0				
8 18 5-5-3-3 (8) 2.3	CL	8 Brown CLAY with sand, lean, fine, soft, moist		
10 14 3-3-2-2 (5) 0.8	SPG O	10.5		SS 9-11
12 14		Gray to dark brown gravely SAND, coarse, wet, loose		
16 24	CL	Gray Brown CLAY, lean, wet		ST 15-17
18	-	20.25		
₁₂ 3-2-2-2 (4) 0.0	SW	Gray brown silty SAND with gravel, fine to medium, w	et, very roose	
	7	25		
Remarks:	Air Knifed to 5 f	bgs		
AECOM	SS - Split Spoor			
8320 Guilford Road Suite L Columbia, MD 21046	ST - Shelby Tub	9		
	CB - Core Barre			

Boring Log

BORING #: SB3

Sheet 2 of 4

	_									
-	: PEPCO					: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch				
		ng Road Fa	cility		Northing:					
	ct #: 602					Elevation (ft): 17.09 Groundwater Level (ft bgs): 19.14				
	Date: 3/1				Drilling N	Method: HSA Corrected Groundwater Elevation	(ft): -2.05			
Finish	Date: 3	/15/2013		Т		Total Depth (ft): 77				
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval			
_ 26	24	1-3-7-6 (10)	0.2	SW		Gray brown SAND with gravel, fine to medium, wet, loose	SS 25-27			
_ 28 _										
_ 30 _				SP	<i>p.</i> , <i>p</i>	Brown SAND, some gravel, coarse, wet, very loose				
32	24	1-1-1-2 (2)	0.1	-						
34										
36_										
38						40				
40	12	1-1-6-10 (7)	0.0	SC		Olive-brown clayey SAND, medium to coarse, wet, loose	SS 40-42			
						45				
46	24	4-7-19-30 (26)	0.3	SP SP SP		45 45.5 Olive-brown SAND, coarse, wet, loose Gray SAND with silt, fine, wet, dense				
48										
50						50				
		Re	emarks:		fed to 5 ft b	ogs				
	COM 20 Guilfor	d Road Sui	ite L		olit Spoon					
	Columbia, MD 21046 51 - 5					Shelby Tube				
	CB - 0					Core Barrel				

Boring Log

BORING #: SB3

Sheet 3 of 4

	: PEPCO						gged By: Sean Crouch	
Projec	t: Benni	ng Road Fa	cility		Northing	449239.80 Easting : 1324624.88 Dri	illing Company: Eichelberger	
Projec	t#: 602	87343			Surface	evation (ft): 17.09 Great	oundwater Level (ft bgs): 19.14	,
Start [Date: 3/1	14/2013			Drilling I	ethod: HSA Co	rrected Groundwater Elevation (ft): -2.05
Finish	Date: 3	/15/2013				Tot	tal Depth (ft): 77	
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS		Soil Sample Method & Interval
 52	24	13-36-43-49 (79)	0.3	SP		Gray SAND with silt, fine, wet, very dense		
54 				_				
_ 56 _	18	13-16-50/4"	0.2			3.5		
				WOOD	7//////////////////////////////////////	7 Decomposed WOOD		
58				CL		Gray sandy CLAY, lean, medium, wet, hard		
_ 60 _				CL		Gray sandy CLAY, lean, fine, wet, hard		
 62	24	17-19-24-30 (43)	0.9	СН		1.5 Gray sandy CLAY, fat, moist, hard, fine with clayey sand len	ises	SS 60-62
 64								
						5		
66	24	5-13-17-25 (30)	0.6	CL		Gray to red-brown silty CLAY with sand, fine, moist to dry, h	ard (Arundel Clay)	
68 _								
	20	7-15-20-20 (35)	0.2					SS 70-72
72 74				_				
' -								
		Re	emarks:		fed to 5 ft l	ıs		
	8320 Guilford Road Suite I				plit Spoon			
	Columbia, MD 21046				elby Tube			
	CB - C							

Boring Log

BORING #: SB3

Sheet 4 of 4

Client	: PEPCC)			Location	cation: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch				
Projec	ct: Benni	ng Road Fa	acility		Northing	: 449239.80 Easting : 132	24624.88 Drilling Company: Eichelberger			
Projec	Project #: 60287343 Start Date: 3/14/2013					Elevation (ft): 17.09	Groundwater Level (ft bgs): 19.1	14		
Start I						Method: HSA	Corrected Groundwater Elevation	(ft): -2.05		
Finish	Date: 3	/15/2013					Total Depth (ft): 77	Total Depth (ft): 77		
Depth (ft bgs)	Depth (ft bgs) Recovery Length (inches) Blow Counts (N Value) PID (ppm)						il and Rock Description sification Scheme: USCS	Soil Sample Method & Interval		
76				CL		Gray to red-brown silty CLAY with sa	and, fine, moist to dry, hard (Arundel Clay) (continued)			
						End of Boring at 77 ft has				

End of Boring at 77 ft bgs

Remarks:

AECOM 8320 Guilford Road Suite L Columbia, MD 21046 Air Knifed to 5 ft bgs

SS - Split Spoon

ST - Shelby Tube

CB - Core Barrel

Boring Log

BORING #: SB4

Client	: PEPCC)			Location	: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch	
Projec	Project: Benning Road Facility					448370.51 Easting: 1326248.97 Drilling Company: Eichelberger	
Projec	Project #: 60287343				Surface I	Elevation (ft): 36.51 Groundwater Level (ft bgs): 20.0	5
Start [Date: 3/2	6/2013			Drilling N	Method: HSA Corrected Groundwater Elevation	(ft): 16.46
Finish	Date: 3	/26/2013				Total Depth (ft): 75	
Oepth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	RSCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval
			0.0	CR	16969696	0.5 ASPHALT 1 CRUSHER RUN	
2			0.0	SP		Brown to dark brown SAND, some gravel (fill), moist, coarse	
			0.0	SP		Brown to dark brown SAND, fine, moist	
4			0.0			4	
			0.0	SP		Yellow brown SAND, fine, increasing moisture 5	ee ee
			0.0	SP		Light brown SAND, coarse, moist to saturated	- SS 4.5-5.5
6	12	7-9	0.9	SW		Light brown SAND, medium to coarse, wet, medium dense	
8							
10				SW		Dark brown to brown SAND, some silt, fine to coarse, wet, loose	
 12	20	1-2-3-3 (5)	0.9	_			
_ 14							
16	24						ST 15-17
18							
_ 20 _	20	0-0-0-0	0.3	CL		20 Gray CLAY, lean, trace sand, fine, moist, very soft	ST 20-22
22 24		(-)					
		. D	emarks:	Air Knif	ed to 5 ft l	ogs	1
ΔF	СОМ	K	onidi NS:		lit Spoon	· ·	
832	0 Guilfor	d Road Su	ite L		elby Tube		
Col	umbia, M	ມ 21046			re Barrel		
						(Continued Next Page)	

Boring Log

BORING #: SB4

Sheet 2 of 3

Project Seming Road Facility	_							I	
Project #: 60287343 Surface Elevation (ft): 36.51 Groundwater Level (ft bgs): 20.05								Logged By: Sean Crouch	
Start Date: 3/26/2013 Drilling Method: HSA Corrected Groundwater Elevation (ft): 1				acility					
Finish Date: 3/26/2013 Total Depth (ff): 75	-								
Soil and Rock Description Classification Scheme: USCS Soil and Rock Description Classification Clas						Drilling I	wetnoa: HSA		(ft): 16.46
28	Finish		/26/2013		Ι			Total Depth (ft): 75	
28 21 0.6.0.1 0.9 23 24 3.5.7.11 1.1 SW 21 Light brown SAND with grovel, fine to coarse, wet, medium dense 30.3 24 3.5.7.11 (12) 1.1 SW 21 Light brown SAND with grovel, fine to coarse, wet, medium dense 30.3 2.3 2.3 2.3 3.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2	Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)		Graphic			Soil Sample Method & Interval
32 24 3.5.7.11 1.1 SW	26	21	0-0-0-1 (0)	0.9	CL		Gray CLAY, lean, trace sand, fine, moist, very soft (cor	ntinuea)	
31	28								
24 31 1.1 SW Light brown SAND with gravel, fine to coarse, wet, medium dense 30 31 32 33 34 34 34 35 36 36 38 12 22 35 36 36 38 38 38 38 38 38	30				_		31		
36	32	24	3-5-7-11 (12)	1.1	SW			rdium dense	SS 30-32
18	34								
40	36	18		0.5	CL			posing organic material at 37'	
12	_ 38 _								
12	40				CI				
46 24 0-0-1-2 0.6 SC Yellow brown clayey SAND, medium, wet, very loose 48	42	12	0-0-0-1 (0)	0.5	, OL		Glay CLAT, leall, flace Salid, lifte, filossi, very soft		
24 0.6 SC Yellow brown clayey SAND, medium, wet, very loose 48 50 Remarks: Air Knifed to 5 ft bgs SS - Split Spoon 8320 Guilford Road Suite I					_		40		
Remarks: Air Knifed to 5 ft bgs AECOM 8320 Guilford Road Suite I SS - Split Spoon	40	24		0.6	SC				ST 45-47
Remarks: Air Knifed to 5 ft bgs AECOM 8320 Guilford Road Suite I							50		
AECOM 8320 Guilford Road Suite I			p,	emarke:	Air Kni	fed to 5 ft l			
8320 Guilford Road Suite I	ΔF	СОМ	- N	oniai No.					
	832	0 Guilfor		ite L					
Columbia, MD 21046 ST - Shelby Tube CB - Core Barrel	Col	umbia, M	D 21046						
CD - CUIE Dallel					OB - 00	ore parrel			

Boring Log

BORING #: SB4

Sheet 3 of 3

Client	: PEPCC)			Location:	3400 Benning Road NE, Washington, DC Logged By: Sean Crouch		
Projec	t: Benni	ng Road Fa	cility		Northing:	448370.51 Easting: 1326248.97 Drilling Company: Eichelberger		
Projec	t#: 602	87343			Surface E	Slevation (ft): 36.51 Groundwater Level (ft bgs): 20.0		
Start [Date: 3/2	26/2013				ng Method: HSA Corrected Groundwater Elevation		
Finish	Date: 3	/26/2013				Total Depth (ft): 75		
O (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Method & Interval	
				CL		Gray CLAY, lean, trace sand, fine, moist, very soft		
52	22	0-0-0-4 (0)	0.1	SP	<i>(////////</i> //	Light brown to yellow SAND with gravel, coarse, wet, loose		
54				_				
56	24	2-5-7-9 (12)	0.2	СН		Gray brown CLAY, trace SAND, moist, fat, very stiff (Arundel Clay)	SS 55-57	
58								
60		4-6-10-11		_				
62		(16)	0.0	_				
64						65		
66	20	2-7-10-11 (17)	0.3	СН		Red-brown CLAY, dry, fat, very stiff (Arundel Clay)		
68								
70		_						
72	54						CB 70-75	
74						75		
		Re	emarks:	Air Knif	ed to 5 ft b	End of Boring at 75 ft bgs ogs		
AE	COM	d Bood Oct	ito I	SS - Spl	lit Spoon			
	20 Guilfor umbia, N	d Road Sui ID 21046	ITE L	ST - She	elby Tube			
	•			CB - Co	re Barrel			

Boring Log

BORING #: SB5

Client: PEPCO	Location: 3	400 Benning Road NE, Washington, DC	Logged By: Sean Crouch	
Project: Benning Road Facility	Northing: 4	48337.53 Easting: 1325826.24	Drilling Company: Eichelberger	
Project #: 60287343	Surface Elev	vation (ft): 33.50	Groundwater Level (ft bgs): 13.94	4
Start Date: 3/20/2013		Orilling Method: HSA Corrected Groundwater Elevation (
Finish Date: 3/21/2013			Total Depth (ft): 60	
Blow Counts (N Value) PID (ppm)	Graphic	Soil and Rock D Classification Scl	escription heme: USCS	Soil Sample Method & Interval
ASPHA	LT 0.5	ASPHALT		
SP		Brown to dark brown SAND, some gravel (fill), medium	1	
2 1.1	22			
SP 1.6	3	Yellow-brown SAND, some silt, fine, moist		
CL		Yellow-brown CLAY, lean, medium, micaceous, moist		
4 2.1 SW	5	Yellow-brown SAND, trace silt, fine to medium, micace	eous, increasing moisture	
6 12 3-6-5-5 (11) 1.4 SW		Yellow-brown SAND, trace silt, fine to medium, micace	eous, increasing moisture, medium dense	
8 7-8-6-5 (14) 0.7	······································			
10 18 2-4-5-6 (9) 0.6 ML		Light brown sandy SILT, moist, fine, stiff		SS 9-11
12 24 5-6-6-6 (12) CH	11.5	Gray to yellow-brown silty CLAY, some sand, fine, stiff,	, lean, moist	
14 22 6-7-8-8 (15) 0.3	15			SS 13-15
16 24 3-3-6-7 (9) 0.4 CH		Gray to yellow-brown silty CLAY, fine, stiff, lean, wet		
18 9-11-10-11 0.2				
20 24 7-9-10-10 0.1 CH	20	Gray to yellow-brown silty CLAY with sand, fine, stiff, le	ean, wet	
24				
Remarks: Air K	nifed to 5 ft bgs			
	Split Spoon			
8320 Guilford Road Suite L	Shelby Tube			
	Core Barrel			
СВ	- July Ballel			

Boring Log

BORING #: SB5

Sheet 2 of 3

Clie	nt: PEPCO)			Location:	3400 Benning Road NE, Washingto	n, DC Logged By: S	ean Crouch	
Proj	ect: Bennir	ng Road Fa	cility		Northing:	448337.53 Easting : 132582	6.24 Drilling Compa	ıny: Eichelberger	
Proj	ect #: 6028	37343			Surface E	Elevation (ft): 33.50	Groundwater I	_evel (ft bgs): 13.94	
Star	t Date: 3/2	0/2013			Drilling N	lethod: HSA	Corrected Gro	undwater Elevation (f	t): 19.56
Finis	sh Date: 3/	/21/2013					Total Depth (ft)	: 60	
Depth (ft bas)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic	Classifi	nd Rock Description cation Scheme: USCS		Soil Sample Method & Interval
26				CH		Gray to yellow-brown silty CLAY with san 26	I, fine, stiff, lean, wet (continued)		
	24	11-11-11-11 (22)	0.3	SC		26.5 Gray clayey SAND, medium, wet, mediur			
- 28 - 30	_			SP		Brown SAND, coarse, wet, medium dens	3		
				SPG	0.0	Yellow brown gravely SAND, coarse, wet	medium dense		
32	12	1-4-8-10 (12)	0.1	-	。				
- 34 -	-			SP		35	dium deser		
<u>36</u>	12	2-7-7-8 (14)	0.2	5P		Gray SAND, some clay, medium, wet, mo	alum dense		SS 35-37
38 - 40	_					40			
- +0				SP		Brown SAND, some gravel, coarse, wet,	oose		
42	16	2-3-6-12 (9)	0.1						SS 40-42
- 44 -	_					45			
46		2-4-6-9 (10)	0.3	СН		Red-brown CLAY, fat, moist, stiff (Arunde	Clay)		
48	_								
50						50			
	_	Re	marks:	•					
Δ	ECOM	r\t	ui N3.						
AECOM 8320 Guilford Road Suite L Columbia, MD 21046									

Boring Log

BORING #: SB5

Sheet 3 of 3

Client	Client: PEPCO				Location	: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch	
Projec	t: Bennir	ng Road Fa	cility		Northing	: 448337.53 Easting : 1325826.24	Drilling Company: Eichelberger	
Projec	Project # : 60287343				Surface	Elevation (ft): 33.50	Groundwater Level (ft bgs): 13.94	4
Start I	Start Date: 3/20/2013				Drilling I	Method: HSA	Corrected Groundwater Elevation	(ft): 19.56
Finish	Finish Date: 3/21/2013						Total Depth (ft): 60	
Depth (ft bgs)	Recovery Length (inches)	Blow Counts (N Value)	PID (ppm)	USCS Code	Graphic		ck Description n Scheme: USCS	Soil Sample Method & Interval
52	24	4-9-11-15 (20)	0.2	СН		Red-brown silty CLAY, fat, moist, very stiff (Arun	del Clay)	
56 58 60	48			СН		Red-brown silty CLAY, fat, dry, very stiff (Arunde	Clay)	CB 55-60

End of Boring at 60 ft bgs

Remarks:

AECOM 8320 Guilford Road Suite L Columbia, MD 21046 Air Knifed to 5 ft bgs

SS - Split Spoon

ST - Shelby Tube

CB - Core Barrel



Phase I Direct-Push Boring Logs

Λ				
H	L	U	Λ	/

BORING #: SUS/DP01 Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Drilling Company: Green Services			
Project #: 60287343.01	Surface Elevation (ft): 13.73	Groundwater Encountered (ft bgs): 12		
Start Date: 5/20/2013	Drilling Method: DPT	Water Level (ft bgs): NA		
Finish Date: 5/20/2013		Total Depth (ft): 15		

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	ML		Brown SILT, sandy, moist, gravely	
2						
						2.5-3.5
4						
 			0144	5		
6		0.0	SW	<u>//.//.</u>	Brown SAND, fine to medium grain, angular, well graded, moist	
		0.0		1/7//		
8		0.0				
		0.0		<u>//</u>		
10		0.0		<u>/////</u> 1	10	9.5-10.5
		0.0	SW	7777	Brown SAND, fine to medium grain, angular, well graded, saturated	3.5 10.0
12		0.0		<u> </u>		
		0.0		<u>//.//</u>		
14		0.0		<u>/////</u> /1	14	
		0.0	SC	///////////////////////////////////////	Brown clayey SAND, fine grain, no plasticity, saturated	14-15

Remarks:

Groundwater Sample Collected: 12-15 ft bo	Groundwater	Sample	Collected:	12-15	ft bgs
---	-------------	--------	------------	-------	--------

oundwater Sample Collected: 12-15 ft bgs	

Project: Benning Road Facility

Project #: 60287343.01

Client: PEPCO

Boring Log

Location: 3400 Benning Road, Washington, DC, MD

Easting: 1323703.26

BORING #: SUS/DP02

Groundwater Encountered (ft bgs): 14

Logged By: Jeremy Joiner

Drilling Company: Green Services

Sheet 1 of 1

Start Date:5/20/2013Drilling Method:DPTWater Level (ft bgs):5.63

Finish Date: 5/20/2013 **Total Depth (ft):** 17

Surface Elevation (ft): 15.61

Northing: 448968.71

					· · · · · · · · · · · · · · · · · · ·	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
			FILL		0.66 Black silty GRAVEL/FILL MATERIAL, trace clay, moist	
		0.0	SM	1,	1.5 Brown silty SAND, medium to fine grain, well graded, trace gravel, moist	
2			SC	1/////	Reddish-brown clayey SAND, medium grain, little silt, moist, no plasticity, mica flakes present	
		0.0			3	
		0.0	SW	1./////	Brown SAND, fine to medium grain, well graded, loose, little silt, moist	
4		0.0	-	<u>//</u>		
		0.0		1./7./7	5	4.5-5.5
8		0.0	SW		Reddish-brown SAND, fine to course grain, well graded, trace gravel, moist	
10 12 14		0.0	SW		Brown gravely SAND, fine to medium grain, poorly graded, medium size gravel, moist to wet at 14'	9.5-10.5
16				/ / / / / / / / / / / / / / / / / / /	17	14.5-15.5

Groundwater Sample Collected: 12-17 ft bgs

Λ	1
А	

BORING #: SUS/DP03
Sheet 1 of 2

Client: PEPCO
Location: 3400 Benning Road, Washington, DC, MD
Logged By: Jeremy Joiner

Project: Benning Road Facility
Northing: 448120.86 Easting: 1324026.35 Drilling Company: Green Services

Project #: 60287343.01 Surface Elevation (ft): 20.37 Groundwater Encountered (ft bgs): 12

Start Date: 5/21/2013 Drilling Method: DPT Water Level (ft bgs): NA

	Julio : 0/2					mourour Bri	Trater zerer (it bye).	
Finish	Date: 5/2	21/2013					Total Depth (ft): 52	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS		
		0.0	FILL	XXXXX	× 0.66	CRUSHER RUN, fill material, moist		
\vdash \dashv		0.0	ML			Brown sandy SILT, medium to fine grain sand, well graded, moist		
2		0.1	SC	17777	2	Reddish-brown clayey SAND, medium grain, sub-rounded, no plas	ticity you maist loose	
 			- 30			Reduisir-blown dayey 3AND, medium grain, sub-lounded, no plas	ticity, very moist, loose	
4		0.0						
LJ		0.0			5			4.5-5.5
6		0.0	SM			Reddish-brown silty SAND, fine to medium grain, well graded, trace	e gravel, moist	
		0.0			·			
8		0.1	1		8			
		0.0	SP			Reddish-brown SAND, fine to medium grain, graded towards fine g	rains, medium to large gravel, moist	
 		0.2	†					
10		0.0	+			S		
F		0.0	-					
12		0.0	SW	1./7./	12_	Brown SAND, medium to coarse grain, angular, well graded, mediu	um gravel, saturated	_
F -		0.0	-	<u>/ /</u>	<u></u>	Down of No., median to coulde grain, angular, was greece, median graves, calculated		
14				<u>////</u>	<u>^</u>			
 		0.0		77.7	^;			14.5-15.5
16		0.0		<u>//</u>	<u></u>			
		0.0		<u>//.//.</u>	<u></u>			
18		0.0		1777	^; <u>}</u>			
		0.0		<u> </u>	<u>.∵.</u> ₁∷.19			
20		0.0	CL			Gray CLAY, low plasticity, moist		
		0.0						
22		0.0	1		22			
		0.0	SP	_ <i>\///////</i>	//	Reddish brown SAND, some silt, trace mica, saturated		
₂₄		0.0	†		24			
24		0.0	SW	1./7./	24	Reddish brown SAND, fine to medium grain, well graded, some gra	avel, very moist	
F +	26	0.0	SP	<u> </u>	<u>.</u> 25	Brown SAND, medium to coarse grain, angular, graded towards co	parse, medium to large gravel, wet	
_ 26 _		0.0	+				-	
F		0.0	+					
_ 28		0.0	+					
F -		0.0	-					
30		0.0	CL	<i>''''</i>	30			
 			- 01	<i>\\\\\\\</i>		Gray CLAY, no plasticity, trace sand, moist		
32		0.0						
		0.0		<i>\\\\\\\</i>	33_			
34		0.0	SM		\cdot	Gray silty SAND, fine grain, little clay, no plasticity, wet		
		0.0		::::::	<u>: </u>			

Remarks: Groundwater Sample Collected: 10-15 ft bgs

Boring Log

BORING #: SUS/DP03
Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner						
Project: Benning Road Facility	Northing: 448120.86 Easting: 1324026.35	Drilling Company: Green Services						
Project #: 60287343.01	Surface Elevation (ft): 20.37	Groundwater Encountered (ft bgs): 12						
Start Date: 5/21/2013	Drilling Method: DPT	Water Level (ft bgs): NA						
Finish Date: 5/21/2013		Total Depth (ft): 52						

Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	SM		Gray silty SAND, fine grain, little clay, no plasticity, wet (continued)	
		0.0			37	
38		0.0	CL		Gray sandy CLAY, fine grain sand, low plasticity, moist	
		0.0				
40		0.0				
		0.0				
42		0.0				
		0.0				
44		0.0				
		0.0			45	
46		0.0	SM		Gray silty SAND, fine to medium grain, well-graded, angular to sub-rounded, trace clay, no plasticity, mica flakes present, wet	
		0.0			F	
48		0.0				
		0.0				
50		0.0	SW-SM		49.5 Gray SAND, medium grain, washed, little silt, moist	
		0.0	017 017			
F 52		0.0				
_ 52 _			GP	310 O o d	52 Gray sandy GRAVEL, some silt, medium to large gravel, wet	

Remarks:

Groundwater Sample Collected: 10-15 ft bgs

Λ				
H	L	U	Λ	7

BORING #: SUS/DP04
Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 448808.97 Easting: 1324091.66	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 18.74	Groundwater Encountered (ft bgs): 16		
Start Date : 5/20/2013	Drilling Method: DPT	Water Level (ft bgs): 14.90		
Finish Date: 5/20/2013		Total Depth (ft): 20		

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	FILL		0.5_ CRUSHER RUN, fill material, moist	
-		1.4	SM		Black silty SAND, fine to medium grain, well graded, little gravel, moist	
2		1.4	ME	1 1	1.3 Reddish-brown gravelly SILT, some sand, moist	
			ML		Reddish-brown clayey SILT, little sand, little gravel, moist Reddish-brown clayey SILT, some clay, maist	
⊦ ⊢		1.0	GW		2 2\ Diack gravely SILT, some day, moist	2.5-3.5
4		1.0			Black sandy GRAVEL, small rounded gravel, fine to medium grain sand, well graded, moist	
		0.5			Crushed COAL ASH, moist 5	
6		0.0	SW	<u>/////</u> /	Red SAND, fine to medium grain, well graded, sub-rounded, moist	
		0.0		/////		
8		0.0		/	8	
		0.0	SP		Brown SAND, fine to coarse grain, little quartz gravel, moist	
10		0.0			10	9.5-10.5
		0.0	ML		Black and brown clayey SILT, possible coal ash mixed in, moist	0.0 10.0
12		0.0	SW	<u>/////</u> /	Reddish-brown SAND, fine to medium grain, well graded, mica present, moist, very moist at 15'	
		0.0		//////		
14		0.0				
		0.0		/ <u>····/·</u>		14.5-15.5
16		0.0		<u>/////</u> /		7.1.0 10.0
		0.0		77.77	17	
18		0.0	GW		Brown sandy GRAVEL, small gravels, rounded and sub-rounded, medium to fine grain sand, well graded, washed, saturated	
		0.0				
20		0.0			20	

Remarks: Groundwater Sample Collected: 15-20 ft bgs and 47-52 ft bgs Refusal at 52 ft bgs

AECOM
8320 Guilford Road Suite L
Columbia, MD 21046

Groundwater Sample Collected: 15-20 ft bgs and 47-52 ft bgs Refusal at 52 ft bgs

Boring Log

BORING #: SUS/DP05

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 449163.57 Easting: 1324087.93	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 16.80	Groundwater Encountered (ft bgs): 12		
Start Date: 5/21/2013	Drilling Method: DPT	Water Level (ft bgs): 13.0		
Finish Date: 5/21/2013		Total Denth (ff): 10		

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	GP	0700	0.66 Black sitty GRAVEL, fill material, trace cobbles, moist	
2		1.1	- SM		Reddish-brown silty SAND, fine to medium grain, well graded, moist	
		0.8				
4		0.5	1			
		0.0			5	
6		0.1	SW	1.7.7.7	Reddish-brown SAND, medium to fine grain, well graded, trace silt, moist	4.5-5.5
		0.0	-			
8		0.0	-	<u>/ / / / / / / /</u>	8	
		0.0	SP		Reddish-brown SAND medium to coarse grain, trace gravel, trace silt, moist	-
10		0.1				0.5.40.5
- 10		0.0	-			9.5-10.5
12		0.0	-			
		0.0	1		13	
14		0.0	SP-SM		Reddish-brown SAND medium to coarse grain, poorly graded towards coarse, angular and rounded mix, trace gravel, very moist, saturated at 16'	1
		0.0	1		graves, very more, contribute at 10	14 5 15 5
16		0.0	1			14.5-15.5
		0.0	-			
18		0.0			18	
		0.0	SP		Reddish-brown SAND, fine to medium grain, graded towards fine grains, saturated	1

Remarks:	Groundwater Sample Collected: 14-19 ft bgs
d Suite L	
46	

А		4	4
A	٦,	Λ	Л

BORING #: SUS/DP06 Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 448063.28 Easting: 1324259.23	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 22.41	Groundwater Encountered (ft bgs): 17		
Start Date: 5/22/2013	Drilling Method: DPT	Water Level (ft bgs): NA		
Finish Date: 5/22/2013	Total Depth (ft): 19.5			

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	
			FILL COAL		0.5_ Stone FILL	
2			ML		COAL ASH, dry Reddish-brown sandy SILT, moist	
4						
					5	4.5-5.5
6		0.0	SW-SM		Reddish-brown SAND, fine to medium grain, well graded, little silt, moist	
		0.0				
8		0.0	-			
		0.0				
10		0.0	ML		Brown sandy SILT, little clay, no plasticity, fine grain sand, moist 10	0.5.40.5
- 10		0.0	ML	1	Brown sandy SILT, little clay, no plasticity, fine grain sand, mica flakes, moist	9.5-10.5
12		0.0	1			
- '-		0.0	1			
14		0.0	1			
		0.0	1			445455
16		0.0	1			14.5-15.5
"					17	
18			SP-SC		Brown clayey SAND, medium to fine grain, poorly graded towards fine, wet	
			CL		Gray CLAY, little silt, no plasticity, trace sand, moist	

Remarks:	Groundwater Sample Collected:

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

14.5-19 ft bgs

Λ		\frown		
A	L	U	Λ	/1

BORING #: SUS/DP07

Client	:: PEPCO				Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner	
	ct: Bennin		cility		Northing: 448780.43 Easting: 1324313.90 Drilling Company: Green Services	
	ct #: 6028				Surface Elevation (ft): 18.66 Groundwater Encountered (ft bgs):	
	Date: 5/22				Drilling Method: DPT Water Level (ft bgs): 22.8/38.7	
Finish Date: 5/22/2013					Total Depth (ft): 48	
1 111131		2/2010			Total Beptil (tg. 40	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	FILL		GRAVEL FILL, some silt, trace sand, moist	
 2		0.0	FILL		GRAVEL FILL MATERIAL, silty, little clay, no plasticity, moist, black filter fabric at 1'	
		0.0				
4		0.2			4	
		0.0	ML		Reddish-brown clayey SILT, trace sand, no plasticity, moist 5	4.5-5.5
6		0.0	SM		Brown silty SAND, fine to medium grain, well graded, trace clay and gravel, no plasticity, moist	0.0
		0.0				
8		0.0			`.	
		0.0			`. 9	
10		0.0	SM		Brown silty SAND, medium grain, well graded, trace clay and gravel, no plasticity, very moist	9.5-10.5
		0.0	_		,	
12		0.0	ML		Gray clayey SILT, no plasticity, very moist	
		0.0	IVIL		13.5	
14		0.0	CL		Gray and brown silty CLAY, no plasticity, soft, very moist	
		3.9	_		15.5	14.5-15.5
16		3.9	SW-SC		Gray SAND, trace clay and silt, fine to medium grain, well graded, wet.	
		0.0	SM	7777	17 Gray silty SAND, fine to medium grain, graded towards medium, little gravel, wet	
18		0.0	_			
 20		0.0	-		· 20	
	12	0.0	SP		Gray-brown SAND, medium grain, trace gravel, wet	
22		0.0	1			
		0.0	-			
24		0.0	1			
		0.0				
26		0.0			26	
		0.0	SP		Reddish-brown SAND, medium grain, trace gravel, wet	
28		0.0	_	· · · · · · · · · · · · · · · · · · ·	28	
		0.0	CL		Gray CLAY, low to no plasticity, moist	
30		0.0				
		0.0				
32		0.0	-			
		0.0				
34_		0.0	_			
]	V//////		
		Ren	narks:	Groundwa	ter Sample Collected: 20-25 ft bgs and 43-48 ft bgs Refusal at 48 ft bgs	
	COM 20 Guilford	Road Suite	e L			
Co	lumbia, MC	21046	_			

Λ		\frown	A	A
A	C	U	Λ	71

BORING #: SUS/DP07 Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 448780.43 Easting: 1324313.90	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 18.66	Groundwater Encountered (ft bgs): 18		
Start Date: 5/22/2013	Drilling Method: DPT	Water Level (ft bgs): 22.8/38.7		
Finish Date: 5/22/2013		Total Depth (ft): 48		

Depth (ft bgs)	Recovery Length (inches)	(mdd) OIA	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	CL	36	Gray CLAY, low to no plasticity, moist (continued)	
		0.0	CL		Gray sandy CLAY, fine grain sand, no plasticity, wet to very moist	
38		0.0				
		0.0				
40		0.0				
		0.0				
42		0.0				
		0.0				
44		0.0		44	4	
		0.0	SP-SC		Gray clayey SAND, fine grain sand, no plasticity, very moist	
46		0.0	SW	1///45	5.5 Brown-grey SAND, medium to coarse grain, well graded, tight and firm, wet	
		0.0		<u>/</u>		
48		0.0		////// 48	3	

Remarks:

Groundwater Sample Collected: 20-25 ft bgs and 43-48 ft bgs Refusal at 48 ft bgs

	•	0	•	3

Λ	1
А	

BORING #: SUS/DP08

Client: PEPCO				L	Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner			
Project: Benning Road Facility			cility	N	Northing: 448910.93 Easting: 1324319.35 Drilling Company: Green Services			
Projec	t#: 6028	7343.01		S	Surface Elevation (ft): 18.88 Groundwater Encountered (ft bgs):			
Start D	Date: 5/23	/2013			Drilling Method: DPT Water Level (ft bgs): 15.0			
Finish	Date : 5/2	23/2013			Total Depth (ft): 39			
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval		
		0.0	FILL		0.6 _ GRAVEL FILL, little sand and silt			
2		0.4	SW-SM		Brown SAND, medium to fine grain, well graded, little silt, trace gravel, moist			
		0.5	SW-SM		2.5 Dark brown SAND, medium to fine grain sand, well graded, little silt, trace gravel, wet	2525		
4					5	2.5-3.5		
6		0.0	sw	<u>//.</u>	Brown gravely SAND, fine to medium grain, well graded, trace gravel, moist			
		0.0		////	<u> </u>			
8		0.0	CL		8 Dark brown sandy CLAY, no plasticity, fine grain, trace gravel, moist			
- 4		0.0	, OL		Dark blown sality CLA1, no plasticity, line grain, trace graver, moist			
10		0.0				9.5-10.5		
		0.0						
12		0.0						
- , , -		0.0						
14		0.0						
		0.0	ML		15 Brown clayey SILT, no plasticity, medium-stiff, very moist	14.5-15.5		
16		0.0						
18		0.0			18			
-10		0.0	SW	/////				
20		0.0	ML		Brown sandy SILT, little clay, no plasticity, moist			
22	12		CL		Dark brown sandy CLAY, fine grain sand, low plasticity, wet			
			ML		Black sandy SILT, fine grain sand, wet			
24					24			
			SP		Reddish-brown gravely SAND, fine to medium grain, angular, small and medium gravels, wet			
		0.0			29			
30			CL		Reddish-brown sandy CLAY, no plasticity, wet			
32			SM		Brown silty SAND, little clay, wet			
_		Ren	narks: G	roundwate	er Sample Collected: 15-25 ft bgs and 34-39 ft bgs 16.53 Refusal at 39 ft bgs			
	COM O Guilford	Road Suite						
	umbia, MD		_					

Λ			A	A
H	L	U	Λ	/

BORING #: SUS/DP08
Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 448910.93 Easting: 1324319.35	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 18.88	Groundwater Encountered (ft bgs): 15		
Start Date: 5/23/2013	Drilling Method: DPT	Water Level (ft bgs): 15.0		
Finish Date: 5/23/2013		Total Depth (ft): 39		

Depth (ft bgs)	Recovery Length (inches)	(wdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	SC		Brown CLAY and SAND, wet	
38		0.5	SC		Brown clayey SAND, wet	
		0.4	SP		Brown SAND with gravel	

Remarks:

Groundwater Sample Collected: 15-25 ft bgs and 34-39 ft bgs 16.53 Refusal at 39 ft bgs

Λ		\frown		
A	L	U	Λ	/1

BORING #: SUS/DP09

Client: PEPCO				I	Location: 3400 Benning Road, Washington, DC, MD Logged By: Michele Russell/Jeremy Joiner			
Project: Benning Road Facility			cility	ı	Northing: 448048.31 Easting: 1324624.17 Drilling Company: Green Services			
Proje	ect #: 6028	7343.01			Surface Elevation (ft): 30.58 Groundwater Encountered (ft bgs):			
Start	Date: 6/11	/2013		I	Drilling Method: DPT Water Level (ft bgs): 20.2/22.66			
Finis	h Date: 6/1	1/2013			Total Depth (ft): 51.5			
Oepth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval		
	-		ML		Brown silty SAND, medium to fine grain, poorly graded, moist			
2	-		CL		1.5 Brown sandy SILT, poorly-graded, moist 2 Orange-brown silty CLAY, dry, crumbly			
	-	0.0			Orange-brown and tan mottled silty CLAY, dry, crumbly			
4	-	0.0	-					
	-	0.0	SC		5 Reddish-brown clayey SAND, fine grain, no plasticity, lean, stiff, moist	4.5-5.5		
6	-	0.0	. 30		reduisin-blown dayey SAND, line grain, no plasticity, lean, still, moist			
,			-					
8	_	0.8	_					
	_	0.0	-					
10		0.0			10	9.5-10.5		
		0.0	CL		Brown CLAY, lean, no plasticity, trace sand, fine grain, moist			
12	_	0.0						
		0.0	_					
14		0.7						
	_	0.0	_			14.5-15.5		
16	_	0.0	-					
	_	0.0			17			
18		0.0	SP		Reddish-brown SAND, fine to course grain, poorly graded towards coarse, little large gravel, moist, mica flakes			
		0.0	SW	<u>/</u>	Reddish-bown SAND, fine to medium grain, well graded, trace fine gravel, moist			
20		0.0	_	///				
		0.0			21			
22		0.0	SW	<u>/ /</u>	Reddish-bown SAND, fine to medium grain, well graded, trace fine gravel, wet			
		0.0	_	<u> </u>				
24		0.0	-	////				
		0.0						
26	_	0.2		/ <u>·····</u>	26			
,	_	0.7	SW	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	Brown SAND, medium to coarse grain, well graded, wet			
28	_	0.5	CL		Gray CLAY, lean, soft to medium density, low plasticity, moist			
	.	0.0	-					
30		0.0	<u> </u>	<i>_\\\\\\\</i>	30			
		0.0	CL		Gray CLAY, lean, soft to medium density, low plasticity, saturated			
32		0.0			32			
•		0.0	SW	<u> </u>	Reddish-brown gravelly SAND, fine to medium grain sand, well graded, small to large gravel, poorly graded towards large in size, wet, very dense			
34		0.2	-	1.77				
		0.0		·· <u>·</u> /·//	35			
Al	ECOM	Rer	marks:	Groundwat	er Sample Collected: 25-30 ft bgs and 45-50 ft bgs Refusal at 51.5 ft bgs			
83	320 Guilford		e L					
	olumbia, MD	21046						

Λ				
H	L	U	Λ	7

BORING #: SUS/DP09
Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Michele Russell/Jeremy Joiner	
Project: Benning Road Facility	Northing: 448048.31 Easting: 1324624.17	Drilling Company: Green Services	
Project #: 60287343.01	Surface Elevation (ft): 30.58	Groundwater Encountered (ft bgs): 20.2	
Start Date: 6/11/2013	Drilling Method: DPT	Water Level (ft bgs): 20.2/22.66	
Finish Date: 6/11/2013		Total Depth (ft): 51.5	

ļ.

Remarks:

Groundwater Sample Collected: 25-30 ft bgs and 45-50 ft bgs Refusal at 51.5 ft bgs

 	 	3-	
			-

Boring Log

BORING #: SUS/DP10

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner/Sharon Drummond		
Project: Benning Road Facility	Northing: 448784.82 Easting: 1324662.91	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 18.92	Groundwater Encountered (ft bgs): 13		
Start Date: 6/10/2013	Drilling Method: DPT	Water Level (ft bgs): 9.51		
Finish Date: 6/10/2013		Total Depth (ft): 20		

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	CONCRETE	P. P. A. P.	0.7CONCRETE	
2		0.0	FILL		Saturated base stone FILL MATERIAL 2	
		0.0	SM		Reddish-brown silty SAND, medium to fine grain, well graded, trace gravel, saturated	
4						
L 4					5	4.5-5.5
6	36	0.3	SM		5.5_ Black-gray silty SAND, some fill gravel, dry Orange-brown SAND and gravel FILL MATERIAL, medium to coarse grain, some silt, dry	
		0.4			Orange-brown SAND and graver FILL IMATERIAL, medium to coarse grain, some siit, dry	
8		0.4			8	
		0.4	SW-SM		Orange/red-brown SAND, medium to coarse, well graded, some silt, 10% gravel, slightly moist	
10		0.4				9.5-10.5
	48	0.1			11	
12		0.1	COAL SW-SM	•••••••••••••••••••••••••••••••••••••••	11.5 Black COAL ASH with approximately 50% gravel, dry	۱
		0.1	- 0VV-0IVI		Red-brown gravelly SAND, some silt, moist, medium to coarse grain, well graded, wet at 13'	
14		0.1				
		0.2				14.5-15.5
16					16	
		0.0	CL		Orange and light gray mottled silty CLAY, low plasticity, wet, smooth	
18					18	
			SP		Orange-brown SAND, coarse, 30% large gravel, poorly graded	
20					20	

Remarks: Groundwater Sample Collected: 15-20 ft bgs

Groundwater Sample Collected. 15-20 it bgs						

А		\frown		
A			Λ	Л

BORING #: SUS/DP11

Client: PEPCO					Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner		
Project: Benning Road Facility					Northing: 449239.72 Easting: 1324624.65 Drilling Company: Green Services		
Project #: 60287343.01					Surface Elevation (ft): 17.03 Groundwater Encountered (ft bgs		
Start Date: 5/28/2013					Drilling Method: DPT Water Level (ft bgs): 8.4		
Finish Date: 5/28/2013					Total Depth (ft): 44		
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval	
		0.0	FILL		0.5 Grey crushed stone FILL MATERIAL, moist		
2		0.0	- ESAL		0.66 Brown silty CLAY, mica flakes present, trace sand, moist, no plasticity, firm 0.83 FILL MATERIAL, coal slag, sandy silt, gravelly, moist, firm COAL, black, dry 3.3		
4		0.0	CL		Brown silty CLAY, moist		
		0.0			5	4.5-5.5	
6		0.0	ML		Brown sandy SILT, fill material, few gravel, black coal dust lenses throughout, moist		
8		0.0					
		0.0			9		
10		0.0	SM		Gray silty SAND, medium to fine grain, poorly graded towards medium, little clay, no plasticity, moist, wet at 14'	9.5-10.5	
		0.0				3.3-10.3	
12		0.0					
		0.0					
14		0.0			` 14		
_		0.0	SP-SM		Brown SAND, fine grain, little silt, smooth, soft, saturated	14.5-15.5	
16		0.0					
		0.0		77777	17		
18		0.0	SC		Gray clayey SAND, fine grain, no plasticity, saturated		
		0.0	SP-SM SP-SM		Brown SAND, fine grain, little silt, smooth, soft, saturated Gray-brown SAND, medium to coarse grain, graded to medium, little silt, saturated		
20	12	0.0	SP-SM		20 Gray-brown SAND, fine to coarse grain, graded to medium, little slit, saturated Gray-brown SAND, fine to coarse grain, poorly graded toards fine, trace gravel, moist		
22	.2	0.0	G. G.W		25		
26 - 28	20	0.0	GW		Brown sandy GRAVEL, medium to coarse grain sand, small to medium gravel, trace silt, saturated		
- 30							
- 50		0.0			31		
 32		0.0	CL		Gray CLAY, lean, stiff, no plasticity, moist		
		0.0					
34		0.0					
		0.0			35		
Remarks: Groundwater Sample Collected: 10-15 ft bgs Refusal at 49.5 ft bgs							
AECOM 8320 Guilford Road Suite L							
Columbia, MD 21046							

Λ				
H	L	U	Λ	/

BORING #: SUS/DP11
Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 449239.72 Easting: 1324624.65	Drilling Company: Green Services		
Project #: 60287343.01	Groundwater Encountered (ft bgs): 11			
Start Date: 5/28/2013	Drilling Method: DPT	Water Level (ft bgs): 8.4		
Finish Date: 5/28/2013		Total Depth (ft): 44		

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	CL		Gray CLAY, lean, more stiff, no plasticity, moist	·
		0.0				
38		0.0				
		0.0				
40		0.0				
42						
-						
44				<u> </u>	44	

Remarks:

Groundwater Sample Collected: 10-15 ft bgs Refusal at 49.5 ft bgs

•	•	· ·

Boring Log

BORING #: SUS/DP12

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner	
Project: Benning Road Facility	Northing: 448435.68 Easting: 1324827.15	Drilling Company: Green Services	
Project #: 60287343.01	Groundwater Encountered (ft bgs): 13		
Start Date: 6/13/2013	Drilling Method: DPT	Water Level (ft bgs): NA	
Finish Date: 6/13/2013		Total Depth (ft): 20	

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	GP		Black GRAVEL, small to large grain, poorly graded towards large, moist	
2		1.7				
		1.9			3	
4		2.1	GP	1,001	Black GRAVEL, small to large grain, poorly graded from small to large, little medium to coarse sand, well graded sand, moist	
		2.0		0000		4.5-5.5
6		0.0	BRICK		5.5 Red crushed brick FILL MATERIAL	4.0-0.0
		0.3	ML		Brown clayey SILT, no plasticity, soft, wet	
8		0.0				
"		0.0	ML	1	Brown sandy SILT, fine to medium grain, well graded, wet, soft	
10		0.0				0.5.40.5
- 10		0.0				9.5-10.5
12		0.4				
		0.0			13	
14		0.0	SM		Brown silty SAND, fine to medium grain, wet, soft	
		0.0				14.5-15.5
16		0.0				14.0-15.5
		0.0		:::::		
18		0.0				
		0.0	1			
20		0.0	1		20	

Remarks:	Groundwater Sample Collected: 15-20 ft bgs

Λ		A	A	
А		/1	71	l

BORING #: SUS/DP13

Client: PEPCO				Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner/Dan Hulber				bert	
Project: Benning Road Facility					Northing: 449245.86 Easting: 1324899.54 Drilling Company: Green Services				
Project #: 60287343.01					Surfac	Surface Elevation (ft): 17.35 Groundwater Encountered (ft bgs):			10
Start D	Date: 5/29	/2013			Drilling	Drilling Method: DPT Water Level (ft bgs): 13.33			
Finish	Date : 5/2	9/2013						Total Depth (ft): 50.5	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS		ription e: USCS	Soil Sample Interval
		0.0	FILL SP-SM		0.5	Medium grade SAND and GRAVEL (fill materi			
2		0.4	OI -OW			Dark brown SAND, medium grained, some silt	t, ary		
4		1.1	SP-SM		2.5	Dark brown SAND, medium grained, some silt	t, trace gravel, dry		
		1.9	SM		5	Dark brown silty SAND, fine to medium grade,	, poorly graded, trace	gravel, moist	4.5-5.5
- 6		1.2							
		0.8		ļ					
-		1.3	SP		9	Light brown SAND, fine to coarse grain, poorly	y graded, trace grave	I, moist	
10		1.1	SP			Light brown SAND, fine to coarse grain, poorly	y graded, trace grave	l, saturated	0.5.40.5
		0.7						_	9.5-10.5
12		0.5							
		0.0							
14		0.3			14				
- 4		0.7	GP		00	Brown sandy GRAVEL, small gravel, medium	and coarse sand, tra	ce silt, wet	14.5-15.5
16		0.0		000	20				
		0.0			00				
18		0.0		00					
20		0.0		60°C	00				
		0.0			0				
22		0.0		$V \sim C$	00				
		0.0		00					
24		0.0		000	00				
_		0.0			25	D. L. OMB.			
26		0.0	SP			Brown clayey SAND, no plasticity, moist to we	et .		
		0.0							
28		0.0	CL	///////	28	Gray CLAY, trace sand, smooth, slightly firm,	moist		
		0.0				,			
30		0.2	CL	\ /////	30	Gray CLAY, trace sand, smooth, medium stiff,	, moist		
 32		0.0							
J <u>Z</u>		0.0							
34		0.0		\ /////					
		0.0			35				
		Rem	narks: Gi	roundwa	ater San	ple Collected: 10-15 ft bgs			
	СОМ					<u>, </u>			
	0 Guilford Iumbia, MD	Road Suite 21046	PL -						

Boring Log

BORING #: SUS/DP13 Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner/Dan Hulbert	
Project: Benning Road Facility	Northing: 449245.86 Easting: 1324899.54	Drilling Company: Green Services	
Project #: 60287343.01	Groundwater Encountered (ft bgs): 10		
Start Date: 5/29/2013	Drilling Method: DPT	Water Level (ft bgs): 13.33	
Finish Date: 5/29/2013		Total Depth (ft): 50.5	

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	CL		Gray CLAY, trace sand, smooth, stiff, moist	
		0.0				
38		0.0			38	
		0.0	CL		Gray sandy CLAY, no plasticity, fine and medium sand, moist	
40		0.0			40	
		0.0	SW	<u>//////</u>	Brown SAND, fine and coarse, well graded, saturated	
42		0.0				
		0.0		<u>//</u>		
44		0.0		<u>////</u>		
		0.0		<u>////</u> /		
46		0.0				
		0.0		<u>///</u>	47	
48		0.0	PT SW	(1), (1), (1	47.5 Gray decomposing wood, saturated	
		0.0	CL	<i>7</i> . <i>7</i> .	48.5 Brown SAND, fine to medium grain, well graded, wet Gray sandy CLAY, fine to medium grain sand, no plasticity, stiff, moist	
50		0.0			yy, to modulin grain outloy no placebody, outly mode	
				<i>\////////////////////////////////////</i>	50.5	

Remarks:

Groundwater Sample Collected: 10-15 ft bg	Groundwater	Sample	Collected:	10-15	ft bgs
---	-------------	--------	------------	-------	--------

roundwater Sample Collected: 10-15 π bgs							

Boring Log

BORING #: SUS/DP14

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner	
Project: Benning Road Facility	Northing: 448089.70 Easting: 1325250.39	Drilling Company: Green Services	
Project #: 60287343.01	Surface Elevation (ft): 35.26	Groundwater Encountered (ft bgs): 23	
Start Date: 6/6/2013	Drilling Method: DPT	Water Level (ft bgs): 23.0	
Finish Date: 6/6/2013		Total Depth (ft): 25	

					,	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
			FILL MATERIAL	1/1//	0.38 / Red MULCH	
 			GW	/·····································	1.33 Tan SAND, fine, loose, dry	
2			Gw \ EE		2 Brown sitty GRAVEL, dry 2.16 / Brown sitty CLAY, some sand, trace gravel, moist	
L -			C GE		Brown silty CLAY, some sand, saturated	
4					5	2.5-3.5
 		3.8	ML	* ////////////////////////////////////	Reddish-brown clayey SILT, no plasticity, moist	
6		3.9)			
		2.7				
8		2.0				
		2.1	1			
-		2.3				
_ 10					10	
		1.6	CL		Red/gray CLAY, little silt, no plasticity, moist	9.5-10.5
12		1.0				
- '-		1.0	1			
		1.6	-			
14						
		0.8				
16		0.0	1			14.5-15.5
10		0.0				
-			_			
18		0.0			18	
		0.0	SC		Reddish-brown clayey SAND, fine to medium grain, well graded, moist, wet at 20'	
20		0.0	1			
20		0.0	1			
├ ┤		0.0	-			
22						
		0.0				
24		0.0]			
		0.0	1			
 				<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	25	

Remarks: Groundwater Sample Collected: 23-28 ft bgs

•	•

Boring Log

BORING #: SUS/DP15

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 448484.64 Easting: 1325219.52	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 27.57	Groundwater Encountered (ft bgs): NA		
Start Date: 6/6/2013	Drilling Method: DPT	Water Level (ft bgs): 7.65		
Finish Date: 6/6/2013		Total Depth (ft): 25		
ع ا				

1 1111311	Date. On	0/2013			Total Deptit (it). 23	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		1.2	FILL	XXXXXX	0.5 Large stones and rocks, FILL MATERIAL	
F ⊢		5.7	SM	$\{\ldots,\ldots\}$	1.5 Dark gray, silty SAND, saturated	_
2			SP		Black SAND, medium grain, small gravel, moist, trace silt	
		19.5]		3	
⊦ ⊦		8.7	CL	777777777777777777777777777777777777777	Gray/brown silty CLAY with sand, soft, moist	- I
4		3.5			4	
		82.0	SW	//////	F0	3.5-4.5
h _ 1		15.0	M- M-	<i>}~~~~</i>	5∕ Gray Brown silty CLAY with sand, soft, moist	_/
6		20.0	4		Black sandy SILT, trace gravel, medium to fine sand, poorly graded from medium to fine, wet	
		22.0				
Γ, 1		24.0	1			
8		25.0	CL	V////////	8 Brown silty CLAY, no plasticity, medium stiff, moist	_
L		25.0	J CL		Brown sirty CLAT, no piasucity, medium sun, moist	
10		32.0			10	
'0	10	35.0	ML	1//////	Brown clayey SILT, medium stiff, no plasticity, wet	9.5-10.5
F 4						
12		3.0				
		6.4	1			
F -		1.6	1			
14		1.0				
F +	8	-				14.5-15.5
_ 16	Ü					
		28.0				
1, 1						
18			-			
20					20	
1 20		1	ML	1	Brown clayey SILT, medium stiff, no plasticity, some gravel, small to medium, wet	
L 4					Storm stayey ore 1, modulan stan, no placedoxy, come graves, children to modulan, not	
22						
F 4						
24						
F 7					25	

Remarks:	Groundwater Sample Collected: 20-25 ft bgs
AECOM 8320 Guilford Road Suite L	
Columbia, MD 21046	

Boring Log

BORING #: SUS/DP16

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner/Sharon Drummond
Project: Benning Road Facility	Northing: 448859.40 Easting: 1325155.21	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 23.74	Groundwater Encountered (ft bgs): NA
Start Date: 6/10/2013	Drilling Method: DPT	Water Level (ft bgs): 14.52
Finish Date: 6/10/2013		Total Depth (ft): 20

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	CONCRETE	P. L. A. P.	0.5 CONCRETE	
 		0.0	FILL		1 Clean FILL SAND, fine grain, moist	
2		0.0	SM		2 Fillstone GRAVEL, small to medium, well grained, moist	
L		0.0	SIVI		Brown silty SAND, fine to medium grain, well graded, moist	
4		0.0				
		0.0			5	4.5-5.5
6		0.0	SM		Red-brown silty SAND, fine, some clay, moist, thin layer of coal dust at 7'	4.5-5.5
		0.0			7	
8		0.0	GW	Red-brown sandy GRAVEL, small to large gravel, well graded, subangular, coarse sand, dry		
		0.0	SW	Red-brown SAND, fine to medium grain, well graded, some gravel, dry		
10		0.0		/////	10	9.5-10.5
	36	0.0	SP		Red-brown SAND, fine to medium grain, well graded, some gravel, dry to moist at 14', 2 cm layer of black sand at 14.5'	0.0 10.0
12		0.0				
		0.0				
14		0.0				
		0.0			15	14.5-15.5
16	36	0.0	SM		Red-brown silty SAND, fine sand, moist, layer of gravel at 16'	14.0-10.0
		0.0	ML CH		16.5 Red-brown sandy SILT, fine sand, some clay, no plasticity	
18		0.0			Light gray silty CLAY, low plasticity, soft, becomes tight at 19'	
		0.0				
20		0.0	014		19.5 20 Grav silty SAND, very fine grain, some clay, 10% gravel, small to large	
F-20			SM		20 Gray silty SAND, very fine grain, some clay, 10% gravel, small to large	

Remarks: Groundwater Sample Collected: 15-20 ft bgs AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Boring Log

BORING #: SUS/DP17

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Michele Russell/Jeremy Joiner		
Project: Benning Road Facility	Northing: 448588.91 Easting: 1325548.72	Drilling Company: Green Services		
Project #: 60287343.01	Groundwater Encountered (ft bgs): NA			
Start Date: 6/11/2013	Drilling Method: DPT	Water Level (ft bgs): 8.91		
Finish Date: 6/11/2013		Total Depth (ff): 15		

O Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.6	CONCRETE		0.2] / CONCRETE	
2		15.6	SP		0.5 / Tan SAND, coarse, very moist Tan SAND, coarse, saturated	
		16.1	SP		Orange-brown SAND, medium to coarse grain, poorly graded, trace silt, moist	
ㅏ , ㅓ		0.6	SP		Orange-brown SAND, medium to coarse grain, poorly graded, moist Orange-brown SAND, medium to medium-fine grain, poorly graded, moist	
4		5.2	SP		Orange-brown SAND, medium to medium coarse grain, moist	
F -		18.3	SW	7777	5 Red SAND, fine to medium grain, well graded, moist	4.5-5.5
6			SW	<u>//.</u>	Neu SAND, life to medium grain, well graded, moist	
		0.0		////		
8		0.0		<u> </u>		
		0.0		<u>//./.</u>	9	
10		0.0	SW	////	Red SAND, fine to medium grain, well graded, small quartz gravel, moist	
		0.0	SW		Brown/red SAND, fine to coarse grain, well graded, little small gravel, wet	9.5-10.5
 		0.0		<u>/::/::</u>		
12		0.0		////		
F -		0.0	CL	/	13	
14			L CL		Brown silty CLAY, lean, no plasticity, medium stiff, moist	
		0.0			15	14-15

Remarks:

Groundwater Sample Collected: 13-18 ft bgs

Λ				
H	L	U	Λ	/

BORING #: SUS/DP18
Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Nathan Pinsker/Jeremy Joiner
Project: Benning Road Facility	Northing: 448976.92 Easting: 1325531.22	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 23.79	Groundwater Encountered (ft bgs): NA
Start Date: 6/4/2013	Drilling Method: DPT	Water Level (ft bgs): 12.58
Finish Date: 6/4/2013		Total Depth (ft): 20

	_					
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		68.0	_ FgH_	/ ********	0.2_/ Gravel lot	
\vdash \downarrow		53.8			Dark brown SAND, fine grain, moist	
2		114.0				
┡╶┤		56.0				2.5-3.5
4					4	
		20.4	SP		Dark brown SAND with large gravel (1"), moist	
6		0.0	SW	/////	Brown gravelly SAND, fine to medium grain, well graded, small to medium gravel, little silt, moist	
		0.0	1	77.7		
8		0.0	1	<u>/ </u>		
		0.0		<u>//.//</u>		
10		0.0		/////		
- 10 -		0.0		//////	11	9.5-10.5
12		0.0	ML		Brown clayey SILT, low plasticity, moist, mica flakes present	
		0.0	1			
14		0.0	1		14	
		0.0	SC		Brown clayey SAND, fine to medium grain, well graded, no plasticity, moist, wet at 15'	
16		6.2	1		16	
		12.8	SP		Brown gravelly SAND, fine to medium grain, well graded, little clay, small gravel, wet	
18		23.6	1			17.5-18.5
		6.7				17.5-16.5
20		0.0			20	
					1 	

Remarks:	Groundwater Sample Collected: 15-20 ft bgs

Λ		\frown		
A	L	U	Λ	/1

BORING #: SUS/DP19

Client: PEPCO		Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner		
Project: Benning Road Facility		Northing: 447862.07 Easting: 1325677.11 Drilling Company: Green Service		
Project #: 60287343.01		Surface Elevation (ft): 32.49 Groundwater Encountered (ft bgs):		
Start Date: 6/5/2013		Drilling Method: DPT Water Level (ft bgs): 12.75		
Finish Date: 6/5/2013			Total Depth (ft): 49.5	
Depth (ft bgs) Recovery Length (inches) PID (ppm)	Graphic	Soil and Rock Description Classification Scheme: USCS		
6.7 FILL	XXXXX	0.5 Asphalt, gravel, FILL MATERIAL		
SP 130.0 ML		Tan SAND, medium coarse grain, very moist	a modium seeval	
2 80.5 CL		2 Dark brown sandy SILT, fine to medium grain, well graded, small to Orange- tan and orange-brown silty CLAY, moist	5 medium gravei 1.5-2.5	
- 4 - 0.0 SM		5 Black/brown silty SAND, trace gravel, fine to medium grain, well gr	aded, moist	
6 0.0				
0.0		7.5		
0.0 COAL SW		Black COAL ASH, moist Brown gravelly SAND, medium to coarse grain, small gravel, moist		
10 0.0			9.5-10.5	
0.0	:///:/			
12 0.0	<u>//////////-</u>	<u></u> d		
0.0	<u>//./</u>			
0.0	////			
0.0 SW		14.5		
16 0.0 SW		Brown gravelly SAND, fine to medium grain, well graded, moist Black gravelly SAND, fine to medium grain, well graded, moist to w	vet at 16'	
	<u>//</u>	black gravelly GAND, line to medium grain, well graded, moist to w	ict at 10	
0.0		<u> </u>		
20	<u> </u>	20		
0.0 SP		Reddish-brown SAND, little silt, fine to coarse grain, poorly graded	towards coarse, some small gravel, wet	
22		심		
0.3				
24 0.4				
0.0		25		
26 0.0 SP		Tan SAND, little silt, fine to coarse grain, poorly graded towards co	arse, some gravei, small size, wet	
0.0		<u> </u>		
28 0.0				
0.0 GW		29 GRAVEL, small to medium, well graded, wet		
30 0.0 SW	:/: 7:/	30 Tan gravelly SAND, small to medium gravel, medium to coarse gra	nin sand, well graded, wet	
	<u>/</u>	:. ::		
32 0.2	<u> </u>			
0.0	////			
0.0		,		
Remarks:	Groundwa	्। ter Sample Collected: 15-20 ft bgs and 44.5-49.5 ft bgs	l .	
AECOM				
8320 Guilford Road Suite L Columbia, MD 21046				

Λ				
H	L	U	Λ	/

BORING #: SUS/DP19
Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner
Project: Benning Road Facility	Northing: 447862.07 Easting: 1325677.11	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 32.49	Groundwater Encountered (ft bgs): NA
Start Date: 6/5/2013	Drilling Method: DPT	Water Level (ft bgs): 12.75
Finish Date: 6/5/2013		Total Depth (ft): 49.5

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	SW	/////	Tan gravelly SAND, small to medium gravel, medium to coarse grain sand, well graded, wet (continued)	
		0.0		77.77		
38		0.0		38		
		0.0	CL		Gray CLAY, low plasticity, moist, soft	
40		0.0	1			
		0.0	1			
42		0.0	1			
		0.0		43		
44		0.0	SC		Gray clayey SAND, fine to medium grain, well graded, low to no plasticity, wet	
		0.0				
46						
				//////		
48			GW	Mari	Gray sandy GRAVEL, fine to medium grain, small to medium gravel, well graded, wet	
Г			1	49.	5	

Remarks:

Groundwater Sample Collected: 15-20 ft bgs and 44.5-49.5 ft bgs

Λ				
A	L	U	Λ	71

BORING #: SUS/DP20 Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner		
Project: Benning Road Facility	Northing: 448307.48 Easting: 1325651.50	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 33.24	Groundwater Encountered (ft bgs): NA		
Start Date: 6/12/2013	Drilling Method: DPT	Water Level (ft bgs): 12.2		
Finish Date: 6/12/2013		Total Depth (ft): 23		
\$				

					· · · · · · · · · · · · · · · · · · ·	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	ASPHALT		0.8 ASPHALT	
F -		0.0	FJL		1.11- Gravel base stone	
2			FILL ME SM	1	1.5 Reddish brown clayey SILT, no plasticity, few gravel, moist	
		0.0			Brown silty SAND, fine to medium grain, well graded, moist	
4		0.0	CL		Gray CLAY, low plasticity, moist	
		0.0	ML		Brown SILT, some sand, moist	4.5-5.5
6		0.0	ML	1 [Brown SILT, some sand, fine grain, wet	4.5-5.5
		0.0			7	
8		0.0	ML] [Brown clayey SILT, little gravel, fine grain, no plasticity, medium density, moist	
		0.0			9	
10		0.0	ML		Reddish-brown sandy SILT, little clay, fine to medium grain sand, well graded, medium stiff, no plasticity, moist	
10		0.0	-		11	9.5-10.5
12		0.0	SW	/////	Reddish-brown gravelly SAND, fine to medium grain, well graded, small to large gravel, poorly graded towards large size, medium dense, moist	
		0.0		/////	Size, medium dense, moist	
14		0.0		/ /		
		0.0		<u>//./</u>	15	
16		1.7	SW	/////	Reddish-brown SAND, fine to medium grain, well graded, trace gravel, medium size, saturated	
		3.4		:/:/://		
18		3.6		<u> </u>		17.5-18.5
		2.1		<u>//</u>		17.5-10.5
20		1.0		/////		
		0.0		: <u>/</u> ;;;/;		
22		1.9		<u>//</u>	22	
		1.1	CL		Gray CLAY, lean, soft, no plasticity, trace fine sand, wet	
ı –						

Remarks:	Groundwater Sample Collected: 15-20 ft bgs
Iford Road Suite L a, MD 21046	
1, WID 21046	

AECOM 8320 Guil Columbia

Λ			/	A	ı
H	L	U	Λ	71	ı

BORING #: SUS/DP21
Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Sean Crouch/Dan Hulbert		
Project: Benning Road Facility	Northing: 447908.40 Easting: 1326039.45	Drilling Company:		
Project #: 60287343.01	Surface Elevation (ft): 30.57	Groundwater Encountered (ft bgs): NA		
Start Date: 2/17/2013	Drilling Method:	Water Level (ft bgs): NA		
Finish Date: 2/17/2013		Total Depth (ft): 1.75		
gth				
		<u>0</u>		

	O Oepth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
				CONCRETE FILL SP		0.5_ CONCRETE 1_ CRUSHER RUN	
- 1	Į) SP		1.75 SAND with gravel, dry	L

Remarks:

Groundwater Sample Collected: NA

Boring Log

BORING #: SUS/DP22

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner/Dan Hulbert		
Project: Benning Road Facility	Northing: 448181.51 Easting: 1326045.35	Drilling Company: Green Services		
Project #: 60287343.01	Surface Elevation (ft): 30.40	Groundwater Encountered (ft bgs): 15		
Start Date: 6/12/2013	Drilling Method: DPT	Water Level (ft bgs): 15.0		
Finish Date: 6/12/2013		Total Depth (ft): 20		

Recovery Length (inches) O Soil and Bock Description Classification Scheme: USCS O Code O Classification Scheme: USCS	Soil Sample Interval
ASPHALT 0.5 ASPHALT FILL Jarge stone, gravel crusher run, organic material(wood)	, 0-1
Large stone, gravel, crusher run, organic material(wood)	
FILL Brown/black SAND, medium grain, brick fragments, large gravel	
	2.5-3.5
6 0.5 CL Brown silty CLAY, little sand, fine grain, lean, medium stiff,no plasticity, moist	
2.5	
3.5	
8 3.0 ML Reddish-brown clayey SILT, no plasticity, lean clay, moist	
10 2.8	9.5-10.5
15	
12 1.1 SC Gray SAND, fine to medium grain, well graded, trace clay, no plasticity, medium den	no maint mine flakes present
	se, moist, mica flakes present
14 0.8	
	14.5-15.5
[16] 0.0	14.5-15.5
0.0	
0.0 ML Brown sandy SILT, fine grain sand, stiff, wet	
0.0	
20	

Remarks:	Groundwater Sample Collected: 15-20 ft bgs
and Cuita I	
oad Suite L 1046	

А		\frown		
Д			Λ	И

BORING #: SUS/DP23
Sheet 1 of 1

Client	: PEPCO				Loc	Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner				
Projec	t: Bennin	g Road Fac	cility		No	rthing: 448372.41	Green Services			
Projec	t#: 6028	7343.01			Su	rface Elevation (ft): 34.75 Groundwater Enco	ountered (ft bgs): N	IA		
Start Date: 6/12/2013						Drilling Method: DPT Water Level (ft bgs): 16.53				
Finish Date: 6/12/2013						Total Depth (ft):				
			epo	.0		Total Bopan (iii)		iple al		
Oepth (ft bgs)	Recovery Length (inches)	РІБ (ррт)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS		Soil Sample Interval		
_			ML		1	Gray SILT, medium sand, gravel				
2 4			SW		/ / / / / / / /	SAND, medium to fine, slightly moist, mica flakes				
- ₆		0.0	CL	111111		Reddish-brown CLAY, lean, no plasticity, stiff, moist		4.5-5.5		
		0.0								
		0.0								
		0.0								
10		0.0						9.5-10.5		
		0.0						3.3-10.3		
12		0.0								
		0.0								
14		0.0								
_		0.0					1	14.5-15.5		
16		0.0								
		0.0								
18		0.0								
		0.0								
20		0.0	CL	-{/////	2	20				
		0.0								
22		0.0								
		0.0								
24		0.0								
 26		0.0								
		0.0								
28		0.0			////2	28				
		0.0	SC			Gray clayey SAND, fine to medium grain, well graded, no plasticity, wet				
30		0.0				30				
ΛE	СОМ	Ken	narks:	Groundwa	aler	Sample Collected: 23-28 ft bgs				
832	COM 20 Guilford Iumbia, MD	Road Suite 21046	E L							

Δ		O	٨	A
			/\	/[

BORING #: SUS/DP24

Client: PEPCO					Location: 3400 Benning Road, Washington, DC, MD Logged By: Jeremy Joiner				
Projec	t: Bennin	g Road Fac	ility		Northing: 448915.42 Easting: 1325886.22 Drilling Company: Green Services				
	t#: 6028					evation (ft): 28.00		Groundwater Encountered (ft bgs):	
	Date: 6/4/2				Drilling Method: DPT Water Level (ft bgs): 11.83				
	Date: 6/4				Total Depth (ft): 53.5				
								The second second	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic		Soil Classi	and Rock Desc ification Schem	ription e: USCS	Soil Sample Interval
			FILL SP SW		0.5 FILL	MATERIAL SAND, little small gravel, coal pieces			
2 - 4			SW			SAND, little small gravet, coal pieces D, fine to medium grain, well graded, slig	htly moist	J	
				<u>//_/_</u>	<i>``</i> .', 5				4555
6		0.0	SW		Red	dish-brown SAND, fine to medium grain,	well graded, moist		4.5-5.5
- 8		0.0		<u>//</u>	·.·.				
		0.0		<u>//_/_</u>					
10		0.0		///	10				9.5-10.5
_		0.0	CL SW	-\{ <i>!!!};</i>		CLAY, tight, no plasticity, moist n SAND, fine to medium grain, well grad	led, some gravel, med	dium size, moist to wet, saturated at 14'	
12		0.0		<u> </u>		, , , , , , , , , , , , , , , , , , , ,	3 · · · · · · · · · · · · · · · · · · ·		
14		0.0		////					
_		0.1		:///	·/·;				14.5-15.5
16		0.0		<u>/· · · /·</u>	``				
		0.0		<u>//-</u>	<u>····</u>				
18		0.0		<u>//.</u>	<u>:</u>				
20		0.0		<u>//</u>	<i>``</i> /				
		0.0		<u>/.'.'/.</u>					
22		0.0		////					
		0.0		777	///				
24		0.0	SM	<u> </u>	24 Dark	brown silty SAND, fine grain, little gravel	Lwot		
	-	0.0	GW		25	brown sandy GRAVEL, small size, trace		medium grain sand, well graded, wet	
26	}	0.0							
 28		0.0							
		0.0							
30		0.0		• • •	•				
_		0.0							
32		0.0	-		32				
		0.0	CL		Gray	CLAY, medium lean, no palsticity, moist			
34		0.0	SC		34 Grav	clayey SAND, fine grain, loose, no plasti	icity moist		
		0.0		<u> </u>	35	, 5, 6, 4, 15, 1110 grain, 10050, 110 plasti	,		
Remarks: Groundv AECOM 8320 Guilford Road Suite L Columbia, MD 21046					ater Sample	Collected: 15-20 ft bgs and 4	18.5-53.5 ft bgs	Refusal at 53.5 ft bgs	

Boring Log

BORING #: SUS/DP24 Sheet 2 of 2

Logged By: Jeremy Joiner

Client: PEPCO Location: 3400 Benning Road, Washington, DC, MD **Northing:** 448915.42 1325886.22 Project: Benning Road Facility Easting: Drilling Company: Green Services Project #: 60287343.01 Surface Elevation (ft): 28.00 Groundwater Encountered (ft bgs): NA Start Date: 6/4/2013 Drilling Method: DPT Water Level (ft bgs): 11.83 Finish Date: 6/4/2013 Total Depth (ft): 53.5

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	sc		Gray clayey SAND, fine grain, loose, no plasticity, black organic material, moist	
		0.0				
38		0.0				
		0.0				
40		0.0			40	
		0.0	SW	/////	Gray SAND, fine to medium grain, moist, little clay, no plasticity	
42		0.0		77.77		
		0.0		/ / / / / / / / / / / / / / / / / / / 		
44		0.0		//. <u></u>		
		0.0	TOPSOIL	1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 /	44.5 Black wood debris, saturated,	
46		0.0	SW	<u>/////</u>	Black SAND, fine to coarse grain, well graded, wet, trace gravel	
		0.0		17777		
48		0.0				
		0.0		/		
50		0.0		<u>//////</u>		
				/////		
52						
-				<u>//</u>	53.5	

Remarks: Groundwater Sample Collected: 15-20 ft bgs and 48.5-53.5 ft bgs

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Refusal at 53.5 ft bgs

А		4	4
A	٦,	Λ	Л

BORING #: SUS/DP25
Sheet 1 of 1

Client: PEPCO					Location: 3400 Benning Road, Washington, DC, MD	Logged By: Sean Crouch/Dan Hulber	rt	
Projec	t: Bennin	g Road Fa	cility		Northing: 448373.88 Easting: 1326293.73	Drilling Company:		
Projec	t#: 6028	7343.01			Surface Elevation (ft): 36.35	Groundwater Encountered (ft bgs):	٧A	
Start Date: 2/17/2013					Drilling Method:	Water Level (ft bgs): NA		
Finish Date: 2/17/2013						Total Depth (ft): 1		
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock De Classification Sche		Soil Sample Interval	
					0.5_ CONCRETE			
SP CRUSHER RUN Red brown SAND, coarse grain, dry								

Remarks: Groundwater Sample Collected: NA

AECOM
8320 Guilford Road Suite L
Columbia, MD 21046

Groundwater Sample Collected: NA

A=COM

Boring Log

BORING #: DP26

Client	: PEPCO				Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch/Dan Hulber		
Projec	t: Bennin	g Road Fa	cility		Northing: 448836.13 Easting: 1324598.97 Drilling Company: Green Services		
Projec	t#: 6028	7343		:	Surface Elevation (ft): 19.44 Groundwater Encountered (ft bgs):	10	
Start I	Date: 3/29	9/2013		1	Drilling Method: DPT Water Level (ft bgs): 11.55		
Finish	Date: 3/2	29/2013			Total Depth (ft): 30	·	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval	
			ASPHALT FILL		0.7 ASPHALT CRUSHER RUN with sand (Fill Material)	-	
2			MATERIAL	,,	Plant sabbles stores some and and sitt maint (Fill Meterial) with black contact fabric at 21 bra		
			MATERIAL	У. п.	Black cobbles, stones, some sand and silt, moist, (Fill Material) with black geotech fabric at 2' bgs.		
4			MH	16	Reddish-brown sandy SILT, trace cobbles, little gravel, moist	3.5-4.5	
	30	0.0	-	Ш	, casasi, stom care, c.z., tase cossio, mas grate, noise		
6				Ш			
		0.0		Ш			
8			MH		Reddish-brown sandy SILT with gravel, trace cobbles, moist	-	
 10		0.1		Ш	10		
- 10	60		SW	:/:/:/.	Yellow-brown to gray-black SAND with gravel, coarse, wet, medium dense	-	
12		0.0		////			
			MH		12.5 Gray sandy SILT with gravel, medium stiff, moist		
14		0.0			15	13.5-14.5	
16	48	0.0	SW-GW		Olive-brown to yellow-brown gravely SAND, coarse, wet, loose, some clay		
		2.0		, b			
_ 18 _		0.0					
		0.0	_				
20	48		SW-GW		20 Yellow-brown gravely SAND, coarse, wet, loose	-	
		0.0			•		
_ 22							
		0.0					
24							
 26	60	0.0					
				. D			
28		0.0			28		
		2.0	MH		Gray sandy SILT, fine, moist, soft		
30		0.0			30	29-30	
		Rei	marks: G	roundwat	er Sample Collected: 25-30 ft bgs		
AE 832	COM 20 Guilford	Road Suit	e L				
Co	lumbia, MC	21046	_ _				

Boring Log

BORING #: DP27

FILL MATERIAL FILL M	Client: PEPCO					_ocation: 3400 Benning Road NE, Washington, DC	Logged By: Jeremy Joiner/Dan Hulber	rt
Start Date: 3/26/2013 Prilling Method: DPT Water Level (ft bgs): 13 Total Depth (ft): 58 Soil and Rock Description Classification Scheme: USCS Soil and Rock Description Cl	Proje	ct: Bennin	g Road Fa	cility	1	Northing: 448861.73 Easting: 1324421.53	Drilling Company: Green Services	
Finish Date: 3/26/2013 Total Depth (ft): 58 Soil and Rock Description Classification Scheme: USCS PIL MATERIAL A 1 0.0 FILL MATERIAL Brown sity SAND. few growd fit material, composed of 877 Stone and CR-6 FILM MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material Brock COL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material Brock COL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. few growd fit material COL MATERIAL Brown sity SAND. medium to five grain, well graded, swell proded, set, trace clay Brown SAND. medium grain, spirit plated fittle sity, sotunated Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity GRAVEL and to large gravel, well graded, statuted, trace clay Brown sity Gravel and trace gr	Proje	ct #: 6028	7343		5	Surface Elevation (ft): 19.16	Groundwater Encountered (ft bgs): 7	
Finish Date: 3/28/2013 Geograph Geograp	Start	Date : 3/26	5/2013			Orilling Method: DPT	Water Level (ft bgs): 13	
Soil and Rock Description Classification Schome: USCS AMATERIAL AMATERIAL AMATERIAL AMATERIAL BERNAT BER	Finish	Date: 3/2	26/2013				Total Depth (ft): 58	
PRIL MATERIAL A 49 00 A 49 00 A 49 00 A 49 00 A 40 00 A 41 00 B 50 0								
A COM A PRIAL A Brown sity SAND, few gravel fill, material, fine to medium sand, well graded, most Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material Bitack Sit, T. little sand, most, trace gravel, fill material COAL Bitack Sit, T. little sand, most, trace gravel, fill material 10 Sol D.O M.L. Upit brown clayey Sit, T. little sand, modum to fine sand, well graded, motet to wert, no plasticity Sit Brown sity SAND, medium to fine grain, yell graded, little sit, saturated 15 Brown SAND, medium to fine grain, well graded, little sit, saturated 15 Brown SAND, medium to fine grain, well graded, little clay, saturated 15 Brown SAND, medium to fine grain, well graded, little clay, saturated 22 Black Sit, Rittle sand, modum to fine grain, well graded, little clay, saturated 23 Black Sit, Rittle sand, modum to fine grain, well graded, little clay, saturated 24 Brown SAND, medium to fine grain, well graded, little clay, saturated 25 Black Sit, Rittle sand, modum to fine grain, well graded, little clay, saturated 26 Sol Ditack Sit, Rittle sand, modum to fine grain, well graded, little clay, saturated 27 28 Brown SAND, medium to fine grain, well graded, little gravel, well graded, saturated. 29 Reddish-brown sity GRAVEL, small to large gravel, well graded, little gravel, well Groundwater Sample Collected: 48-58 ft bgs AECOM AECO		Recovery Lengt (inches)	PID (ppm)		Graphic	Soil and Rock Desc Classification Schem	cription ne: USCS	Soil Sample Interval
2 Brown sity SAND, few gravel fill, material, fine to medium sand, well graded, moist 8 Black Sit T, Bitle sand, moist, trace gravel, fill material 8 Black Sit T, Bitle sand, moist, trace gravel, fill material 10 SO 0.0 M. Black Sit T, Bitle sand, moist, trace gravel, fill material 10 Light brown clayery Sit T, Ritle sand, medium to fine sand, well graded, moist to well, no plasticity 11 SB Prown SAND, medium to fine grain, poofly graded, well, trace clay 12 Brown SAND, medium grain, well graded, little sit, saturated 18 SC Brown SAND, medium to fine grain, well graded, little clay, moist 20 00 0.0 SW				FILL MATERIAL	× , n,	Gravel fill material, composed of #57 Stone and CR-6		
FILL MATERIAL Black SBLT, title sand, moist, trace gravel, fill material Black SBLT, title sand, moist, trace gravel, fill material Black Cool dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal dust fill, algrithy most, compacted, fill material Black coal, set fill material Black coal, fill material Black coal, set fill material Black coal, set fill material Black co		48	0.0		ダッマ シッフ シンス シンス		ell graded, moist	
Black Sill T, little sand, moist, trace gravel, fill material 8.5 Red Brick Fragments, fill material 10		41	0.0	-	\$ '< .^ '> ∂ ' ∃	F F H 6		
BRICK COAL Black COAL Black Coal dust fill, slightly moist, compacted, fill material Black coal dust fill, slightly moist, compacted, fill material 10					× > 7	Black SILT, little sand, moist, trace gravel, fill material		6.5-7.5
Black coal dust fil, slightly moist, compacted, fill material 10 10 11 12 14 SM Brown sity SAND, medium to fine grain, poorty graded, wet, trace clay 15 Brown SAND, medium to fine grain, poorty graded, wet, trace clay 16 Brown SAND, medium grain, well graded, little sit, saturated 17 Brown clayey SAND, medium grain, saturated 18 SC Brown SAND, medium to fine grain, well graded, little clay, moist 18. Brown SAND, medium to fine grain, well graded, little clay, moist 20 Black SAND, medium to fine grain, well graded, little clay, saturated 22 Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC SC SC SC SC SC SC SC SC	8			BDICK	***			
12								
SM SIN SAND, medium to fine grain, poorly graded, wet, trace clay 16 80 0.0 SP Brown SAND, medium grain, well graded, little sit, saturated 17 8c Brown SAND, medium grain, saturated 18.5 SW Brown SAND, medium to fine grain, well graded, little clay, moist 20 80 0.0 SW Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC	10				-	10		
13 Brown silly SAND, medium to fine grain, poorly graded, wet, trace clay 15 Brown SAND, medium grain, well graded, little silt, saturated 17 Brown SAND, medium grain, saturated 18 Brown SAND, medium to fine grain, well graded, little clay, moist 20 80 0.0 SW Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC Black SAND, medium to fine grain, well graded, little clay, saturated 23 Black clayey SAND, medium grain, slight plasticity, wet, firm 24 SW Black SAND, medium to fine grain, slight plasticity, wet, firm 24 Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay Reddish-brown silty GRAVEL, small to large gravel, well graded, little gravel, wet Remarks: Groundwater Sample Collected: 48-58 ft bgs		50	0.0	ML		Light brown clayey SILT, little sand, medium to fine sand, well grad	ded, moist to wet, no plasticity	
16 60 0.0 SP Brown SAND, medium grain, well graded, little silt, saturated 17 SC Brown Cayey SAND, medium grain, saturated 18.5 SW Brown SAND, medium to fine grain, well graded, little clay, moist 20 60 0.0 SW Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC Black clayey SAND, medium to fine grain, well graded, little clay, saturated 23 Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay Remarks: Remarks: Groundwater Sample Collected: 48-58 ft bgs	12							
Brown SAND, medium grain, well graded, little silt, saturated 17 SC Brown Cayey SAND, medium grain, saturated 18 18 SW Brown SAND, medium to fine grain, well graded, little clay, moist 20 60 0.0 SW Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC SC Black sand, medium to fine grain, well graded, little clay, saturated 21.5: Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	14			SM			clay	
17 Brown clayey SAND, medium grain, saturated 18.5 SW 18.5 Brown SAND, medium to fine grain, well graded, little clay, moist 20 60 0.0 SW Black SAND, medium to fine grain, well graded, little clay, saturated 22 Black clayey SAND, medium grain, slight plasticity, wet, firm 23 Reddish-brown slity GRAVEL, small to large gravel, well graded, saturated, trace clay Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	 16	60	0.0	SP				
18.5 SW Brown SAND, medium to fine grain, well graded, little clay, moist 20 60 0.0 SW Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC SC Black clayey SAND, medium grain, slight plasticity, wet, firm 23 Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay 8W-GM SAND, medium to fine grain, well graded, ittle clay, saturated 21.5: 22 SC S				SC	77777			
Brown SAND, medium to fine grain, well graded, little clay, moist 20 Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC Black clayey SAND, medium grain, slight plasticity, wet, firm 23 Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay 86 SW SW Reddish-brown SAND, medium to fine grain, well graded, little gravel, wet 87 Reddish-brown SAND, medium to fine grain, well graded, little gravel, wet 88 Remarks: Groundwater Sample Collected: 48-58 ft bgs	18							
Black SAND, medium to fine grain, well graded, little clay, saturated 22 SC Black clayey SAND, medium grain, slight plasticity, wet, firm 24 GW-GM GW-GM SW Black clayey SAND, medium grain, slight plasticity, wet, firm Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay Reddish-brown SAND, medium to fine grain, well graded, little gravel, wet Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L				SW				
22 SC SC Black clayey SAND, medium grain, slight plasticity, wet, firm 24 GW-GM Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay SW SW SW 30 Reddish-brown SAND, medium to fine grain, well graded, little gravel, wet Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	20				· · · · · · · · · · · · · · · · · · ·	; ; ; 20		
SC Black clayey SAND, medium grain, slight plasticity, wet, firm 23 Reddish-brown silty GRAVEL, small to large gravel, well graded, saturated, trace clay 26 SW SW 29 Reddish-brown SAND, medium to fine grain, well graded, little gravel, wet Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L		60	0.0	SW		Black SAND, medium to fine grain, well graded, little clay, saturate	d	
Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	22			SC	77777	:	2	1.5-22.5
28 28 30 Remarks: Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L						23	aturated trace clay	
28 30 Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	24			GVV-GIVI		Reduisit-blowit sitty GRAVEL, Stilali to large gravel, well graded, s	aturateu, trace ciay	
28 30 Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L						4		
28 30 Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	 26	50	0.0	1				
Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L								
Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L								
Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	_ 28 _							
Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L	 30			SW			vel, wet	
AECOM 8320 Guilford Road Suite L		1	Rer	marks: G	roundwat	1	<u>'</u>	
8320 Guilford Road Suite L	ΔΕ	СОМ	1.01		. Janawat	S. Campio Concolod. To Go it byo		
	83	20 Guilford	Road Suit 21046	e L				

Boring Log

BORING #: DP27

Sheet 2 of 2

Clien	t: PEPCO				Location: 3400 Benning Road NE, Washington, DC Logged By: Jeremy Joiner/Dan Hulbert			
Proje	ct: Bennin	g Road Fad	cility	_	Northing: 448861.73 Easting: 1324421.53 Drilling Company: Green Services			
Proje	ct #: 6028	7343			Surface Elevation (ft): 19.16 Groundwater Encountered (ft bgs): 7			
Start	Date: 3/26	6/2013			Drilling Method: DPT Water Level (ft bgs): 13			
Finis	h Date: 3/2	26/2013			Total Depth (ft): 58			
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS			
32	60	0.0	SW		Brown SAND, fine and medium grain, well graded, some gravel, medium grain, moist to wet			
34	-		ML		Brown clayey SILT, wet, smooth, pliable, low plasticity			
36	60	0.0	ML		Gray clayey SILT, wet, smooth, pliable, low plasticity			
38 40			CL		Gray silty CLAY, low to medium plasticity, very moist			
42	55	0.0	CL		Gray CLAY, little silt, medium plasticity, wet			
46 48	17	0.0	SC GW		44.5 45 Gray clayey SAND, fine to medium grain, well graded, wet Reddish-brown sandy GRAVEL, small to large gravel, medium to fine sand, well graded, wet, little silt			
50 - 52 - 54	42	0.0	ML		52 Gray sandy SILT, trace gravel, moist, fine grain sand, firm			
56 	60	0.0	ML	-	Gray sandy SILT, trace gravel, slightly moist, fine grain sand, firm, some clay	57-58		
58					58	5		
83	Remarks: Groundwater Sample Collected: 48-58 ft bgs AECOM 8320 Guilford Road Suite L Columbia, MD 21046 Groundwater Sample Collected: 48-58 ft bgs							

Boring Log

BORING #: DP28

Client	PEPCO			I	Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch/Dan Hulber		
Projec	t: Bennin	g Road Fa	cility	l	Northing: 448631.69 Easting: 1324197.54	Drilling Company: Green Services	
Projec	t#: 6028	7343			Surface Elevation (ft): 19.81	Groundwater Encountered (ft bgs): 11	
Start [Date: 4/2/	2013		ı	Drilling Method: DPT	Water Level (ft bgs): 15.92	
Finish	Date: 4/2	2/2013				Total Depth (ft): 32	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Desc Classification Schem	ription e: USCS	Interval
		0.5	FILL MATERIAL	Y / 71			
2		0.3	FILL MATERIAL		Gray to brown sandy CLAY, lean, fine, medium, stiff (fill), dry		
		0.3	FILL MATERIAL		Gray to black gravely CAIND, line, loose (lin) dry		
4		0.2	FILL MATERIAL				
		0.5		У П У Л			
 	48	0.0	-	\$ 3° ±			
6			SP	*	Brown SAND with gravel, coarse, loose, moist, transition to wet at	7'	
 		0.0	-				
8					쳶	7.5-	8.5
		0.0	_				
_ 10	48	0.0	_				
┞╶┤		1.5	_				
12							
├ ┤		0.9	_				
14							
<u> </u>	56	1.9	-				
_ 16 _	55				17		
10		1.9	CH		Yellow-brown silty CLAY with sand, moist, fine, soft, fat		
18							
 		2.8	-		19.5		
20	24	2.8	GW-SP		Brown gravely SAND, coarse, wet, loose		
┞┤		1.7	GW-SP		21 Brown gravely SAND, coarse, wet, loose	20.5-	21.5
22	36	1.3	GW-SP		22 Olive gravely SAND, coarse, wet, loose		
┞┤		2.8	-				
_ 24					;		
} +	36	1.7	-				
_ 26					;		
		2.3	-	.00			
_ 28 _							
├ ┤		1.9	_				
30		1.5			30		
Remarks: Groundwater Sample Collected: 25-33 ft bgs							
AE	COM	Road Suite					
Col	umbia, ME	21046	_				
			_				

Boring Log

BORING #: DP28
Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch/Dan Hulbert		
Project: Benning Road Facility	Northing: 448631.61 Easting: 1324197.54	Drilling Company: Green Services		
Project #: 60287343	Surface Elevation (ft): 19.81	Groundwater Encountered (ft bgs): 11		
Start Date: 4/2/2013	Drilling Method: DPT	Water Level (ft bgs): 15.92		
Finish Date: 4/2/2013		Total Depth (ft): 32		

ی Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
	24	0.8	CH		Gray silty CLAY, fat, trace sand, fine, soft, gray, moist	
32			SM		31.5 32 Gray silty SAND, fine dense, wet	32

Remarks:

Groundwater Sample Collected: 25-33 ft bgs

Boring Log

BORING #: DP29

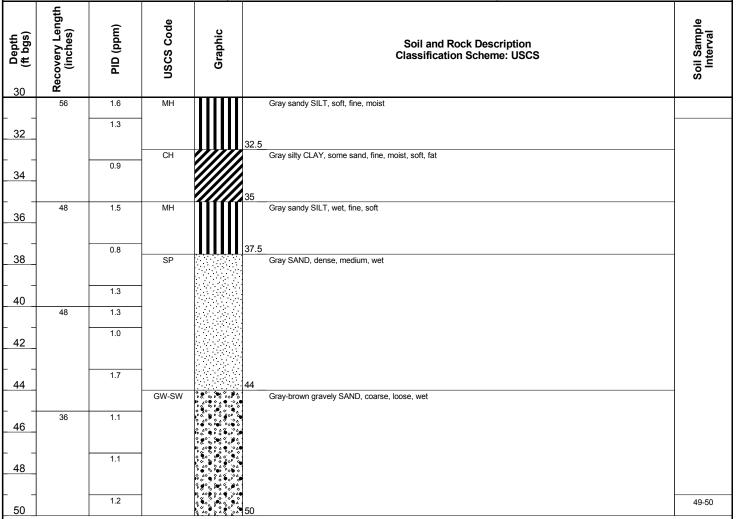
Clien	t: PEPCO				Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch			
Proje	ct: Bennin	g Road Fac	ility		Northing: 448585.61 Easting: 1324524.98 Drilling Company: Green Services			
Proje	ct #: 6028	7343		;	Surface Elevation (ft): 20.29 Groundwater Encountered (ft bgs):	11		
Start	Date: 4/2/2	2013			Drilling Method: DPT Water Level (ft bgs): 12.15			
Finis	h Date: 4/2	2/2013			Total Depth (ft): 50			
Oepth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval		
		1.4	GW-SP		Gray to black gravely SAND, fine, dry			
2		1.9	CL		Brown to gray sandy CLAY with gravel, lean, moist, medium			
		2.2	SP		Olive brown SAND, some silt, fine, dry, micaceous, dense			
		1.8						
4		1.2						
6	24	0.4						
8		0.7			9			
10	36	0.7	CH		Brown silty CLAY with sand, fine, fat, moist, medium stiff	9-11		
12	-	1.1	МН		Gray sandy SILT with gravel, wet, fine, soft			
14	24	0.9	SP		15 Gray-brown SAND, some silt, loose, coarse, wet			
_ 16_	_				17			
18		1.1	SP-SC		Gray-brown SAND with clay, loose, wet, coarse			
20	30	1.0	SP-SC		Gray-brown SAND with clay, loose, wet, medium grain, medium dense			
	-	1.1	GW-SW		Gray gravely SAND, coarse, some clay, loose, wet			
24		0.8						
26	18	1.9						
28		2.1			ል .			
30		1.6			30	29-31		
				Groundwa	ter Sample Collected: 45-50 ft bgs			
					(Continued Next Page)			

Boring Log

BORING #: DP29

Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch	
Project: Benning Road Facility	Northing: 448585.63 Easting: 1324524.98	Drilling Company: Green Services	
Project #: 60287343	Surface Elevation (ft): 20.29	Groundwater Encountered (ft bgs): 11	
Start Date: 4/2/2013	Drilling Method: DPT	Water Level (ft bgs): 12.15	
Finish Date: 4/2/2013		Total Depth (ft): 50	



Groundwater Sample Collected: 45-50 ft bgs								

Boring Log

BORING #: DP30

Client: PEPCO					Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch	
Project: Benning Road Facility			cility		Northing: 448220.03 Easting: 1324149.06 Drilling Company: Green Service		
Projec	t#: 6028	7343		Surface Elevation (ft): 20.70 Groundwater Encountered (ft		Groundwater Encountered (ft bgs):	8
Start I	Date: 4/3/2	2013			Drilling Method: DPT Water Level (ft bgs): 17.38;14.70		
FINISH	Date: 4/3	3/2013	I			Total Depth (ft): 62.5	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Des Classification Schen	Soil Sample Interval	
			CONCRETE	P. L. A.	Asphalt top 2", Concrete 14"		
		0.0		A A A	1.3		
2		0.0	SM		Black silty SAND, gravel, medium grain, moist		
		0.0	SW	177	Brown SAND, little silt, medium to fine grain, well graded, moist		
4			J 3W	/ <u>···/·</u>	Brown SAND, little silt, medium to line grain, well graded, moist		
		0.0		./:/:/	5		
6	48	0.0	SW		Brown SAND, little silt, medium to fine grain, well graded, moist, d	lense	
				/ <u>·</u>	<u></u>		
- , -		0.0	-	////			
- 8					8.5		
		0.0	GW-SW	0 0 0 0 0	Brown gravely SAND, coarse, wet, medium, dense		
10	40						
	48	0.0		0 40 0 00			
12		0.0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			
					**		
- , -		0.0	1		6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		
14					လို့ (၁၀)		
	60	0.0	_				
16	00	0.0					
					୍ ବ୍ୟୁ ୪ ଓଡ଼ି		
18		0.0			18		
			CH		Gray silty CLAY, some sand, fat, moist, medium stiff		
20		0.0	1				
	56	0.0	1				
		0.0	SM	/////	21 Yellow-brown silty SAND, dense, medium, wet		
22				<u> </u>	22.5		
-		0.0	GW-SP		Yellow-brown gravely SAND, coarse, loose, wet		
24		0.0					
_							
26	36	2.0					
 28		0.4	1				27-29
		0.0	MH		29 Gray sandy SILT, soft, moist to wet, fine		
30	60	0.0	-				
	00		-				
32		0.0					
					33		
		D	noules: O	Year year of the con-	tor Cample Callected: EO EF # h ==		
	2014	Ker	narks: G	oroundwa	ter Sample Collected: 50-55 ft bgs		
	COM 20 Guilford	Road Suite	_{e L} _				
	lumbia, ME		- _				

Finish Date: 4/3/2013

Boring Log

BORING #: DP30

Total Depth (ft): 62.5

Sheet 2 of 2

Client: PEPCO Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch **Easting:** 1324149.06 Northing: 448220.03 Project: Benning Road Facility Drilling Company: Green Services Project #: 60287343 Surface Elevation (ft): 20.70 Groundwater Encountered (ft bgs): 8 Start Date: 4/3/2013 Drilling Method: DPT Water Level (ft bgs): 17.38;14.70

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
34		0.7	CH		Gray silty CLAY, fat, moist, medium stiff 35	
36		0.8	MH		Gray sandy SILT, soft, moist, fine	
38		0.4	CH		38	
 40		0.2			40	
	60	0.2	CH		Gray silty CLAY with sand, fine, fat, moist, medium stiff,	
42		0.3				
44		0.6				
46	60	0.2				
48		0.1				
50		0.1				49-51
	36	0.1			51	
52		0.3	SP		Gray SAND, medium, dense, wet 52	
			SP		Gray SAND with clay, medium, dense, wet	
54		0.7			54	
			GW-SP		Brown gravely SAND, loose, wet, medium 55	
56	60	0.4	SM		Gray silty SAND, dense, moist, fine	
58		0.3	CL		57.5 Gray sandy CLAY, lean, fine, stiff	
		0.2				
60		0.2	-			
 						
62					62.5_	
1		0.1				

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Groundwater Sample Collected: 50-55 ft bgs	
, oan an a	

Boring Log

BORING #: DP31

	: PEPCO				LOCALIOII.	3400 Benning Ro	au INE, Was	silington, DC	Logged By: Sean Crouch	
Project: Benning Road Facility				Northing: 448274.19 Easting: 1324152.00 Drilling Company: Green Service		Drilling Company: Green Services				
Proje	ct #: 6028	7343			Surface El	evation (ft): 20.8	81		Groundwater Encountered (ft bgs):	18
Start	Date: 4/1/2	2013			Drilling Me	thod: DPT			Water Level (ft bgs): 17.16; 20.86	
	n Date: 4/1								Total Depth (ft): 42	
1 111131		72010							Total Depth (it): 42	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic			Soil : Classi	and Rock Desc fication Schem	cription e: USCS	Soil Sample Interval
			CONCRETE	D 7 4	Aspl	nalt top 2", Concrete 10"				
		0.0	FILL MATERIAL	× (1	Blac	k GRAVEL fill material, so	ome silt, little cla	y, moist		
2		0.0	SW-SM	, , , , , , , , , , , , , , , , , , , 		vn silty SAND, medium to	fine grain, well of	graded, moist		
		0.0	SM		3 Brow	vn silty SAND, medium to	fine grain, little	clay, well graded, mo	ist	
4		0.0	SW	1.7.7.6	· 4	dish-brown SAND, little sil	ilt. moist			
	48	0.0	SP	<u>/. · · · /. ·</u>	<u></u> 5	dish-brown SAND, mediur		loose micaceous		
6	40	0.0	J.		···	distr-brown SAND, mediai	iiii iitue siit, iiioist	, loose, micaceous		
					7					
8		0.1	SP		Yello	w-brown SAND with grav	vel, coarse, loose	e, moist, micaceous		
10		0.0								
	42	0.0								
		0.0	_							
12										
		0.0								
14										
	20	0.0								
16	36	0.0								
18		0.0			18					
			SP		Yello	w-brown SAND with grav	vel, coarse, loose	e, wet, micaceous		
20		0.0	MH		19.5	, sandy SILT, fine, moist,	soft			10 F 20 F
	12	0.0			20.5					19.5-20.5
	42 30	0.0	SM]·	vn silty SAND, dense, wet	t, fine			
22			GW-SW		22 Brow	vn gravely SAND, coarse,	, wet, loose			
		0.0								
24					• ŏ					
	24	0.1		0 0 0 0 0						
26	24	0.1		0 40 0 40						
_										
28		0.0								
					, a					
 30		0.0	1							
JU_				<u> </u>		0-1141 07 10	# h			
	COM	Rei	marks: G	roundwa	iter Sample	Collected: 37-42 t	π bgs			
83	COM 20 Guilford	Road Suit	eL —							
Columbia, MD 21046										

Boring Log

BORING #: DP31 Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch
Project: Benning Road Facility	Northing: 448274.19 Easting: 1324152.00	Drilling Company: Green Services
Project #: 60287343	Surface Elevation (ft): 20.81	Groundwater Encountered (ft bgs): 18
Start Date: 4/1/2013	Drilling Method: DPT	Water Level (ft bgs): 17.16; 20.86
Finish Date: 4/1/2013		Total Depth (ft): 42

ی Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
			GW-SW		Brown gravely SAND, coarse, wet, loose (continued) 31	
32		0.0	CH		Gray silty CLAY, fat, moist, soft	
34		0.0				
36		0.0				
38		0.0			38.5	
			SM	7/////	Gray silty SAND, dense, fine, wet	1
40		0.0				
	24	0.0				
42					42	41-42

Remarks:

Groundwater Sample Collected: 37-42 ft bgs

Boring Log

BORING #: DP32

	t: PEPCO				Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Grouch	
Project: Benning Road Facility			cility		Northing: 448520.64 Easting: 1325446.88 Drilling Company: Green Service	
Proje	ct #: 6028	7343			Surface Elevation (ft): 26.27 Groundwater Encountered (ft bgs):	10
Start	Date: 4/1/2	2013			Drilling Method: DPT Water Level (ft bgs): 13.16	
	h Date: 4/1				Total Depth (ft): 43	
1 111131		72010			Total Beptil (it). 40	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
			CONCRETE	p. L. A.	0.5 Concrete	
	-	0.0	FILL MATERIAL	X 37	Black gravel construction fill, cobbles, some sand, little clay, moist	
2	-	0.0		\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\		
				× ¬	20 ●自	
4		0.0		(4	1 4	
		0.0	SW	////	Reddish-brown SAND, some silt, trace gravel, moist	
	36	0.0		////		
6	+		SW	/. · · · · /. ·	∴ 6 Reddish-brown SAND, some silt, gravel, moist, dense	
	_	0.0		<u>/'./</u>	<u></u>	
8		0.0		////	^; \	
					<u>₹.,</u> ∕.,9	
 10		0.0	CH		Gray-brown silty CLAY, moist, medium stiff, moist, fat	0.5.40.5
	60	0.0	SP		Yellow-brown SAND, coarse, wet, medium dense	9.5-10.5
	-	0.0			11.5	
12	-		CL		Yellow-brown sandy CLAY, lean, moist, stiff, fine	
		0.0				
14		0.0				
					15	
 16	60	0.1	GW-SP		Yellow-brown, gravely SAND, loose, wet, coarse	
	-	0.0				
18	-					
	-	0.4	CH		19 Brown silty CLAY, some sand, fine, fat, coarse	
20	40				20	
	48	0.4	SP		Brown SAND, coarse, loose, wet	
22	48	0.1	MH	ШШ	Gray-brown sandy SILT, moist, soft, fine	
 24]	0.1	1			
	†		GW-SP	44	Brown gravely SAND, coarse, wet, loose	
	48	0.2				
26	-					
			_			
28		0.5			;]	
30	1	0.8	1			00.5.00.5
30		1	_	<u> </u>		29.5-30.5
_		Rei	marks: G	roundwa	ater Sample Collected: 38-43 ft bgs	
	ECOM 20 Guilford	Road Suit	ا ا م			
	olumbia, MD		_			

Boring Log

BORING #: DP32

Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch
Project: Benning Road Facility	Northing: 448520.64 Easting: 1325446.88	Drilling Company: Green Services
Project #: 60287343	Surface Elevation (ft): 26.27	Groundwater Encountered (ft bgs): 10
Start Date: 4/1/2013	Drilling Method: DPT	Water Level (ft bgs): 13.16
Finish Date: 4/1/2013		Total Depth (ft): 43

Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
	56	0.8	GW-SP		· _	
32		0.4	SM		Gray silty SAND, medium, wet, dense	
			MH		Gray sandy SILT, soft, fine, wet	
34		0.7			35	
36	48	0.9	SW		Light brown SAND, coarse, loose, wet	
38		0.9	SM		37.5 Silty SAND, medium, wet, dense	
			J		39	
40		1.0	МН		Gray sandy SILT, soft, fine, wet	
	36	1.0	SP SM	4	40.5 Light brown SAND, medium, loose, wet	
42					Gray to black silty SAND, dense, wet	
		1.5	SP		Gray SAND, coarse, loose, wet 43	42-43

Remarks:

Groundwater Sample Collected: 38-43 ft bgs

Boring Log

BORING #: DP33

Client: PEPCO					Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch		
Projec	t: Bennin	g Road Fad	cility	N	Northing: 448337.53 Easting: 1325826.25 Drilling Company: Green Services		
Projec	t#: 6028	7343		S	Surface Elevation (ft): 33.50 Groundwater Encountered (ft bgs):		
Start I	Date: 4/4/2	2013			Drilling Method: DPT Water Level (ft bgs): 13.94		
Finish	Date: 4/4	/2013			Total Depth (ft): 35		
Oepth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval	
			ASPHALT FILL		0.7 5" Asphalt. 3" base stone		
2		0.0	MATERIAL	× × 7	Black gravely SILT, fill material, moist		
		0.0	SW		Brown SAND, medium to fine grain, well graded, little silt, moist, trace gravel		
-		0.0	SW-SM		Reddish-brown silty SAND, medium to fine grain, well graded, moist, trace gravel		
4		0.0					
6	48	0.6	SC		Yellow-brown clayey SAND, medium, moist, medium dense		
8		0.7			9		
10		0.9	SC		Yellow-brown clayey SAND with gravel, medium, moist, medium dense		
	48	0.9					
		0.9					
12			SC		12 Yellow-brown clayey SAND, medium, wet, medium dense, increasing clay content		
14		0.5				14-16	
	54	1.3	СН		Gray to yellow-brown silty CLAY, some sand, fine, stiff, fat, moist		
16 		1.8					
18			СН		18 Gray to yellow-brown silty CLAY with sand, stiff, fat, moist		
20		1.7					
	60	1.7					
22		2.1			22		
			CH		Gray to yellow-brown silty CLAY with more sand, stiff, fat, moist		
24		3.2	CH		Gray to yellow-brown silty CLAY with sand, stiff, fat, moist		
	40	3.2	CL		Gray to yellow-brown sandy CLAY, lean, medium stiff, moist		
26		3.6	SC		26 Yellow-brown, clayey SAND, medium dense, wet, medium		
		1.5	GW-SP		Light brown to gray, gravely SAND, coarse, loose		
_ 28 _							
30		1.6					
ΑE	СОМ	Ren	narks: G	roundwate	er Sample Collected: 27-32 ft bgs		
832	20 Guilford	Road Suite	_e L -				
Co	lumbia, MD	21046	-				

Boring Log

BORING #: DP33

Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch
Project: Benning Road Facility	Northing: 448337.53 Easting: 1325826.25	Drilling Company: Green Services
Project #: 60287343	Surface Elevation (ft): 33.50	Groundwater Encountered (ft bgs): 12
Start Date: 4/4/2013	Drilling Method: DPT	Water Level (ft bgs): 13.94
Finish Date: 4/4/2013		Total Depth (ft): 35

© Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		1.6	GW-SP		Light brown to gray, gravely SAND, coarse, loose (continued)	
32		1.2		32	2	
			SP		Gray SAND, some clay, medium dense, trace gravel, wet, medium	
34		1.4				
				35		34-35

Remarks:

Groundwater Sample Collected: 27-32 ft bgs

Boring Log

BORING #: DP34

Client: PEPCO					Logged By: Sean Crouch	
Projec	t: Bennin	g Road Fa	cility	N	Northing: 448370.51 Easting: 1326248.97 Drilling Company: Eichelberger	
Projec	t#: 6028	7343		5	Surface Elevation (ft): 36.51 Groundwater Encountered (ft be	g s) : 5
	Date: 3/26				Drilling Method: HSA Water Level (ft bgs): 20.05	
	Date: 3/2				Total Depth (ft): 61	
FIIIISI		10/2013			Total Depth (it).	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS Static Water Level (ft bgs): 20.05 Water Elevation (ft/msl): 19.38	Soil Sample Interval
Ŭ		0.0	ASPHALT		0.5 ASPHALT	
- 4			CR	7-3-5-5-5-5-5-	1 CRUSHER RUN	
2		0.0	SP		Brown to dark brown SAND, some gravel (fill), moist, coarse	
		0.0	SP		Brown to dark brown SAND, fine, moist	
 4		0.0	_			
		0.0	SP		Yellow brown SAND, fine, increasing moisture	
-		0.0			5	_
6			SP		Light brown SAND, coarse, moist to saturated	
	12	0.9	SW		Light brown SAND, medium to coarse, wet, medium dense	
8				<u>//./</u>	<u>/</u>	
				////		
10				/ <u>·</u>	<u>′.</u> ··10	
- 10	20	0.9	SW	////	Dark brown to brown SAND, some silt, fine to coarse, wet, loose	
-						
12				<u>//.</u>	<u>7.</u> 	
- 12				<u>//./</u>	<u>/</u>	
- 4				////	;	
14				<u>//</u>	· <u>·</u> :	
				<u>//,:</u>	<u> </u>	
- 4				////		
16	24				<u>·</u>	
-10-				<u>//</u>		
-				////		
18				77.7		17-19
- 10				<u>//.</u>	<u>.</u>	
				<u>/</u>	<u>/</u>	
20				/////	20	
	20	0.3	CL		Gray CLAY, lean, trace sand, fine, moist, very soft	
- 4						
22						
-						
24						
<u></u> -T						
		Rer	marks:	Boring Te	rminated (ft): 61	1
	СОМ			Groundwa	ater Sample Collected: 52.5-54 ft	
832 Co	20 Guilford Iumbia, MD	Road Suit	eL -			
	.a.i.bia, IVIL	. <u>.</u>	-			

Boring Log

BORING #: DP34

Sheet 2 of 3

Client	: PEPCO			L	Location: 3400 Benning Road NE, Washington, DC Logged By: Sean Crouch		
Projec	t: Bennin	g Road Fad	cility	N	Northing: 448370.51 Easting: 1326248.97 Drilling Company: Eichelberger		
Projec	et #: 6028	7343		S	Surface Elevation (ft): 36.51 Groundwater Encountered (ft bgs		
Start I	Date: 3/26	/2013		D	Orilling Method: HSA Water Level (ft bgs): 20.05		
Finish	Date: 3/2	26/2013			Total Depth (ft): 61		
Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval	
26	21	0.9	CL		Gray CLAY, lean, trace sand, fine, moist, very soft (continued)		
28	24	1.1					
32			SW		31 Light brown SAND with gravel, fine to coarse, wet, medium dense		
 34 	18	0.5					
36	10	0.0	CL		36 Gray CLAY, lean, trace sand, fine, moist, soft, decomposing organic material at 37'		
38					40		
<u>42</u> 44	12	0.5	CL		Gray CLAY, lean, trace sand, fine, moist, very soft		
46	24	0.6			46	44-46	
48			SC .		Yellow brown clayey SAND, medium, wet, very loose		
Remarks: Boring Terminated (ft): 61 AECOM 8320 Guilford Road Suite L Columbia, MD 21046 Boring Terminated (ft): 61 Groundwater Sample Collected: 52.5-54 ft							

Boring Log

BORING #: DP34

Sheet 3 of 3

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Sean Crouch
Project: Benning Road Facility	Northing: 448370.51 Easting: 1326248.97	Drilling Company: Eichelberger
Project #: 60287343	Surface Elevation (ft): 36.51	Groundwater Encountered (ft bgs): 5
Start Date: 3/26/2013	Drilling Method: HSA	Water Level (ft bgs): 20.05
Finish Date: 3/26/2013		Total Depth (ft): 61

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
	22	0.1	CL		Gray CLAY, lean, trace sand, fine, moist, very soft 51	
52			SP		Light brown to yellow SAND with gravel, coarse, wet, loose	
54						
		0.0	-			
56	24	0.2			56	
			СН		Gray brown CLAY, trace SAND, moist, fat, very stiff (Arundel Clay)	
58						
						59-61
60						33-01
		0.0			61	

Remarks:

Boring Terminated (ft): 61

AECOM 8320 Guilford Road Suite L Columbia, MD 21046 Groundwater Sample Collected: 52.5-54 ft

Boring Log

BORING #: DP35

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC Logged By:	Daniel Hulbert
Project: Benning Road Facility	Northing: 447902.07 Easting: 1326034.61 Drilling Comp	oany: Green Services
Project #: 60287343	Surface Elevation (ft): 30.53 Groundwater	Encountered (ft bgs): 16
Start Date: 3/28/2013	Drilling Method: DPT Water Level (1	ft bgs): 12.1
Finish Date: 3/28/2013	Total Depth (f	ft): 34
O (ff bgs) Recovery Length (inches) PID (ppm) USCS Code	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
2 0.0 FILL MATERIAL 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Construction fill and debris with rocks, 5" asphalt, 6" base stone	
6 12 0.0 SM	Dark brown-black silty SAND, soft, moist	
12 SM	Brown silty SAND, soft, moist 13 Green-brown silty CLAY, tight, moist	
12 0.0		14.5-15.5
16	16	
36 0.0 SP SW 27 20 20 SW 27 27 27 27 27 27 27 27 27 27 27 27 27	Brown SAND, fine grain, compact, wet 17 Orange-brown SAND, fine to medium, well graded	
22 SW SW	Orange-brown SAND, fine to medium, silty clay lenses, wet	
26 60 0.0 CL CL 30	Gray-black silty CLAY, soft, moist	
	vater Sample Collected: 14-16 ft bgs	

A=COM

60

32

34

0.0

CL

Boring Log

BORING #: DP35

Sheet 2 of 2

33-34

Client: PEPCO	Location: 3400 Benning Road NE, Washington, DC	Logged By: Daniel Hulbert	
Project: Benning Road Facility	Northing: 447902.07 Easting: 1326034.61 Drilling Company: Green Services		
Project # : 60287343	Surface Elevation (ft): 30.53	Groundwater Encountered (ft bgs): 16	
Start Date: 3/28/2013	Drilling Method: DPT	Water Level (ft bgs): 12.1	
Finish Date: 3/28/2013		Total Depth (ft): 34	
Depth (ft bgs) Recovery Length (inches) PID (ppm) USCS Code	Soil and Rock Desc Classification Scheme		

Gray-black silty CLAY, soft, moist (continued)

Remarks:

Froundwater Sample Collected: 14-16 π bgs	

Boring Log

BORING #: DP36

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Nathan Pinsker/ Jeremy Joiner
Project: Benning Road Facility	Northing: 448779.51 Easting: 1323668.75	Drilling Company: Green Services
Project #: 60287343.01	Groundwater Encountered (ft bgs): 14	
Start Date: 5/17/2013	Drilling Method: DPT	Water Level (ft bgs): 11.55
Finish Date: 5/20/2013		Total Depth (ft): 17

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	FILL MATERIAL	*	Brown silty SAND and GRAVEL, medium to fine grain sand	
2		0.0	SM		Brown silty SAND, poorly sorted, moist	
		0.0	1			
4		0.0				
		0.0			5	4.5-5.5
6		0.0	SW	/////	Reddish-brown SAND, fine to medium grain, well graded, trace gravel, moist	4.5-5.5
		0.0		77.77		
8		0.0		<u> </u>		
		0.0		<u>//.</u>		
10		0.0		<u>/////</u> /	10	9.5-10.5
		0.0	SP		Reddish-brown SAND, medium grain, some gravel, moist, wet at 14'	5.5 10.0
12		0.0				
		0.0				
14		0.0				
		0.0				14.5-15.5
16		0.0	1			17.0-10.0
		0.0	1		17	

Remarks:

Groundwater Sample Collected: 12-17 ft bgs

	•	•
_		
_		

A≡COM

Boring Log

BORING #: DP37

Client:	PEPCO				Location	1: 3400 Bennir	ng Road, Was	hington, DC, MD	Logged By: Dan Hulbert/Jeremy Je	oiner
Projec	t: Bennin	g Road Fac	ility		Northing	j: 448564.18	Easting:	1324211.53	Drilling Company: Green Services	
Projec	t#: 6028	7343.01			Surface	Surface Elevation (ft): 20.62 Groundwater Encountered (ft bg		Groundwater Encountered (ft bgs):	14	
Start D	Date: 5/23	3/2013			Drilling I	Method: DPT			Water Level (ft bgs): 13	
Finish	Date : 5/2	23/2013							Total Depth (ft): 30.5	
Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic			S Cla	oil and Rock Desc ssification Schem	cription	Soil Sample Interval
0	_	2.1	FILL		0.8 G	Gray crushed stone FI	LL MATERIAL, mo	ist		
		0	SM		- 1.16 в	Black plastic barrier cl				
2		0			. 2.5			, well graded, micaceous		2525
- , -		0.0	SM		: B	Brown silty SAND, me	dium and fine grair	, well graded, micaceous	, trace gravel, some clay, fill, brick fragments	2.5-3.5
4		1.2								
		1.0	SW	1.7.7.7	. 5	Reddish-brown SAND	, fine to medium gr	ain, well graded, moist		
6		1.0		/. : . /. :	<u></u>			•		
		1.3		<u>//./.</u>	<u></u>					
- 8		0.7	SP	/ / /	∕∴ 8 ∵ R	Reddish-brown SAND	medium to coarse	grain, graded toward coa	arse, medium gravel, moist, wet at 14'	-
		1.0					,	9, 9	g,	
10		0.4			쐶					9.5-10.5
		0.0								
12		0.0								
		0.0								
14		0.0								
		0.0								14.5-15.5
_ 16		0.1								
		0.0								
_ 18 _		0.0	CL	7777777	∵ 18	range and grov CLA	V low plantinity m	pist to very moist, firm		
		0.0	OL			orange and gray OLA	i, low plasticity, mi	olst to very moist, lilli		
_ 20		0.0	SP		20	Prown SAND, medium	arain little mediur	n to large gravel, firm, we	•	
		0.0	SI-			nown SAND, median	r grain, iittie medidi	ii to large gravel, liitti, we	·	
_ 22		0.0			셂					
-		0.0								
_24		0.2								
	16	0.1								
_ 26 _	10	0.0								
_ 28										
			GP	1000 T	∴ 29 ○ B	Brown GRAVEL, large	rounded little co	area cand caturated		-
30			OI.	[0,0]	امو	NOWN CIVAVEE, large	, rounded, little col	arse saria, saturatea		
	Remarks: Groundwater Sample Collected: 12-17 ft bgs and 25-30 ft bgs Refusal at 30.5 ft bgs AECOM									
832		Road Suite	• L -							

Boring Log

BORING #: DP38

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Jeremy Joiner	
Project: Benning Road Facility	Northing: 448539.12 Easting: 1324339.39	Drilling Company: Green Services	
Project #: 60287343.01	Surface Elevation (ft): 20.19	Groundwater Encountered (ft bgs): NA	
Start Date: 5/22/2013	Drilling Method: DPT	Water Level (ft bgs): NA	
Finish Date: 5/22/2013		Total Depth (ft): 15	

O Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	SW-SM		Black SAND, medium to fine grain, well graded, some gravel, little silt, moist	
2		0.0	GW-GM		Black silty GRAVEL, medium grain, trace clay, moist	
		0.0	SW	1.7.7.7	2.5 Black SAND, fine to medium grain, well graded, some gravel, moist, oil odor present	
4		0.0	. SW	///////////////////////////////////////	Brown SAND, fine to medium grain, well graded, some gravel, moist, oil odor present	
		0.0		/ <u>·</u>	<u> </u>	4.5-5.5
6		0.0	SM		Reddish-brown silty SAND, fine to coarse grain, well graded, small gravel, moist	4.0 0.0
		0.0		::::::		
8		0.0				
		0.0			9	
10		0.0	SM	::::::	Brown silty SAND, fine to coarse grain, well graded, small gravel, moist	9.5-10.5
		0.0	1			9.5-10.5
12		0.0	1			
		0.0	1			
14		0.0	1			
		0.0	1		 15	14-15

Remarks:

Groundwater Sample Collected: 15-20 ft bgs

Boring Log

BORING #: DP39

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Michele Russell/Jeremy Joiner
Project: Benning Road Facility	Northing: 448497.45 Easting: 1324501.17	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 19.89	Groundwater Encountered (ft bgs): 12
Start Date: 5/22/2013	Drilling Method: DPT	Water Level (ft bgs): 13.03
Finish Date: 5/22/2013		Total Depth (ft): 17

O Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		107.1	SW	/////	Brown SAND, medium to coarse grain, well graded, large rounded gravel up to 2", trace silt, moist	
2		88.4	SW	77.77	Brown SAND with gravel, medium to coarse grain, well graded, large rounded gravel up to 2", trace clay and silt, moist	
		127.8	SM		Brown silty SAND with gravel, large rounded gravel up to 3", moderately well graded, moist	2.5-3.5
$\begin{bmatrix} 4 \end{bmatrix}$		154.1	SM		Brown silty SAND, some gravel up to 2" in size, moderately well graded, moist	2.5-5.5
		0.0			5	
6	24	0.0	SM		Brown silty SAND, some clay, no plasticity, medium to fine grain, well graded, moist, oil odor present	
		0.0				
8		0.0				
		0.0				
10		0.0				9.5-10.5
		0.0			11	9.5-10.5
12		0.0	SM		Black silty SAND, little clay, no plasticity, medium to fine grain, graded towards fine, wet, oil odor present	
		0.0	1			
14		0.0			14	
		0.0	GP	0000	Black sandy GRAVEL, medium to coarse sand, medium gravel, wet, oil odor present	14.5-15.5
16	24	0.0				14.5-15.5
			1	0000	17	

Remarks:

Groundwater Sample Collected: 13-18 ft bgs

cananate campic concetour to the age	
	_
	_

Boring Log

BORING #: DP40

Client: PEPCO					Location: 3400 Benning Road, Washington, DC, MD Logged By: Dan Hulbert/Jeremy Joine		
Projec	t: Bennin	g Road Fac	cility	ı	Northing: 449009.85 Easting: 1324326.37 Drilling Company: Green Service		
Projec	ct #: 6028	7343.01		- ;	Surface Elevation (ft): 20.34 Groundwater Encountered (ft bgs):		
Start I	Date: 5/28	/2013		ı	Drilling Method: DPT Water Level (ft bgs): 13/40		
Finish	Date: 5/2	28/2013			Total Depth (ft): 55		
O Depth (ft bgs)	Recovery Length (inches)	РІО (ррт)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval	
		0.0	TOPSOIL	\(\lambda_1,\cdot\)			
2		0.0	SP		2 Dark brown-black SAND, medium grain, some gravel, moist		
		0.0	SP FILL		2.5 Brown silty SAND, loose, soft, moist, wood debris GRAVEL, large, fill material	2.5-3.5	
4			SP		Light brown SAND with gravel, medium sand, moist	2.0 0.0	
6	16	0.8	SM		Black silty SAND, medium grain, little clay, no plasticity, moist		
 10		0.2			10	0.5.40.5	
0		0.4	SW	////	Reddish-brown SAND, fine to medium grain, little silt, wet at 13', saturated at 18'	9.5-10.5	
 12		0.6		77.7			
		0.8		/ <u>····/··</u>	<u>é.</u> «		
14		0.4		<u>//./</u>	·/ •-		
		0.0		////		44.5.45.5	
 16		0.0		77.7		14.5-15.5	
		0.0		/ <u>····</u>	<u>é.</u> &		
18		0.3		<u>//./</u>			
 20		0.0	GW				
		0.3	SW-GW		Reddish-brown SAND and GRAVEL, washed, medium to coarse sand, medium to large gravel, well graded, wet		
22		0.7					
		0.2					
24		0.0	SW-GW		24 Reddish-brown SAND and GRAVEL, washed, fine to coarse sand, medium to large gravel, well graded, wet		
		0.7					
_ 26 _		0.7					
 28		0.5			\$°		
		0.7	SP	ο Ω Φ ο ο Φ ο ε	© 428		
 30		0.5			30 3130		
		0.0	ML		Gray SILT, little fine grain sand, wet		
 32		0.0					
- JZ		0.0					
 34		0.0					
_ ` ' _		0.0					
		Ren	narks: G	roundwat	ter Sample Collected: 15-20 ft bgs and 50-55 ft bgs		
	COM 20 Guilford	Road Suite	_ _				
	lumbia, MC		_				

Boring Log

BORING #: DP40

Sheet 2 of 2

Client: PEPCO Location: 3400 Benning Road, Washington, DC, MD Logged By: Dan Hulbert/Jeremy Joiner Northing: 449009.85 Easting: 1324326.37 Project: Benning Road Facility **Drilling Company:** Green Services Project #: 60287343.01 Surface Elevation (ft): 20.34 Groundwater Encountered (ft bgs): 13 Start Date: 5/28/2013 Drilling Method: DPT Water Level (ft bgs): 13/40 Finish Date: 5/28/2013 Total Depth (ft): 55

Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	ML		Gray SILT, little fine grain sand, wet (continued)	
		0.0				
38		0.0	ML		37.5 Gray SILT, little fine grain sand, little clay, no plasticity, moist	
		0.0	·		Gray OrE 1, little line grain saire, little day, no plasticity, most	
40		0.0				
		0.0				
42		0.0				
		0.0				
44		0.0				
		0.0			45	
46	14	0.0	SP		Brown SAND, little silt, fine to medium grain, well graded, wet	
48						
50						
52 54						
					55	

roundwater Sample Collected: 15-20 ft bgs and 50-55 ft bgs									

Boring Log

BORING #: DP41

Client: PEPCO				L	Location: 3400 Benning Road, Washington, DC, MD Logged By: Dan Hulbert/Jeremy Join	ner	
Project: Benning Road Facility				1	Northing: 448900.74 Easting: 1324243.54 Drilling Company: Green Services		
Project #: 60287343.01					Surface Elevation (ft): 18.91 Groundwater Encountered (ft bgs): 1	NA	
Start I	Date: 5/24	/2013			Drilling Method: DPT Water Level (ft bgs): 15.13/16.23		
Finish	Date: 5/2	4/2013			Total Depth (ft): 44		
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval	
- ₂ -		0.0	FILL		SILT with large gravel, fine to medium size silt, fill material 1.5		
		0.0	FILL		Sandy SILT, medium grain, smaller gravel, fill material	0505	
4		0.0			&	2.5-3.5	
		0.0			5		
6		0.0	FILL		Brown and black gravelly SAND and FILL MATERIAL, brick fragments, little silt, moist to wet in spots, wet from 8'-9', dry at 9'-11'		
		0.0			uly at 9-11		
8		0.0					
		0.0					
10		0.0				9.5-10.5	
		0.0			11	3.3-10.3	
12		0.0	SW	<u>/////</u>	Reddish-brown SAND, fine to medium grain, well graded, trace silt, moist to very moist		
_		0.0		////	7		
14		0.0		/////			
_		0.0		<u>/ </u>	<u>:</u>	14.5-15.5	
16		0.0		<u>//./.</u>			
- 4		0.0		////			
18		0.0	SW		18 Reddish-brown SAND, fine to medium grain, well graded, trace silt, few small to medium gravel, very moist		
		0.0	SW	/···/··/	• Redulsif-blown SAND, line to medium grain, well graded, trace slit, lew small to medium gravel, very moist		
20		0.0	SP	<u>/</u>	20 Reddish-brown gravelly SAND, fine to coarse grain, graded towards medium to coarse, small gravel, wet		
		0.0			:		
22		0.0					
		0.0					
24		0.0					
		0.0					
_ 26 _		0.0			27		
 28		0.2	CL		Gray CLAY, trace sand and silt, low to no plasticity, moist		
		0.0					
30		0.0					
		0.0		//////			
32		0.0		<i>\\\\\\</i>			
		0.0			33		
34		0.0	SC		Gray clayey SAND, fine to medium grain, no plasticity, moist		
		Ren	narks: G	roundwat	ter Sample Collected: 15-20 ft bgs and 39-44 ft bgs		
	СОМ						
	20 Guilford Iumbia, MD	Road Suite 21046	. L -				
			-				

Boring Log

BORING #: DP41

Sheet 2 of 2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Dan Hulbert/Jeremy Joiner
Project: Benning Road Facility	Northing: 448900.74 Easting: 1324243.54	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 18.91	Groundwater Encountered (ft bgs): NA
Start Date: 5/24/2013	Drilling Method: DPT	Water Level (ft bgs): 15.13/16.23
Finish Date: 5/24/2013		Total Depth (ft): 44

Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36		0.0	SC		Gray clayey SAND, fine to medium grain, no plasticity, moist (continued)	
		0.0				
38		0.0		///////////////////////////////////////	8	
		0.0	SM		Gray silty SAND, fine to medium grain, graded toward fines, trace-little clay, no plasticity, very moist to wet	
40		0.0				
42						
				::::::		
44				4	4	

Remarks:

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Groundwater Sample Collected: 15-20 ft bgs and 39-44 ft bgs

Boring Log

BORING #: DP42

Client: PEPCO					Location: 3400 Benning Road, Washington, DC, MD Logged By: Dan Hulbert/Jeremy Join		
Project: Benning Road Facility					Northing: 449248.87 Easting: 1324349.24 Drilling Company: Green Service		
Proje	ct #: 6028	7343.01			Surface Elevation (ft): 16.67 Groundwater Encountered (ft bgs		
Start	Date: 5/21	/2013			Drilling Method: DPT Water Level (ft bgs): 13.34		
Finis	h Date: 5/2	24/2013				Total Depth (ft): 35	
Oepth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Classification So	Soil Sample Interval	
		0.0 4.5	FILL SP		Large gravel cover Dark gray SAND with gravel, medium grain, some silt, dry		
2		1.9	SP		Dark gray SAND with gravel, medium grain, some silt, intern	ittently dry	
		0.0 3.1	SP	_	Light tan/white SAND, very fine grain, some silt		
4		42.3	SP		Brown/gray SAND, fine grain, some gravel, black fly ash inte	mixed	
			0144		- CAMP 6	4.5-5.5	
6		0.0	SW	<u>//</u>	Brown SAND, fine to medium grain, well graded, moist		
		0.0	CL		Drawn condu CLAV loop alou, no plosticity fine again cond	weight.	
_ 8	_	0.0	CL		Brown sandy CLAY, lean clay, no placticity, fine grain sand,	noist	
	-	0.0	COAL		Black COAL ASH, moist		
_ 10	12	0.0	COAL	4	Black COAL ASH with wood fragments throughout, moist	9.5-10.5	
	-	0.0					
12	-			3			
14	_					445.455	
16	10	0.1 0.0	GW		Brown sandy GRAVEL, medium to coarse sand, medium to	small gravel, all well graded, wet	
		0.0					
18							
20							
	12	0.0	GW		Brown sandy GRAVEL, medium to coarse sand, medium to	small gravel, all well graded, some silt, wet	
22							
24							
				•••			
26	1	0.0	CL		Gray lean CLAY, medium plasticity, moist		
	1	0.0					
28	1	0.0					
	-	0.0					
30	-	0.0		<i>\\\\\\\</i>			
Ļ .	-	0.0					
32	-	0.0					
	-	0.0					
_ 34	-	0.0					
				<i>\//////</i>			
		Ren	narks:	Groundwa	ample Collected: 15-20 ft bgs and 20-25 ft bgs		
	ECOM	Pond Cult					
	320 Guilford Dlumbia, MD		# L				

Boring Log

BORING #: DP43

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Michele Russell/Jeremy Joiner		
Project: Benning Road Facility	Northing: 448543.78 Easting: 1324753.62	Drilling Company: Green Services		
Project # : 60287343.01	Surface Elevation (ft): 22.44	Groundwater Encountered (ft bgs): NA		
Start Date: 5/17/2013	Drilling Method: DPT	Water Level (ft bgs): NA		
Finish Date: 6/16/2013		Total Depth (ft): 20		

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		0.0	\ FSI₩		0.2[_/ Gravel Lot	
2		0.0	ML		Brown silty SAND, some gravel, medium to fine grain, moderately well sorted, moist, wood debris, dark brown fine silt at 10", coal	
					Dark brown sandy SILT, medium to coarse grain, some gravel(<1"), moist, moderately poorly sorted	
4		0.0	CL		Orange-brown silty CLAY, moderately dry	05.45
		24.2			5	3.5-4.5
6		24.8	SM		Black silty SAND, fine to medium grain, well graded, few small gravel, moist	
		31.9			7	
8		43.0	ML		Reddish-brown clayey SILT, no plasticity, moist	
L		12.8			9	
10		23.2	BRICK			9.5-10.5
		20.1	. OW		Brown gravelly silty SAND, fine to medium grain, small gravel, very moist	9.5-10.5
12		20.8				
		21.4			13	
14		20.7	SM		Brown silty SAND, fine grain, saturated	
		17.8			15	14.5-15.5
16		19.3	GW	N.H.	Brown sandy GRAVEL, small to medium grain, trace silt, saturated	14.0-10.0
		21.6			··	
18		20.3	CL		Brow silty CLAY, no palsticity, soft to very soft, saturated	
		18.6				
20		15.4			20	

Remarks:	Groundwater Sample Collected: 15-20 ft bgs
AECOM 8320 Guilford Road Suite L Columbia, MD 21046	

Boring Log

BORING #: DP44

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Dan Hulbert/Sharon Drummond	
Project: Benning Road Facility	Northing: 448866.66 Easting: 1324732.17	Drilling Company: Green Services	
Project #: 60287343.01	Surface Elevation (ft): 18.84	Groundwater Encountered (ft bgs): NA	
Start Date: 5/21/2013	Drilling Method: DPT	Water Level (ft bgs): 9.52	
Finish Date: 6/10/2013		Total Depth (ft): 19	

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
			CONCRETE		Concrete Pad 1	
		19.5	FILL		1.5 Well graded gravel fill material]
2		40.2	SP		Brown coarse SAND with small gravel, dry to moist	1
		80.0	<u> </u>		3	2.5-3.5
4		116.0	ML]	3.6 Brown SILT with medium sand, large gravel intermixed, moist	
		40.0	ML		SILT with medium sand, moist	
- 4		45.0		1	5	
6	48	0.9	ML		Light brown clayey SILT, some sand, fine to coarse grain, 30% gravel, no plasticity, wet	
		1.7	1			
- 4		1.5	GP		7.5 Silty GRAVEL, some coarse sand, wet	
8		1.5	SW	1.7.7.7.7	Red-brown gravelly SAND, fine to coarse, gravel, small to large, well graded, dry	1
		1.2		<u>/ /</u>	Neu-blown gravelly only, line to coalse, gravel, small to large, well graded, dry	
		1.0	-	//////		
10				<u> </u>	10	9.5-10.5
	50	0.2	SM		Red-brown silty SAND, fine to medium grain, well graded, 10% small gravel, dry	
- ,, -		0.5	SM		Red-brown silty SAND, medium to coarse grain, 25% small to large gravel, well graded, moist	
12		0.3	-	$[\cdot,\cdot,\cdot,\cdot]$		
_		0.3				
14		0.2		$ \cdot,\cdot,\cdot,\cdot,\cdot $		
- '*-		0.0	1			
- 4			1			14.5-15.5
16	60	0.0		$ \cdot,\cdot,\cdot,\cdot $		
		0.0	1		47	
		0.0	ML		17 Orange clayey SILT, little fine sand, not pliable, smooth, moist	-
18		0.0	IVIL			
		0.0			18.5	-
			SM	<u>, , , , , , , , , , , , , , , , , , , </u>	Red-brown silty SAND, fine grain, small gravel (<5%), well graded, moist	,

Remarks: Groundwater Sample Collected: 13-18 ft bgs

ordered compressions to the tage						

Boring Log

BORING #: DP45

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Michele Russell/Jeremy Joiner
Project: Benning Road Facility	Northing: 449077.83 Easting: 1325409.08	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 22.86	Groundwater Encountered (ft bgs): NA
Start Date: 5/23/2013	Drilling Method: DPT	Water Level (ft bgs): 12.75
Finish Date: 6/4/2013		Total Depth (ft): 20

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
		41.2	FILL		.3∟ Gravel lot and fill material	
 		211.1	ML		.8_/ Dark brown sandy SILT and GRAVEL, moderately well sorted, mosit Dark brown SILT, some sand, moderately sorted, moist	
2		622.0	SM	2	Orange-brown silty SAND, medium to medium-fine grain, trace clay, well sorted, moist	
L J			Sivi		Change-brown sity SAND, medium to medium-line grain, trace day, well softed, most	2.5-3.5
4		134.0		::::: 4		
		55.9	SW	/5	Orange- brown SAND, medium to coarse grain, well sorted, some clay, trace silt, moist	
6		25.1	SW	· / / / /	Brown SAND, medium to coarse grain, well graded, little silt, moist	
		25.4	1	<u>//.</u>		
 		26.7				
8		32.3		<u>/</u>		
		20.7		/////		
10		10.4		7777		9.5-10.5
		13.4		77.77		
12		7.6		//		
		17.4		/////	3	
14		34.4	SW	17777	Brown SAND, medium to coarse grain, well graded, little silt, some gravel, small to medium size, wet	
		32.3		<u>//</u>		14.5-15.5
16		6.7		<u>//</u>		14.5-15.5
		7.2		//1	· <u> </u>	
18		4.3	SC		Reddish-brown clayey SAND, no plasticity, fine to medium grain, well graded, moist	
		2.7	1	///////////////////////////////////////	9	
20		2.0	SP	2	Red SAND, medium and coarse grain, poorly graded towards coarse grain, very moist	

Remarks:	Groundwater Sample Collected: 15-18 ft bgs
ECOM 320 Guilford Road Suite L columbia, MD 21046	
·	

Boring Log

BORING #: DP46

Client: PEPCO				Location: 3400 Benning Road, Washington, DC, MD Logged By: Dan Hulbert/Jeremy Joiner			iner	
Project: Benning Road Facility				Northing: Easting: Drilling Company: Green Services				
Project # : 60287343.01				Surface Elevation (ft): Groundwater Encountered (ft bgs):			NA	
Start Date: 5/22/2013					Drilling Method: DPT Water Level (ft bgs): 10.20			
Finish	Date : 6/5	5/2013					Total Depth (ft): 42	
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic		Soil and Rock Des Classification Schen	cription ne: USCS	Soil Sample Interval
		0.0	ASPHALT FILL	XXXX	. 0.	_		
2		0.0	SP		XX 1.	Brown/dark brown sand, medium grain, brick, gravel		
_		0.0	BRICK SP		<u></u> 2.	Brick, crushed rock Brown SAND, medium grain, large stones intermixed, dry		
4		0.0				Brown SAND, medium grain, large stones intermixed, dry		
		0.0			5			4.5-5.5
6		14.0	ML			Brown sandy SILT, trace clay, moist		
_		17.0						
8		35.0				_		
		30.0	ML		8.	Brown sandy SILT, trace clay, some small gravel, moist, wet at 15	3'	
10		32.0						9.5-10.5
_		30.0						
12		36.0						
_		36.0						
14		47.0						
_		54.0						14.5-15.5
16		25.0						
_		17.0						
18		0.0			18			
		0.0	SW	<u>//</u> /		Reddish-brown SAND, medium to coarse grain, well graded, little	gravel (small)	
20	10	0.0	SP	///	<u> </u>		do modium avair usat	
- +	12		54			Reddish-brown SAND, fine to medium grain, poorly graded toward	is medium grain, wet	
22								
24								
-	3							
26	J							
28								
30			SC	7777	30	Gray clayey SAND, no plasticity, loose, medium grain, wet		
						, says, s. s.s.,s plactory, recoo, medium grain, wet		
32								
34								
					ZA_			
		Ren	narks: Gr	roundwa	ater S	ample Collected: 15-20 ft bgs and 37-42 ft bgs		
	COM	D10 "						
832 Col	:0 Guilford umbia, MD	Road Suite 21046	, L -					
	, –							

Boring Log

BORING #: DP46

Sheet 2 of 2

Client: PEPCO	Location: 3400 Ben	ning Road, Washington, DC, MD	Logged By: Dan	Hulbert/Jeremy Joiner
Project: Benning Road Facility	Northing:	Easting:	Drilling Company:	Green Services
Project #: 60287343.01	Surface Elevation (ft	:):	Groundwater Enco	ountered (ft bgs): NA
Start Date: 5/22/2013	Drilling Method: DP	Т	Water Level (ft bgs	s): 10.20
Finish Date: 6/5/2013			Total Depth (ft): 4	12

Depth (ft bgs)	Recovery Length (inches)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
36			SC	///////////////////////////////////////	Gray clayey SAND, no plasticity, loose, medium grain, wet <i>(continued)</i>	
			CL		Gray sandy CLAY, no plasticity, medium stiff, fine grain sand, wet	
38						
40				4	· <u> </u>	
42			GW		Brown sandy GRAVEL, medium to large, coarse sand, wet	

Remarks: 0

Groundwater Sample Collected: 15-20 ft bgs and 37-42 ft bgs							

Boring Log

BORING #: DP47

Sheet 1 of 1

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: Dan Hulbert/Jeremy Joiner
Project: Benning Road Facility	Northing: 448157.16 Easting: 1325809.57	Drilling Company: Green Services
Project #: 60287343.01	Surface Elevation (ft): 28.98	Groundwater Encountered (ft bgs): 8
Start Date: 5/27/2013	Drilling Method: DPT	Water Level (ft bgs): 11.01
Finish Date: 6/5/2013		Total Depth (ft): 15

O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval
			TOPSOIL	71 1/2 1/1 7/		
2		0.0	FILL MATERIAL	> 7 1 > 7 1 = 1	Topsoil, gravel and rock	1.5-2.5
		0.0	FILL MATERIAL	\$ 3 1	Rock/concrete	1.5-2.5
4					5	
6		6.7	SM		Reddish-brown silty SAND, fine to medium grain, well graded, trace small gravel, moist	
		8.4				
8		12.7	=			
		42.7		1.1.1.1.1.1	9	
10		53.2	SW	/////	Black gravelly SAND, fine to medium grain, well graded, some small gravel, wet, oil odor	9.5-10.5
		36.7		////		
12		25.3			12	
		15.7	SW	//	Black gravelly SAND, fine to medium grain, well graded, some small gravel, saturated	
14		28.9		<u>////</u>		
		20.1		1:/7:/7	15	14-15

Remarks:

Groundwater Sample Collected: 10-15 ft bgs



Phase I DP-09 Investigation Boring Logs

Boring Log

BORING #: DPA4

	7	O //I			Bornig Log	Sheet 1 of 1					
Clie	nt: PEPCO)			Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels					
Proj	ect: Benni	ng Road F	acility		Northing: 1324620.02 Easting: 447981.28	Drilling Company: Green Services					
Proj	ect #: 602	87343.01			Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA					
Star	t Date: 4/1	4/2014			Drilling Method: DPT	Water Level (ft bgs): NA					
Finis	sh Date: 4	/14/2014				Total Depth (ft): 30					
	_										
O Depth (ft bas)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS						
		0.0	SW	/////	Light brown (7.5 YR 6/4) gravelly SAND, medium to small gravel, coa	arse to fine sand, dense, dry					
-	1			////	1.6						
2	-	0.0	ML		Brown (7.5 YR 4/2) clayey SILT, stiff, dry 2.5						
-	- 48	0.0	SP		Reddish yellow (5YR 6/6/) SAND, medium grain, some medium to small subrounded gravel, little coarse to fine sand, dense, dry						
4	_	0.0			No Recovery						
_					5						
6		0.0	CL		Strong Brown (7.5YR 5/6) and light gray (7.5 YR 7/1) mottled CLAY,	stiff, medium plasticity, dry					
		0.0									
-	1										
8_	60	0.0									
-	-	0.0									
10		0.0			10						
_					No Recovery						
12											
-	- 0										
14_	-										
_			SP		15 15.6 Yellowish red (5YR 5/6) medium sand, little small angular gravel, little	spares to fine early trace silt loops day					
16		0.0	J.	11.4.26.41.1	No Recovery	coalse to line sand, trace siit, loose, dry					
_											
18	7										
	1										
-	-										
_ 20			SP		20 Strong Brown (7.5YR 5/6) SAND, medium grain, trace small angular	gravel, medium dense, wet					
_	-	0.0									
22	_	0.0			22.5						
_	37	0.0	SW	./7./	23.1 Strong Brown (7.5YR 5/6) SAND, coarse to fine grain, some small an	ngular gravel, little silt, dense, wet					
24					No Recovery						
	1				25						
-	1		SW	1/1///	Strong Brown (7.5YR 5/6) gravelly SAND, medium to small subrour	nded gravel, coarse to fine sand, little silt, dense, wet					
26	-	0.0									
_	-	0.0		<u>//.</u>							
28	44	0.0	ML		27.8 Gray (7.5YR 6/1) clayey SILT, little wood fragments, medium stiff, me	edium plasticity, moist					
_		0.0	_		28.7 No Recovery	· · · · ·					
30					30						
				Groundy	vater samples collected: 25-30 ft bgs and 45-50 ft bgs						
_	F0014	Re	emarks:	Groundwater samples collected. 20-00 it bys and 40-00 it bys							
AECOM 8320 Guilford Road Suite L											
	olumbia, M										

Boring Log

BORING #: DPB3

Client	t: PEPCC)			Location:	3400 Benning	Road, Wash	nington, DC	Logged By: Ben Daniels				
Proje	ct: Bennii	ng Road Fa	acility		Northing:	1324553.10	Easting:	448063.56	Drilling Company: Green Services				
Proje	ct #: 6028	37343.01			Surface Ele	evation (msl):	NA		Groundwater Encountered (ft bgs): NA				
Start	Date: 4/1	4/2014			Drilling Me	thod: DPT			Water Level (ft bgs): NA				
Finisl	n Date: 4/	14/2014							Total Depth (ft): 30				
Oepth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS								
		0.0	SW		-	wn (7.5 YR 6/4) gra	velly SAND, medi	ium to small angular gra	avel, coarse to fine sand, dense, dry				
2		0.0	CL			wn (7.5YR 6/4) CLA	Y, very stiff, low pl	lasticity, dry					
	60	0.0											
4		0.0											
		0.0											
6		0.0											
		0.0											
 8	60	0.0											
_		0.0											
10		0.0			10								
		0.0	CL 			7.5 YR 5/4) silty CLA YR 4/6) sandy GRA		ne sand, medium to sma	ıll angular gravel, loose, dry				
12					No Reco	very							
	12												
14													
					15								
_ 16 _	-	0.0	SP		Strong b	rown (7.5 YR 5/6) S.	AND, medium gra	ain, little subrounded gra	avel, medium dense, dry				
		0.0											
18	43	0.0			10.0								
					No Reco	very							
20			CL	///////////////////////////////////////	20	MD (7.5 VP 6/4) CLA	V little cilt little ~	nedium to fine sand, stiff	f moiet				
		0.0	SP		21				n to small rounded gravel, dense, wet				
22	-	0.0	OF.		Strong bi	10 WIT (1.0 TIX 3/0) 3/	"4D and GRAVEL	_, modium sand, medium	& Shall tourided gravel, defise, wet				
	42	0.0			23.5								
24					No Reco	very							
			SP		25Strong bi	rown (7.5 YR 5/6) SA	AND, medium grai	n, dense, wet					
26		0.0	=:		26.5	(, grui	1 					
	-	0.0	CL			wn (7.5 YR 6/3) and	light gray (10YR 7	7/1) mottled CLAY, some	e silt, stiff, low plasticity, dry				
_ 28	54	0.0											
		0.0			29.4								
30					30 No Reco	very							
		Re	marks:	Groundy	vater sample	collected: 25-3	30 ft bgs						
	COM 20 Guilford	d Road Sui	te L										
	olumbia, M												

Boring Log

BORING #: DPB5

Clien	t: PEPCC)			Location:	3400 Benning	Road, Wash	nington, DC	Logged By: Ben Daniels					
Proje	ct: Bennii	ng Road F	acility		Northing:	1324705.95	Easting:	448023.93	Drilling Company: Green Services					
Proje	ct #: 6028	37343.01			Surface Ele	vation (msl):	NA		Groundwater Encountered (ft bgs): NA					
Start	Date: 4/1	4/2014			Drilling Met	thod: DPT			Water Level (ft bgs): NA					
Finis	h Date: 4/	14/2014							Total Depth (ft): 50					
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS								
		0.0	ASPHALT SP		0.5 Asphalt	0.5 Asphalt Brown (7.5YR 4/3) SAND, medium grain, some gravel, little silt, dense, moist								
	1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.5									
2	1	0.0	CL		Brownish	yellow (10YR 6/6) a	and light gray (10Y	'R 7/2) mottled CLAY, s	tiff, low plasticity, moist					
	42	0.0			3.5									
4	-	0.0			No Recov	ery								
6 8	54	0.0 0.0 0.0	CL		5 Brownish yellow (10YR 6/6) and light gray (10YR 7/2) mottled CLAY, little silt, stiff, medium plasticity, moist 9.5									
10			CL	///////////////////////////////////////	10 No Recov		11:11 (10)	(D 7/0) I OLAY						
		0.0	J CL		Brownish	yellow (10YR 6/6) a	and light gray (10Y	'R 7/2) mottled CLAY, III	ttle silt, stiff, medium plasticity, moist					
12		0.0												
	60	0.0												
14		0.0	1											
		0.0	1											
			1											
16		0.0												
	-	0.0	SC		17.2 17.6 Brownish	vellow (10YR 6/6) a	and light gray (10Y	(R 7/2) mottled sandy si	ilty CLAY, fine grain, medium dense, medium plasticity, moist					
18	60	0.0	CL		·				ttle silt, stiff, medium plasticity, moist					
		0.0	ML		19 Strong br	own (7 5YR 5/6) clar	ivey SILT trace si	mall to medium subroun	ded gravel, stiff, medium plasticity, moist					
20		0.0			20									
		0.0	ML		medium į	plasticity, moist	and light gray mo	ittled clayey SILT, some	e medium to small subrounded gravel, little fine sand, stiff,					
22		0.0	CL	<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>	21.8	vellow (10VD 6/6)	and light gray (10	VP 7/2) mottled CL AV	stiff, medium plasticity, dry					
	47	0.0			Piomiliali	, , 5110++ (1011\ 0/0) (and ngin gray (10	, mottod GLAT,	, sain, modium producity, at y					
24		0.0			23.9									
			1		No Recov	very								
			CL			prown (5YR 5/4) and	d light gray (10YR	7/2) mottled CLAY, stiff	f, medium plastcity, dry					
26	1	0.0												
		0.0												
28	58	0.0	014		28.2	(7.5VD.5(0)	III CAND		A constitution of the second s					
	-	0.0	SW	<u>////</u>	_	own (7.51K 5/6) gra	avelly SAND, COA	iise to iirie grain, coarse	e to small subrounded gravel, little silt, dense, wet					
30		0.0		1.1.1.	29.8									
		R	emarks:	Ground	water sample	s collected: 25	5-30 ft bgs an	d 45-50 ft bgs						
AECOM														
8320 Guilford Road Suite L Columbia, MD 21046														
														

40

Boring Log

BORING #: DPB5
Sheet 2 of 2

Client	: PEPCC)			Location: 3400 Benning Ro	oad, Washington, DC	Logged By: Ben Daniels			
Projec	t: Benni	ng Road F	acility		Northing: 1324705.95	Easting: 448023.93	Drilling Company: Green Services			
Projec	t#: 602	87343.01			Surface Elevation (msl): N	A	Groundwater Encountered (ft bgs): NA			
Start I	Date: 4/1	4/2014			Drilling Method: DPT Water Level (ft bgs): NA					
Finish	Date: 4	/14/2014					Total Depth (ft): 50			
Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS					
30			SW	1.7.7.7.	30 , / No Recovery					
_		0.0	CL			ly SAND, coarse to small subrounded	gravel, coarse to fine sand, loose, wet			
32		0.0			Gray (7.5YR 6/1) CLAY, trace wo	ood fragments, stiff, medium plasticity,	moist			
_	54	0.0								
34		0.0								
					34.5 35 No Recovery					
36		0.0	ML		Gray (7.5YR 6/1) SILT, little fine	sand, stiff, moist				
		0.0			37.1					
38	60	0.0	SP			, some fine sand, little silt, medium de	nse, wet			
		0.0			회					
- 1			1	1						

Remarks:

Groundwater samples collected: 25-30 ft bgs and 45-50 ft bgs

-												
-												

Boring Log

BORING #: DPB7

Clier	it: PEPCC)			Location: 3400 Benning Road, Washington, DC Logged By: Ben Daniels									
Proje	ect: Benni	ng Road F	acility		Northing:	1324869.92	Easting: 44	7961.00	Drilling Company: Gre	en Services				
Proje	ect #: 602	37343.01			Surface Ele	evation (msl): N	NA		Groundwater Encounter	red (ft bgs): NA				
Start	Date: 4/1	8/2014			Drilling Met	thod: DPT			Water Level (ft bgs): N	A				
Finis	h Date: 4	18/2014							Total Depth (ft): 55					
O Depth (ft bgs)	Recovery Length (inches)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS									
_		0.0	ASPHALT		Asphalt									
2		0.0	SP		Strong br	own (7.5YR 5/6) SANI	D, fine grain, little n	nedium to small roun	ded gravel, dense, moist					
	40	0.0												
4		<u> </u>			No Recov	No Recovery								
_			CL	///////////////////////////////////////	5 Croonigh	5 Greenish gray (GLEY1 6/1) and grayish brown (10YR 5/2) laminated silty CLAY, stiff, medium plasticity, dry								
6		0.0	CL		Greenish	gray (GLL i i o/ i/ and	a grayisii browii (10	rrik 5/2) laminateu si	ity CLAT, Still, medium plasticity, u	ıy				
_		0.0												
8	47	0.0												
		0.0			8.9									
10					No Recovery									
		0.0	CL		Greenish	gray (GLEY1 6/1) and	d grayish brown (10	YR 5/2) laminated si	Ity CLAY, stiff, medium plasticity, d	ry				
- 12														
	49 0.0 CH		CH		12.4 Gray (7.5	12.4 Gray (7.5YR 5/1) CLAY, stiff, high plasticity, dry								
-	49CH		OH			111(3/ 1) OLA 1, 3uii, 1ii	igit plasticity, dry							
14		0.0			14.1 No Recov	very								
-			CH		15 Light olive	e brown (2.5Y 5/3) CL/	AY, soft, high plast	icity, moist						
16_	_	0.0												
-	-	0.0												
18	43	0.0			18.2	5) (D 5 (0) O T (1)								
_	-		ML		No Recov	.5YR 5/3) SILT, soft, n very	moist							
20			SP		20 Brown (7	.rYR 5/3) silty SAND, f	fine grain, trace em	all subrounded grave	al loose moist					
_	_	0.0	OF.		DIOWII (7.	TIX 5/5) SIILY SMIND, I	c grain, irace SIII	an subrounded grave	,, 10000, 111010t					
22	_	0.0			22.3									
_	49	0.0	CL			gray (GLEY1 6/1) and	d grayish brown (10	YR 5/2) laminated si	Ity CLAY, stiff, medium plasticity, d	ry				
24		0.0			24.1									
_					No Recov									
26		0.0	CL		Greenish	gray (GLEY1 6/1) and	d grayish brown (10	YR 5/2) laminated si	Ity CLAY, trace coarse sand, stiff, i	medium plasticity, dry				
		0.0												
- 28	53	0.0			28									
	7	0.0	GM			own (7.5YR 5/6) SILT	T and GRAVEL, me	edium to small suba	ngular gravel, dense, moist					
- 30	1	<u> </u>			29.4 No Recov	verv								
30	_1	_		Crosses	No Recovery dwater samples collected: 30-35 ft bgs and 50-55 ft bgs									
-		Re	emarks:	Groundy	vater sample	s collected: 30-3	oo π bys and t	ou-oo ii dgs						
83	ECOM 320 Guilfor		ite L											
	olumbia, M													
				-										

Boring Log

BORING #: DPB7

Sheet 2 of 2

Clie	ent: PEPCC)			Location:	3400 Benning Road, Was	shington, DC	Logged By: Ben Daniels				
Pro	ject: Benni	ng Road Fa	acility		Northing:	-	447961.00	Drilling Company: Green Services				
	ject #: 6028					vation (msl): NA		Groundwater Encountered (ft bgs): NA				
	rt Date: 4/1				Drilling Met			Water Level (ft bgs): NA				
	ish Date: 4/							Total Depth (ft): 55				
		10/2011						10th 20ph (i.y. 66				
Depth	၁၁၅	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS							
J	,	0.0	SP		Strong Br wet	own (7.5YR 5/8) SAND, medium to	o fine grain, some mediur	m to small rounded gravel, little silt, dense,				
-	-	0.0			31.6_							
32	2	0.2	CL		Gray (7.5	YR 5/1) CLAY, very stiff, medium pl	lasticity, dry					
-	_ 42	0.0			33.5							
34	1			(//////////////////////////////////////	No Recovery							
_					35							
36	3	0.0	OH		Gray (7.5	YR 5/1) CLAY, some organic mater	ial (wood, reeds, fibers), v	very stiff, medium plasticity, dry				
		0.0										
-	, -											
_ 38	60	0.0										
-	-	0.0										
_ 40)	0.0										
-	_	0.0										
42	2	0.0										
_	60	0.0										
44	ı	0.0										
		0.0			45							
- 46	, 📘	0.0	OH			YR 5/1) CLAY, little organic materia	l (wood, reeds, fibers), ve	ery stiff, medium plasticity, dry				
-	, -	0.0	CL		47.2 Gray (7.5	YR 5/1) silty CLAY, graded to claye	y silt at 49.4', medium pla	asticity, stiff, moist				
48	60	0.0			, (.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , ,	9, 9				
-	-	0.0										
_ 50)	0.0	ML	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	50 Gray (7.5)	YR 5/1) SILT, stiff, wet						
-	4	0.0	1412		J. ay (1.3	5 ., 6.2., 6th, Wot						
52	2	0.0	SP		51.9 Gray (7.5)	YR 5/1) SAND, fine grain, medium o	dance graded to madicina	sand at 54.6' wet				
_	60	0.0	٥٢		Gray (7.5	יות שי ון פאמט, וווופ grain, medium (uchse, graueu to meulum	3ana at 34.0 , WEL				
54	ı	0.0										
		0.0			55							
_	_											
		Re	marks:	Groundy	dwater samples collected: 30-35 ft bgs and 50-55 ft bgs							
	AECOM	l Bood Suit	to I									
	8320 Guilfor Columbia, M		le L									

Boring Log

BORING #: DPC4

Sheet 1 of 1 Client: PEPCO Location: 3400 Benning Road, Washington, DC Logged By: Ben Daniels Project: Benning Road Facility 1324640.45 Easting: 448118.96 Drilling Company: Green Services Northing: Project #: 60287343.01 Surface Elevation (msl): Groundwater Encountered (ft bgs): NA Start Date: 4/14/2014 Drilling Method: DPT Water Level (ft bgs): NA Finish Date: 4/14/2014 Total Depth (ft): 35 Recovery Length (inches) **USCS** Code PID (ppm) Graphic Depth (ft bgs) Soil and Rock Description Classification Scheme: USCS 0.1 Wood Chips WOOD 0.0 Strong brown (7.5YR 5/6) and gray (10YR 7/1) mottled CLAY, stiff, low plasticity, dry 2 0.0 55 0.0 0.0 0.0 No Recovery CL Strong brown (7.5YR 5/6) and gray (10YR 7/1) mottled CLAY, stiff, low plasticity, dry 6 0.0 0.0 60 0.0 0.0 10 0.0 0.0 12 0.0 60 0.0 14 0.0 0.0 16 0.0 0.0 18 60 0.0 CL Brownish yellow (10YR 6/6) and red (2.5YR 4/6) mottled CLAY, little silt, trace small rounded gravel, stiff, dry 0.0 20 0.0 0.0 22 0.0 Strong brown (7.5YR 4/6) SAND, medium to fine grain, little medium to small subrounded gravel, dense, wet 56 0.0 24 0.0 0.0 √ No Recovery SW Strong brown (7.5YR 4/6) SAND, medium to fine grain, little medium to small subrounded gravel, dense, wet 26 0.0 0.0 28 47 0.0 0.0 No Recovery 30 Brownish yellow (10YR 6/6) gravelly SAND, medium to small rounded gravel, coarse to fine sand, little silt, dense, wet 0.0 32 0.0 48 0.0 MI Gray (10YR 6/1) SILT, some fine sand, stiff, moist 34 0.0 No Recovery 35 Remarks: Groundwater sample collected: 25-30 ft bgs **AECOM** 8320 Guilford Road Suite L Columbia, MD 21046



Phase I Monitoring Well Boring Logs

1	Location	on Sketch		Client:	PEPC		1.11.1.1.1			
				Project	Numbe	er:	60287343.09 Boring:	MW-1		
N	River			Site Lo	cation:		3400 Benning Road NE, Washington, DC			
Metro		MW-1 (Ð	Coordin	nates:	44823	0.8' N 1323686.7' E Ground Elev: 12.88' NAVD88 Sheet:	1 of 4		
_				Drilling	Metho	d:	Sonic Well Installed	Dual Nested		
				Sample	Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	10-35 and 40-52		
Weathe	er:	Overca	st/Clear	~60's F	:		Logged By: GR Start Date: 9/17/2014 Depth of Bori	ng: 70		
Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski	Date Complete: 9/25/2014 Water:	10 and 45		
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design		
1 2 3 4 5 5	₹ 2	NA	¢ Z			SM/FILL	0 to 5 Unimproved surface. 0 to 5 ft bgs: Cleared by Air Knife/Vac Truck. Appeared to be SILTY SAND FILL	Flush pad Concrete Bentonite grout slurry		
6 7 8 9 10	Ϋ́	NA	40%	0.0		SM/FILL	5 to 10 5 to 7 ft. bgs: SILTY SAND (SM); reddish brown; fine sand (60-70%); nonplastic fines (15-20%); few gravel (up to 1.5"), subangular; loose; weakly cemented; wet - infiltration or drilling fluid. (FILL) 7 to 10 ft. bgs: Not recovered.	Well seal		
			,	0.0		SM/FILL	10 to 15			
11			/	0.0			10 to 11 ft. bgs: Same as Above. (SM - FILL) with trace clay. Wet.			
			/			SM/FILL	11 to 11.8 ft. bgs: Well graded SITLY SAND (SM); coarse to fine sand, subangular; nonplastic			
12			/				fines (20%); few gravel (up to 1"), subangular, quartzite, increasing toward downward; loose; wet.	#11		
	∢	∢	%	0.0		ML/CL	Contact			
13	ž	NA	20%				11.8 to 12.5 ft bgs: SILTY CLAY with organics (ML/CL); brown; trace fine sand; soft; low			
-			/				plasticity; wood (25-30%); dry.	0.01"		
14			/				12.5 to 15 ft bgs: Not recovered.	screen		
			/							
15			/							
				0.0	00000	GM	15 to 20			
16			/	0.0	3000		15 to 17 ft. bgs: Well graded SILTY SANDY GRAVEL (GM); brown; gravel (up to 1"),			
			/		00.00	}	subround, crystalline, multicolor; coarse to fine sand, angular to subround; silt (~15%); trace clay; nonplastic; loose; weakly cemented; saturated.			
17			/		3000		sharp color change	#2 sand		
· · ·	_	_	。/	0.0	00000	GM	17 to 19 ft. bgs: Same as above (GM); yellowish orangish red; few small cobbles, quartzite;	#2 Sand		
10	ž	A A	80%	0.0	1,101,1	Givi	heavily oxidized; saturated.			
18			/		00.00)				
40			/		:00000°C			目目		
19			/	0.0	0000	}	19 to 20 ft. bgs: Not recovered.	目目		
_			/							
20		Coil el-	oifica ··-·	og ACTA4	D2407	(LISCO)	and D2499 (Vigual/Manual Mathed) Analytical College and College an	EII		
Referen	ces:						and D2488 (Visual/Manual Method). Analytical: Soil samples not collected salso reference the Engineering	su.		
References: Soil descripti Geology Field										
				nhio o	201 204-	o. "Otho	r" - Open drive core harrel	coment or drilling		
Additi	onal	/	/ Gra	aphic symbol codes: "Other" - Open drive core barrel. Clean city water used during boring advancem fluid.						
Comm										
	Checked by					Date:				

1	Locatio	cation Sketch Client: PEPCO									N //\ /	V 1	
				Project	Numbe	er:	60287343.09			Boring:	MV	V - I	
N 2	River		_		cation:		3400 Benning Road NE						
Metro		MW-1 (\ni	Coordi	nates:	44823	0.8' N 1323686.7' E	Ground Elev: 12	.88' NAVD88	Sheet:	2 0		
				Drilling	Metho	d:	Sonic	011/011	Well Installed:		Nested		
		^	. (0)		Type(4" Open Drive Core	Boring Diameter:			10-35 an		
Weath			st/Clear				Logged By: GR	Start Date:		Depth of Borin			
Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski		Date Complete:	9/25/2014	Water:	10	and 45	
												_	
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Description			Water levels & Well design	Well Completion	
21	NA	ΝΑ	%09	0.0		GM	20 to 25 20 to 22.7 ft bgs: Same as abov 21 ft.; fine content increases with 22.7 to 23 ft. bgs: Well sorted SI predominately fine sand; angula saturated. 23 to 25 ft. bgs: Not recovered.	h depth. ILTY SAND/SAND with SI	ILT (SM/SP); ora	ngish red;	#2 sand 2" riser		
25 26 27 28	NA	NA	20%	0.0 0.0 0.0		GW	25 to 30 25 to 27.5 ft. bgs: Well graded to gravel; arkosic, angular to subro cobbles; very loose; fines increased to 30 ft. bgs: Not recovered.	ound; coarse to fine sand; ase with depth; saturated.			0.01" slotted screen		
29				A			30 to 35				8" anulus		
31 32 33	NA	NA	%09	0.0		GW SP	30 to 31.3 ft. bgs: Same as AboContact 31.3 to 33 ft bgs: Well sorted fin staining; fine sand; micaceous; (grey), between 2" up to 4" thick	e SAND (SP); yellowish o	orange with red a gular intervals of	nd bright red sandy clay or clay			
34				0.0			33 to 35 ft bgs: Not recovered.				35 ft.		
3637	NA	NA	%06	0.0 0.0 0.0		SP CH	35 to 40 35 to 35.7 ft. bgs: Sacontact 35.7 to 38.9 ft. bgs: FAT CLAY (Cf medium stiff; trace carbonized org		black mottle (1mm	ı); highly plastic;	6" anulus	→	
39				0.0		SP	38.9 to 39.5 ft. bgs: Poorly grad- angular; trace clay (<5%); nonpla 39.5 to 40 ft. bgs: Not recovered.	astic; very loose; medium	cementation; fev	v muscovite; wet.	#2 fi <u>lter s</u>	and >	
Refere	nces:	Soil des	cription ar	nd identifi nual (198	cation te 88).	chnique	and D2488 (Visual/Manual Mes also reference the Engine	ering	Soil san	nples not collected	d.		
Addit Comr	nents	Checked b		phic syml	ool code	s: "Othe Date:	r" - Open drive Sonic core ba	arrel.					

1	Location	on Sketch		Client:	PEPC	0		N //\ /	1/1
				Projec	t Numbe	er:	60287343.09 Boring:	MV	V - I
N o	River			Site Lo	cation:		3400 Benning Road NE, Washington, DC		
Metro		MW-1 (\oplus	Coordi	nates:	44823	30.8' N 1323686.7' E Ground Elev: 12.88' NAVD88 Sheet:	3 0	f 4
				Drilling	Metho	d:	Sonic Well Installed:	Dual	Nested
					e Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	10-35 an	d 40-52
Weath	er:	Overca	ast/Clear	~60's F	=		Logged By: GR Start Date: 9/17/2014 Depth of Borin	ng:	70
Drilling	Contra	actor:	Summit	- Danny	/ Ninev	ski	Date Complete: 9/25/2014 Water:	10	and 45
	_			<u> </u>		_		∞	ioi
	Sample Depth	ŧ	ery.	PID/FID (ppm)	og.	USCS Symbol	Description	els	Well Completion
Œ	e D	Blow Count	Recovery) Q	Graphic Log	Sy		Water levels Well design	l S
Depth (ft)	amp	NO	Ϋ́ Ā	P/F	гар	SCS		ater ell c	=
۵	ű	<u> </u>	%	□	G		40 to 45	≥ ≥ 40 ft. —	≥
			/	0.0		SP	40 to 45	40 It. —	
41			/	0.0			40 to 44 ft bgs: Same as above. (SP); ~0.5ft interval (41.7 to 42.3) of well graded angular sand with some plastic clay in lenses; wet.		
			/				, , , , , , , , , , , , , , , , , , , ,		
42			/	0.0					46 14 1
	ΑN	∢ Z	%08)	
43	Z	Z	8 /	0.0	252.025			//	
			/		de la			0	#
44			/	0.0	1300			#2 sand	
				0.0			44 to 45 ft. bgs: Not recovered.	#Z Sand	\rightarrow
45			/						
45			1				45 to 50	1	side M a
			/	0.0		SP	45 to 47.2 ft. bgs: Same as above. (SP); buff; fine sand, angular; loose; uncemented; wet.		igraa <mark>est</mark> e
46			/	0.0			To to 47.2 h. sgs. outlie as above. (or), buil, line sura, angular, losse, anotherized, we.		
			/					0.01"	
47			/	0.0			AT ALL 40 (L. L. W. W. W. L. L. DAND . L. L. DAND . L. C. DANEL (CM)	slotted	胡椒草的
	A	ž	%08			GW	47.2 to 49 ft. bgs: Well graded SAND and GRAVEL (GW) grading to SILTY GRAVEL (GM); coarse to fine gravel, angular, quartzite; coarse to fine sand (35%), angular, multicolor/arkosic	screen	\rightarrow
48	_	_	[∞] /	0.0	HOK	•	grading to few nonplastic fines (10-20%); very loose; saturated.		
			/			1			
49			/	0.0	XX				
			/				49 to 50 ft. bgs: Not recovered.	1	動圖
50			/						(A) (E)
			,	0.0		SP	50 to 55		
51			/	0.0			50 to 52.1 ft. bgs: Poorly graded SAND (SP); grey with sporradic black stain; medium and		
. —			/				fine sand, angular; trace clay (<5%); loose; weakly cemented; saturated.)	45 Z (
52			/	0.0			grades to SANDY CLAY (SC) with carbonized wood.	52 ft.	(1) (1)
JZ			/	0.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	CL	Contact	→ 1	minne
	Ϋ́	ž	%06			CL	52.1 to 53.9 ft bgs: GRAVELLY CLAY (CL); light grey and brown; lean clay of low plasticity;		NANANARA
53			/	0.0			very stiff; dry.		YYYYYYYYY
			/				53.9 to 54.5 ft bgs: FAT CLAY (CH); brown with grey and red mottle; trace fine sand; very stiff;	6" anulus >	VYYYYXXXXX
54			/	0.0		СН	high plasticity; dry.		<i>999999</i>
			/				E4 0 to E0 ft basi Not recovered		<i>}}}}*******</i>
55			/		(())(()()()()()()()()()()()()()()()()(54.9 to 50 ft bgs: Not recovered.		1111111111
			/	0.0		ML/CL	55 to 60		
56			/	0.0			55 to 59.3 ft. bgs: SANDY CLAYEY SILT (ML); pale grey with black mottle (1mm) with sporradic intervals of brown (10mm); nonplastic to low plasticity; very fine sand (10 to 20%);		
			/		///////		very stiff to stiff; trace micas; carbonized wood fragments (1mm) occur most readily in the		
57			/	0.0	///////		clayey interval (55.6 to 56.3); moist to dry.		IIAAAA/yyyy
	Ą	₹	%06					Hydrated bentonite	(A A A A A A A A A A A A A A A A A A A
58	Z	z	8 /	0.0	///////			chips	<i>,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			/		//////////////////////////////////////				
59			/	0.0	////////				AANVYYYYY
			/						
60			/		entretten i de l		59.3 to 60 ft. bgs: Not recovered.		ANXYYY
	I .	Soil clas	, ssified usir	ng ASTM	D2487	(USCS)	and D2488 (Visual/Manual Method). Analytical: Soil samples not collecte	d.	
Referen	nces:	Soil des	cription ar	nd identif	ication te		es also reference the Engineering		
		Geology	/ Field Ma	nual (198	38).				
			Gra	ohic svm	hol code	s: "Othe	rr" - Open drive Sonic core barrel.		
Additi	ional		اماما	e.no oyiii	Joue	J. J. 10	Sport actio delite deliter.		
Comm	nents					_			
1		Checked b	y			Date:			

1	Locatio	on Sketch		Client:	PEPC	0		N /N N / 1
_/				Project			60287343.09 Boring:	MW-1
N 2	River		_	Site Lo			3400 Benning Road NE, Washington, DC	
Metro		MW-1 (\oplus	Coordi				4 of 4
				Drilling			Sonic Well Installed:	
		0	+/Cl	Sample	<u>,, , , , , , , , , , , , , , , , , , ,</u>	s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	10-35 and 40-52
Weath	•		ast/Clear			a lei	Logged By: GR Start Date: 9/17/2014 Depth of Borin	
Drilling	Contra	ctor:	Summit	- Danny	Ninev	SKI	Date Complete: 9/25/2014 Water:	10 and 45
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description 60 to 65	Water levels & Well design Well Completion
61 62 63 64 65	NA	٧Z	100%	0.0 0.0 0.0 0.0		ML	60 to 65 ft bgs: Same as above (ML); sporradic and increasing lean clay content; dry.	6° anulus → Well seal
66 67 68 69 70	NA	NA	100%	0.0 0.0 0.0 0.0 0.0		ML	65 to 70 65 to 70 lbgs: Same as above. (ML); increase in carbonized wood and lignite; contains light grey concretions that are not reactive to HCl; dry. *Arundel Clay in cutting shoe. FAT CLAY (CH); variagated red and pale gray; v. stiff; dry.	
71 72 73 74 75 76 77 78 79 80							TD = 70 ft bgs. Terminated at regional confining layer. First observed water ~ 15 ft. bgs. and D2488 (Visual/Manual Method). Analytical: Soil samples not collected.	TD = 70 ft. bgs.
Referen	nces:	Soil des	cription ar	nd identifi nual (198	cation te 8).	echnique	es also reference the Engineering er" - Open drive Sonic core barrel.	
Comr	nents	Checked b	ру					

				Client:	PEPCO)					1, 11, 1	W 2
_				Project		:	60287343.09			Boring:	MW	V-Z
A			M	Site Loc			3400 Benning Road NE, Wa				1 of	
				Coordin		448457	0' N 1323684.7' E Sonic	Ground Elev: 13.82'	NAVD88	Sheet:		al Nested
				Drilling I			4" Open Drive Core	Boring Diameter:	6"/8"	Well Installed: Screen:		nd 38-53
Weathe	er:	Cloudy,	60's F	Campic	Турс(о)	<i>j</i> .		Start Date:		Depth of Boring:	0 20 0	60
Drilling	Contrac		Summit -	Danny N	linevski			Date Complete:	10/7/2014			10
											≪	Ē
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Description			Water levels Well design	Well Completion
1 2 3	NA	ΥZ	NA			Asphalt SWFILL	0 to 5 0 to 5.5 ft bgs: Asphalt 0.5 to 5 ft bgs: Cleared by Air Knife/sand, some well graded angular grav			TY SAND, well graded	Flush pad Concrete	
4 5 6 7 8	e V	NA	40%	0.0 0.0 0.0		SW	5 to 10 <u>5 to 7.1 ft. bgs:</u> Strong Brown SAND odor.	, well graded, little well grade	d rounded gravel	loose, moist, no	Well s <u>eal</u>	
9 10 11				0.0		SW	7.1 to 10 ft. bgs: Not recovered. 10 to 15 10 to 12.1 ft. bgs: Strong Brown SAN bdor.	ND, well graded, little well gra	ded rounded grav	el, loose, wet, no		
12	- V	NA	40%	0.0							8" annulus	
14	1		/				12.1 to 15 ft bgs: Not recovered.					植化
15			/	0.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SW	15 to 20	o, well graded, some well graded	ded rounded grav	el, little silt, loose, wet,	0.01" slotted screen	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
17	N W	NA	%09	0.0							#2 sand 2"_ riser	
19		Soil class	pified using	A CTNA D	2497 /1 16	SCS/ 22-	18 to 20 ft. bgs: Not recovered. D2488 (Visual/Manual Methoc	l). Soil Analytical:	Soil soc-	oles not collected.		
Referen	ices:	description Manual (on and ide 1988).	ntification	techniqu	es also r	ference the Engineering Geok Open drive core barrel.	ogy Field		g boring advancem	ent as drillir	na fluid
	tional ments	Checked b		3,1110		Date:		Sister only we		,g aa.a.noon	30 drilli	d.

,				Client: PEPCO								MW-2		
				Project Number: 60287343.09 Boring:							IVIV	V-Z		
				Site Location: 3400 Benning Road NE, Washington, DC							2 of 3			
1				Coordin		448457	7.0' N 1323684.7' E Sonic	'NAVD88	Sheet: 2 of 3					
				Drilling Method:			4" Open Drive Core	6"/8"	Screen:	Well Installed: Dual Neste Screen: 8-28 and 38-5				
Weathe	r:	Cloudy,	60's F	Sample Type(s):			Logged By: BD	Boring Diameter: Start Date:		Depth of Boring:	0-20 ai	60		
Drilling (- Danny Ninevski			209904 2).	Date Complete:	10/7/2014			10		
											«ک	Well Completion		
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Description						
21 22 23	NA	AN	%09	0.0 0.0 0.0		SW	20 to 25 20 to 22.9 ft. bgs: Strong Brown SA odor. 22.9 to 25 ft. bgs: Not recovered.	ND, well graded, some well g	graded rounded gr	avel, loose, wet, no	8" annulus			
24			/	0.0	M.H.		25 to 30				0.01"	***		
26 27 28	, V V	NA	80%	0.0		GW	25 to 27.9 ft. bgs: Strong Brown SA trace silt, loose, wet, no odor.	NND and GRAVEL, well grade	ed sand, well grad	ed rounded gravel,	screen			
30				0.0			27.9 to 30 ft. bgs: Not recovered. 30 to 35				2" riser	**		
31 32 33	NA	NA	100%	0.0		CL	30 to 34 ft. bgs: Light Brownish Gra	y CLAY, medium plasticity, r	nedium stiff, dry, I	no odor.	We <u>ll seal</u>	>		
34				0.0		ML	34 to 35 ft. bgs: Light Brownish Gra	y SILT, some very fine sand,	, medium soft, dry	, no odor.	6" an <u>nulu</u>	S		
36				0.0		SM	35 to 37.6 ft. bgs: Light Grayish Bro	wn SAND, fine grained, som	ne silt, medium loo	se, wet, no odor.	#2 filter s	and >		
38	NA	NA	80%	0.0		SP SP	37.6 to 38.4 ft. bgs: Light Grayish B 38.4 to 39.1 ft. bgs: Strong Brown S wet, no odor. 39.1 to 40 ft. bgs: Not recovered.				38 ft.			
40 Referen	ces:	Soil class description Manual (on and ide 1988).	ntification	techniqu	es also i	D2488 (Visual/Manual Methor eference the Engineering Geol	ogy Field	Soil sam	oles not collected.				
Addit Comn		Checked by		ohic symb	ool codes	: "Other'	- Open drive Sonic core barre	l.						

				Client:	PEPCO)			N //\ /	1/ 2	
_				Project	Number	:	60287343.09	Boring:	MW	V-Z	
Δ			M	Site Lo			3400 Benning Road NE, Washington, DC				
				Coordin		448457		Sheet:	3 of		
					Method:		Sonic	Well Installed:		al Neste	
101		01 1	001 5	Sample	Type(s)):	4" Open Drive Core Boring Diameter: 6"/8	COLCCII.		nd 38-5	
Weathe		Cloudy,		D = 1	المراجع المالية			4 Depth of Boring:	<u>:</u>	60	
Dilling	Contrac	ior.	Summit -	Danny i	vinevski		Date Complete: 10/7/201	+ water.		10	
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description 40 to 45		Water levels & Well design	- Well Completion	
41	- - -					0.0		SW	40 to 42 ft bgs: Pale Yellowish Brown SAND, well graded, little fine to medium suwet, no odor.	0.01"	
43	& Z		%02	0.0	SP odor.	42.5 to 42.7 ft. bgs: Light Gray and Black laminated SAND, fine grained, mediur		slotted scre <u>en</u>			
44	-			1 00			42.7 to 43.5 ft. bgs: Strong Brown SAND, medium grained, loose, wet, no odor. 43.5 to 45 ft. bgs: Not recovered. 45 to 50		#2 sand	→ <u>=</u>	
46	_			0.0		SP	45 to 47 ft. bgs: Pale Brown SAND, fine to medium grained, black degraded leaf 46.5-46.6', loose, wet, no odor.	y organic material at	2" riser		
48	¥Z	N	%N 80%	0.0		SW	47 to 48.8 ft. bgs: Brownish Yellow SAND, well graded, little well graded rounded loose, wet, no odor.	gravel, little silt,			
50			/	0.0	. Ven	GW	48.8 to 50 ft. bgs: Not recovered. 50 to 55 50 to 50.5 ft. bgs: Brown SAND and GRAVEL, well graded sand, well graded sulcobbles, loose, wet, no odor.	prounded gravel, with			
52	YZ	Ą	80%	0.0		SP	50.5 to 53.2 ft. bgs: Gray SAND, fine to medium grained, loose, wet, no odor. 53.2 to 54 ft. bgs: Dark Gray CLAY, high plasticity, very stiff, dry, no odor.		<u>53 ft.</u>		
54	-			0.0		CH	54 to 55 ft. bgs: Not recovered.				
56				0.0		ML	55 to 60 55 to 57 ft. bgs. Dark Gray CLAYEY SILT, medium plasticity, stiff, dry, no odor.		Hydrated bentonite chips		
58	- A	NA A	%06	0.0		CL	57 to 59.3 ft. bgs: Dark Gray CLAY, litle silt, medium plasticity, stiff, dry, no odo	;			
60 Referen	nces:		on and ide					0 ft. bgs mples not collected.			
	itional ments	Checked by	Gra	phic symb	ool codes	: "Other'	- Open drive Sonic core barrel.				

				Client:	PEPC)						N //\ /	W 2
					Number	r:	60287343.09				Boring:	MV	V-3
			M	Site Lo			3400 Benning Road NE, V						
				Coordin		448809	9.4' N 1323686.3' E Sonic	Ground Elev:	15.12'	NAVD88	Sheet:	1 0	t 4 al Nesteo
					Method:		4" Open Drive Core	Davis a Disas	-1	6"/8"	Well Installed:		
Weathe	er:	Partly cl	oudy, 60's		Type(s).	Logged By: BD	Boring Diame Start Date:	eter:		Screen: Depth of Boring:		nd 40-50 6
	Contrac		Summit -		Vinevski		Logged by.	Date Complet	te:	10/10/2014			13
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Descrip	otion			Water levels & Well design	Well Completion
1 2 3 4 5	Y Z	NA	NA			Asphalt	0 to 5 0 to 0.5 ft bgs: Asphall 0.5 to 5 ft bgs: Cleared by Air Knif- little fine to coarse angular gravel, i	e/Vac Truck. Appea		ark brown SILT	Y SAND, well graded,	Flush pad Concrete Bentonite grout slurry	
6 7 8 9	- V	NA	9009	0.0		SWFILL SP SW	5 to 10 5 to 5.2 ft bgs: Dark broose, moist, no odor. 5.2 to 6.2 ft. bgs: Reddish brown S 6.2 to 7.7 ft. bgs: Light reddish brotrace silt, loose, moist, no odor. 7.7 to 10 ft. bgs: Not recovered.	(FILL) AND, fine grained, I	little silt, me	dium loose, moi	st, no odor.	Well s <u>eal</u>	
10 11 12 13		₹	%09	0.0		SW SP	10 to 15 10 to 10.2 ft bgs: Light gravel, trace silt, loose 10.2 to 12.4 ft. bgs: Reddish brown grained sand, loose, moist, no odo 12.4 to 13.0 ft bgs: Reddish brown gravel, medium loose, moist, no od	, moist, no odor. n SAND, medium grant. sAND, well graded,	ained, little t	fine grained san	d, trace coarse	10 ft.	
14				0.0		SW	13 to 15 ft bgs: Not recovered. 15 to 20					0.01" slotted screen	
16 17 18 19	_ _ _ _ \ \	NA	70%	0.0		SM SM SW SW	wet. no odor. 15.7 to 16.9 ft. bgs: Reddish browr gravel, loose, wet, no odor. 16.9 to 17.0 ft. bgs: Dark gray SAI 17 to 17.7 ft. bgs: Reddish brown \$ loose, wet, no odor. 17.7 to 18.6 ft. bgs: Reddish browr loose, wet, no odor.	n SAND, well graded ND, well graded, son SAND, well graded, s	d, some silt, me silt, loose some well g	little fine to med e, wet, no odor. graded rounded g	lium subrounded gravel, little silt,	# <u>2 sand</u>	
20 Referen	nces:		on and ide				18.6 to 20 ft. bgs: Not recovered. d D2488 (Visual/Manual Methoreference the Engineering Geo		ytical:	Soil sam	ples not collected.		
	itional ments	Checked b		ohic symb	ool codes	: "Other"	' - Open drive core barrel.	Clea	in city wa	ter used durir	ng boring advancem	nent as drilli	ng fluid.

				Client:	FEFCC	,						MV	1/2
_	_			Project	Project Number: 60287343.09 Site Location: 3400 Benning Road NE, Washington, DC						Boring:	IVIV	V-3
Δ			M	Site Lo	cation:		3400 Be	enning Road NE,	Washington, DC				
				Coordin	nates:	44880	9.4' N	1323686.3' E	Ground Elev:	15.12' NAVD88	Sheet:	2 of	f 4
1				Drilling	Method:		Sonic				Well Installed:	Dua	al Neste
				Sample	Type(s)		4" Oper	n Drive Core	Boring Diamete	er: 6"/8	Screen:	10-25 a	nd 40-5
Weathe	r:	Partly cl	oudy, 60's	s F			Logged	By: BD	Start Date:		Depth of Boring:		6
Drilling (Contrac	tor:	Summit -	Danny N	Vinevski			,	Date Complete				1
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	20 to 25		Descriptio	on		Water levels & Well design	Well Completion
21 22 23 24 25	NA	NA	70%	0.0		GW SP GW	20 to 20.7 loose, wet, 20.7 to 21 odor. 21.8 to 23 silt, loose,	, no odor. <u>.8 ft bgs:</u> Red brown S	GRAVEL and SAND, we AND, fine to medium grand RAVEL and SAND, well	ained, little fine rounded	gravel, loose, wet, no	8" anulus #2 sand 2" riser 0.01" slotted screen 25 ft	
26 27 28 29		NA	%08	0.0 0.0 0.0 0.0		GW	silt, loose, 25.3 to 29 medium pl	wet, no odor.		•			
30 31 32 33 34 35	, VV	ΑN	%06	0.0 0.0 0.0 0.0		CL		ft. bgs: Brown CLAY	, little silt, trace fine sand	d, medium plasticity, me	dium stiff, dry, no odor.	6" anulus Well seal	→
36 37 38 39	, V	AA	100%	0.0 0.0 0.0		ML	35 to 40 35 to 38.3 subangula	.ft. bgs: Brown SAND) r gravel, medium stiff,	SILT, fine grained sand			30 <u>f</u> t	->
40 Reference	ional		on and ide 1988).	ntification	technique	es also	nd D2488 (reference	(Visual/Manual Met the Engineering G drive Sonic core ba	eology Field	ical: Soil san	nples not collected.		
Comn	nents					Б.							
		Checked by	/			Date:							

Client: PEPCO

,				Client:	PEPCO)						N //\ /	W 2
_	_			Project	Number	:	60287343.09				Boring:	MV	V-3
Δ			М	Site Lo			3400 Benning Road N	IE, W	ashington, DC				
				Coordin		448809		Ε	Ground Elev: 15.12	' NAVD88	Sheet:	3 0	
					Method:		Sonic			6"/8"	Well Installed:		al Neste
\^/ +b -		Partly cl	loudy, 60's		Type(s)):	4" Open Drive Core	DD.	Boring Diameter:		Screen:	10-25 a	
Weathe	Contrac		Summit -		Vinevski		Logged By:	BD	Start Date: Date Complete:	10/10/2014	Depth of Boring:		6: 1:
Dilling	Contrac			,					Date Complete.	10/10/2014	water.		
Depth (ft)	Sample Depth	Blow Count	% Recovery	o PID/FID (ppm)	Graphic Log	USCS Symbol	40 to 45		Description			Water levels & Well design	Well Completion
41 42 43	- Y	NA	20%	0.0		SM SP	40 to 42.7 ft bgs: Red brown 42.7 to 43.7 ft. bgs: Dark red wet, no odor.				nedium loose,	6" anulus	
44	-			1	30000000		43.7 to 45 ft. bgs: Not recove	ered.				#2 sand	>
464748	Y Y	NA	70%	0.0 0.0 0.0		SP SP	45.1 to 48.5 ft. bgs: Pale brow 46.1 to 48.5 ft. bgs: Pale brow loose, wet, no odor.		-			0.01" slotted screen	1 11 11 11 11
49 50				/			48.5 to 50 ft. bgs: Not recov	ered.				50 ft	
51 52 53 54	¥	NA	9606	0.0 0.0 0.0 0.0		ML	50 to 54.7 ft. bgs: Gray SILT		clay, low plasticity, stiff, moi	st, no odor.			
55 56 57 58 59 60	Ą Ž	AN	100%	0.0 0.0 0.0 0.0 0.0		ML	55 to 60 55 to 60 ft. bgs: Gray SILT, I		e sand, trace clay, low plastic	city, stiff, moist, no	o odor.	Hydrated bentonite chips	**************************************
Referer	nces:	Soil class descripti Manual (on and ide 1988).	ntification	techniqu	es also r	l d D2488 (Visual/Manual l reference the Engineering	g Geo	ogy Field	Soil sam	ples not collected.	1	
	itional ments	Checked by		ohic symb	ool codes	: "Other"	- Open drive Sonic core	barre	ıl.				

		Client: PEPCO Project Number: 60287343.09 Site Location: 3400 Benning Road NE, Washington, DC Coordinates: 448809.4' N 1323686.3' E Ground Elev: 15.12' NAVD88						Boring:	M۱	N-3					
				Coordin	nates:	448809		1323686.3' E	Grou	ınd Elev:	15.12' NA	AVD88	Sheet:		of 4
				Drilling I			Sonic	Drivo Coro	D:	D'		6"/8"	Well Installed:		al Nested
Weather		Cloudy,	60's F	Sample	i ype(s):	1							10-25 8	
			Summit -	Danny N	Vinevski		Logged	. <u>Б</u>							
Weather Drilling C		Cloudy, tor:		Sample Danny N			60 to 65 60 to 63.4 f 63.4 to 64.3 Clay)	t. bgs: Gray SILT, 18 of t. bgs: Red and 08 of t. bgs: Not recovered	D Start Date		e: 1	0/10/2014	f, dry, no odor.	Well design	65 11 Mell Completion Mell Space (1997)
77 78 79															
Reference Addition	onal	Soil class descripti Manual (on and ide 1988).	ntification	techniqu	ies also i	reference t	/isual/Manual M he Engineering (rive Sonic core b	Geology F	il Analy ield	/tical:	Soil sam	ples not collected.		
Comm	ents	Checked by	/			Date:									

1	Locati	on Sketch	5	Client:	PEPCO)						MW	1.1
			River	Project			60287343.09	. N.I NA	Vanhington DC		Boring:	IVIV	V - 4
-	C	iravel Road MW-4	\	Site Loc			3400 Benning Road				~ .	1 of	
-			Northeastern border	Coordin		449128	5.2' N 1323723.8 Sonic	3' E	Ground Elev: 14.89	NAVD88	Sheet:		l Nested
	F	rmer Plant	Northe	Drilling I Sample			4" Open Drive Core	,	Boring Diameter:	6"/8"	Well Installed: Screen:		nd 34-44
Weather	:	Overcas	t/Clear ~6		-) [- (-)		Logged By:	GR	Start Date:		Depth of Boring:		55
Drilling C	ontrac		Summit -		linevski				Date Complete:	9/25/2014			0 and 45
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	0 to 5 Unimproved s	surface/Gr	Description avel.			Well design	Well Completion
1 2 3 4 5	¥ Z	NA	NA				0 to 5 ft bgs: Cleared by A *Unsure of fill depth. Estinbuilding.	Air Knife/\	d on stratigraphy, site history		ofloor in nearby	Concrete Bentonite grout slurry 2 ft. Well seal 4 ft.	
6	∀ Z	NA	40%	0.3 0.3 0.1 0.0		SIWFILL	5 to 10 5 to 7 ft. bgs: SILTY SAI gravel; some nonplastic fin noted on drilling fluid in m 7 to 10 ft. bgs: Not recove	nes (15-20 aud tub.	RAVEL (SM); yellowish reddi 0%); loose; moist - infiltration	ish brown; fine sai or drilling fluid. (F	nd (75%);some ILL) *sheen	6 ft.	
10	¥	۷Z	%09	0.0 0.0 0.0 0.0		SWFILL	10 to 15 10 to 13 ft. bgs: Same as 13 to 15 ft bgs: Not recove		SM - FILL) saturated.			0.01" slotted screen	
16 17 18 19 20	NA	NA	70%	0.0 0.0 0.0		GM GM		arse to fine nented; ox	/EL (GM); yellowish reddish t e sand, subround, arkosic; fe dized; saturated.			#2 sand	
Reference	es:	Soil class description Manual (on and idei 1988).	ntification	techniqu	es also r	D2488 (Visual/Manua eference the Engineer - Open drive core bar	ing Geo	logy Field		oles not collected. g boring advancem	ent as drillir	ng fluid.
Additi Comm		Checked b		,		_Date:							

1	Locati	on Sketch		Client:	PEPCO)		MW-4
_			River		Number		60287343.09 Boring:	10100-4
-	C	Gravel Road MW-4		Site Lo			3400 Benning Road NE, Washington, DC	2 of 3
-			~ ₽	Coordi		449128		Dual Nested
	Fo	ormer Plant	Northeast border		Method: Type(s)		Sonic Well Installed: 4" Open Drive Core Boring Diameter: 6"/8" Screen:	6-26 and 34-44
Weather		Overcas	st/Clear ~6		; rype(s)		Logged By: GR Start Date: 4/24/2014 Depth of Boring:	
Drilling C			Summit -		Ninevski		Date Complete: 9/25/2014 Water:	10 and 45
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design
21				0.0 0.0		GM	20 to 25 20 to 22.5 ft bgs: Same as above (GM); gravel content and size increasing; contains cobbles; saturated.	0.01" slotted screen #2 sand
22	∢ Z	AN A	20%	0.0			22.5 to 25 ft. bgs: Not recovered.	
24							<u>=====================================</u>	2" riser
25			/	0.0	t etc	GW	25 to 30	8" anulus
26			/	0.0			25 to 26.3 ft. bgs: Same as above (GM); saturated.	26 ft.
27			/	0.0		CH	sharp contact <u>26.3 to 30 ft. bgs:</u> FAT CLAY (CH); dark grey; trace very fine sand, lenticular; high plasticity; very	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>
21	∢	<	/ /	0.0			stiff; sporradic black organic fragments (lignite and unaltered wood); dry.	<i>₩//////</i>
28	Z	A A	100%					Hydrated
			/	0.0	/////////			bentonite chips
29			/					////
30			/	0.0				
30			ĺ,	0.0	111111111	СН	30 to 35	
31			/	0.0			30 to 35 ft. bgs: Same as Above. (CH); dry.	<i>(***</i> *********************************
			/				*top 2 feet stuck in core barrel and the bottom 3 feet broke the sample recovery bag.	8899///
32				0.0	/////////			32 ft.
22	₹	₹	100%		/////////			
33			/	0.0	/////////			
34			/	0.0	/////////			34 ft.
			/		/////////			
35			/	0.0			*bottom 6" of core becomes sandy, fine and very fine sand. 35 to 40	
36				0.0		SC/CL	35 to 40	6" anulus #2 filter sand
37			/	0.0			lignite; medium plasticity, saturated.	6" anulus
	₹	₹	100%					
38			= /	0.0				
			/					#2 filter sand
39			/	0.0				
40			/			SC/CL		
		Soil class	sified using	ASTM E	02487 (US	SCS) and	d D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. reference the Engineering Geology Field	
Referenc	es:	Manual (oatiOl	. tooiiiiqu	oo alsu I	STOTION AND ENGINEERING GOODBY FIELD	
			Grav	ohic sym	ചെ വേക്ക	· "Other"	' - Open drive Sonic core barrel.	
Additio		/		z. no oyiilk	JOUGS	. Julio	Span anto dono dono dano.	
Comm	ents	Checked by	y			Date:		

1	Location	on Sketch	River	Client:			00007040.00	MW-4
N			River	Project		:	60287343.09 Boring: 3400 Benning Road NE, Washington, DC	1V1VV-4
	G	Bravel Road MW-4 ←	\ D =	Site Loc Coordin		449128		3 of 3
	Fc	ormer Plant	Northeastern border	Drilling I			Sonic Well Installed:	Dual Nested
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Nort	Sample			4" Open Drive Core Boring Diameter: 6"/8" Screen:	6-26 and 34-44
Weathe	r:		t/Clear ~6	60's F			Logged By: GR Start Date: 4/24/2014 Depth of Boring:	
Drilling (Contrac	tor:	Summit -	Danny N	linevski	T	Date Complete: 9/25/2014 Water:	10 and 45
								∞ 5
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design
41	ΨZ	NA	100%	0.0 0.0 0.0		CL	40 to 45 do 45 ft bgs; SANDY CLAY (CL); grey with scattered black mottling; clay proportions increase with depth; fine and very fine sand (15-20%) at top; very stiff; low to medium plasticity; intervals (up to 2") of black organic debris; including carbonized and unaltered wood and lignite; dry.	#2 sand 0.01" slotted screen
43 44 45				0.0		CL	45 to 50	44 ft.
464748	ĄZ.	NA	100%	0.0 0.0 0.0		CL	45 to 50 45 to 50 ft. bgs: Same as above. (CL); scattered sandy intervals with up to 20% coarse grained material; dry.	
49				0.0		CL CL	50 to 55	Hydrated bentonite ch
51 52 53	NA V	ΝΑ	100%	0.0			50 to 55 ft. bgs: SILTY SANDY CLAY (CL); grey; very fine sand (15%); medium to high plasticity; very stiff; fragments of carbonized organics; dry.	
54				0.0		CL	TD = 55 ft.	6" anulus
56							First observed groundwater ~10 ft. bgs.	TD=55
58								
60		Soil class	sified using	A QTAA D	2497 /1 19	308/ 25	ND2488 (Visual/Magual Mothod) Soil Apolitical: Soil complex not	
Referen	ces:	description Manual (on and ide 1988).	ntification	techniqu	es also r	d D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. eference the Engineering Geology Field	
Addit Comr		Checked by		onic symb	oi codes	: "Other"	- Open drive Sonic core barrel.	

				Client:	PEPCO)		N //\
_				Project		•	60287343.09 Boring:	MW-5
A			M	Site Loc			3400 Benning Road NE, Washington, DC	
-				Coordin		448172		1 of 4 Dual Nested
				Drilling I			even motalica.	
Weathe	ır.	Partly cl	loudy, 60's	Sample F	Type(s)):	4" Open Drive Core Boring Diameter: 6"/8" Screen: Logged By: BD Start Date: 10/6/2014 Depth of Boring	10-20 and 43-58 : 65
Drilling			Summit -		linevski		Date Complete: 10/6/2014 Water:	. 05
							Bate complete:	
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description 0 to 5 0 to 0.5 ft bgs: Asphalt	Water levels & Well design Ped (401)
1 2 3 4 5 6	A N	AN	NA	0.0		Asphalt SWFILL SMFILL	0.5 to 5 ft bgs; Cleared by Air Knife/Vac Truck. Appeared to be Brown SILTY SAND, well graded, little well graded angular gravel, moist, no odor. (FILL) 5 to 10 5 to 5.7 ft bgs: Brown SILTY SAND, well graded, little well graded angular gravel, m. loose, moist, no odor. (FILL)	Concrete Bentonite grout slurry Well seal
7 8 9 10	NA	VΑ	%09	0.0	:02:K3	SP	5.7 to 7.5 ft bgs: Reddish Brown SAND, fine grained, little silt, medium loose, moist, no odor. 7.5 to 10 ft. bgs: Not recovered. 10 to 15 10 to 10.2 ft bgs: Reddish Brown GRAVEL, well graded, angular, some well graded sand,	10 ft
11 12 13 14 15	₹ V	NA	20%	0.0		GM SP GP SP	some silt, loose, moist, no odor. 10.2 to 10.9 ft. bgs: Reddish Brown SAND, fine grained, loose, moist, no odor. 10.9 to 11.1 ft bgs: Reddish brown GRAVEL and SAND, fine to medium grained angular gravel, well graded sand, little silt, loose, moist, no odor. 11.1 to 12.5 ft bgs: Reddish brown SAND, fine grained, little fine angular gravel, loose, dry, no odor. 12.5 to 15 ft bgs: Not recovered.	8" annulus
16 17 18 19	A V	NA	%09	0.0		SP	15 to 20 15 to 18.1 ft. bgs: Reddish brown SAND, fine to medium grained, little fine to medium grained rounded gravel, trace coarse sand, loose, wet, no odor. 18.1 to 20 ft. bgs: Not recovered.	#2 sand 0.01" slotted screen
Referen Addi	tional ments	Soil class descripti Manual (on and idea (1988). Grap	ntification	techniqu	es also r	d D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. reference the Engineering Geology Field '- Open drive core barrel. Clean city water used during boring advancen	

				Client:	PEPCO)	0000704000					MW	<i>I</i> _5
				-	Number	:	60287343.09		/ashington, DC		Boring:	IVIV	7-3
				Site Lo		448172		4032.0' E	Ground Elev: 20.61	' NAVD88	Sheet:	2 of	4
Ī					Method:		Sonic	1002.0 2	Ground Liev. Leter	10.00	Well Installed:	Dua	Nested
					Type(s)):	4" Open Drive	e Core	Boring Diameter:	6"/8"	Screen:	10-20 ar	nd 43-58
Weather:			oudy, 60's		المراجعة		Logged By:	BD	Start Date:		Depth of Boring:		65
Drilling C	ontrac	tor:	Summit -	Danny I	vinevski				Date Complete:	10/6/2014	Water:		15
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	20 to 25		Description			Water levels & Well design	Well Completion
21 22 23 24	ΝΑ	NA	%96%	0.0 0.0 0.0		CH	20 to 23.5 ft bgs: 23.5 to 24.6 ft bgs		plasticity, stiff, dry, no odor.		gravel, medium loose,	Well seal	
				0.0		SIVI	wet, no odor. 24.6 to 25 ft. bgs:	Not recovered					
25			/	0.0			25 to 30	Not recovered.				6" annulus	
26 27 28	∀ Z	ΑΑ	70%	0.0		SW SW	wet, no odor. 26.1 to 26.2 ft. bg odor.	ıs: Dark reddish (wn SAND, well graded, some gray SAND, well graded, son white to medium SAND, some to medium S	ne fine rounded gr	avel, loose, wet, no	o <u>annuius</u>	→>
29							28.6 to 30 ft. bgs:	Not recovered.					
31				0.0		CL	30 to 33.5 ft. bgs odor.	:: Gray CLAY, litt	e silt, trace organics, mediui	m plasticity, dry, st	iff, slight organic	2" <u>riser</u>	→
33	Ž	Ą	95%	0.0			33.5 to 34 ft. bgs medium loose, we		ND, fine grained, little clay,	trace organics, low	plasticity,		
34				0.0		SM SC	34 to 34.8 ft. bgs plasticity, medium		SAND, fine grained, some si odor.	ilt, trace fine angul	ar gravel, low		
35			<i>y</i> .	0.0		Wood		35.2 ft. bgs: Very	dark reddish brown degrad	ed WOOD FRAGM	IENTS, medium		
36			/	0.0		SP	dense	e, wet, no odor.					
27				0.0		Wood	35.2 to 36.1 ft. bg loose, wet, no odd		ND, medium grained, trace	silt, trace fine sand	d, trace coarse sand,		
37	₹	₹ Z	%06	0.0		CL	36.1 to 36.3 ft. bg odor.	<u>ıs</u> : Very dark redo	lish brown degraded WOOD	FRAGMENTS, me	edium dense, wet, no		
38				0.0			36.3 to 39.3 ft. bg odor.	<u>ıs</u> : Light brownish	gray SILTY CLAY, trace fin	e sand, low plastici	ity, moist, soft, no		
40			/	0.0			39.3 to 40 ft. bgs:	Not recovered.					
Referenc	es:		on and ide				d D2488 (Visual reference the Er			Soil sam	ples not collected.		
Addition Commo		Checked by		ohic symb		: "Other"	' - Open drive S	onic core barre	əl.				

				Client:	PEPCC)		1. /1.	М/ Г
_				•	Number:		60287343.09 Boring:	IVI۱	W-5
A			M	Site Lo		44047	3400 Benning Road NE, Washington, DC	2.	of 4
				_	Method:	448172	Sonic Well Installed:	Du	ual Neste
Veathe	r:	Partly cl	oudy, 60'		e Type(s):	:	4" Open Drive Core Boring Diameter: 6"/8" Screen: Logged By: BD Start Date: 10/6/2014 Depth of Borin		and 43-58 69
	Contrac		Summit -		Ninevski		Date Complete: 10/6/2014 Water:	9.	1
							, , ,		
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	Well Completion
41				0.0		ML	40 to 45 40 to 42.4 ft bgs: Light gray CLAYEY SILT, little fine sand, wet, soft, no odor.		
42 43	NA	N	%09	0.0		SM	42.4 to 43.2 ft. bgs: Light gray SILTY SAND, fine grained, medium loose, wet, no odor.	43 ft <u>.</u>	>
44 45							43.2 to 45 ft. bgs: Not recovered.	#2 sand	₫→ 🗒
46			/	0.0		CL	45 to 50 45 to 45.2 ft. bgs: Light gray SILTY CLAY, low plasticity, soft, moist, no odor. 45.2 to 48.6 ft. bgs: Light brownish gray SILTY SAND, fine grained, some laminated leafy organics a	•	
47	4	4	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0.0		SM	42.2-43.4', trace clay, low plasticity, medium loose, wet, no odor.	0.01 slotted screer	d
48	Z Z	Z A	%02	0.0				<u>50.00.</u>	
49 50							48.6 to 50 ft. bgs: Not recovered.	6" anulus	→ <u> </u>
51			/	0.0	-' -	SM	50 to 55 50 to 51.6 ft. bgs: Light brownish gray SILTY SAND, trace clay, low plasticity, medium loose, wet, no odor.		
52 53	¥	¥.	70%	0.0		SP	51.6 to 53.5 ft. bgs: Light brown SAND, fine to medium grained, trace fine rounded gravel, loose, wet, no odor.		
54				0.0	; v. c. v. d	GP	53.5 to 53.7 ft. bgs: Light brown SANDY GRAVEL, well graded sand, fine to medium rounded gravel, loose, wet, no odor.		
55			/	0.0			53.7 to 55 ft bgs: Not recovered. 55 to 60 55 to 57.1 ft. bgs: Light brownish gray SAND, fine to medium grained, some fine to medium rounded		
56 57				0.0		SP	gravel, loose, wet, no odor.		
58	A A	Š	80%	0.0		SP	57.1 to 57.3 ft. bgs: Gray SAND, fine to medium grained, some leafy organics, loose, wet, no odor. 57.3 to 59.2 ft. bgs: Light gray CLAY, trace black wood fragments, high plasticity, stiff, dry, no	58 ft	
59				0.0		СН	odor.	Hydrated bentonite chips	
60		0-7	/	ACT	20467 (15	200,	59.2. to 60 ft bgs: Not recovered.		
Referen	ces:		on and ide				d D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected reference the Engineering Geology Field	1.	
Addit Comn				phic syml			' - Open drive Sonic core barrel.		
		Checked by	/			Date:			

				Client: PEPCO Project Number: 60287343.09 Site Location: 3400 Benning Road NE, Washington, DC							Boring:	MW	-5
				Coordin	nates:	448172		1324032.0' E	Ground Elev:	20.61' NAVD88	Sheet:	4 of 4	
				Drilling			Sonic	Drive Core		eter: 6"/8	Well Installed:		Nested
Weather		Partly cl	oudy, 60's	Sample	Type(s):	Logged	Drive Core By: B[Boring Diame Start Date:	0.0	Screen: Depth of Boring:	10-20 and	
Drilling C			Summit -		Vinevski		Logged	Бу. БІ	Date Comple				65 15
									- Late Comple	10,0,201			
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	60 to 65	1	Descrip	tion		Water levels & Well design	Well Completion
61 62 63 64 65	NA	ΨZ	100%	0.0 0.0 0.0 0.0		SP		bgs: Gray SAND, fii	ne grained, trace organ	ics (wood fragments), den		6" annulus > Well seal TD = 65 ft.	has
66							TD = 65 ft	bgs.				ID = 65 π.	bgs.
69 70 71													
72													
74													
76													
78													
79		0.7		A 0.71: -	20.407.		I Do to a	AP104	4.00	Cod Co			
Referenc	es:	Soil class descripti Manual (on and ider 1988).	ntification	techniqu	ies also i	reference	Visual/Manual Me the Engineering C	Geology Field	ytical: Soil san	nples not collected.		
Addition Comm		Checked by		onic symb	ool codes	:: "Other' _ Date:	- Open d	rive Sonic core b	arrei.				

				Client: F	PEPC									N //\ A	1.4
_			4	Project N		<i>,</i> ,	6028734		oad NE	, Washin	oton DC		Boring:	MV	V-0
A			M	Site Loc Coordina				132421				.87' NAVD88	Sheet:	1 of	f 3
				Drilling N			Sonic	102 121	1.0 _	Orouna	2101. 21.	.07 14 (1200	Well Installed:		Nested
				Sample 7	Type(s):	4" Open	Drive C	ore	Boring Di	iameter:		Screen:	8-28 an	d 41-56
Weath			cloudy, 7		I D - I-		Logged	Ву:	BD	Start Da			Depth of Boring	g:	60
Drilling	Contra	ctor:	Cascao	le - Denze	el Rob	erts				Date Co	mplete:	5/2/2014	Water:		15
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol				Des	scription			Water levels & Well design	Well Completion
1				0.0		GP/FILL Concrete	·				ne to medium lor. (Crushed	n grained, angula concrete fill)	r, some fine to	Flush pad	
2 3 4	Y Y	NA	ΑN	0.0		Brick GM/FILL	0.5 to 1.2 ft 1.2 to 1.5 ft 1.5 to 2.5 ft	<u>t bgs:</u> Brick <u>t bgs:</u> Brow	:(FILL) n SILT and	d COBBLES	, dry, no odor	r. (FILL) r, no odor. (FILL)		Bentonite grout slurry	
5				0.6 5 to 10							Well seal				
6 7 8 9 10	Ϋ́	NA	100%	1.4 1.2 1.3		SP	rounded gr				medium grai	ined, little fine to I		8 ft.	
11				1.5		SP	rounded gr	avel, moist	, loose, no	odor.		ained, little fine to		0.01" slotted	
13 14 15	Ϋ́	NA	100%	1.2		sw	gravel, moi			SAND, line t	o coarse gra	ined, little fine to	coarse rounded	screen	
16				0.8		SP	15 to 20 15 to 17 ft. gravel, wet			SAND, fine t	o coarse gra	ined, little fine to	coarse rounded	<u></u>	
18	Ą Z	NA	100%	1.0		CL	17 to 20 ft.	<u>bgs:</u> Browi	n SILTY CI	_AY, medium	n plasticity, m	edium stiff, wet, r	io odor.	#2 sand	
19				0.5											
20 Referen	nces:	Soil desc	cription a	ng ASTM D nd identifica nual (1988)	ation te						Analytical:	Soil sam	ples not collected	i.	
Additi Comm		Checked		phic symbo		s: "Other	Other" - Open drive core barrel. Clean city water used during boring advancement as drill fluid.					drilling			

					PEPC		00007040 00	N //\	V-6
_					t Numbe		60287343.09 Boring:	IVIV	v-O
Д			M		cation:		3400 Benning Road NE, Washington, DC		
					nates:			2 0	
				_	Method		Sonic Well Installed: 4" Open Drive Core Boring Diameter: 6"/8" Screen:		l Nested
Weath	or.	Partly	cloudy, 7		e Type(5).	4" Open Drive Core Boring Diameter: 6"/8" Screen: Logged By: BD Start Date: 4/25/2014 Depth of Borin		nd 41-56 60
Drilling			Cascad		zel Rob	erts	Date Complete: 5/2/2014 Water:	<u>y</u> .	15
							Date Complete: 0/2/2011 Water:		
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	Well Completion
21 22 23 24	∀	NA	100%	0.4 0.2 0.2	100000 10000	SW	20 to 25 20 to 23.5 ft bgs: Brown SAND, well graded, little fine to medium rounded gravel, wet, loose, no odor. 23.5 to 24.5 ft bgs: Brown GRAVEL, fine to medium grained, rounded, little well graded sand, wet, loose, no odor.	#2 sand	
25			/	0.3		SP	24.5 to 25 ft bgs: Brown SAND, medium grained, little fine rounded gravel, wet, loose, no odor. 25 to 30 25 to 28 ft bgs: Brown GRAVEL, well graded, rounded, little well graded sand, loose, wet, no odor.	0.01" slotted screen 8" anulus	
27 28 29	NA	NA	100%	0.0		СН	28 to 30 ft bgs: Gray CLAY, trace organics, high plasticity, moist, stiff, no odor.	28 ft.	
30 31 32 33 34	NA	NA	100%	0.0		CH ML	30 to 35 30 to 31 ft bgs: Gray CLAY, trace organics, high plasticity, moist, stiff, no odor. 31 to 35 ft bgs: Gray SILT, trace organics, graded to fine sand at 34 ft., soft, wet, no odor.	Well seal	•
35 36 37 38 39	NA	NA	100%	0.0 0.0 0.0 0.0		SP MH SM CL	35 to 40 35 to 36 ft. bgs: Gray fine SAND, loose, wet, no odor. 36 to 38 ft. bgs: Gray fine CLAYEY SILT, soft, wet, no odor. 38 to 39 ft. bgs: Gray fine SILTY SAND, loose, wet, no odor. 39 to 40 ft. bgs: Gray fine SILTY CLAY, soft, wet, no odor.	#2 filter s	sand
Referen	ional	Soil des	cription and Field Ma	nd identifi nual (198	ication te	chniqu	and D2488 (Visual/Manual Method). Analytical: Soil samples not collecte es also reference the Engineering er" - Open drive Sonic core barrel.	d.	
Comn	nents	Checked I	DV.			Date:			

				Client:	PEPC	0		N //\ A	
_				Projec	t Numbe	er:	60287343.09 Boring:	MW	V-6
Δ			M		cation:		3400 Benning Road NE, Washington, DC		
			/ V B	Coordi	nates:	44855	33.9' N 1324211.3' E Ground Elev: 24.87' NAVD88 Sheet:	3 of	f 3
1				Drilling	Metho	d:	Sonic Well Installed	: Dual	Nested
					e Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	8-28 and	d 41-56
Weath	er:	Partly	cloudy, 7	'0's F			Logged By: BD Start Date: 4/25/2014 Depth of Bori	ng:	60
Drilling	Contra	actor:	Cascad	e - Den	zel Rob	erts	Date Complete: 5/2/2014 Water:		15
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	Well Completion
41			/	0.0		CL	40 to 45 40 to 41 ft bgs: Gray fine SILTY CLAY, soft, wet, no odor.	41 ft.	→∐
42			/	0.0		SP	41 to 43 ft. bgs: Gray SAND, fine grained, loose, wet, no odor.		
43	A A	Ą Z	100%	0.0					
44				0.0		WOOD	43 to 44.5 ft. bgs: Black WOOD, degraded, wet, dense, no odor.	#2 sand	1
			/	0.0				#2 Sanu	→
45			/			SP	44.5 to 50 45 ft. bgs: Gray SAND, fine grained, wet, loose, no odor.		
46			/	0.0		SW	45 to 50 ft. bgs: Brown SAND, well graded, trace fine to medium rounded gravel, wet, loose,		
47				0.0			no odor.	0.01"	
48		₹ Z	100%	0.0				slotted	$\rightarrow \blacksquare$
49				0.0					
50				0.0					
51				0.0		ML	50 to 55 50 to 54 ft. bgs: Gray SILT, stiff, wet, no odor.	1	
52			/	0.0					
53	¥ V	₹ Z	100%	0.0					
54				0.0				6" anulus	
55				0.0		SP	54 to 55 ft. bgs: Gray SAND, medium grained, little coarse sand, wet, loose, no odor.		
56			/	0.0		ML	55 to 60 55 to 57 ft. bgs: Gray fine SANDY SILT, dense, wet, no odor.	5 <u>6</u> ft.	
57				0.0					
	₹	₹ Z	100%	0.0		CL	57 to 60 ft. bgs: Gray SILTY CLAY, very stiff, moist, no odor.	Hydrated bentonite	
58			<u> </u>	0.0				chips	
59			/	0.0					
60			/					TD = 60 ft	
Referer	nces:	Soil des		nd identif	ication te		and D2488 (Visual/Manual Method). Analytical: Soil samples not collected salso reference the Engineering	∋d.	
A :1:150	ion-l		Gra	phic sym	bol code	s: "Othe	er" - Open drive Sonic core barrel.		
Additi Comn									
		Checked I	ру			Date:			

				Client:	PEPC)						1 /1 /	17
-				Project		:	60287343.09				Boring:	MW	V - /
A			M	Site Loc			3400 Benning Roa						
				Coordin		448860		5' E	Ground Elev: 19.0	9' NAVD88	Sheet:	1 of	i 4 I Nested
				Drilling I			Sonic 4" Open Drive Core	Δ	Davisa Diameter	6"/8"	Well Installed:		
Weather:		Partly cl	oudy, 60's	Sample F	Type(s):	Logged By:	BD	Boring Diameter: Start Date:		Screen: Depth of Boring:		nd 36-51 65
Drilling Co	ontrac		Summit -		linevski		Logged by.	טט	Date Complete:	10/14/2014			13
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Data E. Ubinanou and	ourfoco.	Description			Water levels & Well design	☑ Well Completion
1 2 3 4 5 6 7	NA	NA	NA	0.0		SWFILL	Gravel, angular; little fill n 5 to 10 5 to 7.6 ft. bgs: SILTY S	Air Knife/naterial (bi	Vac Truck. Appeared to be lick, asphalt); moist; slight his constant of the lick, asphalt); moist; slight his constant of the lick, asphalt); brown; some coarse to fint thydrocarbon odor. (FILL)	ydrocarbon odor. (f	FILL)	Flush pad Concrete Bentonite grout slurry Well seal	
8 9 10	Y Y	NA NA	%09	0.0			7.6 to 10 ft. bgs: Not rec		rown and gray; coarse to fir			8 ft.	
11 12 13 14 15	NA	NA	40%	0.0		GWFILL	sand, trace clay, low plas 11.9 to 15 ft bgs: Not rec	sticity, with	cobbles, little fill material, n			0.01" slotted	
16 17 18 19 20	NA	NA	20%	0.0		CL	15 to 20 15 to 15.9 ft. bgs: Silty C 15.9 to 20 ft. bgs: Not red		ish brown, low plasticity, so	ft, moist, no odor.		screen #2 sand	
Reference Addition Comme	nal	Soil class descripti Manual (on and ider 1988). Grap	ntification	techniqu	es also r	I D2488 (Visual/Manu eference the Enginee - Open drive core ba	ring Geo	ology Field		oles not collected.	ent as drillir	ng fluid.

				Project	PEPC(:	6028734		, Washington, DC			Boring:	MV	V-7
				Site Loc Coordin		448860		1324287.5' E	Ground Elev:		\\D88	Sheet:	2 0	f 4
ĺ					Method:		Sonic	102-1207.0 L	Ground Elev.	10.00 147	(1000	Well Installed:		l Nested
Weather:		Partly cl	oudy, 60's	Sample F	Type(s)):	4" Open Logged E	Drive Core By: B[Boring Diame Start Date:		6"/8" 0/14/2014	Screen: Depth of Boring:		nd 36-51 65
Drilling Co	ontract	or:	Summit -	Danny N	Vinevski	T			Date Comple	te: 1	0/14/2014	Water:		13
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol			Descrip	otion			Water levels & Well design	Well Completion
21 22 23 24 25 26 27	A	AN	20%	0.0		SM	21.1 to 25 ft	t bgs: Fine silty SAN t bgs: Not recovere		n loose, wet, n	o odor.		#2 sand 2" riser 0.01" slotted screen 8" anulus	
28	ΥN	A N	%0				30 to 35						28 ft.	
32 33 34 35	Ą Z	NA	%0					ogs: Not recovered					6" anulus	→
36 37 38	NA	ΝΑ	10%	0.0		CL		t. bgs: CLAY, gray, bgs: Not recovered.	medium plasticity, med	lium soft, dry, I	no odor.		3	sand
40 Reference			on and ider 1988).	ntification	techniqu	es also r	eference tl	'isual/Manual Me ne Engineering C ive Sonic core b	Geology Field	lytical:	Soil sam	ples not collected.	#2 filter s	sand
Comme	ents	Checked by	,			Date:								

Site Location: 3400 Benning Road NE, Washington, DC Coordinates: 448860.4' N 1324287.5' E Ground Elev: 19.09' NAVD88 Sheet: Drilling Method: Sonic Well Installed: Sample Type(s): 4" Open Drive Core Boring Diameter: 6"/8" Screen: 8 Weather: Partly cloudy, 60's F Logged By: BD Start Date: 10/14/2014 Depth of Boring: Drilling Contractor: Summit - Danny Ninevski Date Complete: 10/14/2014 Water:	MW-7 3 of 4 Dual Nester 8-28 and 36-5 63 1:
Coordinates: 448860.4' N 1324287.5' E Ground Elev: 19.09' NAVD88 Sheet: Drilling Method: Sonic Well Installed: Sample Type(s): 4" Open Drive Core Boring Diameter: 6"/8" Screen: 8 Weather: Partly cloudy, 60's F Logged By: BD Start Date: 10/14/2014 Depth of Boring: Drilling Contractor: Summit - Danny Ninevski Date Complete: 10/14/2014 Water:	Dual Nester 8-28 and 36-5 6: 1: 8 <u>5</u>
Coordinates: 448860.4' N 1324287.5' E Ground Elev: 19.09' NAVD88 Sheet: Drilling Method: Sonic Well Installed: Sample Type(s): 4" Open Drive Core Boring Diameter: 6"/8" Screen: 8 Weather: Partly cloudy, 60's F Logged By: BD Start Date: 10/14/2014 Depth of Boring: Drilling Contractor: Summit - Danny Ninevski Date Complete: 10/14/2014 Water:	Dual Nester 8-28 and 36-5 6: 1: 8 <u>5</u>
Sample Type(s): 4" Open Drive Core Boring Diameter: 6"/8" Screen: 8 Weather: Partly cloudy, 60's F Logged By: BD Start Date: 10/14/2014 Depth of Boring: Drilling Contractor: Summit - Danny Ninevski Date Complete: 10/14/2014 Water:	8-28 and 36-5 69 11 8 <u>5</u>
Weather: Partly cloudy, 60's F Logged By: BD Start Date: 10/14/2014 Depth of Boring: Drilling Contractor: Summit - Danny Ninevski Date Complete: 10/14/2014 Water:	6: 1: × <u>5</u>
Drilling Contractor: Summit - Danny Ninevski Date Complete: 10/14/2014 Water:	# <u>5</u>
	ø G
	Valer revels & Well design
Description	Water revers Well design Well Completi
(£) On Description	water leve Well desig
~ <u>@</u> 6 8 U 4 9	Vell d
Sample D Blow Cou Blow Cou	₹
<u>\tilde{\ti}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}</u>	
0.0 CL 40 to 45 40 to 41 ft bgs: CLAY, gray, little silt, medium plasticity, medium soft, moist, no odor.	
41 0.0 40 to 41 it bgs. CEAT, gray, little slit, medium plasticity, medium sort, most, no odor.	90 a
41 to 45 ft. bgs: Not recovered.	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	(現代)
	#2 sand > =
45	
0.0 CL 45 to 50	
46 0.0 45 to 46.5 ft. bgs: CLAY, gray, little silt, medium plasticity, medium soft, moist, no odor.	i i i i i i i i i i i i i i i i i i i
47 0.0 SP 46.5 to 48.7 ft. bgs: SAND, light brown, medium grain, little coarse sand, trace fine gravel, sub-	0.01"
Tourided, Cobbie at 46.5 -46.7, 100se, wet, 110 odor.	slotted screen
$\begin{vmatrix} - & 4 & 4 & 8 \\ 48 & 0 & 0 & 0 \end{vmatrix}$	GOLGGII
49 0.0	
48.7 to 50 ft. bgs: Not recovered.	
50	
0.0 SP 50 to 55 50 to 55.2 ft. bgs: SAND, fine grained, gray, wet, medium dense, no odor.	
51 50.0 5M 50.2 to 50.3 ft. bgs:Silty SAND, reddish brown, coarse to fine grain, little fine gravel, rounded, medium dense, wet, no odor.	t. >
	<i>999999</i>
52 0.0 SP 50.3 to 51.1 ft bgs: SAND, gray, very fine grained, dense, moist, no odor.	<i>₩₩₩</i>
51.1 to 54.1 ft bgs: CLAY, gray, little silt, medium plasticity, stiff, dry, no odor.	(999999988
53 0.0 CL St. 10 34.1 10 bgs. CLA1, gray, nite silt, medium plasticity, silit, dry, no odor.	MANAGA
	inulus >
54 0.0	WWW.
	//////////////////////////////////////
55 / 55 to 60	//////////////////////////////////////
0.0 55 to 58.3 ft has: Sithy SAND gray very fine grained trace clay population dense dry no odor	
56 0.0 SM SM SM SM SM SM SM S	
57	
Hydr	Irated
\ \frac{4}{2} \ \ \frac{8}{66} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	tonite
	<u> </u>
59 0.0 SP 58.3 to 59.6 ft. bgs: SAND, gray, fine grained, little medium sand seams, moist to wet, dense, no odor.	VANAAAA
60 59.6 to 60 ft. bgs: Not recovered.	000003333
Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected.	
References: description and identification techniques also reference the Engineering Geology Field Manual (1988).	
Graphic symbol codes: "Other" - Open drive Sonic core barrel. Additional	
Comments	
Checked by Date:	

					PEPCC		60287343.09				Boring:	M۱	N-7
Δ			M	Project Site Loc		•	3400 Benning Road	d NE, W	/ashington, DC		_ Bonng.		
				Coordin	ates:	448860		5' E	Ground Elev: 19.0	9' NAVD88	Sheet:		of 4
				Drilling I			Sonic 4" Open Drive Core	2	Davis a Discussion	6"/8"	Well Installed:		al Nested
Weather		Partly o	loudy, 60's	Sample s F	Type(s)		Logged By:	BD	Boring Diameter: Start Date:		Screen: Depth of Boring:	8-28 8	and 36-51 65
Drilling (Summit -		linevski		Logged By.	טט	Date Complete:	10/14/2014			13
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol			Description		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Water levels & Well design	Well Completion
Dep	San	Blov	% R	PID	Gra	OSC						Wat Wel	Wel
61	W AN	AN AN	400%	0.0 0.0 0.0 0.0 0.0		SP ML SP ML	60.2 to 61.5 ft. bgs: Clay	ey SILT, g	ID, gray, fine grained, mec gray, medium plasticity, stif e grained, medium dense, , medium plasticity, stiff, dr	f, dry, no odor.		6" anulus	5 ft. bgs.
79													
Reference	ces:		ion and ide				d D2488 (Visual/Manu reference the Enginee			Soil sam	ples not collected.		

Graphic symbol codes: "Other" - Open drive Sonic core barrel.

Date:

Additional Comments

Checked by

1	Location	on Sketch		Client:	PEPC	0						N //\ /	V 0
/ / /	Sta	acks 🤸	\bigcap .	Project	t Numbe	er:	60287343.09				Boring:	MV	V-8
N	Form	er Plant		Site Lo	cation:		3400 Benning Road N	E, Washir	ngton, DC				
			Northeast border	Coordi	nates:	44914	6.9' N 1324070.2' E	Ground	Elev: 17	.12' NAVD88	Sheet:	1 o	f 4
		MW-8	⊕ å	Drilling	Metho	d:	Sonic				Well Installed:	Dual	Nested
			Nor	Sample	Type(s):	4" Open Drive Core	Boring D	Diameter:	6"/8"	Screen:	10-25 an	d 50-60
Weath	er:	Rain ~6	60's F				Logged By: GR	Start Da	ate:	9/25/2014	Depth of Borin	g:	65
Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski		Date Co	omplete:	9/25/2014	Water:	12	and 51
	£			Ê		0						∞ర	Well Completion
<u></u>	Dep	unt	Recovery	(ppr	Log	ymb		De	escription			vels ign	Juple
H)	ple	ပိ	000	문	hic	S						er le	Š
Depth (ft)	Sample Depth	Blow Count	% 8	PID/FID (ppm)	Graphic Log	USCS Symbol						Water levels Well design	₩
	- 0,	ш	0.		**********		0 to 5 Unimproved surfac	e.				Flush pad	1111
1						SM/FILL	0 to 5 ft bgs: Cleared by Air Kı	nife/Vac Trucl	k. Appeared t	o be SILTY SAND	FILL	Concrete	11-11
'	1				XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	OWI/I ILL	•						71 62 676 197
2					********							Bentonite grout slurry	
-					*********							grout sturry	++>
	Y Y	Ϋ́	Ϋ́										
3	1				**********								
l . —	-				*********								
4	1												
	_												
5				,	XXXXXXXXXX		5 to 10 5 to 6.2 ft. bgs: SIL	TYCLAYEY	SAND (SC/S	M): brown and str	ong brown with		
			/	0.0		SC/SM	orangish stain; fine sand (; nor						
6	-		/			FILL	loose; oxidized; wet (FILL)	ipiastio iirios	(up to 0070), i	ow graver (up to 1), angular, mediam		
	_		/	0.0			contact 6.2 to 7.8 ft. bgs.: Well sorted SAN	D with SII T (S	SP): orangish lig	ht brown: fine cand (80%): nonplastic fines	6 ft	383400638
7			/			SP	oxidized; very loose; dry.	D WILLI SIET (S	n), orangish ngi	ii orown, mie sana (50%), nonpastic raics,	Well Seal	
	₹	₹	%08				ZOA-OA L CH TV CAND	CDAVEL (CA	Oi-b E-b	. h			
8			" /				7.8 to 9 ft. bgs.: SILTY SAND and coarse to fine gravel (30%), angular				ne sand (73%), angular,	8 ft	
			/			SM	et a cota a della Partiti di control	District					
9			/				*immiscable liquid in mud tub.		ey with slight	opalescence.			
			/				9 to 10 ft. bgs: Not recovered.						
10			/				10. 15					10 ft	
			/	0.0		SM/FILL	10 to 15	(0.0)					
11			/	0.0			10 to 10.8 ft. bgs: Same as Ab						
			/			SP	10.8 to 12 ft. bgs: Poorly grade fines (5-15%); oxidized; micae			ed; fine sand, ang	ular; nonplastic		
12			/										日日
	₹	Ϋ́	40%	0.0			bottom 4" grades into oxidized fine 5		and GRAVEL.				
13		_	4				12 to 15 ft bgs: Not recovered						811
			/									0.01" slotted	
14			/									screen	# 11
			/										
15			/									∇	
	1		/	0.0		SM	15 to 20						
16			/	0.0			15 to 16.8 ft. bgs: Well graded angular and subangular, arkos						日日
			/				micaceous; very loose; satura		10 5), quanz	ose, oxidized flori	piastic lines,		日日
17			/		ai Isaidisai	CL	16.8 to 17.2 ft. bgs: SANDY C sand and fine gravel; low plast				nd with trace coarse	#2 sand	且日
	<	<	% /	0.0			sand and line graver, low plast	icity, soit to ii	lealum Siii, S	aturateu.			耳川
18	Ž	Š	%09			SP	17.2 to 18 ft. bgs: Poorly grade (70-80%); nonplastic fines; tra				brown; fine sand		111
			/				(70-80%); nonplastic lines; tra	ce ciay; oxidi.	zea; very soit;	saturated.		8" anulus	11
19	1		/	0.0			18 to 20 ft. bgs: Not recovered	l.					日日
	1		/										
20	1		/										
				-		. ,	and D2488 (Visual/Manual	,	Analytical:	Soil san	nples not collected	d.	non standarda
Referen	nces:		cription ar Field Ma			echnique	es also reference the Engin	eering					
		Geology	i i eiu ivia	iiuai (198	ω).								
			Gra	phic syml	ool code	s: "Othe	er" - Open drive core barrel.			water used dur	ing boring advanc	ement as	-
Addit Comn				fluid. malfunctioning.									PID
Com	HEIIIS	Checked	by			Date:			manunction	mıy.			

1	Locati	on Sketch		Client:	PEPC	0					N // N / O
) 🛩 Sta	acks 🥆	\bigcap	Project	Numbe	er:	60287343.09			Boring:	MW-8
N _	Form	er Plant	g le	Site Lo	cation:		3400 Benning Road NE, W	Vashington, DC			
			Northeast border	Coordi	nates:	44914		round Elev: 17.	12' NAVD88	Sheet:	2 of 4
		MW-8	∯ ⊕	Drilling	Method	d:	Sonic			Well Installed:	Dual Nested
				Sample	Type(s):	4" Open Drive Core Bo	oring Diameter:			10-25 and 50-60
Weath	er:	Rain ~					Logged By: GR St	tart Date:	9/25/2014	Depth of Boring	
Drilling	Contra	actor:	Summit	- Danny	Ninev	ski	Da	ate Complete:	9/25/2014	Water:	12 and 5
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Description			Water levels & Well design
21 22 23 24	₹	N	%09			SP GM	20 to 25 20 to 20.7 ft bgs: Same as above (S 20.7 to 23 ft. bgs: SILTY SANDY GR angular to subround; quartzose, mult cobbles up to 4°; very loose; well gra 23 to 25 ft. bgs: Not recovered.	RAVEL (GM); orangish ticolor; fine sand; nonp	lastic fines (>15		#2 sand
25 26 27 28 29 30	NA	NA	100%			CL	25 to 30		: mottling (1mm)	;; fine sand	8° anulus
31 32 33 34 35	Ϋ́	Ϋ́	100%			CL	30 to 35 gr. bgs: Same as Above. (C	CL);notable absence of	lignite or carbor	nized material; dry.	
36	√Z						35 to 40 35 to 40 ft. bgs: Same as above (CL (carbonized wood and lignite) range and D2488 (Visual/Manual Metters also reference the Engineerin	in size from 1mm frag	ments to 5 inch		Hydrated bentonite chips
			Field Ma			,	J	-			
Addit Comn		Checked b		ohic syml	ool code	s: "Othe	r" - Open drive Sonic core barre	el. PID malfund	tioning.		

1	Locati	on Sketch		Client:	PEPC	0		N //\
1.46	→ Sta	acks 🤸	\bigcap	Project	Numbe	er:	60287343.09 Boring:	MW-8
N _	Form	er Plant	g le	Site Lo	cation:		3400 Benning Road NE, Washington, DC	
			Northeast border	Coordi	nates:	44914	6.9' N 1324070.2' E Ground Elev: 17.12' NAVD88 Sheet:	3 of 4
		MW-8	∯ ⊕	Drilling	Metho	d:	Sonic Well Installed:	Dual Nested
				Sample	e Type(10-25 and 50-60
Weath	er:	Rain ~					Logged By: GR Start Date: 9/25/2014 Depth of Borin	
Drilling	Contra	actor:	Summit	- Danny	Ninev	ski	Date Complete: 9/25/2014 Water:	12 and 51
								_
	둦		_	Ê	_	0		Water levels & Well design
₽	Dep	ount	very	dd)	Log	y m	Description	syels
ŧ	Sample Depth	Blow Count	Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		
Depth (ft)	San	Blo	% R	PID	Gra	nsc		Water levels Well design Well Completi
			1			CL	40 to 45	XXXIII ///X
41			/				40 to 45 ft bgs: Same as above. (CL); no organics; dry.	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
			/					(1111) (111)
42			/					933333888
	ĕ Z	∢ Z	100%					Hydrated bentonite
43	Z	Z	ē /					chips
			/					
44								(1111)
			/					(AAAAA)
45			/			CL		
			/			CL	45 to 50	6" anulus
46			/			/	45 to 50 ft bgs: Same as above. (CL); sporradic intevals of sand/clay mixture (up to 3" thick) occuring throughout run; no organics; dry.	YXXXXX 1771
			/				and, seeding unedgreating, no organies, ary.	XXIII (11)
47			/		///////////////////////////////////////			99999
	₹	₹	100%			,		//////
48			= /					48 ft.
			/		///////////////////////////////////////	,		
49			/					
			/			,		#2 sand
50			/		///////////////////////////////////////	CL	50.4.55	50 ft.
			/			SC/SM	50 to 55 50 to 55 ft. bgs: CLAYEY/SLTY SAND (SC/SM); grey; very fine sand; low to nonplastic; soft;	50 IL.
51	-		/				last 2 feet grey with black staing; concretions beginging at 53 ft. up to 2.5", angular, unreactive	
			/		/////		with HCl; saturated.	
52			/		/////			
	₹	₹	100%		/////			- 100 B
53	1		_ /					
L.—	1				/////			(A) (A)
54	1							
	-		/		/////X			0.01"
55			1	 	///////A		55 to 60	slotted
	1		/			SP	55 to 60 ft. bgs: Poorly graded SAND (SP); light grey with scattered black mottle; fine sand;	screen
56	1		/				trace nonpastic fines; loose; intervals of sandy clay (up to 6") beginning at 56.5; scattared	
	1		/				concrations not reactive to HCI; saturated.	
57	1		_%		1417,141111	SC		
E0	ž	₹	100%					(8) - 3
58	1		/					W/W 22
59	1							器罩
	1		/			I		WW.
60	1		/			SP		60 ft.
	1	Soil clas	<i>ı</i> ssified usir	ng ASTM	D2487	L	and D2488 (Visual/Manual Method). Analytical: Soil samples not collecte	
Referen	nces:					echnique	es also reference the Engineering	
		Geolog)	Field Ma	iiuai (198	ouj.			
			Gra	phic symb	ool code	s: "Othe	r" - Open drive Sonic core barrel. PID malfunctioning.	
Addit	tional ments							
COM	1101110	Checked b	у			Date:		

1	Locati	on Sketch		Client:	PEPC	O					N // N / O
1/.	St	acks 🤸	\bigcap .	Project	Numbe		60287343.09			Boring:	MW-8
N	Form	ner Plant		Site Lo			3400 Benning Road NE,				
			Northeast border	Coordi				Ground Elev: 17.	12' NAVD88		4 of 4
		MW-8		Drilling			Sonic		011/011	Well Installed:	Dual Nested
		Dain (Sample	Type(s):		Boring Diameter:			10-25 and 50-60
Weath		Rain ~			A I'		,	Start Date:		Depth of Boring	
Drilling	Contra	actor:	Summit	- Danny	Ninev	SKI		Date Complete:	9/25/2014	Water:	12 and 51
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Description			Water levels & Well design
61 62 63 64 65 66 67 68	٨٨	AN	100%	0.0 0.0 0.0 0.0 0.0		СН	60 to 65 ft bgs: FAT CLAY (CH); Arundel Clay. TD = 65 ft bgs. Terminated at regional confining First observed water ~ 14 and 51	layer.	highly plastic; ve	,	Bentonite plug TD = 65 ft. bgs.
70	nces:	Soil des	cription ar Field Ma	nd identifi nual (198	cation te	chnique	and D2488 (Visual/Manual M s also reference the Enginee	ering	Soil san	nples not collected	l.
Addit Comr		Checked b		pnic syml	ooi code	s: "Othe	" - Open drive Sonic core ba	rrel.			

1	Location	on Sketch		Client: PEPCO									N //\ /		
North		MW-9	\oplus	Project	Numbe	er:	6028734						Boring:	MV	۷-9
		MW-9`	~	Site Lo	cation:		3400 Be	nning Ro	ad NE	, Washing					
Metro				Coordin	nates:	44806	7.3' N	1324896	3.0' E	Ground E	Elev: 36.	36' NAVD88	Sheet:	1 0	f 4
Σ				Drilling	Method	d:	Sonic						Well Installed:	Dual	Nested
		Blding #		Sample	Type(s):	4" Open		ore	Boring Di				18-38 an	d 51-66
Weathe		Clear 7					Logged E	Ву:	GR	Start Da			Depth of Borin	g:	70
Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski				Date Co	mplete:	9/23/2014	Water:	1	27
															_
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol				Des	cription			Water levels & Well design	Well Completion
								Asphalt Sur					_	Flush pad	1111
1 2 3 4 5	∢ Z	٧٧	ΝΑ			CL	0 to 5 ft bgs	<u>s:</u> Cleared b	y Air Knif	fe∕Vac Truck.	Appeared to	be SILTY CLAY		Concrete 2" riser	>
			/	0.0		CL	5 to 10							Bentonite	
6			/			/								grou <u>t slurry</u>	$\downarrow \downarrow \downarrow \downarrow \downarrow$
7 8 9	¥Z	NA	100%	0.0			5 to 10 ft. bgs plastic; nicace			orangish red wi	ith light grey m	ottle; silt (~20%), le	nsed; stiff; medium		
10			/			CI	10 to 15							-	
11 12 13 14	∀ Z	NA	100%	0.0		CH	10 to 11 ft. b					sand interval, ar icity; medium stif	ngular. f; sticky; moist to	8" anulus	
			/											14 ft.	
15			/	0.0		СН	15 to 20							Well Seal	
16				0.0		СН		t. bgs: Sam	e as abo	ve (CH); dry.				16 ft.	
17			/											#2 sand	
18	ž	NA	%06	0.0										# <u>2</u> 381tu	
19				0.0										7016	
· -				0.0		СН								0.01"	
20			/				19.5 to 20 ft	t. bgs: Not r	ecovered	d.				slotted screen	
Referen	ces:	Soil desc		d identific	cation te		S) and D2488 (Visual/Manual Method). Analytical: Soil samples not collectues also reference the Engineering							d.	
			Grap	hic symb	ool code	s: "Othe	er" - Open d	drive core	barrel.			vater used dur	ing boring advanc	ement as	drilling
Additi Comm										f	luid.				
John	ion ito	Checked	by			Date:									

1	Location	on Sketch		Client:	PEPC			N //\				
North		MW-9	∌	Project	Numbe	,,,	60287343.09 Boring:	MW-9				
		MW-9`	-	Site Lo	3400 Benning Road NE, Washington, DC							
Metro				Coordin				2 of 4				
2				Drilling			Sonic Well Installed: 4" Open Drive Core Boring Diameter: 6"/8" Screen:	Dual Nested				
Weathe		Blding #		Sample	Type(Joining Diameter.	18-38 and 51-66				
Drilling			Summit	- Danny	Ninev		Logged By: GR Start Date: 9/17/2014 Depth of Borin Date Complete: 9/23/2014 Water:	g: 70 27				
Dilling	Contra	CiOi.	•				Date Complete. 9/23/2014 Water.	21				
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design				
21 22 23 24	¥ Z	NA	100%	0.0 0.0 0.0 0.0		СН	20 to 25 ft bgs: Same as above (CH); dry.	#2 sand				
26				0.0	111111111	CH ML/CL	25 to 30 25 to 27 ft. bgs: SILTY CLAY (ML/CL); orangish red with pale grey and bright red lenses; silt (30-40%); low plasticity; stiff; dry.					
28	NA	NA	80%			GM	27 to 29 ft. bgs; SILTY SAND and GRAVEL (GM); orangish reddish brown; coarse to fine gravel, subangular and subround, hard, quartzose; coarse to fine sand (35-40%), angular; fines (15-20%), nonplastic; well graded; loose to medium dense; uncernented; saturated.	<u> </u>				
30		,					29 to 30 ft. bgs: Not recovered. 30 to 35	8" anulus				
31 32 33	NA	NA	%06			GM	30 to 34 ft. bgs: Same as Above. (GM);well graded; nonplastic fines up to 20%; saturated.					
34						GM	29 to 30 ft. bgs: Not recovered.					
35			/			GM	35 to 40 35 to 38.2 ft. bgs: Same as above (GM); decrasing fine content (5-10%); contains 3" interval of clean coarse gravel at top of run with iron oxide banding; saturated.					
37	٩	NA	%06		00.00							
38	-	-	5		9 0 4 0	OH/CL	38.2 to 39 ft. bgs: SANDY CLAY/ORGANIC CLAYS (OH/CL); grey; larger proportion of sample unaltered wood with some lignite and carbonized wood; moist to dry.	38 ft				
40							39 to 40 ft. bgs: Not recovered.	Hydrated bentonite chips				
Referen	ces:	Soil desc		d identific	cation te		and D2488 (Visual/Manual Method). Analytical: Soil samples not collected is also reference the Engineering	100000000000000000000000000000000000000				
Additi Comm	ents	Graphic symbol codes: "Other" - Open drive Sonic core barrel. Clean city water used during boring advancement as of fluid.										

1	Location	on Sketch		Client:	PEPC	0		N 41 A / O
North		6	\oplus	Project	Numbe	er:	60287343.09 Boring:	MW-9
		MW-9	T)	Site Lo	cation:		3400 Benning Road NE, Washington, DC	
Metro				Coordii	nates:	44806	7.3' N 1324896.0' E Ground Elev: 36.36' NAVD88 Sheet:	3 of 4
Ψ				Drilling	Metho	d:	Sonic Well Installed:	Dual Nested
		Blding #	ŧ59	Sample	Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	18-38 and 51-66
Weathe	er:	Clear 7	0's F				Logged By: GR Start Date: 9/17/2014 Depth of Boring	g: 70
Drilling (Contra	ctor:	Summ	it - Danny	Ninev	ski	Date Complete: 9/23/2014 Water:	27
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design
41	Ϋ́	NA	100%	0.0		ОН	40 to 45 40 to 43.5 ft bgs: ORGANIC SILT/CLAY (OH); dark grey with black staining; high to medium plasticity; sticky; medium stiff; carbonized and unaltered organic material; moist to dry.	Hydrated bentonite chips
44				0.0		SM/SC	43.5 to 45 ft bgs: SILTY fine SAND (SM/SC); grey; sand (80%), fine and very fine, angular; few fines; well graded; nonplastic; loose; bottom 6" contains organics; saturated.	-
46			ر .	0.0		CL	45 to 50 45 to 49 ft bgs: SANDY CLAY (CL); greyish brown; fine sand (10%); micaceous; low plasticity, soft; 3" interval of organics at top; 2" interval of medium and fine sand relatively clean; dry.	6" a <u>nulus</u> →
484950	N	NA	%06	0.0	<u>49 to 50 ft. bgs:</u> Not recovered.	49 ft. #2 sand →		
51 52 53 54	Ϋ́	NA	%06	0.0		SM	50 to 55 50 to 54 ft. bgs: SILTY SAND (SM); brown; fine sand (80-90%); trace silt (<15%); nonplastic; loose; some stratification; micaceous; saturated.	51 ft.
J-1			/	0.0	p. 200 p. 100 p.		54 to 55 ft. bgs: Not recovered.	
55			/					0.01"
-			r	0.0		SP	55 to 60	slotted screen
56			/			Or .	55 to 58 ft. bgs: Poorly graded SAND (SP); greyish brown; medium and fine, subangular; very loose; micaceous; saturated.	3Cleen 3
57	Ϋ́	N A	%06				58 to 59 ft. bgs: Well graded SAND (SW); light greysih brown; coarse to fine sand,	
59				0.0		SW	subangular and subround; loose;uncemented; saturated. 59 to 60 ft. bgs: Not recovered.	
60			<u>/</u>					
Referen	ces:	Soil desc	cription		cation te		and D2488 (Visual/Manual Method). Analytical: Soil samples not collected also reference the Engineering	1.
Addition Comm	ents	Checked by		r" - Open drive Sonic core barrel. Clean city water used during boring advance fluid.	ement as drilling			

1	Location	on Sketch		Client:	PEPC	0								1. //	M 0
North		MW-9	\oplus	Projec	t Numbe	er:	602873						Boring:	IVI	W-9
		MW-9	,•		cation:					, Washington,					
Metro					nates:			1324896	6.0' E	Ground Elev	: 36.3	6' NAVD88			of 4
≥					Metho		Sonic					011/011	Well Installed:		al Nested
		Blding		Sample	e Type(s):	1	Drive C		Boring Diame					nd 51-66
Weath		Clear 7		Dann	. Nimarr	a lei	Logged	Ву:	GR	Start Date:			Depth of Borin	g:	70
Drilling	Contra	actor:	Summit	- Danny	/ Ninev	SKI				Date Comple	ete:	9/23/2014	Water:		27
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol				Descripti	tion			Water levels & Well design	Well Completion
61 62 63 64	٩Z	Ϋ́	100%	0.0		SW	63 to 64 ft.	<u>bgs:</u> SAND ine sand, su	YLEAN ıbangular	e (SW); saturated. CLAY (CL); light re; low to medium pla	asticity; c	arbonaceous; r	noist.	#2 san 0.01" slotted screen	d * :::::::::::::::::::::::::::::::::::
65			0.0 SM 64 to 65 ft. bgs: SILT SAND (SM); light greyish brown; coarse to fine sand (7 few gravel, subround; well graded; medium dense; nonplastic; oxidation of fine sand (8 few gravel, subround; well graded; medium dense; nonplastic; oxidation of fine sand (7 few gravel, subround; well graded; medium dense; nonplastic; oxidation of fine sand (7 few gravel, subround; well graded; medium dense; nonplastic; oxidation of fine sand (7 few gravel, subround; well graded; medium dense; nonplastic; oxidation of fine sand (7 few gravel, subround; well graded; medium dense; nonplastic; oxidation of fine sand (8 few gravel).								-				
66 67 68 69			100%	0.0		SM CH	65 to 66 ft.	bgs: FAT C		e (SM); saturated.); variagated red ar	nd grey; h	ighly plastic; ve	ery stiff; sticky; dry.	6" anulus Bentonite	66 ft. ☐
71 72 73 74 75 76 77 78								bgs. d at regiona vved water ~						10 = 6	35 ft. bgs.
79															
80 Referen	nces:	Soil des		nd identif	ication te			8 (Visual/Nerence the			ytical:	Soil sam	nples not collected	d.	
Addit Comn									s drilling						

					PEPC			MW	<i>l</i> 10
-					Numbe	r:	60287343.09 Boring:	IVIVV	<i>I</i> -10
A			M	Site Lo		4.4070	3400 Benning Road NE, Washington, DC	1 of	f 1
				Coordi	nates: Method:	448707	7.2' N 1324574.0' E Ground Elev: 20.56' NAVD88 Sheet: Sonic Well Installed:		al Neste
					Type(s		4" Open Drive Core Boring Diameter: 6"/8" Screen:	10-30 a	
Weathe	er:	Partly c	loudy, 60'		<i>,</i> 1 ypc(5	·/·	Logged By: BD Start Date: 10/13/2014 Depth of Boring		6
Drilling	Contrac		Summit		Ninevski		Date Complete: 10/13/2014 Water:	<u>- </u>	1
								- *	_
	pth		>	(mc	g	lod		<u>&</u> _	Well Completion
Œ	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels Well design	dwo
Depth (ft)	mple) 8	Rec)/FI	aphi	SCS		ater ell de	<u></u>
De	Sa	B	%	∃		SO.	A. 5. [II.]	33	and the same of the same of
	-				*********	\	0 to 5 Unimproved surface.	Flush pad	
1	1				()()()()()	SWFILL	0 to 5 ft bgs: Cleared by Air Knife/Vac Truck. Appeared to be Brown SILTY SAND, little fine to coarse angular gravel, moist, no odor. (FILL)	Concrete	
_					((((((((((((((((((((((((((((((((((((((((ш
2					(((((((((((((((((((((((((((((((((((((((\			ш
3	ž	A A	N A		((((((((((((((((((((((((((((((((((((((((ш
3 <u> </u>	1				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	()		Bentonite grout slurry	ш
4					(((((((((((((((((((((((((((((((((((((((()		grout sidiry	1
·					(((((((((((((((((((((((((((((((((((((((()			ш
5					XXXXXXXX	()			ш
				0.0	*********	SWFILL	5 to 10	Well seal	$\downarrow\downarrow\downarrow$
6			/			8	5 to 7.6 ft. bgs: Brown Silty SAND, little fine to coarse angular gravel, trace clay, trace slag, low plasticity, loose, moist, no odor. (FILL)		ш
			/	0.0		8	F		
7	1		/			8			
	₹ Z	¥.	20%	0.0	00000000	2			
8	1						7.6 to 10 ft. bgs: Not recovered.		
_	1		/				10 10 10 10 10 10 10 10 10 10 10 10 10 1		
9	1		/						
10	1		/					10 ft.	
				0.0			10 to 15	1011.	11
11			/	'		SWFILL	10 to 11.0 ft. bgs: Brown Silty SAND, little fine to coarse angular gravel, trace clay, trace slag, low plasticity, loose, moist, no odor. (FILL)		目上
			/	0.0			plasticity, 100se, moist, 110 0001. (1 ILL)		
12			/			À			
	₹	₹	%09	0.0		SM	11.0 to 13.0 ft bgs: Brown fine SAND, some silt, trace stringy organics, medium dense, moist, slight organic odor.		目上
13	1		/						
			/				13 to 15 ft bgs: Not recovered.		
14	1		/						
15	†		/					0.01"	
.5				0.0		SM	15 to 20	slotted screen	
16	1		/	0.0			15 to 18.8 ft. bgs: Brown fine SAND, some silt, little clay, trace stringy organics, black degraded wood at 17.1-17.2, low plasticity, medium loose, wet, no odor.		
			/				at 17.1-17.2, low plasticity, inculatin 1005c, wet, no 0001.		目上
17	1		/	0.0		Ŋ		#2 sand	
	₹	₹	%08			V			
18	1			0.0					
	1		/						
19	1		/		0434004400	10	18.8 to 20 ft. bgs: Not recovered.		
20	†		/						
20	1	Soil clas	<i>y</i> sified usin	g ASTM D	D2487 (U	ISCS) and	d D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected.		ni l minimum
Referen	ices:	descripti Manual (entification	techniqu	ues also r	reference the Engineering Geology Field		
۸ ۵۵:	tional		Gra	phic symb	ool codes	s: "Other"	' - Open drive core barrel. Clean city water used during boring advancer	nent as drilli	ng fluid.
	nents								
		Checked I	ov			Date:			

				Client:	PEPCC)		N //\ A	110
_				Project	Number	:	60287343.09 Boring:	MW	<i>I</i> -10
Δ			М	Site Lo			3400 Benning Road NE, Washington, DC		
			/ V B	Coordi	nates:	44870		2 0	
				Drilling	Method:		Sonic Well Installed:	Dua	al Neste
		Danthia	In		e Type(s)):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	10-30 a	
Weather			loudy, 60' Summit		Nipoveki		Logged By: BD Start Date: 10/13/2014 Depth of Boring	g:	6
Drilling (Contrac	ctor:	Summi	- Darilly	Millevski		Date Complete: 10/13/2014 Water:		11
	_			<u>=</u>		_		•ŏ	ion
	Depti	ŧ	ery	ppm	go.	mpc	Description	gn	plet
(ft)] e	Sol	Š	<u> </u>	hic L	Ś	Description	r ley	Corr
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Water levels Well design	Well Completion
	0)	ш	*	1			20 to 25	>>	۸ E
21			/	0.0		SP	20 to 21.0 ft bgs: Light Brown fine SAND, little Silt, loose, wet, no odor.		
	•		/	0.0		Oi.		#2 sand	
22	•		/	0.0	x_{i}	GW	21.1 to 23.1 ft bgs: Light Grayish Brown sandy GRAVEL, well graded sand, fine to coarse angular gravel, loose, wet, no odor.		Ħ
	₹	₹ Z	%09				gravel, loose, wel, no odor.	2" riser	
23			9 /		XX				
			/				22.4 to 25.6 have Not recovered		
24	•		/				23.1 to 25 ft. bgs: Not recovered.	0.01"	
	-		/					slotted	
25			/	1	V IV		25 to 30	screen	
			,	0.0	A.A.	0144		8" annulus	
26			/	0.0	$\mathcal{M}\mathcal{M}$	GW	25 to 28 ft. bgs: Light Grayish Brown sandy GRAVEL, trace silt, well graded sand, fine to coarse		
27			/	0.0			angular gravel, loose, wet, no odor.		
	∢	4	_%	0.0	N.O.				
28	Ž Š	A A	%09		MM				
			/				30 to 35 ft. bgs: Not recovered.		
29			/					,	
	 		/					į į	
30			/	1			30 to 35	3 <u>0 ft.</u>	—
			,	0.0					
31			/	0.0		CL	20 to 24 5 4 hour Light Consists Donner OLAV trans all most firm about its cost project	0"	
32			/	0.0	(//////////////////////////////////////		30 to 31.5 ft. bgs: Light Grayish Brown CLAY, trace silt, medium plasticity, soft, moist, no odor.	6" annulus	
JZ	-	-	/	0.0		SP	31.5 to 33.5 ft. bgs: Gray SAND, fine to medium grained, trace silt, loose, wet, no odor.		
33	₹	Ž	20%	0.0		-	<u></u>		
			/						
34	<u> </u>								
			/				33.5 to 35 ft. bgs: Not recovered.		
35			/	 	2000000		35 to 40	Well seal	> //
			,	0.0		_	35 to 38.6 ft. bgs: Gray SAND, fine to medium grained, trace medium subrounded gravel, leafy		
36			/	0.0		SP	organics at 36.2, loose, wet, no odor.		
37	1		/	0.0					100001/// 14///////
J1	ď	₫	/	0.0					
38	₹	¥.	%02	0.0					
			/						
39			/				38.6 to 40 ft. bgs: Not recovered.	39 ft.	
			/						\rightarrow
40		Coil als -	oified ::::	a ACTM	72407 (110	SCS/ 5-	nd D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected		
Referen	ces:	descripti	on and ide				nd D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected reference the Engineering Geology Field	1.	
		Manual ((1988).						
			Gra	phic syml	bol codes:	: "Othe	r" - Open drive Sonic core barrel.		
Addit Comn		/		•					
COMM		Checked by	y			Date:			

					PEPCO		60287343.09 Boring:	MW-10
_			44		Number	:	3400 Benning Road NE, Washington, DC	10100 10
A				Site Lo		448707		3 of 4
1					Method:		Sonic Well Installed	
					Type(s)		4" Open Drive Core Boring Diameter: 6"/8" Screen:	10-30 and 41-50
Weather	r:	Partly cl	oudy, 60's		.) [- (-)	<u>-</u>	Logged By: BD Start Date: 10/13/2014 Depth of Boi	
Drilling C	Contrac	tor:	Summit -	Danny N	Vinevski		Date Complete: 10/13/2014 Water:	1
	H			(E		<u> </u>		Water levels & Well design
∓	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	evel sign
Depth (ft)	nple	ŏ ≥	Seco	/FIC	phic	SS		l de
Dep	Sar	Blo	%	PIC	Gra	NS N		Water levels Well design Well Complet
			/	0.0			40 to 45	
41			/	0.0		SW	40 to 42.1 ft bgs: Gray SAND, fine to coarse grained, loose, wet, no odor.	41 ft.
			/					
42			/	0.0			42.1 to 43 ft. bgs: Gray silty CLAY, some fine grained sand, medium plasticity, moist, medium soft,	
	Ž	A A	%0/			CL	no odor.	
43			ľ /	0.0			43 to 43.6 ft. bgs: Gray SAND, fine to medium grained, loose, wet, no odor.	
			/			SP		
44			/				43.6 to 45 ft. bgs: Not recovered.	#2 sand
45			/					
45			,	0.0	******		45 to 50	
46			/	0.0		sw	45 to 47.3 ft. bgs: Gray SAND, fine to coarse grained, trace fine subrounded gravel, loose, wet, no	
1.0			/	0.0		0	odor.	
47			/	0.0		SP	47.3 to 47.7 ft. bgs: Gray SAND, fine grained, little silt, little degraded wood, medium loose, wet, no	125.73 (5.4)
	₹	₹	%09				odor.	slotted screen
48	Z	Z	99 /	0.0		SP	47.7 to 48.2 ft. bgs: Gray SAND, fine to medium grained, trace fine subrounded gravel, loose, wet odor.	no
			/					
49			/				100. 504 11.	
			/				48.2 to 50 ft. bgs: Not recovered.	
50			/				50 to 55	
			/	0.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		50 to 53.5 ft. bgs: Gray SAND, fine to coarse grained, little fine to coarse subangular gravel, with	
51			/	0.0		SW	cobbles, loose, wet, no odor.	
52			/	0.0				
52		_	, /	0.0				
53	₹	₹	% /	0.0				
			/	0.0				6" annulus
54			/		*****	1		\rightarrow
			/				53.5 to 55 ft bgs: Not recovered.	
55			/		-			
			/	0.0		sw	55 to 60	
56			/	0.0			<u>55 to 55.5 ft. bgs</u> : Gray SAND, fine to coarse grained, little fine to medium subrounded gravel, loose wet, no odor.	56 ft.
			/				55.5 to 59.5 ft. bgs: Gray sandy SILT, fine grained sand, trace clay, low plasticity, stiff, dry, no odo	r.
57			_ /	0.0		ML	See 12 222 12 200 See 1 See 12 15 11 See 12	Hydrated
59	ž	₹	%06	0.0				bentonite /////////
58			/	0.0				chips
59			/	0.0				
			/	0.0				
60	· 		/				59.9 to 60 ft. bgs: Not recovered.	
							D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collect reference the Engineering Geology Field	ed.
Reference	ces:	Manual (i kii iCaliUH	reci ii iiqu	63 a130 l	ererence the Engineering Geology Fleid	
						110 <i>:</i> 1	Over the Over week and	
Additi	ional		Grap	onic symb	ool codes	: "Other'	- Open drive Sonic core barrel.	
Comm		<u></u>				_		
L		Checked by	/			Date:		

Coordinates: 448707.2' N 1324574.0' E Ground Elev: 20.56' NAVD88 Sheet: 4 of 4					Project	PEPC(6028734 3400 Be	43.09 enning Road N	JF. W	ashington, D	С		Boring:	MW	<i>I</i> -10
Sample Type(s): 4* Open Drive Core Boring Dameter: 9**8 Screen 10-30 and 4**							448707						6' NAVD88	Sheet:		
Meather: Partly Court, 60's F Logged By: BD Start Date: 19/13/2014 Depth of Borring:																
Description Descr					s F):	1			Start Date:		10/13/2014	Depth of Boring:		65
61	Drilling C	Jontrac	tor:	Summi -	Dariny	MILICVSKI					Date Compl	ete:	10/13/2014	vvater:		11
61 62 63 64 65 66 67 77 78 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 66 77 78 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 67 78 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 68 69 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 68 69 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 68 69 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 68 69 79 80 Soli classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soi 68 69 69 60 60 61 62 63 65 66 67 67 68 68 69 69 69 60 60 60 60 60 60 60 60 60 60 60 60 60	Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	CO to CE			Descr	iption				Well Completion
64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. description and identification techniques also reference the Engineering Geology Field Manual (1989). Manual (1989). Graphic symbol codes: 'Other' - Open drive Sonic core barrel.	62	NA	٩	80%	0.0			60 to 63 ft.						odor.		
TD = 65 ft bgs.					0.0		CL	63.9 to 65	ft bgs: Not recover	red.						
67 68 69 70 71 72 73 74 75 76 77 78 79 80 Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. description and identification techniques also reference the Engineering Geology Field Manual (1986). Graphic symbol codes: "Other" - Open drive Sonic core barrel.				/	0.0			TD = 65 ft	bgs.						TD = 68	ft. bgs.
70 71 72 73 74 75 76 77 78 78 79 80 Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. description and identification techniques also reference the Engineering Geology Field Manual (1988). Graphic symbol codes: "Other" - Open drive Sonic core barrel.																
70	68															
73	69															
72																
74																
75	73															
76	74															
77															_	
Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. References: description and identification techniques also reference the Engineering Geology Field Manual (1988). Graphic symbol codes: "Other" - Open drive Sonic core barrel.																
Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. References: Graphic symbol codes: "Other" - Open drive Sonic core barrel.	78															
Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. References: Soil classified using ASTM D2487 (USCS) and D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. Manual (1988). Graphic symbol codes: "Other" - Open drive Sonic core barrel.	79															
Graphic symbol codes: "Other" - Open drive Sonic core barrel.		ces:	description	on and ide	ASTM D	2487 (Us techniqu	SCS) and es also r	d D2488 (eference	(Visual/Manual N the Engineering	Method Geol	d). Soil Ana ogy Field	alytical:	Soil sam	ples not collected.		
Comments					ohic symb	ool codes	: "Other"	- Open d	drive Sonic core	barre	l.					

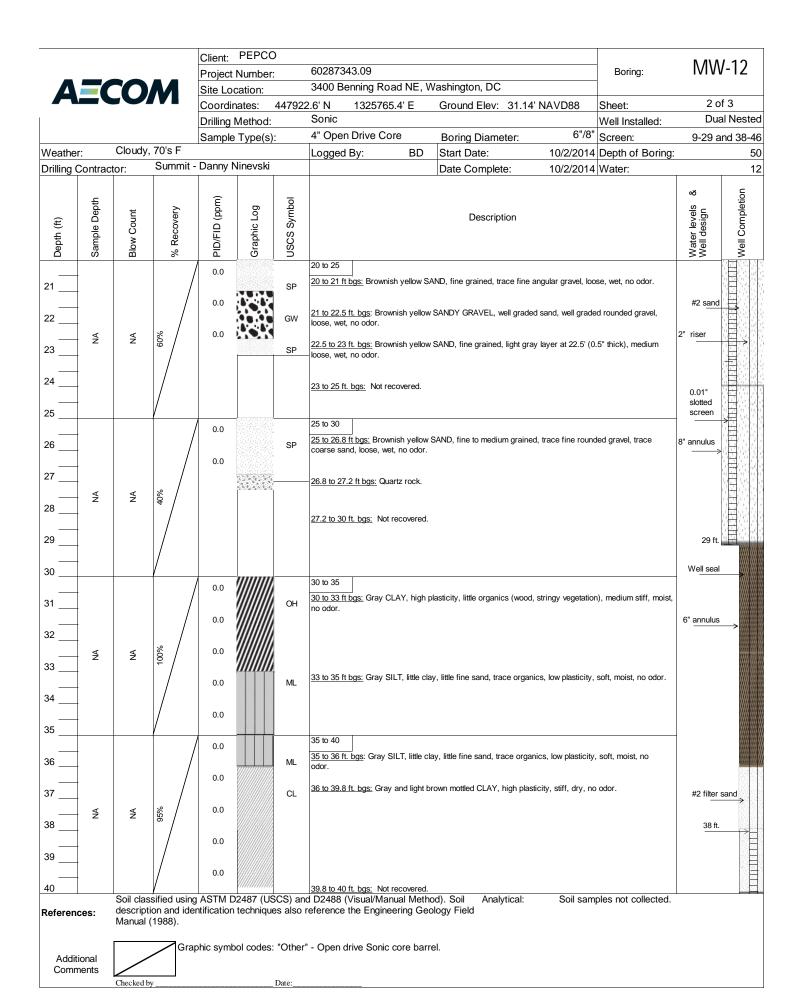
				Client:	PEPCO)		
					Number		60287343.09 Boring:	MW-11
			AA	Site Lo			3400 Benning Road NE, Washington, DC	
			771	Coordin		449241		1 of 4
					Method:		Sonic Well Installed:	Dual Neste
					Type(s)		4" Open Drive Core Boring Diameter: 6"/8" Screen:	27-42 and 50-6
Weathe	er:	Party cle	oudy 70's		. , , , , , , , , , , , , , , , , , , ,		Logged By: BD Start Date: 10/1/2014 Depth of Boring:	7
Drilling	Contrac		Summit -		Vinevski		Date Complete: 10/1/2014 Water:	
	£			Ê		<u> </u>		Water levels & Well design
<u> </u>	Dep	nut	/ery	dd)	Log	ymb	Description	vels ign nple
+	be	ပိ	000	윤	ohic	S	·	des Cor
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol		Water levels Well design Well Completi
	0,	ш	6,				0 to 5	Flush pad
1	†				***********	SMFILL	0 to 5 ft bgs: Cleared by Air Knife/Vac Truck. Appeared to be Dark brown SILTY SAND, well graded,	Concrete
' 	†				*********	SIVI ILL	little fine to medium angular gravel, dry, no odor.	
2	1				000000000000000000000000000000000000000	1		- 1111
	_	4	4		*********			
3	₹	Z A	ž		**********			- 1111
- <u> </u>	1				************			2" riser
4	1							
					***************************************			- 1111
5	1						Air knife to 6 feet in this location based on utility depths derrived from geophysical survey.	
			,	0.0	*********	}	5 to 10	
6	Ī		/			SM/SC		Bentonite grou <u>t slurry</u>
	Ī		/	0.2	***********	}	Statilling/sheeti, medidin dense, nydrocarbon odor.	
7			/					
	₹	₹ Y	40%	0.0	2000000000			- 1111
8	Z	Z	9					
			/					
9			/				7.2 to 10 ft. bgs: Not recovered.	- 1111
			/					
10			/					- 1111
] /	0.0			10 to 15	- 1111
11	1		/			SP	10 to 11.7 ft. bgs: Gray GRAVELLY SAND, fine to medium angular gravel, well graded sand, wet, loose, no odor.	\forall
			/	0.0				
12			/			ML	11.7 to 12.3 ft. bgs: Light brown SILT, little clay, low plasticity, soft, moist, no odor.	
l	₹	₹	20%	0.0				
13	↓ -		2 /					
l	1		/				12.2 to 15.6 has: Not recovered	
14	4		/				12.3 to 15 ft. bgs: Not recovered.	8" annulus
	1		/					
15			/	,	(1)()(1)(1)(1)(1)		15 to 20	
	+		/	0.0				
16	1		/			CL	15 to 19.5 ft. bgs: Light brown CLAY, trace organics, medium plasticity, little silt, soft, moist, no odor.	
	+		/	0.0				
17	+							
	₹	¥	%06	0.0				
18	+		/	_				
	+		/	0.0				
19	+		/					
	+		/	0.0	///////////////////////////////////////		19.5 to 20 ft. bgs: Not recovered.	
20	1	Soil class	<i>y</i> sified usind	ASTM D) 12487 (US	SCS) and	nd D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected.	1111
Referer	nces:	descripti	on and ide				reference the Engineering Geology Field	
		Manual (1988).					
			Grai	ohic symb	ool codes:	: "Other"	r" - Open drive core barrel. Clean city water used during boring advanceme	ent as drilling fluid.
	itional	//		-,				J
Com	ments	Chooling				Data:		
		Checked b	y			Date:		

				Client:	PEPC	0		Ι //\ Λ	111
_		-		Project	Number	r:	60287343.09 Boring:	MW	/-II
Δ			М	Site Loc	cation:		3400 Benning Road NE, Washington, DC		
				Coordin	nates:	449241	I.2' N 1324624.3' E Ground Elev: 17.15' NAVD88 Sheet:	2 o	f 4
				Drilling I	Method:	:	Sonic Well Installed:	Dua	al Nestec
				Sample	Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	27-42 a	and 50-62
Weathe	er:	Party clo	oudy 70's				Logged By: BD Start Date: 10/1/2014 Depth of Boring	j:	70
Drilling (Contrac	tor:	Summit -	Danny N	Ninevski		Date Complete: 10/1/2014 Water:		11
								∞ ∞	_
	Ę		_	Ē	70	8			Well Completion
£	Sample Depth	Blow Count	ver)	PID/FID (ppm)	Graphic Log	, m	Description	evel:	m E
± =	ble	Š	900	Ĺ	phic	SS		er k	ပိ
Depth (ft)	Sarr	Blov	% Recovery	PD	Gra	USCS Symbol		Water levels Well design	≪
			,	0.0			20 to 25		
21	1		/	0.0		SP	20 to 21.8 ft. bgs: Light gray SAND, fine grained, trace organics, loose, wet, no odor.		
			/	0.0					
22	†		/	0.0		79		Bentonite grout slurry	
	-	4	% /	0.0		CL	21.8 to 24 ft. bgs: Dark gray CLAY, little silt, trace organics, medium plasticity, soft moist, organic odor.		
23	Ž	Ϋ́ Υ	100%	0.0		6			
	†		/	0.0		%.			
24			/	0.0		().			
	†		/	0.0		sc	24 to 25 ft. bgs: Dark gray CLAYEY SAND, fine grained, trace organics, medium loose, wet, organic		
25			/	0.0			odor.	25 ft.	
			,	0.0	7777777777	7	25 to 30		
26	†		/	0.0	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	CL	25 to 27.6 ft. bgs: Dark gray SANDY CLAY, trace organics, low plasticity, soft, moist, organic odor.		
	1		/	0.0	/////////////////////////////////////	//			
27			/	0.0		8		27 ft.	
		_	, /	0.0		/,		27 10	1
28	ž	N A	80%	0.0		GW	27.6 to 28 ft. bgs: Strong brown SANDY GRAVEL, well graded sand, well graded subangular gravel,		
20	1		/	0.0		GW	loose, wet, no odor.		
29	1		/	0.0		ML	28 to 29 ft. bgs: Olive brown SANDY SILT, fine grained, soft, moist, no odor.		
23	1		/						
30	1		/				29 to 30 ft. bgs: Not recovered.		
30			ĺ ,	0.0			30 to 35		
31	1		/	0.0		ML	30 to 32.6 ft. bgs: Olive brown SANDY SILT, fine grained, soft, moist, no odor.		推出
31	1		/	0.0				#2 sand	
32			/	0.0				#2 Sanu	
J		_	, /	0.0					
33	₹	₹	80%	0.0		SP	32.6 to 33 ft. bgs: Olive brown SAND, medium grained, loose, wet, no odor.		ME AL
55	†		/	0.0		WOOD	33 to 33.8 ft. bgs: Dark brown WOOD, dense, wet, no odor.	2" riser	(H)
34	†		/	0.0					1
1	†		/						
35	1		/						
			/	0.0			35 to 40	7	
36	1		/	0.0		sw	35 to 36.2 ft. bgs: Brownish gray SAND, well graded, loose, wet, no odor.		温湖
	†		/	0.0		1			周州
37	1		/			ML	36.2 to 36.8 ft. bgs: Olive brown SANDY SILT, fine grained, soft, moist, no odor.	8" annulus	
	d	Ф	_% /			1			>
38	₹	₹	40%						
	†		/						
39	†		/				36.8 to 40 ft. bgs: Not recovered.		
	†		/						推出的
40	1		/						
.,	1	Soil class	sified using	ASTM D	2487 (U	SCS) and	d D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected.	-1	
Referen	ices:	descripti Manual (ntification	techniqu	ies also i	reference the Engineering Geology Field		
		manual (. 500).						
			Grap	ohic symb	ol codes	: "Other'	' - Open drive Sonic core barrel. Clean city water used during boring advancer	nent as drilli	ing fluid.
	tional ments	//							
COITI	1101112	Checked by	/			Date:			

				Client:	PEPCO)									
			_ =		Number:		602873	43.09					Boring:	ΜW	<i>I</i> -11
Δ			$\boldsymbol{\Lambda}$	Site Lo			3400 B	enning Roa	ad NE, W	/ashington, DC	;				
			//	Coordi		449241	1.2' N	1324624	.3' E	Ground Elev:	17.15'	NAVD88	Sheet:	3 o	f 4
					Method:		Sonic						Well Installed:	Dua	al Neste
					Type(s):		4" Oper	n Drive Co	re	Boring Diam	eter:	6"/8"	Screen:	27-42 a	nd 50-62
Weather	r:	Party cl	oudy 70's		71 \ /		Logged	Ву:	BD	Start Date:		10/1/2014	Depth of Boring		70
Drilling (Contrac	tor:	Summit	- Danny I	Ninevski			-		Date Comple	te:	10/1/2014			1
															_
	oth		_	Œ		<u>0</u>								- δ	Well Completion
Œ	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol				Descrip	otion			Water levels Well design	ld ma
Depth (ft)	əldu	Ŭ ≩	Seco)FI	phic	SS								ter l	ŏ
Dep	Sar	Blo	% F	PD	Gra	NS(%e ≪	We
				0.0			40 to 45								H
41			/	'		ML		-		DY SILT, fine grain					
			/	0.0			41.2 to 42	.1 ft bgs: Ligh	t brown SA	ND, medium graine	d, little rou	nded gravel, loos	e, wet, no odor.		
42			/			SP								42 ft.	
	NA	Ą.	%08	0.0		OH		.2 ft bgs: Ligh dry, no odor.	t gray CLA	Y, some partially lig	nitized woo	od fragments, me	dium plasticity,		
43	_	_	® /				,	,,							
			/	0.0										Hydrated bentonite	
44			/											chips	→
			/				44.2 to 45	ft. bgs: Not re	ecovered.						//////
45			/		9999999		45 to 50								//////
				0.0				hao: Liabt ar	W CLAVEV	SAND fine grains	nd low plac	ticity vory donor	moint no odor	6" an <u>nulus</u>	\rightarrow
46			/			SC	45 10 50 11	<u>. bgs:</u> Light gra	ay CLATET	SAND, fine graine	eu, iow pias	arcity, very dense	, moisi, no odor.		///Y8888
			/	0.0											<i>((</i>) (() () ()
47			/												((1)
	A A	₹	100%	0.0											WWW/
48			/												48 ft.
			/	0.0											
49			/												
			/	0.0											
50			1	0.0	65664444444		50 to 55								50 ft.
51			,	/ 0.0		SP	50 to 54.6	ft bgs: Light o	gray SAND,	fine to medium gra	ained, loos	e, wet, no odor.			
31			/	0.0											
52			/	0.0											
OZ	4	4	_% /	0.0											
53	Ž Ž	₹	%06	3.0											
			/	0.0											
54															
			/	0.0											
55								ft. bgs: Not re	ecovered.					0.01" slotted	
				0.0			55 to 60	<u> </u>	_	_	_			screen	
56			/	'		SP	55 to 56.2	ft bgs: Light of	gray SAND,	fine to medium gra	ained, loos	e, wet, no odor.			
			/	0.0		C :	56.2 to 57	.2 ft bgs: Ligh	t gray CLA	Y, little silt, medium	plasticity.	very stiff, dry, no	odor.		
57			/			CL		g	3 ,	, ,	,	, , , , , , , , ,			9
	₹	₹	%06	0.0			57.2 to 59	.4 ft bas: Liah	t grav SAN	D, fine to medium o	arained tra	ce black wood fr	agments, loose	#2 filter sa	nd =
58						SP	wet, no oc			, tooutuill (,		, 10000,		
			/	0.0											
59			/												
			/	0.0			59.4 to 60	ft. bgs: Not re	ecovered						7.5
60		Soil clas	/ sified usin	a ASTM F)2487 (119	CS) and		(Visual/Man		od). Soil Ana	lytical:	Soil sam	ples not collected.		
Referen	ces:	descripti	on and ide					the Engine			.,a	Con Sulli	- 30 0000104.		
		Manual (1988).												
			Gra	phic symb	ool codes:	"Other	' - Open o	drive Sonic	core barre	el. Clea	an city wa	ater used durin	g boring advancen	nent as drilli	ng fluid.
Addit				•			•				•				-
Comn	nents	Checked by				Date:									

				Client:	PEPC)						Ν //\ Λ	<i>I</i> 11
			44		Number	:	60287343.09		1: 4 50		Boring:	MW	-11
A			M	Site Lo			3400 Benning Ro					4 of	£ 1
				Coordin		449241	2' N 132462 Sonic	24.3' E	Ground Elev: 17.1	5' NAVD88	Sheet:		l Neste
				Sample	Method:		4" Open Drive C	ore	Boring Diameter:	6"/8"	Well Installed: Screen:	27-42 a	
Weathe	er:	Party cl	oudy 70's	F	i ype(s		Logged By:	BD	Start Date:		Depth of Boring:	21-42 di	70 70
	Contrac	tor:	Summit -	Danny N	Vinevski				Date Complete:	10/1/2014			1′
													_
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol			Description			Water levels & Well design	Well Completion
61			/	0.0		SP		3 ft bgs: Light to the state of	gray SAND, fine to medium	n grained, trace bla	ck wood fragments,		
			/	0.0	88888888		_	_	raded wood, hard, no odor 0, fine to medium grained,				
62	1					SP			o, fine to medium grained, l 'EY SILT, little fine sand, m			62 ft.	
63	₹	A A	%06	0.0		ML	odor.	g g,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,		
			/	0.0								Bentonite plug	\longrightarrow
64	1												
	1		/	0.0			64.6 to 65 ft. bgs: Not	recovered.				C! and the	
65			1	0.0			65 to 70					6" an <u>nulus</u>	\longrightarrow
66			/			ML	65 to 66.2 ft bgs: Ligh odor.	t gray CLAYE	Y SILT, little fine sand, med	dium plasticity, stiff	, dry, no		///////
	<u> </u>		/	0.0				onich grov on	d red mottled CLAY, high p	locticity vory ctiff	dry no odor		/////
67	1		. /			CH	(Arundel Clay)	enish gray and	a rea moulea CLAY, nigh p	iasucity, very suii, o	ary, no odor.		MAN
68	ž	N A	100%	0.0									/////W
			/	0.0									
69			/										
	1		/	0.0									WW/
70			1		/////////		TD = 70 ft. b	ogs.					mount
71													
72	1												
73	1												
74													
75													
76													
77													
	1												
78													
79	1												
80	1	Callela	oifio -l	, ACT*4.7	2407 (1)	200/ -	D0400 (\1/2 1/8 *	and March	d) Cail And Cail	0-7	nloo not selle et l		
Referen	ices:	Soil class descripti Manual (on and ide	ntification	techniqu	es also r	D2488 (Visual/Ma eference the Engin	anuai Metho eering Geol	d). Soil Analytical: ogy Field	Soil sam	ples not collected.		
			Grap	phic symb	ol codes	: "Other"	- Open drive Sonic	core barre	I. Clean city v	water used durir	ng boring advancem	ent as drilli	ng fluid.
	tional ments												
		Checked by	у			Date:							

				Client:	PEPC)							MW	/ 12
_			A 4	Project		:	60287343.09	IE 14	Vachinata : DC	`		Boring:	IVIV	<i>I</i> -12
A			M	Site Loc		4.47000	3400 Benning Road N				NAME OF THE PERSON OF THE PERS	Object	1 0	f 2
			_	Coordin Drilling I		447922	Sonic		Ground Elev:	: 31.14		Sheet: Well Installed:		al Nested
		<u> </u>		Sample	Type(s)):	4" Open Drive Core		Boring Diam	neter:	6"/8"	Screen:		nd 38-46
Weather Drilling		Cloudy, tor:	70's F Summit -	Danny N	Ninevski	ı	Logged By:	BD	Start Date: Date Comple	ete:	10/2/2014 10/2/2014	Depth of Boring: Water:		50 12
	_					_							∞	u o
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol			Descrip	ption			Water levels Well design	Well Completion
1 2 3 4	NA A	ΝΑ	NA			SWFILL	0 to 5 0 - 0.5 ft. bgs: A 0.5 to 5 ft bgs: Cleared by A some fine to coarse angular	ir Knif	e/Vac Truck. Appea	ared to be D	Oark brown SIL™	' SAND, well graded,	Flush pad Concrete Bentonite grout slurry	
5 6 7	AN AN	NA	50%	0.0		SWFILL SP/FILL		en, sli	ght hydrocarbon od	dor.		oarse angular gravel, , dry, no odor.	Well s <u>eal</u>	
9	- - - -	_		4	000000000		6 to 10 ft. bgs: Not recovered 10 to 15 10 to 10.2 ft. bgs		nt greenish gray SIL	TY CLAY	low plasticity, soft	t moist dearaded	9 ft. →	`\
11	- - -			0.0		CL/FILL ML	hydrocarbon od 10.2 to 12.5 ft. bgs: Grayish soft, moist, no odor.	or.						
13	- ¥ -	NA	70%	0.0		SP	12.5 to 13.6 ft. bgs: Pale bro	own SA	AND, fine to mediun	m grained, li	ttle silt, loose, we	t, no odor.		
15			/		2000000000		13.6 to 15 ft bgs: Not recove		sh brown SAND, we	all aradad s	ome well araded	subangular graval	0.01" slotted	
16				0.0		SW CL	little silt, loose, w 16 to 17 ft. bgs: Brownish ye dry, no odor.	vet, no	odor.	-	-		#2 sand)
18	- ¥	NA	70%	0.0		SP	17 to 18.5 ft. bgs: Brownish fine to medium rounded grav			dium grained	d, little coarse sai	nd, little silt, little		
19		0.3		ACTION	0.467.		18.5 to 20 ft. bgs: Not recove			h di	0.1			
Referen	ices:	Soil class description Manual (on and ide) ASTM D ntification	techniqu	SCS) and es also r	d D2488 (Visual/Manual I reference the Engineering	Metho g Geo	od). Soil Ana blogy Field	llytical:	Soil sam	ples not collected.		
	tional ments	Checked b		ohic symb	ol codes	: "Other"	- Open drive core barre	l.	Clea	an city wa	ter used durin	g boring advancem	nent as drilli	ng fluid.



				Client:	PEPCO			Ν //\ Λ	112
					Number	•	60287343.09 Boring:	MW	1-12
				Site Lo			3400 Benning Road NE, Washington, DC	3 0	
1				Coordin	ates: Method:	447922	6' N 1325765.4' E Ground Elev: 31.14' NAVD88 Sheet: Well Installed:		al Nested
					Type(s)		4" Open Drive Core Boring Diameter: 6"/8" Screen:		nd 38-46
Weathe	er:	Cloudy,					Logged By: BD Start Date: 10/2/2014 Depth of Boring:		50
Drilling	Contrac	tor:	Summit -	Danny N	linevski	ı	Date Complete: 10/2/2014 Water:		12
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	Well Completion
41 42 43 44 45	e Z	NA	%08	0.0 0.0 0.0 0.0		SM	40 to 43.8 ft bgs: Light gray and light brown mottled SILTY SAND, fine grained, trace clay, low plasticity, medium dense, moist to wet, no odor. 43.8 to 45 ft. bgs: Not recovered.	0.01" slotted screen	→
46	Ϋ́	ΑN	70%	0.0 0.0 0.0		SW	45 to 45.5 ft. bgs: Yellowish brown SAND, well graded, little silt, little fine to medium rounded gravel, loose, wet, no odor. 45.5 to 49 ft. bgs: Red, brown and light bluish gray laminated CLAY, high plasticity, very stiff, dry, no odor. (Arundel Clay)	46 ft.	
49				0.0			49 to 50 ft. bgs: Not recovered.	Hydrated bentonite chips	<u> </u>
51 52 53 54 55							TD = 50 ft bgs. Terminated at regional confining layer.		
56									
58 59 60									
Referen	ices:		on and ide 1988).	ntification	techniqu	es also r	D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. eference the Engineering Geology Field	,	
	tional ments	Checked by		onic symb		: "Other"	- Open drive Sonic core barrel.		

				Client:	PEPC)			- N AN A /	112
_	_			Project	Number	r:	60287343.09 Bori	ing:	MW	-13
Δ			M	Site Lo	cation:		3400 Benning Road NE, Washington, DC			
			/ /	Coordin	nates:	448449	7' N 1325558.0' E Ground Elev: 27.85' NAVD88 Sheet:		1 of	3
				Drilling	Method:		Sonic Well In	stalled:	Dua	l Neste
				Sample	Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen	n:	8-20 ar	nd 30-4
Weather	:	Sunny,					Logged By: BD Start Date: 10/8/2014 Depth	of Boring:		5
Drilling C	Contrac	tor:	Summit -	Danny N	Vinevski		Date Complete: 10/8/2014 Water:			10
									∞	_
	Sample Depth	ţ	ery	PID/FID (ppm)	go.	USCS Symbol	Description		Water levels & Well design	Well Completion
Depth (ft)] e	Blow Count	% Recovery	₽.	Graphic Log	S Sy	2000/pto//		ır lev desi	Con
ept	amb	<u>0</u>	. Re	Ū.	irap	SC			/ate /ell.	le/
	S	Δ.	%	Ф.	U		0 to 5 0 to 0.5 ft bgs: Asphalt		S S Flush pad	and breaking
					XXXXXXXXXX	Asphalt	0.5 to 5 ft bgs: Cleared by Air Knife/Vac Truck. Appeared to be Brown SILTY SAND, well gi	aded sand.		
1					XXXXXXXXXXX	SMFILL	some well graded angular gravel, with cobbles, dry, no odor. (FILL)	C	Concrete 5	
_					XXXXXXXXXX	(
2					XXXXXXXXXX	(
_	Ϋ́	Ž ₹	A A		XXXXXXXXXX	(
3					XXXXXXXXXX	(entonite	
					XXXXXXXXX	(9	rout slurry	
4					000000000000000000000000000000000000000	(255
					200000000	(-	888
5				,	(((((((((((((((((((((((((((((((((((((((5 to 10		Vell seal	
			/	0.0		SM/FILL	5 to 7.0 ft. bgs: Brown SILTY SAND, well graded sand, some well graded angular gravel, wit		reli Seal	
6			/			8	cobbles, medium loose, moist, no odor. (FILL)			
_			/	0.0		8				
7			/				7 to 7.8 ft. bgs: Strong Brown SILTY SAND, well graded sand, some well graded subrounde	d		
	Ϋ́	Ϋ́	%09	0.0		SM	gravel, with cobbles, moist, medium loose, no odor.		1	
8					des objetes Rejde	1			8 ft.	
			/						į.	圍北
9			/				7.8 to 10 ft. bgs: Not recovered.		V Y	周围
- 			/						∇	
10			/				10 to 15			圍山
			/	0.0			10 to 14 ft. bgs: Strong Brown SILTY SAND, well graded sand, some well graded subrounde	ed gravel,	1	掛し
11			/			SM	with cobbles, wet, medium loose, no odor.		Ì	個十
40			/	0.0					ÿ	圖形
12									1	
	₹	₹	80%	0.0					ĺ	信担
13			/	0.0					1	園園
			/	0.0					1	
14			/		t lei	1	14 to 15 ft bgs: Not recovered.		1	價制
15			/						0.01"	量制。
15			1	0.0			15 to 20		slotted screen	
16			/	0.0		SP		e well		周制
10			/	0.0		95	graded subangular gravel, wet, loose, no odor.		Ţ	
17			/	0.0					#2 cand	圍門
'	_		/	0.0					#2 sand	
18	ž	₹	80%	0.0					1	周州
10			/	0.0		SM	18 to 19 ft. bgs: Strong Brown SAND and SILT, fine grained sand, dense, dry, no odor.	8	" annulus	量形
19			/	0.0		OIVI			—→ ^l	
13			/			3	19 to 20 ft. bgs: Not recovered.		j	園形
20			/						20 ft.	
20							D2488 (Visual/Manual Method). Soil Analytical: Soil samples not	collected.	<u> ∠∨ IL.</u>	A mind has been
Reference	ces:	descripti Manual (ntification	techniqu	es also r	ference the Engineering Geology Field			
		iviai lual (1900).							
			Gra	ohic symb	ol codes	: "Other"	- Open drive core barrel. Clean city water used during boring	advancemen	nt as drillir	ng fluid.
Additi		//								
Comm	ici ((5	Checked b	DY			_Date:				
			-							

				Client:	PEPCC)							N //\ A /	10
_				Project	Number		602873					Boring:	MW	-13
Δ			M	Site Lo				enning Roa	ad NE, W	ashington, DC				
				Coordin		448449		1325558	.0' E	Ground Elev: 27.85	'NAVD88	Sheet:	2 of	
					Method:		Sonic	D.: O.			C"/O"	Well Installed:		Nested
Weathe	·r·	Sunny, 6	30'e F	Sample	Type(s)	:		Drive Co		Boring Diameter:	6"/8"	Screen:		nd 30-45
	Contrac		Summit -	Danny N	Vinevski		Logged	ву:	BD	Start Date: Date Complete:	10/8/2014	Depth of Boring:		50 10
Diming	Contrac									Date Complete.	10/0/2014	vvaler.		10
Depth (ft)	Sample Depth	Blow Count	% Recovery	.c. PID/FID (ppm)	Graphic Log	USCS Symbol	20 to 25			Description			Water levels & Well design	Well Completion
21 22 23 24	NA	NA	%96	0.0		CH ML			-	d Light Gray mottled CLAY, I			6" anulus	->
			/	0.0		SP			•	SAND, fine grained, little silt	, medium loose, we	et, no odor.		
25			,	0.0		SP	24.8 to 25 25 to 30	ft. bgs: Not r 25 to 25.6 f		ng Brown SAND, fine graine	ed, little silt, mediur	n loose, wet, no odor.	Well seal	
26 27 28	N A	ΥV	%08	0.0		SM	25.6 to 29. loose, wet,		rong Brown	SAND, well graded, some sil	lt, some well grade	d rounded gravel,		*
29	-							. bgs: Not rec	overed.				2" ris <u>er</u> 3 <u>0 ft.</u>	
31				0.0		SW	30 to 35 30 to 32 ft. no odor.	_ <u>bgs:</u> Strong	Brown SAN	D, well graded, little well grad	ded rounded grave	I, trace silt, loose, wet,	0.01"	
32	₹	¥	%08	0.0		ML	32 to 32.7	ft. bgs: Gray	SILT, little	clay, low plasticity, soft, mois	st, no odor.		slotted screen	
33			8 /			SP	32.7 to 33	.8 ft. bgs: Lic	tht Gray SAI	ND, medium grained, loose,	wet, no odor.			
34				0.0		SM	33.8 to 34	ft. bgs: Light	t Gray SANI	D, fine grained, some silt, littl	le clay, medium de	ense, wet, no odor.		
2F	1		/				34 to 35 ft.	. bgs: Not rec	overed.					
35	-			0.0		SP	35 to 40 35 to 36.4	ft. bgs: Very	Pale Brown	SAND, fine to medium grain	ned, loose, wet, no	odor.	#2 filter sa	and
37	1		/	0.0		SP	36.4 to 37	ft. bgs: Yellov	wish Red SA	ND, fine to medium grained	I, loose, wet, no od	or.		
38	- ¥	N A	%02	0.0		SP	37 to 38.6	ft. bgs: Very	Pale Brown	SAND, fine to medium grain	ned, loose, wet, no	odor.		
39	-						38.6 to 40	ft. bgs: Not re	ecovered.					
40		Coil ala) aifiedi	ACTA	20407 (110	CC)	1 DO 400 /	Vieuel/Mass	ual Maste -	d) Cail Analytical	0-11	nlag not gallagted		
Referen	ices:		on and ide 1988).	ntification	technique	es also r	eference	Visual/Man the Engine	ering Geo	logy Field	Soil sam	ples not collected.		
	tional ments		Grap	ohic symb	ool codes:	: "Other"	- Open d	Irive Sonic	core barre	el.				
	-	Checked by				Date:								

				Client:	PEPC			Ι //\ Λ	<i>l</i> 12
					Number	:	60287343.09 Boring: 3400 Benning Road NE, Washington, DC	IVIV	/ -13
				Site Loc Coordin		448449	· · · · · · · · · · · · · · · · · · ·	3 0	f 3
					Method:		Sonic Well Installed:	Dua	al Nested
				Sample	Type(s)):	4" Open Drive Core Boring Diameter: 6"/8" Screen:		nd 30-45
Weather Drilling C		Sunny, 6	60's F Summit -	Danny	dinoveki		Logged By: BD Start Date: 10/8/2014 Depth of Boring:		50
Drilling	Jonilac	ioi.	Summi.	Dailily	MILIEVSKI		Date Complete: 10/8/2014 Water:		10
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	- Well Completion
41				0.0 0.0		SP	40 to 45 40 to 41.2 ft bgs: Dark Gray SAND, fine to medium grained, little organics (degraded wood fragments), trace silt, wet, loose, slight organic odor.		
42	N V	NA	%02	0.0		SW	41.2 to 43.7 ft. bgs: Brown SAND, well graded, little well graded subrounded gravel, loose, wet, no odor.	0.01" slotted screen	
44							43.7 to 45 ft. bgs: Not recovered.	#2 sand 45 ft.	→
46				0.0		ML	45 to 50 45 to 48 ft. bgs: Gray SILT, little fine sand, trace clay, low plasticity, medium soft, moist, no odor.	Hydrated bentonite	
48	N A	N A	100%	0.0	<i> </i>	SM-SC	48 to 48.1 ft. bgs: Black leafy ORGANIC MATERIAL, wet, soft, slight organic odor.	chips	
50				0.0		CH CH	48.1 to 49.8 ft. bgs: Gray SAND-SILT-CLAY mixture, fine grained sand, dense, moist, no odor. 49.8 to 50 ft. bgs: Light Yellowish Brown CLAY, high plasticity, very stiff, dry, no odor.		
51						CIT	TD = 50 ft bgs.		00000333333
52									
53									
54									
55								_	
57									
58									
59									
60 Reference	ces:		on and ide				D2488 (Visual/Manual Method). Soil Analytical: Soil samples not collected. eference the Engineering Geology Field		
Additi Comm		Checked by		phic symb	ol codes	: "Other"	- Open drive Sonic core barrel.		

1	Location	on Sketch		Client:	PEPC	0							Ν //\ Λ	111
	Soil	Stockpiles		Project	Numbe	er:	60287343.09					Boring:	MW	/-14
N	Pa	ived Road		Site Lo	cation:		3400 Benning Road	J NE	E, Washin	gton, DC				
_		MW-14 €	stern d	Coordin	nates:	44896		<u>' E</u>	Ground	Elev: 25.2	24' NAVD88	Sheet:	1 o	
	Tra	nsformers	Southeastern	Drilling	Metho		Sonic					Well Installed:	Dual	Nested
				Sample	Type(- /	4" Open Drive Core		Boring D			Screen:	7-27 an	d 39-57
Weathe			0-70's F				Logged By: (3R	Start Da			Depth of Boring	g:	60
Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski			Date Co	mplete:	9/24/2014	Water:		~12
														_
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol			De	scription			Water levels & Well design	Well Completion
1 2 3 4	٧Z	٧V	۷۷			SM/FILL	0 to 5 Asphalt 0 to 5 ft bgs: Cleared by A	ir Kn	ife/Vac Truck	s. Appeared to	be SILTY SANE	FILL	Flush pad Concrete Bentonite grout slurry 2 ft. Well seal	
5			,		00000000000	(5 to 10							
_			/	0.2		SM/FILL	5 to 7 ft. bgs: SILTY SAN	ID (S	M): light redd	ish brown; fine	sand (90%); fev	v fines:	5 ft.	
6			/	0.0			oxidized; nonplastic; trace							
_			/	0.3									= 0	
′ —			/	0.0			7 to 9 ft. bgs: SILTY SANI	D wit	h GRAVEL (S	SM): vellowish	tan: coarse to fir	ne sand, angular:	7 ft.	
	Ϋ́	Ϋ́	%08			SM	coarse gravel, angular, qu							
8			1											
			/											EII
9			/	0.0			9 to 10 ft. bgs: Not recove	ered						
			/				o to 10 tt. bgo.	iou.						E III
10			<i>'</i>		004 NOVE 1808		10 to 15						2" riser	+
			/	0.0		SM	10 to 12.7 ft. bgs: Same a	s Ab	ove. (SM) \wi	th coarse frac	tion (gravel) grad	ling out: drv.		
11			/	0.0					(- ,-		(3 * 1) 3 * * *	3 ,		
10			/	0.0										
12			/	0.0									$\overline{}$	
13	Σ	Ϋ́	80%	0.0			12.7 to 14 ft bgs: Same as	s abc	ove (SM); pred	dominately fin	e sand; some co	arse, angular;	_	
13			/				some gravel, subround; le saturated.	nses	(up to 1mm)	slightly plastic	, buff clay; loose;	nonplastic;		
14			/	0.0		SM	oataratea.							
'-			/	0.0		OW	14 to 15 ft. bgs: Not recov	vered	l.					
15			/										0.01"	111
				0.0		sw	15 to 20						slotted screen	
16			/	0.0			15 to 19 ft. bgs: SILTY SA							·[[[]
-			/				(60%), subround and suba fines; nonplastic; very loos			gravel (20-25	%), subround an	d subangular; few		ĦĦ
17			/				6" from 15.5 to 16 fine silt			ay.			#2 sand	
	4	4	_% /	0.0						-			-	刊川
18	Ν	A	%08											
														11
19			/	0.0		sw								
			/				19 to 20 ft. bgs: Not recov	ered.						
20														ELL
							and D2488 (Visual/Mar			Analytical:	Soil san	ples not collected	i.	
Referen	ces:		cription an Field Mar			echnique	s also reference the Er	igine	eering					
				(- /-									
A = 100	anc!		Grap	hic symb	ol code	clean city water used during boring advancement as drilling					drilling			
Addition Comm										fluid.				
		Checked	by			Date:								

1		on Sketch		Client: Project			60287343.09 Boring:	MW	-14
N		aved Road	<u>* </u>	Site Lo			3400 Benning Road NE, Washington, DC		
		MW-14 (⊕ ছ_	Coordi	nates:	44896	55.1' N 1325694.5' E Ground Elev: 25.24' NAVD88 Sheet:	2 of	3
	Tra	ansformers	Southeastern border	Drilling	Metho	d:	Sonic Well Installed:	Dual	Nested
				Sample	e Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	7-27 and	d 39-57
Weath			0-70's F				Logged By: GR Start Date: 9/23/2014 Depth of Borin	g:	60
Drilling	Contra	actor:	Summit	- Danny	/ Ninev	ski	Date Complete: 9/24/2014 Water:		12
									_
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	Well Completion
			,	0.0		SM	20 to 25 20 to 20.2 ft bgs: Same as above (SM) saturated.	0.01"	E II
21			/	0.0		CL	20.2 to 21.2 ft bgs; SANDY SILTY CLAY (CL); greenish grey; low to medium plastic; very fine sand; some silt; wet.	slotted screen	8
22	ΨZ.	∀ Z	%0%	0.0		ОН	21.2 to 22.8 ft bgs: ORGANIC CLAY (OH); strong brown with black laminae; medium to high plasticity; soft; well preserved wood; moist to dry.	#2 sa <u>nd</u>	
23	-			0.0		sw	22.8 to 24 ft. bgs: Well graded SAND (SW); grey; coarse to fine sand, subangular and subround; few crystalline gravel, very loose; uncemented saturated.	2" riser	
							24 to 25 ft. bgs: Not recovered.	8" anulus	
25				0.0	0000pc	GM	25 to 30	o andud	
26	-			0.0		Civi	25 to 27 ft. bgs: SILTY SANDY GRAVEL (GM); pale orangish brown; gravel (up to 3'), angular and subangular; coarse to fine sand; few fines, nonplastic; well graded; very loose; saturated.		
27	∀Z	Ϋ́Z	100%	0.0		ОН	27 to 30 ft. bgs: ORGANIC CLAY (OH); grey with black mottle; stiff; high plasticity; contains unaltered and slightly carbonized wood (1.5"); moist to dry.	27 ft.	
29				0.0		On		Well seal	
30				0.0	200 100 100 100 .				
31			/	0.0 0.0		ОН	30 to 35 30 to 35 ft. bgs: Same as Above. (OH); white mottling; dry.	***	
			/						
32			/	0.0					
	₹	₹ Z	100%						
33	Z	Z	₽ /					6" anulus	
			/	0.0					7
34			/					Hydrated	
			/					bentonite ch	ips →
35			/	0.0	m-m-m-m				MW
			/	0.0		ОН	35 to 40 35 to 39.7 ft. bgs: Same as above (OH); transitioning to inorganic CLAY (CH); grayish brown with		MW
36			/	0.0			irregular black mottle; few silt; micaceous; high plasticity; medium stiff to soft; trace unaltered and		
			/				carbonized organics; moist to dry.		
37				0.0	,,,,,,,,,,	СН			World
38	- X	Ϋ́	100%	0.0				3	7 ft.
39				0.0		СН	39.7 to 40 ft. bgs: SILTY CLAY/SAND (SC); grey; fine and very fine sand; poorly graded; low plasticity;	0.01" slotted	9 ft.
40			/		(11111111	SC	very soft; saturated.	screen	→
Referei	nces:	Soil des		nd identifi	cation te	. ,	and D2488 (Visual/Manual Method). Analytical: Soil samples not collected as also reference the Engineering	d.	
			Gra	phic syml	ool code	s: "Othe	er" - Open drive Sonic core barrel.		
Addit				•					
Comr	IICIIIS	Checked h	NV.			Date:			

1	Location	on Sketch		Client:	PEPC	0		N //\	11
N /	Soil	Stockpiles	<u> </u>		t Numbe		60287343.09 Boring:	MW-	-14
IN	Pa	aved Road MW-14	1 -		cation:		3400 Benning Road NE, Washington, DC	0 -4	
	т		e st		nates:			3 of	3 Nested
	ıra	nsformers	Southe	Drilling Sample			Sonic Well Installed: 4" Open Drive Core Boring Diameter: 6"/8" Screen:	7-27 and	
Weath	er.	Clear 5	0-70's F		, турс(•	Logged By: GR Start Date: 9/23/2014 Depth of Borin		60
Drilling			Summit		Ninev		Date Complete: 9/24/2014 Water:	9.	12
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design	Well Completion
41				0.0 0.0		SC	40 to 45 40 to 41 ft. bgs: Same as above (SC); grades to 41 to 44 ft bgs: Poorly graded SAND (SP); fine sand, subround; micaceous; loose; uncernented; saturated.	0.01" slotted	
42	Ϋ́	Ϋ́	80%	0.0		SP		screen	→
44				0.0			44 to 45 ft. bgs: Not recovered.		
46				0.0 0.0 0.0	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SP	45 to 50 45 to 46 ft. bgs: Same as above. (SP); Saturated. 46 to 48.5 ft.bgs: Well graded SAND (SW); buff to light grey; coarse to fine sand, arkosic; very loose; uncemented; saturated.		
48	Ϋ́N	N	80%	0.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SW	bottom of core contains organics, carbonized and unaltered wood. 48.5 to 50 ft. bgs: Not recovered.	#2 <u>sand</u>	
50			/	0.0		SW	50 to 55 50 to 52.2 ft. bgs: Same as above (SW); contains 1.5" carbonized interval; grain size distribution increasing with depth containing few subrounded gravel; very loose; saturated.		
52	ΥN	NA A	%02	0.0		SC SW GW	<u>52.2 to 52.6 ft. bgs</u> : CLAYEY SAND (SC); greenish grey; very fine sand; slightly plastic; very soft; 1mm laminae of carbonized organics; saturated. <u>52.6 to 53.4 ft. bgs</u> : Well graded SAND (SW); grey; arkosic grading to well graded SAND and GRAVEL (GW); very loose; saturated.		
54				0.0			53.4 to 55 ft. bgs: Not recovered.		
56				0.0 0.0		GM CH	55 to 60 55 to 56 ft. bgs: SILTY SAND and GRAVEL (GM); coarse to fine gravel, quartzose, subround and subangular, multicolored; coarse to fine sand, arkosic; trace nonplasic fines; loose; uncemented; saturated. sharp contact	57	ft.
57			100%	0.0			56 to 60 ft. bgs: FAT CLAY (CH); variagated grey and strong brown and red; very stiff; high plasticity/LL; dry. ARUNDEL CLAY. TD=60 ft. bgs	Hydrated	
59				0.0			Terminated at regional confining layer. First observed Groundwater at ~12 ft. bgs.	6" anulus	ps →
60 Referen	nces:	Soil des		nd identifi	cation te		and D2488 (Visual/Manual Method). Analytical: Soil samples not collected as also reference the Engineering	i.	
Addit Comn		Checked b		ohic syml	ool code	s: "Othe	r" - Open drive Sonic core barrel.		

1	Locatio	on Sketch		Client:	PEPC	0								N //\ A	, 1F
North			_	Project	t Numbe	er:	6028734	43.09					Boring:	MW	-15
	`	MW-15	\oplus	Site Lo						, Washin					
Parking)			Coordi	nates:	44836	3.6' N	132630	3.1' E	Ground I	Elev: 36.3	36' NAVD88	Sheet:	1 0	f 4
Pa	Pedestrian	Tunnel		Drilling			Sonic						Well Installed:	Dual	Nested
	South	west corne	r of site	Sample	Type(s):	4" Open	Drive (Core	Boring Di	iameter:	6"/8"	Screen:	28-38 an	d 50-60
Weathe	er:	Overca	st 60's F	•			Logged I	Ву:	GR	Start Da	ite:	9/17/2014	Depth of Borin	g:	65
Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski				Date Co	mplete:	9/30/2014	Water:		~30
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol				Des	scription			Water levels & Well design	Well Completion
					XXXXXXXXXX		0 to 5	Asphalt S	urface.					Flush pad	1111
1 2 3 4 5	ď Z	NA	¥ Z			SM/SC FILL						be SILTY CLAY		Concrete 2" riser	-
			/	0.0		SM/SC	5 to 10	5 to 6 ft. b	gs: Cleare	d by air knife					
6			/			FILL								Bentonite grout slurry	
			/	0.0		sc	6 to 6.5 ft. bo fine sand, ar	gs.: CLAYI ngular; me	EY SAND (dium to hig	SC); yellowish h plastic fines;	orangish red; ; micaceous; s	with lenses of pale oft, loose; wet.	e grey and bright red;	- —	
7			/												
	-	_	« /			CL	6.5 to 8.1 ft. l	bgs: SAND	Y CLAY (C	L): variagated	pale grev and o	rangish red: sticky:	medium plastic; fine		
8	ž	ž	62%	0.0			sand; micace					, , , , , , , , , , , , , , , , , , , ,			
			/		ennanninin.		-								
9			/				8.1 to 10 ft.	. bgs: Not	recovered						
			/												
10			/												
			7	0.0	////////	MH/CH	10 to 15								
11			/	0.0			10 to 11.8 f	ft. bgs:Ela	stic SILT/C	LAY (MH/CH	H); olive grey v	vith pale grey mo	ottle; sticky; high LL;	8" anulus	
			/				high plastic	city; trace v	ery fine sa	ind; moist.				1	
12			/	0.0											
	∢	∢	« /				11.8 to 15 f	ft. bgs: No	t recovere	d.					
13	ž	Ž Š	26%												
-			/												
14			/												
			/												
15		,	/												
			/	0.0		мн/сн	15 to 20								
16			/	0.0			15 to 20 ft	has: Sam	e as abov	e (CH): reddis	sh brown with	pale grey mottle	· dry		
-			/				10 10 20 11.	<u>ogo</u> . oa	0 40 4201	o (011), 100a.		paio groy motao	, a.y.		
17			/												
	₹	₹	100%	0.0											
18	Z	Z	5 /												
			/												
19				0.0											
			/												
20		,	/			мн/сн									
D - (_						and D2488				Analytical:	Soil san	ples not collected	d	
Referen	ices:		cription an Field Mar			cinique	es also refe	erence th	e ⊏ngine	emg					
	i	- 37													
Additi	onal		Grap	hic symb	ool code	s: "Othe	r" - Open o	drive core	e barrel.		Clean city v fluid.	vater used dur	ing boring advanc	ement as	drilling
Comm				f					nuiu.						
		Checked I	by			Date:									

1	Locati	on Sketch		Client:	PEPC	0		N //\ N / 1 F
North			_	Projec	t Numbe	er:	60287343.09 Boring:	MW-15
		MW-15	\oplus	Site Lo	cation:		3400 Benning Road NE, Washington, DC	
Parking)			Coordi	nates:	44836	33.6' N 1326303.1' E Ground Elev: 36.36' NAVD88 Sheet:	2 of 4
Pa /	Pedestria	n Tunnel		Drilling	Metho	d:	Sonic Well Installed	: Dual Nested
	South	hwest corn	er of site	Sample	e Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen:	28-38 and 50-60
Weath	er:	Overca	ast 60's F	-			Logged By: GR Start Date: 9/17/2014 Depth of Bori	ng: 65
Drilling	Contra	actor:	Summit	- Danny	/ Ninev	ski	Date Complete: 9/30/2014 Water:	~30
Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log	USCS Symbol	Description	Water levels & Well design
21 22 23 24 25 26 27 28 29	NA NA NA	NA NA	100%	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		CH ML/CL	20 to 25 ft bgs: Same as above (CH); undifferentiated CLAYS (CH). @ 22.5 to 22.9 ft. fine sand content increase so core is very soft. Below that becomes pale grey and light reddish brown clay and elastic silt with lignite. 25 to 30 25 to 29.8 ft. bgs: FAT CLAY (CH); strong brown with intermittent black streaking and sporradic lenses (upto 3mm) of buff tan; highly plastic; medium stiff and soft, lignite or Mn+staining (not dendritic); lenses of silt or mineral concretion not reactive to HCI; dry. grading to	Bentonite grout slurry 26 ft.
30			/	0.0		SC/CL	29.8 to 30 ft. bgs; SANDY SILTY CLAY/CLAYEY SAND (CL/SC); strong brown; little to no plasticity; fine sand; unaltered wood; dense; dry. 30 to 35	
31				0.0 0.0 0.0	ערענ	SW	30 to 31.5 ft. bgs: SAND with GRAVEL (SW); pale grey, coarse to fine sand, angular; gravel (up to 1.5"), quartzose, subangular; few low plasticity fines that grade out quickly; very loose; well graded; unaltered wood; saturated.	#2 sand
3334	Ą Z	NA	100%	0.0	X		31.5 to 35 ft. bgs; Clean Well graded GRAVEL/SAND Mixture (GW); orangish red changing to buff and yellowish orange; gravel, (1.5"), subangular and subround, quartzose, multicolor; coarse to fine sand, angular; very loose; micaceous; oxidation present most strongly in 3" bands; saturated.	2" riser
35 36 37 38 39 40	V V			-		. ,	35 to 40 35 to 37 ft. bgs: Same as above (GW); nonplastic fine content increasing toward bottom 6 inches; saturated. sharp contactscour or depositional unconformity 37 to 40 ft. bgs: FAT CLAY (CH) with lignite and wood; dark grey and black mottle of carbonized wood up to 10mm thick, pale grey lenses of silt up to 7 mm thick; highly plastic clays; elastic silts; stiff; unaltered wood and lignite; dry. and D2488 (Visual/Manual Method). Analytical: Soil samples not collected	8" anulus 38 ft Hydrated bentonite chips
Referen	nces:					echnique	es also reference the Engineering	
Addit Comr		Geology Checked b		,	•	s: "Othe	er" - Open drive Sonic core barrel. Clean city water used during boring advar fluid.	ncement as drilling

1	Location	n Sketch		Client	: PEPC	0		N //\ A /	1 [
North			_	Projec	t Numbe	er:	60287343.09 Boring:	MW.	-15
ļ	_	MW-15	\oplus	Site L	ocation:		3400 Benning Road NE, Washington, DC		
Parking				Coord	linates:	44836	3.6' N 1326303.1' E Ground Elev: 36.36' NAVD88 Sheet:	3 of	4
Par	Pedestrian	Tunnel		Drilling	g Metho	d:	Sonic Well Installed:	Dual N	Nested
	South	west corne	er of site	Samp	le Type(s):	4" Open Drive Core Boring Diameter: 6"/8" Screen: 2	28-38 and	50-60
Weath	er:	Overca	st 60's	s F			Logged By: GR Start Date: 9/17/2014 Depth of Boring	g:	65
Drilling	Contra	ctor:	Summ	nit - Dann	y Ninev	ski	Date Complete: 9/30/2014 Water:	-	~30
	ч			e e		_		∞	tion
	Jept	Ħ	ery	udd	bo-	ďm,	Description	els	ble.
(£)	ole [Cor	Recovery) []	hic	S)	·	r lev desi	Con
Depth (ft)	Sample Depth	3low Count		PID/FID (ppm)	Graphic Log	USCS Symbol		Water levels Well design	Well Completion
۵	S	Δ.	%		111111111		40 to 45	<i>\$</i> \$	
				0.0	/////////	СН	40 to 43.3 ft bgs: Same as above; FAT CLAY (CH) with lignite; moist.	1	Warrish
41				0.0	/////////		40 0 45.5 It bys. Same as above, FAT CLAT (CH) with lightle, moist.	1	WWW.
			/	/	/////////			1	W///////
42			/	0.0	/////////				///////////
	Α	₹	100%		/////////			Hydrated bentonite	
43	2	_	₽ /	0.0	/////////		last 6" becomes sandy (up to 2%) with contact at 43.3 ft. that is heavily oxidized and saturated.	chips	→
			/					1	//////////////////////////////////////
44			/	0.0		SP	43.3 to 45 ft bgs: fine and medium SAND (SP); tan with bright yellowish orange staining; predominantly medium and fine sand, angular with few coarse angular sand; oxidized	1	
			/				nonplastic fines; loose; weakly cemented; saturated.	1	////////W
45		ļ	/	0.0				1	$\mu_{\rm MWW}$
				0.0	/////////	СН	45 to 50	6" anulus	
46				0.0			45 to 48 ft bgs: SILTY FAT CLAY (CH); veriegated brown and pale grey; high plasticity;	· · · · · · · · ·	////W////
				/			sticky, medium stiff, trace fine sand; few lignite inclusions and carbonization staining bands up to 3" thick where fine sand content ~25%; dry and moist.	1	MWK0
47			/	0.0	/////////			1	Mayor
47			_s /	0.0	//////////			1	
40	Ϋ́	₹	100%	0.0	/////////			يد ا	1990000
48				0.0		sc	48 to 50 ft bgs: CLAYEY fine SAND (SC); brown; fine sand (70-80%); slightly plastic fines;	48	; n.
-							medium dense to loose; poorly graded; moderately cemented; bright orange oxidation at	1	100
49			/	0.0			last 3"; saturated.	1	
			/					1	
50			/	0.0		-	50 to 55	l 50	oft 📃
				0.0		SC		1	
51				0.0			50 to 51.1 ft. bgs: Same as above (SC); saturated.	1	-
			/	/		GC	51.1 to 52.3 ft. bgs: SAND/CLAY and GRAVEL Mixture (GC); yellowish orange and bright red staining; gravel up to 1", quartzonse, angluar; coarse to fine sand; plastic clays (up to 15%);	1	
52			/	0.0			loose; well graded; saturated.	1	
	₹	Ϋ́	80%		1278947 <i>8</i>	Ý.	contact	1	100
53	2	_	® /	0.0		SC/CL	52.3 to 54 ft. bgs: SAND CLAY Mixture (SC/CL); yellowish orange changing to grey with black staining; low plasticity; fine sand, angular; medium dense/medium stiff; wet grading to dry.	1	() () () () () ()
						Ý	odanning, on paddony, me dana, angada, medalin denes, medalin dan, net grading to dry.	1	1
54			/	0.0		V		İ	
			/				54 to 55 ft. bgs: Not recovered.	İ	1
55			/					0.01"	4
				0.0		sc	55 to 60	slotted screen	4
56				0.0			55 to 56.5 ft. bgs: CLAYEY SAND with GRAVEL (SC) and lignite; pale grey and black;	· 	$\rightarrow \Box$
				/			predominately fine sand; low plasticity fines; coarse sand, angular; few angular gravel up to 3"; stratified carbonized and unaltered wood; very loose; saturated.	1	W. W.
57			/	0.0	00000	GM		1	- S i ii S
·	_	_	。/	0.0	3000	O.V.	56.5 to 58 ft. bgs: GRAVEL/SAND/SILT Mixture (GM); yellowish orangish brown; gravel,	#2 filter san	d
58	Ν A	Š	%09		0000	1	angular to subround, up to 3"; coasre to fine sand; nonplastic fines; oxidized; includes cobbles up to 4"; very loose; well graded; saturated.	#4 milet San	→
58			/		0000		58 to 60 ft. bgs: Not recovered.	İ	
			/					İ	
59			/					İ	
_			/					İ	
60		Soil class	sified	sing ASTA	1 D2/197	(IISCS)	and D2488 (Visual/Manual Method). Analytical: Soil samples not collected	60 ft.	_ =====================================
Referen							and D2468 (visual/manual method). Analytical: Soli samples not collected is also reference the Engineering	1.	
				/lanual (19		1	•		
	ı		—,		المعادة المعاد	1011	all Open drive Conin and housely and the control of		a:111:a- z
Additi	onal		G	rapnic syn	idoi code	s: "Othe	" - Open drive Sonic core barrel. Clean city water used during boring advance fluid.	ernent as dr	illing
Comm									
		Checked by	y			Date:			

Models Table Site Location: 3400 Benning Road NE, Washington, DC Convent Elevis 3.8.3 (NAVD88) Sheet: 4 of 4	1	Locatio	on Sketch		Client:	PEPC	0					N //\ N /	1 [
Coordinates 448383.6 N 1328030.1 F Ground Elev: 96.86 NAVD88 Sheet: 4 of 4 Analytical: 5 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Analytical: 4 of 1 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet: 4 of 4 Sheet:	North			_							Boring:	IVIVV	-15
Satisfactories and set and second action of the second second set of the second	_ /		MW-15	\oplus									
Satisfactories and set and second action of the second second set of the second	rking)							Ground Elev: 36.				
Weather: Overcast 60 9 F Drilling Contractor: Summit - Danny Ninevaki But Complete: 9/30/2014 Water: -30 Description	g ,	Pedestrian	Tunnel										
Description Date Complete: 9/30/2014 Water: -30		1				: Type(s):						
Description To a 65 h bgs. T								Logged By: GR				g:	65
61 O.0 65 0.0 60.2 ft. bgs. Cobbles, setward. 62 \$\frac{1}{2}\$ \$1	Drilling	Contra	ctor:	Summit	- Danny	Ninev	ski		Date Complete:	9/30/2014	Water:		~30
61 60 to 60 60 to	Depth (ft)	Sample Depth	Blow Count	% Recovery	PID/FID (ppm)	Graphic Log			Description				Well Completion
72	62	V V	AN	100%	0.0		СН	60.2 to 65 ft bgs: FAT CLAY (CArundel Clay. TD = 65 ft bgs. Terminated at regional confining	CH); variagated red and gr	ey; highly plastic;	very stiff; sticky; dry.	Bentonite plug	t. bgs.
Additional Comments fluid.	72 73 74 75 76 77 78 79 80		Soil des	cription ar	id identifi nual (198	cation te 8).	echnique	es also reference the Engine	eering				
		ments	Checked b		ohic symb	ool code	s: "Othe	er" - Open drive Sonic core b		water used duri	ng boring advanc	ement as d	rilling



Phase I Sediment Boring Logs

Boring Log

BORING #: SED1.5B

Clie	nt: PEPCC)			Location: 3400 Benning Road, Washington, DC	C, MD I	Logged By: David Smith/Jeremy	Joiner
Proj	ect: Benni	ng Road F	acility		Northing: 447688.22 Easting: 1323208.9	.90 I	Drilling Company: ASI	
Proj	ect #: 6028	37343			Water Surface Elevation (ft MLLW): 2.66	ı	Drilling Method: Vibracore	
Star	t Date: 11/	6/2013			Top of Sediment Elevation (ft MLLW): -3.14	I	Recovery (ft): 8.9	
Finis	sh Date: 1	1/6/2013			Depth of Coring (fbm): 10.2		Surface Sample Method: Ponar	
O Depth	PID (ppm)	nscs code	Graphic		Soil and Rock Desci Classification Scheme	cription ne: USCS		Soil Sample Identification
	0.0	ML		0.5				SED1.5B00N
_		ML		1	n SILT, trace fine sand, very moist to wet, organic odor			SED1.5B 6"-12"
2	0.1	ML ML		2	n SILT, trace fine sand, wet, organic odor			SED1.5B01N
_	0.4	WL.		Diom.	Cite 1, reace line state, very filolog, organic stati			
4	0.2	ML		4 Brown	n SILT, trace fine sand, moist, organic odor			SED1.5B03N
_	0.1							
	0.2	ML		5.5	n SILT, little fine grain micaceous sand, very moist, no odor			
6	0.3	WIL		Diowi	Total I, mad line grain inicaccodo dana, vely moloc, no dadi			SED1.5B05N
_	0			7				
	0.1	ML SM		7.5	n sandy SILT, fine to medium grain, well graded, micaceous, very moin silty SAND, fine to medium grain, well graded, micaceous, moist, no			
8	0.0							SED1.5B07N
10	0.0			10				SED1.5B 9' - 10'
		Re	emarks:					
8	ECOM 320 Guilford columbia, M		ite L					

Boring Log

BORING #: SED10A

Clien	t: PEPCC)			Location:	3400 Benning	Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	450826.25	Easting:	1323959.18	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	1.09	Drilling Method: Vibracore	
Start	Date: 11/	11/2013			Top of Sec	liment Elevati	on (ft MLLV	/): -14.31	Recovery (ft): 8.2	
Finisl	h Date: 1	1/11/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML		Mix or of sar 0.5	f medium brown s mpler.	silt and some organi	c debris underlair	by silty clay layer. Interf	ace depth varied. Recovery was 4.5 below top	SED10A00N
	0.2	ML			brown SILT, little	woody organic matt	er, wet, organic c	dor		SED10A 6"-12"
2	0.4			2						
	0.0	ML		Brown	n sandy SILT, fine	e grain, micaceous,	very moist, no od	or		SED10A01N
4	0.2									SED10A03N
	0.1	SW		4.5 Brown	n SAND, medium	to coarse grain, we	ll graded, micace	ous, very moist to wet, no	o odor	
		PT	1, 11, 11, 1		ut husks, bivalve	shells, woody orga	nic matter, black	no odor		
6	0.0	SP		5.5 Brown	n SAND, coarse g	grain, some small gr	avel, wet, no odo	r		
	0.0	ML		Dark	brown sandy SILT	Γ, fine to medium gr	ain, well graded,	trace small gravel, very n	noist, no odor	SED10A05N
8	0.0	SP		8	brown SAND little	a silt fina to madium	a grain, noorly gra	uded towards medium. little	le woody organic material, wet, no odor	SED10A07N
		OI.		Daik	2.0mi Oniad, iillik	o one, mile to medium	. gram, poorly gle	acci condition medium, ill	is 1999 Signilo Helicher, Wolf 110 0001	
10	0.1			10						SED10A 9'-10'
		R	emarks:			<u> </u>				
83	ECOM 20 Guilford Dlumbia, M	d Road Su								

Boring Log

BORING #: SED10B

Sheet 1 of 1

Client: PEPCO Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner **Northing:** 450790.50 Project: Benning Road Facility **Easting:** 1324041.53 Drilling Company: ASI Project #: 60287343 Water Surface Elevation (ft MLLW): 1.81 Drilling Method: Vibracore **Start Date:** 11/11/2013 Top of Sediment Elevation (ft MLLW): -7.99 Recovery (ft): 5.9 Depth of Coring (fbm): 10 Finish Date: 11/11/2013 Surface Sample Method: Ponar

				<u> </u>	
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
0		ML		Medium brown SILT, gradual transition to fine sand, trace organic debris, few bivalves observed	
	0.0	IVIL	0.5	wedulin blown SIET, gradual transition to line sand, trace organic debits, few bivalves observed	SED10B00N
	0.0	SM		Dark brown silty SAND, fine to medium grain, well graded, little woody organic matter, trace small gravel, wet, organic odor	SED10B 6"-12"
2	0.2		2		
_	0.1	SM	3	Brown silty SAND, fine to medium grain, well graded, trace small gravel, wet, organic odor	SED10B01N
4	0.2	SM		Brown silty SAND, fine to medium grain, well graded, trace small gravel, very moist to wet, organic odor	
	0.0				SED10B03N
6	0.7		6		SED10B05N

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Boring Log

BORING #: SED1A

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	447487.01	Easting:	1322949.33	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surf	face Elevation	(ft MLLW):	1.66	Drilling Method: Vibracore	
Start	Date: 11/0	6/2013			Top of Sec	diment Elevat	ion (ft MLLV	V): -4.34	Recovery (ft): 8.7	
Finis	h Date: 11	1/6/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML			m brown SILT					SED1A00N
	0.0	ML		Brown	i SILT, soft, wet t	to saturated, no odo	or			SED1A 6"-12"
2	0.2	ML		1.5 Brown	n clayey SILT, lea	an, no plasticity, ver	y moist to wet, no	odor		
	0.0			3						SED1A01N
4	0.0	ML			n clayey SILT, lea	an, no plasticity, mo	ist, no odor			SED1A03N
	0.0			5						
	0.1	ML		Brown	n clayey SILT, so	oft, wet to saturated				
6	0.3	ML	-	6 Brown	n clayey SILT, no	plasticity, little fine	grain sand, little o	organic matter, moist, org	anic odor	SED1A05N
	0.2									
8	0.0									SED1A07N
	0.0									
10	0.0			10						SED1A 9'-10'
		P	emarks:							
83	ECOM 20 Guilford Dlumbia, Ml	d Road Su								

Boring Log

BORING #: SED1B

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner			
Proje	ct: Bennir	ng Road F	acility		Northing:	447483.69	Easting:	1323023.25	Drilling Company: ASI				
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	0.841	Drilling Method: Vibracore				
Start	Date: 11/	6/2013			_	diment Elevat		V): -11.16	Recovery (ft): 9.8				
Finis	h Date: 11	1/6/2013	I		Depth of C	oring (fbm):	10.1		Surface Sample Method: Ponar				
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification			
	0.0	CL		Mediu 0.5	ım brown silty CL	AY				SED1B00N			
	0.2	ML		Brown	n SILT, wet, organ	nic odor				SED1B 6"-12"			
2	0.0	ML		1.5 Brown	n clayey SILT, lea	an, no plasticity, ver	y moist to wet, orç	ganic odor					
	0.0			3						SED1B01N			
4	0.0	ML			n clayey SILT, lea	an, no plasticity, ver	y moist, no odor			SED1B03N			
	0.1												
6	0.3									SED1B05N			
	0.0												
8	0.0	ML		8	8								
	0.0	IVIL		9	r clayey SILT, lea	in, no piasticity, illue	e iiile graiii sanu,	very moist, no odor		SED1B07N			
10	0.0	SP		Light t	brown SAND, me	edium to fine grain, p	poorly graded tow	ards medium, little silt, ve	ery moist, no odor	SED1B 9'-10'			
		P	emarks:										
83	ECOM 20 Guilford Dlumbia, Ml	l Road Su											

Boring Log

BORING #: SED2.5B

Clien	t: PEPCC)			Location:	3400 Benning	Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennir	ng Road Fa	acility		Northing:	448285.96	Easting:	1323217.10	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	2.33	Drilling Method: Vibracore	
Start	Date: 11/	7/2013			Top of Sed	liment Elevat	ion (ft MLLV	V): -0.67	Recovery (ft): 8.5	
Finis	h Date: 11	1/7/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML			ım brown SILT, tra	ace organic matter				SED2.5B00N
		ML		0.5Brown	n SILT, approx. 40	0% woody organic r	matter, wet to sat	urated, organic odor		SED2.5B 6"-12"
	0.5									
2	0.5	ML		1.5 Brown	n sandy SILT, fine	e to medium grain, v	vell graded, wet,	mica flakes, organic odor		SED2.5B01N
	0.4									
4	0.0									SED2.5B03N
	0.2									
6	1			6						
	0.5	ML		7	n SILT, little fine s					SED2.5B05N
8	0.5	ML		Brown	n clayey SILT, lea	an, no plasticity, ve	ry moist to wet			SED2.5B07N
	0.4									
10	0.3			10						SED2.5B 9'-10'
		Re	marks:							
	ECOM 20 Guilford									
	olumbia, Mi									

Finish Date: 11/7/2013

Boring Log

Depth of Coring (fbm): 10

BORING #: SED1C

Surface Sample Method: Ponar

Sheet 1 of 1

Client:PEPCOLocation:3400 Benning Road, Washington, DC, MDLogged By:David Smith/Jeremy JoinerProject:Benning Road FacilityNorthing:447452.22Easting:1323207.62Drilling Company:ASIProject #:60287343Water Surface Elevation (ft MLLW):2.75Drilling Method:VibracoreStart Date:11/7/2013Top of Sediment Elevation (ft MLLW):-0.35Recovery (ft):8.9

1 1111311	Date.	1/1/2013		Surface Sample Metriou.	
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
0		SM		Medium brown SILT and SAND, fine grained, some organic matter	
	0.0			0.5	SED1C00N
_	0.7	ML		Brown SILT, trace fine sand, little organic matter present, wet, odor	SED1C 6"-12"
2	0.8	_			SED1C01N
	0.6			3	
4	1.1	ML		Brown sandy SILT, fine to medium grain, well graded, micaceous, wet, odor	050400001
	1.3			5	SED1C03N
1		ML		Brown sandy SILT, fine to medium grain, well graded, micaceous, very moist, odor	
	1.2	ML		5.5 Brown sandy SILT, fine to medium grain, well graded, micaceous, some clay, no plasticity, very moist, odor	
6	1.1	ML	-	Brown clayey SILT, lean, no plasticity, very moist to wet, trace organic matter, little fine grain micaceous sand, odor	SED1C05N
8	0.8				SED1C07N
	2.4	_			
10	1.3			10	SED1C 9'-10
		R	emarks:		
832	COM 20 Guilfor Iumbia, N	d Road Sเ			

Boring Log

BORING #: SED2A

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington	on, DC, MD	Logged By: David Smith/Jeremy	Joiner							
Proje	ct: Benni	ng Road F	acility		Northing: 447930.53	3069.35	Drilling Company: ASI								
Proje	ect #: 6028	37343			Water Surface Elevation (ft MLLW): 2.96		Drilling Method: Vibracore								
Start	Date: 11/	6/2013			Top of Sediment Elevation (ft MLLW): -13	3.14	Recovery (ft): 8.3								
Finis	h Date: 1	1/6/2013			Depth of Coring (fbm): 8.9		Surface Sample Method: Ponar								
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic		Soil and Rock I Classification So	Description cheme: USC	s	Soil Sample Identification							
		ML		Mediu 0.5	m brown SILT and leafy organic matter, few bivalve shells			SED2A00N							
		ML			y organic matter with sandy SILT, fine grain sand, saturated, o	organic odor		SED2A 6"-12"							
_ 2_		ML 1.5 Brown SILT, little organic woody matter, very moist, organic odor 3 Brown SILT, little organic woody matter, trace clam shells and fragments, moist, organic odor													
4		ML ML	-	Brown 4	SILT, little organic woody matter, trace clam shells and fragm	nents, moist, org	anic odor	SED2A03N							
6	0.0			6				SED2A00N							
	0.0	CL		7	silty CLAY, lean, no plasticity, moist, no odor			SED2A05N							
8	0.0	SM		Brown silty SAND, fine to medium grain, well graded, moist to very moist, no odor											
	0.0			8.9				SED2A07N							
		R	emarks:	Refusal a	at 8.9 fbm										
83	ECOM 320 Guilford Olumbia, M	d Road Su													

Boring Log

BORING #: SED2B

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Wasl	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner					
Proje	ct: Bennir	ng Road F	acility		Northing:	447933.51	Easting:	1323118.10	Drilling Company: ASI						
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	0.46	Drilling Method: Vibracore						
Start	Date: 11/	5/2013			Top of Sed	diment Elevat	ion (ft MLLW	V): -5.84	Recovery (ft): 7.7						
Finis	h Date: 1	1/5/2013			Depth of C	oring (fbm):	10.6		Surface Sample Method: Ponar						
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and I Classificati	Rock Description ion Scheme: USC	s	Soil Sample Identification					
	0.0	SP		Mediu 0.5	um brown SAND a	and leafy organic m	natter, fine grain			SED2B00N					
		ML			n SILT, 50%-60%	organic detritus ma	atter, saturated, or	rganic odor		SED2B 6"-12"					
2	0.0									SED2B01N					
	0.0			3											
4	0.0	ML			n sandy SILT, fine	sandy SILT, fine grain sand, micaceous, trace small gravel, saturated, organic odor SI									
	0.0			5											
6	0.0	ML		Brown 6	wn clayey SILT, lean, no plasticity, little fine sand, trace gravel, saturated, organic odor										
	0.0	SM			n silty SAND, fine	to medium grain, n	nicaceous, trace w	vood pieces, saturated, c	organic odor	SED2B05N					
8	0.0	SM		Brown	n silty SAND, fine	to medium grain, n	nicaceous, trace w	vood pieces, saturated, a	anaerobic odor	SED2B07N					
	0.0			9											
10	0.0	SM		Brown	n silty SAND, fine	SED2B 9'-10'									
		R	emarks:												
83	ECOM 20 Guilford Dlumbia, M	d Road Su													

Boring Log

BORING #: SED2C

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Wash	ington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	447937.51	Easting:	1323344.64	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW): 2	2.99	Drilling Method: Vibracore	
Start	Date: 11/	6/2013			Top of Sed	liment Elevat	ion (ft MLLW): -0.41	Recovery (ft): 9.5	
Finis	h Date: 1	1/6/2013			Depth of Co	oring (fbm):	10.2		Surface Sample Method: Ponar	
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and F Classification	Rock Description on Scheme: USC	s	Soil Sample Identification
	0.0				ım brown SILT an	d SAND, fine grain	n, some organic ma	tter		SED2C00N
	0.0	ML		0.5 Brown	n clayey SILT, trad	ce small gravel, le	an, no plasticity, ve	ery moist to saturated, o	organic odor, odor	- OEBZOOON
	0.1									SED2C 6"-12"
2	0.4									SED2C01N
	3.6			3						
4	4.8	ML		Brown	n clayey SILT, lea	an, no plasticity, litt	tle micaceous fine	sand, trace small grave	el, very moist, organic odor, odor	SED2C03N
	5.2									
6	4.6									SED2C05N
	4.1									
8	3	011		8	- illi OAND S	As an addition				SED2C07N
	0.5	SM		Brown	II SIIIY SAND, TINE	: to mealum grain, i	uace lean clay, no	μια s ιισιιγ, trace small g	ravel, moist to very moist	525200/N
10	0.0	SM		9.75 10 Brown	n silty SAND, fine	to medium grain,	little organic matte	r, trace lean clay, no pla	asticity, trace small gravel, moist	SED2C 9'-10'
		R	emarks:							
83	ECOM 20 Guilford Dlumbia, M	d Road Su								

Boring Log

BORING #: SED3.5B

t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy													
ct: Bennir	ng Road F	acility		Northing: 44	18558.14	Easting:	1323056.80	Drilling Company: ASI									
ect #: 6028	37343			Water Surface	Elevation (ft MLLW):	-0.49	Drilling Method: Vibracore									
Date: 11/	12/2013			Top of Sedim	ent Elevatio	on (ft MLLV	V): -15.19	Recovery (ft): 8.1									
h Date: 1	1/12/2013			Depth of Cori	ng (fbm):	10		Surface Sample Method: Ponar									
PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification								
0.0	ML ML		SILT		trace organic m	atter			SED3.5B00N								
1.0	ML	-		n SILT, wet					SED3.5B 6"-12"								
1.0	ML		Brown SILT, some fine sand, wet, slight organic odor 3														
0.9	ML		Dark brown sandy SILT, fine to medium grain, well graded, little woody organic matter, organic odor 3.5 Dark brown/black silty SAND, fine to medium grain, micaceous, poorly graded towards medium, trace organic matter, slight organic														
0.7	SM		3.5														
0.2			5														
0.1	ML			brown ciayey SIL I , le	ean, no plasticity	, some fine san	a, very moist										
	ML			brown clayey SILT, lea	an, no plasticity,	more fine sand,	very moist, slight organic	codor	SED3.5B05N								
0.0	SW		Brow	n SAND, fine to coars	se grain, well gra	ded, micaceou	s, little silt, trace organic	matter									
0.2			8						SED3.5B07N								
	SW		Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter, moist														
10 SEI																	
	R	emarks:															
320 Guilford		uite L															
	ECOM 820 Guilford 0.0	ECCM Ect: Benning Road Foct #: 60287343 Date: 11/12/2013 h Date: 11/12/2013 MIL	ECCM SZO Guilford Road Suite L	Detail Color Col	Date: 11/12/2013	act: Benning Road Facility act #: 60287343 Date: 11/12/2013 Date: 11/12/2013 Depth of Coring (fbm): Comparison of Coring (fbm) of Corin	nct: Benning Road Facility ict#: 60287343 Date: 11/12/2013 In Date: 1	cct: Benning Road Facility cct #: 60287343 Date: 11/12/2013 Note: 11/12/2013 Depth of Coring (fbm): 10 Soil and Rock Description Classification Scheme: USC Soil and Rock Description Classification Scheme: USC Silt and SAND, fine to medium grain, well graded, micaceous, little silt, trace organic organic sand, very moist Mil. Dark brown dayey Silt T, lean, no pleaticity, some fine sand, very moist Silt rock province organic matter Dark brown dayey Silt T, lean, no pleaticity, some fine sand, very moist Silt rock province organic matter organic matter Dark brown dayey Silt T, lean, no pleaticity, some fine sand, very moist Silt rock province organic matter organic matter Dark brown dayey Silt T, lean, no pleaticity, some fine sand, very moist organic organic matter Silt and SAND, fine to coarse grain, well graded, micaceous, little silt, trace organic matter Dark brown dayey Silt T, lean, no pleaticity, some fine sand, very moist organic matter Silt and SAND, fine to coarse grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to coarse grain, well graded, micaceous, little silt, trace organic matter Silt and SAND, fine to coarse grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter Brown SAND, fine to medium grain, well graded, micaceous, little silt, trace organic matter	Ret Benning Road Facility Northing: 448558.14 Easting: 1323056.80 Drilling Company: ASI ct #: 60287343 Water Surface Elevation (ft MLLW): -0.49 Drilling Method: Vibracore Top of Saddiment Elevation (ft MLLW): -15.19 Recovery (ft): 8.1 Top of Saddiment Elevation (ft MLLW): -15.19 Recovery (ft): 8.1 Depth of Coring (fbm): 10 Surface Sample Method: Ponar Soil and Rock Description Classification Scheme: USCS Soil and Rock Description Classification Scheme: USCS On ML								

Boring Log

BORING #: SED3A

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	448455.78	Easting:	1323010.07	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	2.58	Drilling Method: Vibracore	
Start	Date: 11/	7/2013			Top of Sec	diment Elevat	ion (ft MLLV	V): -11.22	Recovery (ft): 8.9	
Finis	h Date: 11	1/7/2013			Depth of C	oring (fbm):	10.3		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML			ım brown SILT ar	nd organic matter (r	nostly root mass)	, bivalve shells present		SED3A00N
	0.0	ML			n SILT, little clay,	no plasticity, wet				SED3A 6"-12"
		ML		Brown	n clayey SILT, lea	an, no plasticity, we	et			
2	0.5									SED3A01N
	1.0									
4	0.4	ML		4 Brown	n clavey SILT lea	an, low to no plastic	city yery moist			SED3A03N
	0.2			Diow.	rolayoy Ol21, loc	an, row to no place.	ony, very mote			
6	0.2									SED3A05N
	0.7	ML		7	a condu SILT fina	o to medium grain	wall graded, little	e clay, no plasticity, very	maint to wat	
8	0.5	IVIL		Biowi	i Saliuy SIL I , iilik	e to medium grain,	wen graded, nue	e day, no plasticity, very l	ilioist to wet	SED3A07N
	0.7									
-	0.8									SED3A 9'-10'
10	0.4			10						
A F	ECOM	Re	emarks:							
83	ECOM 20 Guilford Dlumbia, Ml		ite L							
	viui iiDid, IVII	∠ 1U40		-						

Boring Log

BORING #: SED3B

Sheet 1 of 1

Client: PEPCO Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner **Northing:** 448464.11 Project: Benning Road Facility Easting: 1323062.88 Drilling Company: ASI Project #: 60287343 Water Surface Elevation (ft MLLW): 0.1 Drilling Method: Vibracore **Start Date:** 11/8/2013 Top of Sediment Elevation (ft MLLW): -14.70 Recovery (ft): 7.4 Depth of Coring (fbm): 9.7 Finish Date: 11/8/2013 Surface Sample Method: Ponar

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.0	SP		0.5	Medium brown SAND, fine grain, some organic material (leaves and twigs)	SED3B00N
	0.2	ML			Gray to brown SILT with some clay, no plasticity, trace fine sand, bi-valve present, moist, slight organic odor	SED3B 6"-12"
	0.2	ML		1	Gray to brown SILT with some clay, no plasticity, trace fine sand, trace organic matter (fine roots and wood), moist, slight organic odor	
2	0.2	ML		3	Gray to brown SILT with some clay, no plasticity, trace fine sand, slight fine mica flakes, trace organic matter (fine roots and wood), trace rounded gravel, moist, slight organic odor	SED3B01N
4	0.3	ML			Gray to brown SiLT with some clay, no plasticity, increasing fine sand, bi-valve present, trace organic matter (fine roots and wood), trace rounded gravel, moist, organic odor	SED3B03N
6	0.0	sw		5.4	Lighter brown to tan SAND, fine to medium grain, micaceous, well graded, some organic matter, moist	
	0.1			7		SED3B05N
8_	0.2	SW			Lighter brown to tan SAND, fine to medium grain, micaceous, well graded, more organic matter, moist	OF DODGEN
	0.3					SED3B07N
		F	Remarks:	10 Re	fusal at 9.7 fbm	SED3B 9'-10'

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Boring Log

BORING #: SED3C

Client	Client: PEPCO Project: Benning Road Facility									tion:	3	400 E	Benni	ing F	Road,	Was	hingto	on, DC,	, MD	Log	ged	By: [David	Smith/Je	eremy	Joiner
Projec	ct: Bennii	ng Road F	ac	ility	,				North	ning:	4	14846	67.71		East	ing:	1323	3124.13	3	Dri	ling (Compa	any:	ASI		
Projec	ct #: 6028	37343							Wate	r Sur	fac	e Ele	evatio	on (f	t MLL	-W):	2.85			Dri	ling I	/letho	d: Vi	bracore		
Start	Date: 11/	7/2013							Тор	of Sec	dir	nent	Elev	atio	n (ft l	MLLV	V): -2.	75		Re	cover	y (ft):	9.0			
Finish	Date: 1	1/7/2013						- 1	Deptl	h of C	Coi	ring ((fbm)): 9	9.9					Sui	face	Samp	le Met	hod: P	onar	
Depth (ft bgs)	PID (ppm)	USCS Code		Graphic											Soi Class	l and sificat	Rock ion So	Descri cheme:	ption : USC	s						Soil Sample Identification
0	0.0	OL	-			+	M	1edium	brown	SILT a	and I	leafy o	rganic r	matte	r											SED3C00N
	0.0	ML	_	 	<u>-</u> -	0	.5									grain s	and, we	et to satur	ated, or	rganic	odor					SED3C 6"-12"
2	1.1	ML	_			Brown sandy SILT, fine to medium grain, well graded, micaceous, wet, organic odor Brown silty SAND, micaceous, fine to medium grain, well graded, little woody organic matter, wet, organic odor																SED3C01N				
4	1.8	SM																	SED3C03N							
	0.8																									
6	0.9																									
	1.2	D.T.		() () () () () () () () () ()		. 7																				SED3C05N
8	1.4	PT ML	1		<u> </u>	- 1	.5			BILT, fin					et, orga	nic odo	r									SED3C07N
	1.1																									SESSON
	1.1	.9																			SED3C 9'-10'					
		R	lem	nark	(S:		Refus	sal at	9.9 f	bm																
83	COM 20 Guilford Iumbia, M	d Road Su			-																					

Boring Log

BORING #: SED4.5B

Client	: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner								
Projec	t: Bennir	ng Road F	acility		Northing:	449128.77	Easting:	1323163.53	Drilling Company: ASI									
Projec	t#: 6028	37343			Water Surf	face Elevation	(ft MLLW):	1.16	Drilling Method: Vibracore									
Start I	Date: 11/8	8/2013			Top of Sec	diment Elevat	ion (ft MLLV	V): -7.44	Recovery (ft): 8.5									
Finish	Date: 11	1/8/2013			Depth of C	oring (fbm):	8.6		Surface Sample Method: Ponar									
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification								
	0.0	ML		0.5		some organic matter				SED4.5B00N								
_	2.2	ML		1				tter, moist, slight organic	odor	SED4.5B 6"-12"								
2	1.9	ML PT PT	<u> </u>	2.4 2.5 _\ Layer	2.5 Layer of leafy and woody organic matter, some silt, slight sheen, organic odor Layer of wood material (log)													
4	10.3	ML		3 Brown	<u> </u>													
6	0.7	SP	X-2-1-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-	6 SAND	D, fine to medium	n grain, poorly grad	ed, mica flakes, li	ttle silt, little organic mat	iter, trace small gravel, moist	SED4.5B05N								
	0.6	SP		7					er, trace small gravel, moist									
8	0.5																	
_				10						SED4.5B 9'-10'								
832	COM 20 Guilford Iumbia, Mi	d Road Su	emarks:	Refusal a	at 8.6 fbm													

Boring Log

BORING #: SED4A

Client	: PEPCO)					Location	n: :	3400 E	3ennin	g Road	d, Was	hington,	DC, MD	Lo	gged E	By: Da	avid Sm	nith/Jerem	y Joiner
Projec	t: Bennir	ng Road F	acility				Northing	g:	44891	17.18	Eas	sting:	132297	76.43	Dı	illing C	ompar	ıy: AS	SI	
Projec	t#: 6028	37343					Water S	urfa	ace Ele	evation	(ft ML	LW):	0.68		Dı	illing N	lethod	Vibra	acore	
Start I	Date: 11/	12/2013					Top of S	Sedi	iment	Elevat	tion (f	MLLV	/): -13.1	2	Re	cover	/ (ft):	9.3		
Finish	Date: 11	1/12/2013					Depth o	of Co	oring ((fbm):	10				Sı	ırface S	Sample	Metho	d: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	_							Sc Clas	oil and ssificat	Rock De ion Sche	escription eme: USC	n CS					Soil Sample Identification
	0.0	ML			0.5	Mediu	m brown SIL	_T, so	ome orga	anic matte	er									SED4A00N
_	0.0	OL				Brown	SILT, bivalv	ve she	ells and	woody or	rganic de	ebris pron	ninent, wet,	odor						SED4A 6"-12"
2	0.0	ML			1.5 Dark brown sandy SILT, fine grain, micaceous, very moist															SED4A01N
4	0.0																			SED4A03N
6		SM SM			6.5		•				•			rge gravel, w arge gravel, v						SED4A05N
8																				SED4A07N
10					10															SED4A 9'-10'
		R	emark	s:																
832	COM 20 Guilford Iumbia, MI	l Road Su																		

Boring Log

BORING #: SED4B

Client	: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner					
Projec	ct: Bennir	ng Road F	acility		Northing:	448900.28	Easting:	1323088.70	Drilling Company: ASI	
Projec	ct #: 6028	37343			Water Surf	face Elevation	(ft MLLW):	-0.09	Drilling Method: Vibracore	
Start I	Date: 11/	12/2013			Top of Sec	diment Elevat	ion (ft MLLV	V): -5.79	Recovery (ft): 8.7	
Finish	Date: 1	1/12/2013			Depth of C	oring (fbm):	9.8		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML		Mediu	um brown SILT, g	gradual transition to	fine sand			SED4B00N
	0.0	ML			n SILT, little orga	anic matter, wet				SED4B 6"-12"
2	0.0	SM		2 Brown odor	n silty SAND, fine	e to medium grain, w	vell graded, trace	small gravel, mica flakes,	little woody organic matter, wet, slight organic	SED4B01N
4	0.0	SM		Brown	n silty SAND, fine nic odor	e to medium grain, v	vell graded, trace	small gravel, mica flakes,	little woody organic matter, moist, slight	055,0000
	0.0	ML ML	_	4.5		e grain, micaceous		vood organic matter, mo	ist to wet	SED4B03N
6	0.0									SED4B05N
	0.0	SW		6.5 Gray	brown SAND, mi	icaceous, fine to m	edium grain, well	graded, very moist to we	et	
8	0.0	SW	<u>/ / / / / / / / / / / / / / / / / / / </u>	8 Crov	brown SAND, mi	ingenous fine to m	odium grain walli	graded, little lean clay, v	von moist to wot	SED4B07N
		CL		8.5		ticity, trace fine san			ory most to wet	. =
	0.0			10						SED4B 9'-10'
		R	emarks:	Refusal	at 9.8 fbm					
AE	СОМ									
832	20 Guilford Iumbia, M		uite L							

Boring Log

BORING #: SED4C

Clier	t: PEPCC)			Location:	3400 Benning	Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennii	ng Road F	acility		Northing:	448888.08	Easting:	1323146.06	Drilling Company: ASI	
Proje	ect #: 6028	37343			Water Surf	face Elevation	(ft MLLW):	-0.26	Drilling Method: Vibracore	
Start	Date: 11/	13/2013				diment Elevat		V): -3.66	Recovery (ft): 8.0	_
Finis	h Date: 1	1/13/2013		1	Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML SM		SILT a	m brown SILT and SAND, fine o	grain, trace organic	matter			SED4C00N
	0.0	ML		0.5	SILT, trace fine					
_	0.0			1						SED4C 6"-12"
2	0.0	ML		Brown 2	SILT, trace fine	sand, little woody c	rganic debris, we	t, slight organic odor		
	0.1	ML		Brown	SILT, trace fine	to medium sand, m	icaceous, little wo	oody organic debris, very	moist, organic odor	SED4C01N
4	0.0									SED4C03N
_	0.7	M		5	alayay CII T. la	an no placticity little	la fina ta madium		minosour maint	
6	0.8	ML		Brown	i ciayey SiL i , ie:	an, no plasticity, litt	le fine to mealum	grain sand, well graded	micaceous, moist	SED4C05N
_	0.7									
8	0.8	ML		8 Brown	n clayey SILT, le:	an, low plasticity, lit	tle fine to mediun	n grain sand, well graded	d micaceous, moist	SED4C07N
_	1.1									
10				10						SED4C 9'-10'
		R	emarks:							
	ECOM	l Doed C	ita							
	320 Guilford Olumbia, M		ite L							

Boring Log

BORING #: SED5.5B

Client	PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner							
Projec	t: Benni	ng Road F	acility		Northing:	449512.52	Easting:	1323400.33	Drilling Company: ASI			
Projec	t#: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	1.41	Drilling Method: Vibracore			
Start [Date: 11/	12/2013			Top of Sed	iment Elevati	on (ft MLLV	V): -6.99	Recovery (ft): 8.8			
Finish	Date: 1	1/12/2013			Depth of Co	oring (fbm):	10		Surface Sample Method: Ponar			
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification		
	0.0	ML		Mediu	um brown SILT und	derlain by light grey	clay, varying de	nsity interface		SED5.5B00N		
	0.3	ML		Brown	n SILT, trace orga	anic matter, wet				SED5.5B 6"-12"		
2	0.7	ML		1.5 Brown	n sandy SILT, fine	grain, micaceous,	very moist to we	t, slight organic odor		SED5.5B01N		
	0.9	ML ML		3	•	dy SILT, fine grain, micaceous, little clay, no plasticity, moist yey SILT, lean, low to no plasticity, trace fine micaceous sand, moist						
4	0.4	CL		3.5				eous sand, moist, organic	odor	SED5.5B03N		
	2											
6	0.4									SED5.5B05N		
_	0.4											
8	0.0	SW		7.5 Brown	n silty SAND, fine	to coarse sand, po	orly graded tow	ards fine, micaceous, tra	ce small gravel, very moist			
	0.0	SW		Brown	n silty SAND, fine	to coarse sand, we	ell graded, micad	ceous, trace small gravel	, wet	SED5.5B07N		
10	0.0			10						SED5.5B 9'-10'		
		R	emarks:									
832	COM 20 Guilford lumbia, M	d Road Su D 21046	uite L									

Boring Log

BORING #: SED5A

Client	: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner					Joiner				
Projec	ct: Bennir	ng Road F	acility		Northing:	449411.76	Easting:	1323198.27	Drilling Company: ASI					
Projec	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	1.76	Drilling Method: Vibracore					
Start I	Date: 11/8	8/2013			Top of Sed	diment Elevat	ion (ft MLLW): -6.94	Recovery (ft): 8.5					
Finish	Date: 11	1/8/2013			Depth of C	oring (fbm):	10.1		Surface Sample Method: Ponar					
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and R Classification	Rock Description on Scheme: USC	s	Soil Sample Identification				
-	0.0	ML		Medi	lium brown SILT, so	ome organic matter				SED5A00N				
	0.4	SM		Brov	wn silty SAND, mic	caceous, fine to me	dium grain, well gr	raded, moist		SED5A 6"-12"				
2	0.3	ML		1.5 Brow	wn SILT, little fine g	grain micaceous sa	ind, wet			SED5A01N				
4	0.8	ML			Brown sandy SILT, fine grain, micaceous, trace woody organic matter, wet									
	3.3	ML	-	4.5 Brow	wn clayey SILT, lea	an, no plasticity, litt	le fine sand, moist	, odor						
6	0.6									SED5A05N				
	0.5	SM		6.5 Brow	wn silty SAND, fine	e to medium grain,	well graded, mica,	, little woody organic m	atter, very moist	SEBSAGSIN				
8	0.4	SP		SAN	ND, fine to medium	n, poorly graded, litt	lle organic matter,	moist		OFFICE				
	0.8									SED5A07N				
_10	0.7			10						SED5A 9'-10'				
			Remarks:											
832	COM 20 Guilford Iumbia, Mi	l Road Su D 21046	uite L											

Finish Date: 11/8/2013

8320 Guilford Road Suite L Columbia, MD 21046

Boring Log

Depth of Coring (fbm): 10

BORING #: SED5B

Surface Sample Method: Ponar

Sheet 1 of 1

Client: PEPCO
Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner

Project: Benning Road Facility
Northing: 449379.09 Easting: 1323266.89 Drilling Company: ASI

Project #: 60287343
Water Surface Elevation (ft MLLW): 2.69 Drilling Method: Vibracore

Start Date: 11/8/2013
Top of Sediment Elevation (ft MLLW): -8.51
Recovery (ft): 8.0

rınısn	Date: 1	1/8/2013		Surface Sample Method: Pon	ar
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
0		ML		Medium brown SILT, trace leafy and woody organic matter	+
	0.0			0.5	SED5B00N
Ī		ML	1	Brown SILT, trace fine sand, wet	
. 1	2.1]	1	SED5B 6"-12"
		ML		Brown sandy SILT, mica flakes, trace small gravel, woody organic matter	
	2.8				
2			4	2	SED5B01N
		ML		Brown SILT, micaceous, lean clay, low to no plasticity, moist to wet	OLDODO IIV
	3.5				
- +		ML	1	Brown SILT, micaceous, some sand, lean clay, low to no plasticity, moist to wet	
	1.6				
4				4	OFDEDOM
		SM		Brown silty SAND, fine to medium grain, well graded, moist	SED5B03N
	0.9				
	0.9			_	
- †		CL	111111111111111111111111111111111111111	5 Brown silty CLAY, little fine sand, little mica flakes, no plasticity, moist to wet	
	0.7				
6				6	SED5B05N
		CL		Gray to brown mottled sandy CLAY, fine grain, micaceous, lean, no plasticity, moist	SEDSBOSIN
	0.5				
	0.0				
- †		-			
				7.5	
		CL		Gray silty CLAY, lean, low to no plasticity, moist	
8					SED5B07N
					SEDSB0/N
	0.8				
	0.0				
			V//////		
					SED5B 9'-10'
10			<u> </u>	10	
		R	emarks:		
AF	СОМ				
			1		

Boring Log

BORING #: SED5C

Client	: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner					Joiner					
Projec	t: Bennir	ng Road F	acility		Northing:	449338.07	Easting:	1323337.14	Drilling Company: ASI						
Projec	t#: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	-0.17	Drilling Method: Vibracore						
Start I	Date: 11/	11/2013			Top of Sec	diment Elevat	ion (ft MLLW	/): -1.87	Recovery (ft): 9.8						
Finish	Date: 11	1/11/2013			Depth of C	oring (fbm):	10.5		Surface Sample Method: Ponar						
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and I Classificati	Rock Description on Scheme: USC	s	Soil Sample Identification					
	0.0	ML		Mediu	um brown SILT de	ensity interface at 4	below top of grab	, small amount of stainin	g observed	SED5C00N					
	0.5	ML			SILT, wet, odor					SED5C 6"-12"					
2	2.7	ML													
4	1.8	ML ML		Black	Black SILT, wet, odor Brown clayey SILT, lean, no plasticity, trace fine micaceous sand, wet, odor										
	1.6	IVIL		5	Trodycy OILT, Ioc	an, no placeous, no	NOC TITLE THIOLOGOGU	o sand, wet, edoi							
6	2.0	ML		Brow 6	n clayey SILT, lea	an, no plasticity, tra	ce fine micaceou	s sand, very moist to we	ot						
_	1.8	ML		Brow	n clayey SILT, lea	an, no plasticity, tra	ace fine micaceou	s sand, very moist to we	t, odor	SED5C05N					
8	2.3									SED5C07N					
	2.1	SW		8.5 Brow	n SAND, fine to n	nedium grain, mica	ceous, well grade	d, very moist to wet, oc	lor						
10	1.3	SW		Brow	n SAND, fine to n	nedium grain, mica	ceous, well grade	d, trace lean clay, no pl	asticity, very moist to wet, odor	SED5C 9'-10'					
		R	emarks:												
832	COM 20 Guilford Iumbia, MI		lite L												

Boring Log

BORING #: SED6.5E

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Washii	ngton, DC, MD	Logged By:	Jeremy Join	er	
Proje	ct: Bennii	ng Road F	acility		Northing:	449649.36	Easting: 1	323969.79	Drilling Con	npany: N/A		_
Proje	ct #: 6028	37343			Water Surf	face Elevation	n (ft MLLW): N	A	Drilling Met	hod: Hand A	ugered	
Start	Date: 11/	25/2013			Top of Sec	diment Elevat	tion (ft MLLW):	: 1.69	Recovery (ft): 8		
Finis	h Date: 1	1/25/2013			Depth of C	oring (fbm):	8		Surface Sar	mple Method:	Hand A	Augered
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Ro Classificatio	ock Description n Scheme: USC	s			Soil Sample Identification
	0.0	ML		Dark t	brown/black SIL1	Γ, some woody org	anic matter, little fine	e grain sand, moist, o	dor			SED6.5E00N
	0.0											SED6.5E 6"-12"
2	0.0			2								
	0.0	ML			brown/black SIL1	Г, trace organic ma	atter, little fine grain s	sand, moist, odor				SED6.5E01N
4	0.0	ML			n clayey SILT, lea	an, no plasticity, ve	ery moist to wet, soft	, odor				SED6.5E03N
	0.0											
6	2.8	CL		5.5 Browr	n silty CLAY, lear	n, no plasticity, med	dium stiff, wet					
	0.0			7								SED6.5E05N
	1.1	CL		Brown	n silty CLAY, lear	n, no plasticity, stiff	f, wet					
	1	Р	emarks:	Refusal at 8	8 fbm							
83	ECOM 20 Guilford Dlumbia, M	d Road Su		reduced at (- 10111							

Boring Log

BORING #: SED6A

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy					Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	449707.18	Easting:	1323401.29	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	-0.52	Drilling Method: Vibracore	
Start	Date: 11/	13/2013			Top of Sec	diment Elevati	on (ft MLLV	/): -6.12	Recovery (ft): 7.0	_
Finis	h Date: 11	1/13/2013	1	Г	Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	OL		Mediu	um brown SILT an	nd approximately 50	% organic matter	(leaves and twigs)		SED6A00N
	0.0	ML			∢SILT, detritus lea	af matter, twigs, biv	alve shells, some	e small gravel, saturated	, strong organic odor	SED6A 6"-12"
2	0.0	SM		1.5	•	aceous, fine to med		aded, trace small gravel,	woody organic matter, wet, slight organic odor	CEDGAGGAN
	0.2									SED6A01N
4	0.5	CL		3.5 Brown	n silty CLAY, lean	i, low to no plasticity	, very moist, sligh	it organic odor		SED6A03N
	1.4	SC		4.5 Brow	rn/black clayey SA	AND, lean, no plasti	city, fine to medi	um grain, well graded mo	oist	
6	0.5									SED6A05N
	0.2			7						
		R	emarks:							
83	ECOM 20 Guilford Dlumbia, Mi	l Road Su								

Boring Log

BORING #: SED6B

Clien	t: PEPCC)			Location:	3400 Benning	Road, Was	hington, DC, MD	MD Logged By: David Smith/Jeremy Joiner			
Proje	ct: Bennir	ng Road F	acility		Northing:	449687.44	Easting:	1323424.78	Drilling Company: ASI			
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	-1.14	Drilling Method: Vibracore			
Start	Date: 11/	13/2013			Top of Sed	liment Elevat	ion (ft MLLV	V): -7.64	Recovery: (ft) 8.0			
Finis	h Date: 1	1/13/2013			Depth of Co	oring (fbm):	10		Surface Sample Method: Ponar			
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification		
	0.0	ML		Mediu	um brown SILT wit	th density interface	at 2, fine sand be	elow 2, few pieces of orga	anic matter	SED6B00N		
	0.4	ML			n sandy SILT, fine	e to medium grain,	well graded, mica	a flakes, trace small grav	els, little woody organic matter, odor	SED6B 6"-12"		
_ 2_	0.5									SED6B01N		
	2.4	ML		2.5 Brown	n clayey SILT, lea	an, no plasticity, tra	ce fine micaceou	s sand, very moist to we	it, odor			
4	1.7									SED6BA03N		
	2.2			5								
6	0.9	ML			n clayey SILT with	h fine to medium gr	ain sand, well gr	aded, lean, no plasticity,	trace fine micaceous sand, very moist to wet			
_ 0_	0.5	SP SP		6.5		to coarse grain, po		a flakes, wet a flakes, some organic v	voody matter, wet	SED6B05N		
8	0.3	SM		Brown	n silty SAND, fine	to medium grain, v	well graded, very	moist, odor		SED6B07N		
										SEDUBUTN		
10	0.3			10						SED6B 9'-10'		
		R	emarks:									
83	ECOM 20 Guilford Dlumbia, M	d Road Su										

Boring Log

BORING #: SED6C

Client	: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner					Joiner
Projec	t: Bennir	ng Road F	acility		Northing:	449590.24	Easting: 1	323525.05	Drilling Company: ASI	
Projec	t#: 6028	37343			Water Surfa	ace Elevation	(ft MLLW): 0.	96	Drilling Method: Vibracore	
Start I	Date: 11/	14/2013			Top of Sed	diment Elevati	ion (ft MLLW):	-1.84	Recovery (ft): 9.0	
Finish	Date: 11	1/14/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Ro Classification	ock Description n Scheme: USC	s	Soil Sample Identification
J	0.0	ML		Mediu	um brown SILT, d	density interface at 2	2, fine sand at 2, fev	v pieces of organic de	ebris	SED6C00N
	0.4	ML			n SILT, trace fine	sand, wet, slight org	ganic odor			SED6C 6"-12"
2	2.4	ML ML		2.5		iILT, trace fine sand, trace woody organic matter, wet brown SILT, little fine sand, mica flakes, very moist, organic odor				
4	1.9	CL		4.5 Brown	n silty CLAY, lear	n, low to no plasticit	ty, trace fine grain sa	and, moist		SED6C03N
6	0.8									SED6C05N
	0.3	CL		7 Brown	n silty CLAY, lean	n, low to no plasticit	ty, little fine grain sai	nd, mica flakes, moist	t	
8	0.2									SED6C07N
10	0.0			10						SED6C 9'-10'
		R	emarks:							
832	COM 20 Guilford Iumbia, Mi	l Road Su								

Boring Log

BORING #: SED7.5D

Clier	nt: PEPCO)			Location:	3400 Benning	Road, Wash	ington, DC, MD	Logged By: Jeremy Joine	r	
Proj	ect: Bennir	ng Road F	acility		Northing:	449865.94	Easting:	1323906.87	Drilling Company: N/A		
Proj	ect #: 6028	37343			Water Surf	ace Elevation	(ft MLLW): N	NA	Drilling Method: Hand Au	gered	
Star	t Date: 11/2	25/2013			Top of Sed	iment Elevat	on (ft MLLW)): 2.55	Recovery (ft): 6.8		
Finis	sh Date: 11	/25/2013	Ī		Depth of Co	oring (fbm):	6.8		Surface Sample Method:	Hand Augered	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Classification	cock Description on Scheme: USC		Soil Sample	Identification
	0.0	ML		Dark	k brown SILT, some	e organic matter ar	nd leafy debris, trad	ce clay, lean, no plastic	ity, very moist, odor	SED7.	5D00N
-	0.0									SED7.5I	D 6"-12"
2	0.0	ML		1.5	wn clayey SILT, lea	ayey SILT, lean, no plasticity, trace fine organic matter, very moist to wet, odor					
-	0.0										
4	0.0	M		4	alayay SUT Jac	no plasticity little		trace fine organic matte	v	SED7.	5D03N
_	0.0	ML		BIOV	wn dayey SILT, lea	m, no plasticity, illi	e iine grain sand,	trace line organic matte	a, wet		
6	0.0	CL		5.5 Brov	wn/gray silty CLAY,	lean, no plasticity	soft, odor			SED7.	5D05N
	0.0			6.8							
		p.	emarks:	Refusal a	at 6.8 fbm						
Δ	ECOM	K	ciliai NS.		2.0 10						
8	320 Guilford olumbia, MI	I Road Su D 21046	ite L								
	,	¥ - *									
				-			-		·		

Boring Log

BORING #: SED7.5E

Client	: PEPCC)			Location:	3400 Benning	Road, Wash	nington, DC, MD	Logged By: Jeremy Joiner	
Projec	t: Bennii	ng Road F	acility		Northing:	449782.68	Easting:	1324043.58	Drilling Company: N/A	
Projec	t#: 6028	37343			Water Surf	face Elevatio	n (ft MLLW):	NA	Drilling Method: Hand Augered	
Start	Date: 11/2	25/2013				liment Elevat		/): 1.49	Recovery (ft): 9	
Finish	Date: 1	1/25/2013			Depth of C	oring (fbm):	9		Surface Sample Method: Hand A	Augered
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and F Classificati	Rock Description on Scheme: USC	s	Soil Sample Identification
		ML		Dark b	orown/black SILT	, some organic mat	ter, wet, organic o	dor		SED7.5E00N
	0.0									SED7.5.5E 6"-12"
2	0.0	ML		2 Dark b	orown/black SILT	, less organic matte	er, moist, organic o	odor		SED7.5E01N
4	0.0	ML		Dark b	orown/black SILT	, organic matter, litt	le fine to medium (grain micaceous sand, v	vell graded, moist, slight organic odor	SED7.5E03N
6	0.9	CL		5 Brown	n silty CLAY, lean	, low to no plasticity	r, medium stiff, trac	ce organic matter, moist	slight organic odor	SED7.5E05N
8	0.0									SED7.5E07N
	0.0			9						
		R	emarks:	Refusal at 9	9 fbm					
832	COM 20 Guilford Iumbia, M	d Road Su D 21046	uite L							

Boring Log

BORING #: SED7A

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	449965.98	Easting:	1323526.84	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	-1.14	Drilling Method: Vibracore	
Start	Date: 11/	13/2013			Top of Sec	diment Elevat	ion (ft MLLV	V): -3.94	Recovery (ft): 8.4	
Finis	h Date: 11	1/13/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	OL		Mediu	ım brown SILT aı	nd organic matter (leaves and twigs)		SED7A00N
	0.0	SW	<u>/////////////////////////////////////</u>	Tan a	nd brown SAND, , organic odor	, medium to coarse	grain, well grade	ed, micaceous, some bive	alve shells, trace small gravel, moist to very	SED7A 6"-12"
			//	1.5						
2	0.0	ML		Brown	n clayey SILT, lea	an, no plasticity, tra	ace fine sand, ver	y moist to wet		SED7A01N
	0.7									SEDIAUIN
4	2.3									SED7A03N
	3.7			5						
6	3.1	CL		Dark I	brown silty CLAY	∕, lean, no plasticity	, moist			SED7A05N
	0.7			7						SEDIAGN
8	1.0	CL		8	·	,	. ,	ganic matter, very moist,		CEDZAGZNI
		CL		Dark I	brown silty CLAY	∕, lean, no plasticity	, some woody or	ganic matter, very moist,	odor	SED7A07N
10	3.3			10						SED7A 9'-10'
		R	emarks:							
83	ECOM 20 Guilford	ป Road Sเ								
Co	olumbia, Mi	D 21046								

Boring Log

BORING #: SED7B

Client: PEPCO		Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner									
Project: Benning Roa	ad Facility	Northing: 449847.44 Easting: 1323647.81	Drilling Company: ASI								
Project #: 60287343		Water Surface Elevation (ft MLLW): -0.11	Drilling Method: Vibracore								
Start Date: 11/13/20	13	Top of Sediment Elevation (ft MLLW): -2.31	Recovery (ft): 9.2								
Finish Date: 11/13/2	013	Depth of Coring (fbm): 10	Surface Sample Method: Ponar								
		,	-								
PID (ppm) USCS Code	Graphic	Soil and Rock Description Classification Scheme: USC	Soil Sample								
ML	. Mediu	um brown SILT with density interface at 2, silt and clay at 2, few pieces of organ	nic matter SED7B00N								
0.0	0.5	n SILT, little fine grain micaceous sand, trace small gravel, some woody organi									
0.0	111	i oil i, illue liile graiii illicaceous sand, trace sinaii gravei, sonie woody organii	SED7B 6"-12"								
1.6 2		Black SILT, little fine grain micaceous sand, trace small gravel, some woody organic matter, very moist to wet, organic odor									
0.8 CL	to wet	Black SILT, little fine grain micaceous sand, trace small gravel, little lean clay, no plasticity, some woody organic matter, very moist to wet, organic odor									
0.4	Grayie	sh brown silty CLAY, lean, no to low plasticity, trace fine grain micaceous sand	moist, slight organic odor SED7BA03N								
0.0 ML	5.5 Grayi	sh brown clayey SILT, lean, no plasticity, moist	SED7B05N								
0.0	7										
0.0 ML	- Grayi	sh brown clayey SILT, lean, no plasticity, some fine to medium grain micacec	sand, well graded, moist,								
0.0											
0.0	10		SED7B 9'-10'								
	Remarks:										
AECOM 8320 Guilford Road Columbia, MD 2104											

A≡COM

Boring Log

BORING #: SED7D

Client	: PEPCC)			Location:	3400 Benning	Road, Wasl	hington, DC, MD	Logged By	: Jeremy Join	er	
Projec	t: Bennii	ng Road F	acility		Northing:	449789.58	Easting:	1323814.32	Drilling Co	mpany: N/A		
Projec	ct #: 6028	37343			Water Sur	face Elevatior	n (ft MLLW):	NA	Drilling Me	thod: Hand A	ugered	
Start I	Date: 11/	25/2013			_	diment Elevat		/): 2.26	Recovery	(ft): 9.0		
Finish	Date: 1	1/25/2013			Depth of C	oring (fbm):	9		Surface Sa	mple Method:	Hand A	Augered
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and l Classificati	Rock Description ion Scheme: USC	es			Soil Sample Identification
		ML		Dark t moist,	brown SILT, som , odor	ne organic matter ar	nd leafy debris, tra	ace micaceous fine to r	nedium grain sar	d, well graded, very		SED7D00N
	0.0											SED7D 6"-12"
2	0.0											SED7D01N
	0.0											
4	0.0			4								
	0.0	ML		Dark t clay, r	brown SILT, som no plasticity, very	ne organic matter ar y moist, odor	nd leafy debris, tr	ace micaceous fine to r	nedium grain sar	d, well graded, trace	3	SED7D03N
6	0.0	CL		5.5 Brown	n silty CLAY, lean	i, no plasticity, soft,	trace organic mat	ter, very moist to wet				SED7D05N
	0.0											
8	3.0	CL		7.5 Brown	n silty CLAY, lear	n, no plasticity, med	dium stiff, very mo	pist to wet, odor				CEDADOZNI
	0.0			8.75 9								SED7D07N
		R	emarks:	Refusal a	at 9 fbm							
832	COM 20 Guilford Iumbia, M		uite L									

Boring Log

BORING #: SED7E

Clien	t: PEPCC)			Location:	3400 Benning	Road, Washir	gton, DC, MD	Logged By:	Jeremy Join	er	
Proje	ct: Benni	ng Road F	acility		Northing:	449728.24	Easting: 1	323942.71	Drilling Com	oany: N/A		_
Proje	ct #: 6028	37343			Water Sur	face Elevation	(ft MLLW): N	A	Drilling Meth	od: Hand A	ugered	
Start	Date: 11/	25/2013			Top of Sec	diment Elevation	on (ft MLLW):	1.7	Recovery: (f	t) 6		
Finis	h Date: 1	1/25/2013			Depth of C	oring (fbm):	6		Surface Sam	ple Method:	Hand A	Augered
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Ro Classification	ck Description n Scheme: USC	s			Soil Sample Identification
		ML		Dark	brown SILT, little	organic matter, trac	e small gravel, fine	to medium grain san	d, well graded, wet	odor		
	1.6											SED7E00N SED7E 6"-12"
												02572 0 12
2	1.7											SED7E01N
	0.0	CL		3 Brown	n silty CLAV Jego	n, no palsticity, trace	woody organic may	tter very mojet				
4	3.2	o.		2.5	, and a second	, passasy, seco	nooy ogano na	,,				SED7E03N
	0.0			5								SEDTEUSIN
6	3.5	CL		Brown	n silty CLAY, lean	, no palsticity, trace v	woody organic matte	er, stiff, moist, no odo	r			SED7E05N
			omarke	Refusal	at 6 fbm							
83	Remarks: AECOM 8320 Guilford Road Suite L Columbia, MD 21046				at o ibiii							

Boring Log

BORING #: SED7F

t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner						Joiner	
ct: Bennir	ng Road F	acility		Northing:	449660.56	Easting:	1324119.87	Drilling Compar	y: Norm	andeau	Env.
ct #: 6028	37343			Water Surf	face Elevation	(ft MLLW):	NA	Drilling Method:	Vibraco	re	
Date: 11/2	25/2013			Top of Sed	liment Elevati	on (ft MLLW	/): 1.93	Recovery (ft):	6.9		
h Date: 1/	29/2014	T		Depth of Co	oring (fbm):	10		Surface Sample	Method:	Hand A	ugered
PID (ppm)	USCS Code	Graphic				Soil and I Classificati	Rock Description on Scheme: USC	s			Soil Sample Identification
	ML		Brown	n sandy SILT, fine	e to medium grain, w	vell graded, some	woody organic debris, v	ery moist, organic odor			SED7F00N
0.0											SED7F 6"-12"
0.0	SM		1.5 Brown	n silty SAND, fine	to coarse grain, we	ll graded, little sm	all gravel, wet, slight org	anic odor			
0.0			3								SED7F01N
0.5	ML		Dark b	brown-black sand	ly SILT, fine to medi	um grain, little lea	n clay, no plasticity, mois	st to wet, odor			
0.5			4								
0.2	ML			brown SILT, trace	e fine sand, moist, o	dor					SED7F03N
0.2											SED7F05N
0.0			7								SEB/1 GGIV
0.0	ML		Dark t	brown SILT, trace	e fine sand, little lear	n clay, no plasticit	y, very moist, odor				SED7F07N
			9								
	R	emarks:									
		ııte L									
•											
	ECOM 0.0	ECT: Benning Road For #: 60287343 Date: 11/25/2013 h Date: 1/29/2014 (udd) QQ	Ct: Benning Road Facility St #: 60287343 Date: 11/25/2013 Date: 1/29/2014	Cot: Benning Road Facility	ict: Benning Road Facility ict #: 60287343 Date: 11/25/2013 n Date: 1/29/2014 Depth of Co De	ct: Benning Road Facility ct #: 60287343 Date: 11/25/2013 Date: 11/29/2014 Remarks: Coom Coop Co	cct: Benning Road Facility ct #: 60287343 Date: 11/25/2013 Date: 11/25/2014 Depth of Coring (fbm): 10 Soil and I Classificati Brown sandy SiLT, fine to medium grain, well graded, some NL SM Date: brown Silt, trace fine sand, moist, odor Dark brown Silt, trace fine sand, little lean clay, no plasticit Dark brown Silt, trace fine sand, little lean clay, no plasticit Remarks: CCOM Remarks:	ct: Benning Road Facility ct #: 60287343 Date: 11/25/2013 Top of Sediment Elevation (ft MLLW): 1.93 h Date: 11/25/2014 Depth of Coring (fbm): 10 Soil and Rock Description Classification Scheme: USC Brown sandy Sil.T. fine to medium grain, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well of the sand, well graded, some woody organic debrts, well graded, some woody orga	ect: Benning Road Facility Northing: 449660.56 Easting: 1324119.87 Drilling Compar ct: 60287343 Water Surface Elevation (ft MLLW): NA Drilling Method: Top of Sediment Elevation (ft MLLW): 1.93 Recovery (ft): 1 Top of Sediment Elevation (ft MLLW): 1.93 Recovery (ft): 1 Dopth of Coring (fbm): 10 Surface Sample Soil and Rock Description Classification Scheme: USCS AML Deriver sardy Sil.T, fire to medium grain, well graded, illies erroril groved, well, slight organic odor AML Dark brown Sill.T, fire to medium grain, well graded, illies erroril groved, well, slight organic odor AML Dark brown Sill.T, frace fine sand, little lean clay, no plasticity, most to well, odor AML Dark brown Sill.T, trace fine sand, little lean clay, no plasticity, very most, odor Remarks: CCOM Remarks:	Ret. Benning Road Facility Northing: 449660.56 Easting: 1324119.87 Drilling Company: Norm of #: 60287343 Water Surface Elevation (ft MLLW): NA Drilling Method: Vibraco Plate: 1125/2013 Plate: 1125/2014 Depth of Coring (fbm): 10 Surface Sample Method: Soil and Rock Description Classification Scheme: USCS Soil and Rock Description Classification Scheme: USCS Bitwan sandy Sil.T. fine to medium gran, well graded, little exhault gravet, wet, slight organic debris, very moist, organic debris, very moist, organic debris, very moist, organic debris, very moist organic debris, very moist organic debris, very moist organic debris, very moist organic debris, very moist, organic debris, very m	et: Benning Road Facility Northing: 449680.56 Easting: 1324119.87 Drilling Company: Normandeau tt #: 60287343 Water Surface Elevation (ft MLLW): NA Drilling Method: Vibracore Top of Sodiment Elevation (ft MLLW): 1.93 Recovery (ft): 6.9 Dopth of Coring (fbm): 10 Surface Sample Method: Hand A Soil and Rock Description Classification Scheme: USCS Soil and Rock Description Classification Scheme: USCS Brown stry SAND, five to medium grain, well graded, istone weddy organic debra. very most, organic odor Doby Brown stry SAND, five to coarse grain, well graded, little annelling grain, well, align organic debra. very most, organic odor Doby Brown stry SAND, five to coarse grain, well graded, little annelling grain, well, align organic debra. very most, organic odor Doby Brown stry SAND, five to coarse grain, well graded, little annelling grain, well, align organic odor Doby Brown stry, five to coarse grain, well graded, little annelling grain, well, align organic odor Doby Brown stry, five to five sand, most, odor Doby Brown SILT, trace fine sand, most, odor Remarks: COM Guillford Road Suite L

Boring Log

BORING #: SED7G

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy					
Proje	ct: Bennir	ng Road F	acility		Northing: 449619.14	Easting: 1324216.84	Drilling Company: Normandeau	Env.		
Proje	ct #: 6028	37343			Water Surface Elevation	(ft MLLW): NA	Drilling Method: Vibracore			
Start	Date: 1/3	0/2014			Top of Sediment Elevati		Recovery (ft): 8.5			
Finis	h Date: 1/	30/2014	1	T	Depth of Coring (fbm): 1	0	Surface Sample Method: NA			
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic			Soil and Rock Description Classification Scheme: USC	s	Soil Sample Identification		
		SM		Black satura	silty SAND, fine to medium grain, wel	I graded, little lean clay, no plasticity, son	ne small gravel, little woody organic matter,			
	0.0			1				SED7G00N		
		ML		Brown	n SILT, trace fine sand, mica flaking, t	race lean clay, no plastcity, moist				
2	0.0	CL		1.5 Dark I	brown silty CLAY, lean, low to no plas	ticity, medium stiff, moist		SED7G01N		
	0.0			3						
4	0.0	SW		Brown	n SAND, fine to medium grain, well gr	aded, micaceous, moist		SED7G03N		
	0.0	ML		4.5 Brown	n sandy SILT, fine to medium grain, m	iicaceous, moist				
	0.0	SM		5.5 Dark I	brown silty SAND, fine to coarse grain	ı, well graded, micaceous, moist				
6	0.0			7				SED7G05N		
	0.0	SM		7.5 Brown	brown silty SAND, fine to coarse grain	n, well graded, little lean clay, micaceous, caceous, wet, odor	moist	SED7097N		
8	0.0	CL		8 Gray	sandy CLAY, fine grain, micaceous, le	ean, no plasticity, little silt, very moist		SED7G07N		
		_	<i>x////////</i>	8.5						
83	ECOM 20 Guilford Dlumbia, M	d Road Su	Remarks: uite L							

Boring Log

BORING #: SED8.5B

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jere	emy Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	450263.69	Easting:	1323863.72	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	-0.14	Drilling Method: Vibracore	
Start	Date: 11/	13/2013			Top of Sed	liment Elevat	ion (ft MLLV	V): -8.34	Recovery(ft): 9.4	
Finis	h Date: 11	1/13/2013			Depth of Co	oring (fbm):	10.2		Surface Sample Method: Por	nar
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
-	0.0	ML		Mediu	um brown SILT wi	ith density interfac	e @ 2". Few pie	ces of organic debris obs	served.	SED8.5B00N
	0.0	ML			n SILT, wet, smoo	oth, organic odor				SED8.5B 6"-12"
2	0.0	ML			n sandy SILT, fine	grain micaceous s	sand, trace small	gravel, very wet, slight on	ganic odor	SED8.5B01N
	0.0									
4	0.7	ML		4 Brown	n clayey SILT, littl	le fine grain micaco	eous sand, lean,	no plasticity, moist to ve	ry moist,	SED8.5B03N
	0.0									
6	0.0	SM		5.5 Brown	n silty SAND, fine	to medium grain,	well graded, mica	aceous, very moist,		SED8.5B05N
	0.0									
8	0.0	SM		8 Brown	n silty SAND, med	dium to coarse gra	in well graded r	nicaceous wet		SED8.5B07N
		Givi		BIOWI	July Janua, met	a.a.n to coalse gla	, won graucu, I	····sacoodo, wou,		
10	0.0			10						SED8.5B 9'-10'
		R	emarks:							
AECOM 8320 Guilford Road Suite L Columbia, MD 21046										

Boring Log

BORING #: SED8C

Clier	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner					
Proje	ect: Bennir	ng Road F	acility		Northing:	450062.60	Easting:	1323810.54	Drilling Company: ASI	
Proje	ect #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	0.14	Drilling Method: Vibracore	
Start	Date: 11/	14/2013			Top of Sec	diment Elevati	on (ft MLLV	V): -1.56	Recovery: 8.3	
Finis	h Date: 11	/14/2013		_	Depth of C	oring (ft MLL)	N): 10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	s	Soil Sample Identification
	0.0	ML		Mediu	ım brown SILT gı	rading to medium b	rown silty clay			SED8C00N
	0.0	ML			orown-gray SILT,	wet, no odor				SED8C 6"-12"
2	0.0									SED8C01N
	0.7			3						GEBGG IIV
4	2.1	ML		Dark t				nic matter, wet, no odor		SED8C03N
_	1.9	ML		Daikt	Jiowi-gray Silli,	illue iirie graiii sand	, trace leary orga	nic matter, moist, no odo	'	
6	1.7	ML		6 Dark b	brown sandy SIL'	T, fine to medium q	rain, well graded	, micaceous, steel slag f	rom 6' -6.25', very moist, no odor	SED8C05N
_	1.1	ML		7	-	-	-	micaceous, moist, no odd		
8	1.0	IVIL		Dalk	orowii sailuy SiEi	r, inte to medium gr	ani, wen graueu,	micaceous, moist, no ouc	JI	SED8C07N
	0.7			10						SED8C 9'-10'
Al 83	ECOM 320 Guilford Dlumbia, Mi	l Road Su	emarks:							

Boring Log

BORING #: SED9B

Sheet 1 of 1

Client: PEPCO Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner **Northing:** 450467.75 Project: Benning Road Facility **Easting:** 1323894.15 Drilling Company: ASI Project #: 60287343 Water Surface Elevation (ft MLLW): 0.2 Drilling Method: Vibracore **Start Date:** 11/11/2013 Top of Sediment Elevation (ft MLLW): -9.20 Recovery (ft): 6.4 Depth of Coring (fbm): 10.2 Finish Date: 11/11/2013 Surface Sample Method: Ponar

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
-	0.0	ML	Med	dium brown SILT. No organic content at top of sample, some organic debris at bottom.	SED9B00N
		ML	0.5	k black/brown organic SILT, wet, organic odor	
	0.0	IVIL	1	Notacio di Citti i i i i i i i i i i i i i i i i	SED9B 6"-12"
-	0.0	ML		wn SILT, little fine sand, wet	
2	0.0	SM	2 Brov	wn silty SAND, fine to medium grain, well graded, micaceous, very moist to wetr	SED9B01N
	0.0				
4	0.0		4		
•	2.4	SP	Brov very	wn SAND, fine to coarse grain, poorly graded towards coarse, trace clay, lean, no plasticity, trace small gravel, mica flakes, y moist	SED9B03N
6	0.0	SP	5 Brov	wn SAND, fine to coarse grain, poorly graded towards coarse, trace clay, lean, no plasticity, mica flakes, very moist	
	0.0		7		SED9B05N

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Boring Log

BORING #: SED9C

Client	: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner					Joiner
Projec	t: Bennir	ng Road F	acility		Northing:	450423.72	Easting:	1323961.98	Drilling Company: ASI	
Projec	t#: 6028	37343			Water Surf	face Elevation	(ft MLLW):	0.13	Drilling Method: Vibracore	
Start I	Date: 11/	11/2013			Top of Sec	diment Elevat	ion (ft MLLW): -1.67	Recovery (ft): 8.3	
Finish	Date: 1	1/11/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and F Classificati	Rock Description on Scheme: USC	s	Soil Sample Identification
J	0.0	ML		Mediu	um brown SILT w	vith density interface	e @ 2, small amo	unt of organic debris (<	5%).	SED9C00N
	0.2	ML			n SILT, little fine n	micaceous sand, we	et, organic odor			SED9C 6"-12"
2	0.0	SWW		1.25 Dark I	brown SAND, fine	e to medium grain, v	well graded, micaco	eous, wet, organic odor		SED9C01N
	1.6	ML		Brown	n SILT, little fine n	micaceous sand, we	et, no odor			
4	2.0	ML		Brown 5	n sandy SILT, fine	e grain, trace small	gravel, wet, organi	c odor		SED9C03N
6	4.1	ML		6				ce small gravel, wet, org		SED9C05N
	3.2	ML SM		petrol	eum odor			ne woody organic matte	r, trace small gravel, very moist to wet,	CEDOCOGIV
8	6.2	Sivi		Siowi	. Cary Or (PD), fill C	. co modern grant, w	gracou, micate	ees, tory most, sight p		SED9C07N
10	4.1			10						SED9C 9'-10'
Remarks:										
832	COM 20 Guilford Iumbia, M		uite L							

А				4
A	L	U	Λ	7

Parina Lag

BORING #: SEDBACK1

		UN			В	Sring	J Log		_			Sheet 1 of 1
Client	: PEPCC)			Location: 340	0 Benning	Road, Wash	ington, DC, MD	Logged By:	Jeremy Joine	er	
Projec	t: Benni	ing Road I	acility		Northing: 4706	80.54	Easting: 13	333186.62	Drilling Con	npany: N/A		
	t#: 602				Water Surface Elevation (ft MLLW): 1.90 Drilling Method: Hand Augered							
	Date: 12/					Top of Sediment Elevation (ft MLLW): -0.60 Recovery (ft): 1						
Finish	Date: 1	2/3/2013			Depth of Corin	g (fbm):	1		Surface Sar	nple Method:	Hand A	Augered
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and R Classification	ock Description on Scheme: USC	s			Soil Sample Identification
	0.0	GW		0.42	and brown GRAVEL, sor					ed, no odor		SEDBACK100N
1	0.0			1								SEDBACK1 6"-12"
_ 1 _		_	· · ·	Dof: := -!	Lat 1 flora							
ΛE	СОМ	R	lemarks:	Refusal	l at 1 fbm							
832		d Road Si ID 21046	uite L									

Λ		\frown	A	A
A	C	U	Λ	71

BORING #: SEDBACK11

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Wasl	hington, DC, MD	Logged By: David Smith/	Jeremy	Joiner
Proje	ct: Bennir	ng Road F	acility		Northing:	446970.24	Easting:	1322284.05	Drilling Company: ASI		
	ct #: 6028					ace Elevation			Drilling Method: Vibracon	re	
	Date: 11/					diment Elevat		/): -2.54	Recovery (ft): 6.4		
Finis	h Date: 11	1/15/2013		1	Depth of C	oring (fbm):	7		Surface Sample Method:	Ponar	
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and I Classificati	Rock Description on Scheme: USC	s		Soil Sample Identification
	0.0	ML		Light t	brown SILT grad	ling to medium brov	vn SILT				SEDBACK1100N
	0.0	ML			brown SILT, trace	e leafy organic mat	ter, wet, odor				SEDBACK11 6"- 12"
2	0.0			2							
	0.0	ML		Dark b		e leafy organic mat					SEDBACK1101N
4	0.6	ML ML		4		organic matter, tra	ace lean clay, wet	, odor			SEDBACK1103N
6	0.0	PT	70 70 70 70 70 70 70 70 70 70 70 70 70 7	6.5 Dark t moist,	brown PEAT laye			red woody organic matte	er, moist, odor an clay, weathered woody organic ma	atter,	SEDBACK1105N
83	ECOM 20 Guilford Dlumbia, M	l Road Su	emarks:	Refusal a	at 7 fbm						

Λ		\frown	A	A
A	C	U	Λ	71

BORING #: SEDBACK13

Client	: PEPCC)			Location:	ocation: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner							
Projec	ct: Benni	ng Road F	acility		Northing:	442914.41	Easting:	1320694.37	Drilling Company: ASI				
Projec	ct #: 602	37343			Water Surfa	ace Elevation	(ft MLLW):	1.76	Drilling Method: Vibracore				
Start I	Date: 11/	14/2013			Top of Sed	liment Elevat	ion (ft MLLV	V): -9.84	Recovery (ft): 7.0				
Finish	Date: 1	1/14/2013			Depth of C	oring (fbm):	8.2	_	Surface Sample Method: Pon	ar			
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS									
	0.0	ML			um brown SILT gr	rading to organic d	ebris, sand, and	small rounded gravel at 2	2.5	SEDBACK1300N			
	0.0	ML		0.5 Brown	n sandy SILT, fine	e to medium grain,	well graded, son	ne bivalve shells, trace s	mall gravel, saturated, odor	SEDBACK13 6"- 12"			
	0.9	ML		grave	el, saturated, odor			ne woody organic matter	, some bivalve shells, trace small				
2	1.7	ML		2.5 Gray	clayey SILT, trace	e fine sand, lean, r	no plasticity, very	moist		SEDBACK1301N			
4	0.3	ML		3 Gray	clayey SILT, trace	e fine sand, lean, r	no plasticity, mois	t		SEDBACK1303N			
6	0.0									CEDD ACK 100 FM			
	0.0			7						SEDBACK1305N			
		R	emarks:	Refusal	at 8.2 fbm					,			
832	COM 20 Guilford Iumbia, M	d Road Su											

Λ	M
H	VI

BORING #: SEDBACK15

Client	: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner						
Projec	t: Bennir	ng Road F	acility		Northing:	439976.35	Easting:	1317502.26	Drilling Company: ASI		
Projec	t#: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	-0.21	Drilling Method: Vibracore		
Start I	Date: 11/	12/2013			Top of Sec	diment Elevat	ion (ft MLLV	V): -6.01	Recovery (ft): 8.9		
Finish	Date: 1	1/12/2013			Depth of C	oring (fbm):	10.2		Surface Sample Method: P	onar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic			Soil and Rock Description Classification Scheme: USCS					
	0.0	ML		Light/r	medium brown Si	ILT, approximately	50% small grave	el, organic debris, and biv	alve shells	SEDBACK1500N	
	0.0	ML			orown SILT, glas	ss fragments, wood	ly organic debris,	some fine to medium sa	nd, well graded, wet, odor	SEDBACK15 6"- 12"	
2	0.0	ML		3		ody, leafy organic i	matter, wet, odor			SEDBACK1501N	
4	0.0	ML			n SILT, wet					SEDBACK1503N	
6	0.0	ML ML		6.5		ody, leafy organic i		grain, micaceous, wet, od	dor	SEDBACK1505N	
8	0.0									SEDBACK1507N	
10	0.0			10						SEDBACK15 9'-10	
		Re	emarks:								
832	COM 20 Guilford Iumbia, M	d Road Sui D 21046	ite L								

Λ				
A		U	Λ	7

BORING #: SEDBACK4

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD	Logged By: David Smith/Jeremy Joiner
Project: Benning Road Facility	Northing: 457920.60 Easting: 1329783.99	Drilling Company: ASI
Project #: 60287343	Water Surface Elevation (ft MLLW): 1.32	Drilling Method: Vibracore
Start Date: 11/14/2013	Top of Sediment Elevation (ft MLLW): -6.88	Recovery (ft): 4.0
Finish Date: 11/14/2013	Depth of Coring (fbm): 6.7	Surface Sample Method: Ponar
O Depth (ft bgs) PID (ppm) USCS Code Graphic	Soil and Rock Description Classification Scheme: USC	Soil Sample
0.0	n brown SILT and fine SAND, some organic debris	SEDBACK400N
0.0 ML Dark b	rown sandy SILT, fine to medium grain, well graded, wet, odor	SEDBACK4 6"-12"
2		
	rown sandy SILT, fine to medium grain, well graded, micaceous, wet, odor	SEDBACK401N
0.0 CL Grayis	h brown silty CLAY, lean, no to low plasticity, moist to very moist	
CL Brown	CLAY, trace mica flakes, low plasticity, moist, odor	
0.0 CL Brown 3.75	CLAY, trace mica flakes, low plasticity, some leafy organic matter, moist, od classes, trace to little coarse sand	
Remarks: Refusal a	ut 6.7 fbm	
AECOM		
8320 Guilford Road Suite L Columbia, MD 21046		

Boring Log

BORING #: SEDBACK5

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD	Logged By: David Smith/Jeremy	Joiner					
	ct: Benni		Facility		Northing: 454617.45 Easting: 1326967.67	Drilling Company: ASI						
	ct #: 6028		domey		Water Surface Elevation (ft MLLW): 0.11	Drilling Method: Vibracore						
	Date: 11/				Top of Sediment Elevation (ft MLLW): -5.29	Recovery (ft): 7.2						
	h Date: 1		3		Depth of Coring (fbm): 10.1	Surface Sample Method: Ponar						
						Carrage Campio monicar 1 onar						
O Depth (ft bgs)	PID (ppm)	nscs code	Graphic		Soil and Rock Description Classification Scheme: USC	S	Soil Sample Identification					
	0.0	ML		Mediu	m brown SILT underlain by fine to medium grain white sand, single bivalve obs	brown SILT underlain by fine to medium grain white sand, single bivalve observed						
	0.0	SW	<u> </u>		s SAND, fine to coarse grain, well graded, some leafy organic matter, trace s	ilt, wet, odor	SEDBACK5 6"-12"					
		ML	//	Brown	n sandy SILT, fine to medium grain, poorly graded towards fine, trace leaf fra	gments, wet						
2	0.0			2			SEDBACK501N					
	0.0	ML		Brown	sandy SILT, fine to medium grain, poorly graded towards fine, wet, no odor		SEDBACKSOIN					
4	0.0	SM		3.5 Brown	n silty SAND, fine to medium grain, well graded, mica flakes, very moist, no odd	or .						
	1.3	CL		4.5 Brown	n silty CLAY, lean, no plasticity, moist, slight organic odor		SEDBACK503N					
		SM		5 Black	brown SAND, some silt, fine to coarse grain, well graded, mica flakes, some w	oody organic matter, wet, slight organic odor						
6	2.1	O.u.		Jask								
							SEDBACK505N					
8	0.9			8			SEDBACK507N					
	1		Domorise:									
83	ECOM 20 Guilford Dlumbia, M	d Road Si	Remarks: uite L									

Boring Log

BORING #: SEDBACK6

Client	: PEPCC)			Location:	Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joine					
Projec	t: Bennir	ng Road F	acility		Northing:	454054.19	Easting:	1326311.59	Drilling Company: ASI		
Projec	t#: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	1.69	Drilling Method: Vibracore		
Start [Date: 11/	15/2013			Top of Sed	diment Elevat	ion (ft MLLV	V): -0.51	Recovery (ft): 9.7	_	
Finish	Date: 1	1/15/2013	T		Depth of C	oring (fbm):	10		Surface Sample Method: Ponar		
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Soil and Rock Description Classification Scheme: USCS			
	0.0	ML		Mediu	ım brown SILT, fe	ew pieces of organion	c debris.			SEDBACK600N	
-	0.0	ML			brown SILT, trace	e fine micaceous sa	and, saturated			SEDBACK6 6"-12"	
2	0.0	ML		2 Dark t	brown SILT. trace	e fine micaceous s	and some leafy o	organic matter, saturated	L odor	SEDBACK601N	
	0.0			3							
4	0.2	ML		Dark t	brown SILT, trace	e fine micaceous sa	and, trace lean cl	ay some leafy organic m	atter, moist, odor		
	0.3	ORG ML	7 7 7 7 Y	Dark t	-	-		graded, trace small grav		SEDBACK603N	
6	0.0	ML		Grayis	sh brown clayey S	SILT, lean, no plas	ticity, trace mica	flakes, moist to very moi	st		
	0.0	ML		7					kes, moist to very moist	SEDBACK605N	
8	0.0	PT	\(\frac{1}{1}\)\(\frac{1}\)\(\frac{1}{1}\)\(\frac{1}\)\(1	mater	n and black peat l rial, moist, odor	layer, little silt, trac	e clay, some me	dium to coarse sand, wel	l graded, weathered woody organic	SEDBACK607N	
	0.0		1, 11, 11, 11, 1 11, 11, 11, 1								
832	COM 20 Guilford lumbia, M	l Road Su	emarks:								

Boring Log

BORING #: WSED2

Clien	t: PEPCC)			Location:	3400 Benning	Road, Wasl	hington, DC, MD	Logged By: David Smith/Jeremy	Joiner	
Proje	ct: Bennir	ng Road F	acility		Northing:	448582.42	Easting:	1323124.83	Drilling Company: ASI		
Proje	ect #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	-0.33	Drilling Method: Vibracore		
Start	Date: 11/	15/2013			Top of Sec	diment Elevat	on (ft MLLW	V): -1.53	Recovery (ft): 8.7		
Finis	h Date: 1	1/15/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Ponar		
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic			Soil and Rock Description Classification Scheme: USCS					
	0.0			0.5						WSED200N	
	0.0	OL		Brow	wn sandy SILT, fine	e to medium grain, p	oorly graded towa	ards fine, some leafy org	anic matter, saturated, slight organic odor	WSED2 6"-12"	
2	0.0			2						WSED201N	
	0.4	ML SM		2.5 Dari	anic odor				avel, very moist to wet, slight organic odor	WOLDZON	
		PT	<u> </u>		athered woody leafy	y organic matter, so	me silt, organic o	dor			
4	0.2	ML	1. 1. 1. 1.		wn sandy SILT, fine anic odor	e to medium grain, p	oorly graded towa	ards fine, trace mica flak	es, some leafy organic matter, saturated, slight		
•	0.5			4.91						WSED203N	
6	1.5	PT GW		5.25 Brov	athered woody leafy wn black silty GRA\ urated, organic odor	VEL, some medium			woody organic matter, trace lean clay,		
_	1.1	ML		6.25 Brow	wn sandy SILT, fine	e grain, micaceous,	wet, slight organio	c odor		WSED205N	
88	1.4									WSED207N	
	2.5									WSED2 9'-10'	
10				10							
83	ECOM 320 Guilford Olumbia, Mi	ป Road Sเ	emarks:								

Boring Log

BORING #: SED8A

Client	: PEPCC)			Location:	3400 Benning	Road, Wash	nington, DC, MD	Logged By: David Smith/Jeremy	Joiner				
Projec	t: Bennir	ng Road F	acility		Northing:	450167.52	Easting:	1323627.03	Drilling Company: ASI					
Projec	t#: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	-0.12	Drilling Method: Vibracore					
Start [Date: 11/	13/2013			Top of Sed	liment Elevati	ion (ft MLLW): -1.82	Recovery (ft): 8.8					
Finish	Date: 1	1/13/2013			Depth of Co	oring (fbm):	10		Surface Sample Method: Ponar					
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS									
	0.0	ML		Media	Medium brown SILT with increasing fine sand, trace organic debris S									
	0.0	ML			vn SILT, wet to satu	urated, little fine to r	medium grain sand	d, well graded, some wo	ody organic matter, odor	SED8A 6"-12"				
2	0.0	ML ML		2	·	dium to fine grain, n		aded, little organic matte	r, odor	SED8A01N				
4	1.1	SM		3.5 Tan/b	brown SILTy SANE	D, fine to medium gr	rain, micaceous, w	vell graded, trace small g	gravel, very moist to wet, odor	SED8A03N				
_	0.9													
6	0.0			6										
	0.0	ML		Dark	s brown clayey SILT	Γ, lean, no plasticity	, soft, moist			SED8A05N				
8	0.0	ML		Dark	s brown clayey SILT	Γ, lean, no plasticity	, soft, some fine to	o medium grain sand, mi	ca flakes, well graded, moist	SED8A07N				
_	0.0													
10	0.0			10						SED8A 9'-10'				
		R	emarks:											
832	COM 20 Guilford Iumbia, M	d Road Su												

Boring Log

BORING #: SED9.5B

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner							
Proje	ct: Bennii	ng Road F	acility		Northing:	450586.65	Easting:	1324031.21	Drilling Company: ASI			
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	0.3	Drilling Method: Vibracore			
Start	Date: 11/	11/2013			Top of Sed	liment Elevati	ion (ft MLLV	V): -1.60	Recovery (ft): 8.3			
Finis	h Date: 1	1/11/2013			Depth of C	oring (fbm):	10		Surface Sample Method: Po	nar		
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS								
	0.0	ML		Mediu	ım brown SILT tra	ansitioning to SILT v	with fine sand, so	ome organic debris and bi	ivalve shells	SED9.5B00N		
	0.0	ML	-		n SILT, trace orga	anic matter, wet, org	anic odor			SED9.5B 6"-12"		
2	0.2			2								
	0.3	ML			n SILT, trace orga	anic matter, woody c	debris, trace fine	sand, wet, organic odor		SED9.5B01N		
4	0.2	SM			n silty SAND, mica	aceous, fine to med	ium grain, well gr	aded, wet, slight organic	odor			
	0.6	ML		Brown	n sandy SILT, fine	e grain, wet, no odor	r			SED9.5B03N		
6	1.1									SED9.5B05N		
	1.3			7						3_33,333,0		
8	1.7	ML SP		7.5		•		moist to wet, petroleum of the determinant to the d	very moist, petroleum odor			
										SED9.5B07N		
10	7.2			10						SED9.5B 9'-10'		
		R	emarks:					<u></u>				
83	ECOM 20 Guilford Dlumbia, M	d Road Su										

Boring Log

BORING #: SEDBACK6

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner								
Proje	ct: Bennir	ng Road F	acility		Northing:	454054.19	Easting:	1326311.59	Drilling Company: ASI				
Proje	ct #: 6028	37343			Water Surfa	ace Elevation	(ft MLLW):	1.69	Drilling Method: Vibracore				
Start	Date: 11/	15/2013			Top of Sed	liment Elevat	ion (ft MLLV	V): -0.51	Recovery (ft): 9.7				
Finis	h Date: 1	1/15/2013		T	Depth of C	oring (fbm):	10		Surface Sample Method: Pona	r			
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS									
	0.0	ML			Medium brown SILT, few pieces of organic debris.								
		ML		0.5 Dark b	brown SILT, trace	e fine micaceous sa	nd, saturated						
	0.0									SEDBACK6 6"-12"			
2	0.0			2						SEDBACK601N			
	0.0	ML		Dark t	brown SILT, trace	e fine micaceous sal	nd, some leafy or	ganic matter, saturated, (odor	SEDBACKOUIN			
	0.2	ML	-	Dark t	brown SILT, trace	e fine micaceous sa	nd, trace lean cla	y some leafy organic mat	tter, moist, odor				
4		000	1.3 7.1 3 7.1 1	4						SEDBACK603N			
		ORG ML	74 1/2 . 74 1/2 . 7					graded, trace small grave y some leafy organic mat		- GEBB/RORGOGIV			
	0.3			5									
-		ML			sh brown clayey S	SILT, lean, no plasti	city, trace mica fla	akes, moist to very moist					
6	0.0	ML	-	6 Gravis	sh brown clavov S	SIII T. some fine grai	n cand lean no.	plasticity, trace mica flake	as maist to you maist	SEDBACK605N			
	0.0	IVIL		7	SIT DIOWIT Clayey C	SILT, SOME THE GIAL	ir sand, leari, no j	riasticity, trace filica flanc	rs, most to very most				
		PT	<u> </u>	moiet		ayer, little silt, trace	clay, some media	um to coarse sand, well g	graded, weathered woody organic material,				
8	0.0		<u> </u>	1						SEDBACK607N			
	0.0			9						SEUBACKOU/N			
10										SEDBACK6 9'-10'			
		R	emarks:							,			
	СОМ												
	20 Guilford Dlumbia, M		iite L										

Boring Log

BORING #: SED9A

Client	: PEPC()		Location: 3400 Benning Road, Washington, DC, M	D Logged By: David Smith/Jeremy Joiner							
			Facility		Drilling Company: ASI	-						
	t: Benni		racility			_						
	t#: 602			Water Surface Elevation (ft MLLW): 0.05	Drilling Method: Vibracore							
	Date: 11/			Top of Sediment Elevation (ft MLLW): -4.25	Recovery (ft): 6.6	_						
FINISI	Date: 1	1/11/2013	<u> </u>	Depth of Coring (fbm): 7	Surface Sample Method: Ponar							
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS								
	0.0	ML		edium brown SILT, trace organic debris (<5% by volume)	SED9A00N	7						
		ML	0.5	ownish gray SILT, trace fine sand, little woody organic matter, wet to saturated	I, organic odor	\dashv						
	0.2				SED9A 6"-12	2"						
		ML	Br	ownish gray SILT, trace fine sand, trace woody organic matter, wet to saturate	d, organic odor							
2	0.7	ML		own sandy SILT, micaceous, fine to medium grain, well graded, wet to saturat	ed, organic odor SED9A01N	7						
			3									
4	0.2	SM	Bi	own silty SAND, fine to medium grain, poorly graded towards medium, little tar	clay, no plasticity, slight petroleum odor							
	0.4	SM	BI	own silty SAND, fine to medium grain, poorly graded towards medium, little tar	clay, no plasticity, no odor SED9A03N	1						
6	0.2	SW	Br	own SAND, fine to coarse grain, micaceous, well graded, little silt, wet to satu								
	0.1	PT SW	1, 1, 1, 6.25 G	afy, woody detritus layer ayish-brown SAND, medium to coarse grain, well graded, micaceous, some o ganic odor	SED9A05N	1						
			Remarks: Refus	al at 7 fbm	,							
٨Ε	СОМ		Tellus	21 AL 1 IVIII		_						
832	COM 20 Guilfor Iumbia, M		uite L									

Λ		\frown		
A	L		Λ	7

BORING #: SEDBACK12

Client	PEPCC)		Location: 3400 Benning Road, Washington, DC, MD	Logged By: David Smith/Jeremy	Joiner		
Projec	t: Bennir	ng Road F	acility	Northing: 444821.89 Easting: 1321502.15	Drilling Company: ASI			
Projec	t#: 6028	37343		Water Surface Elevation (ft MLLW): 2.18	Drilling Method: Vibracore			
Start D	Date: 11/	14/2013		Top of Sediment Elevation (ft MLLW): -1.12	Recovery (ft): 8.2			
Finish	Date: 1	1/14/2013		Depth of Coring (fbm): 9	Surface Sample Method: Ponar			
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USC	Soil and Rock Description Classification Scheme: USCS			
	0.0	ML	0.5	edium brown SILT, few pieces of organic debris, single bivalve observed		SEDBACK1200N		
	0.0	ML		ark brown SILT, trace fine sand, very moist to wet, no odor		SEDBACK12 6"- 12"		
2	0.0					SEDBACK1201N		
		ML	3 B	own SILT, trace clay, lean, no plasticity, trace woody debris, very moist, no odor				
4	1.1	ML		ack and brown mottled SILT, trace clay, lean, no plasticity, trace woody debris, ver		SEDBACK1203N		
	1.5	ML	4.5 E	ack and brown mottled SILT, trace clay, lean, no plasticity, trace woody debris, ver	y moist, slight petroleum odor			
6	0.3	CL	/////////	own silty CLAY, lean, no plasticity, moist, no odor		SEDBACK1205N		
	0.1				_			
8						SEDBACK1207N		
			9	at O films				
832	COM 20 Guilford lumbia, M	d Road Su		at 9 fbm				

Boring Log

BORING #: WSED1

Clien	t: PEPCC)			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner				Joiner	
Proje	ct: Bennir	ng Road F	acility		Northing:	448403.78	Easting:	1323146.52	Drilling Company: ASI	
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	0.12	Drilling Method: Vibracore	
Start	Date: 11/	15/2013				diment Elevat		V): -1.68	Recovery (ft): 9.5	_
Finis	h Date: 11	1/15/2013	ı	ı	Depth of C	oring (fbm):	10		Surface Sample Method: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic		s	Soil Sample Identification				
	0.0	ML		Mediu finely	ım brown SILT or broken pieces of	n top 1 cm, underlair leaves. 50% recov	n by fine sand an ery.	d small pieces of leaves.	Small black particles mixed into silt, most likely	WSED100N
	0.1	ML			n SILT, leafy orga	nic matter, very mo	st to wet, organio	odor		WSED1 6"-12"
2	1.4	ML		Brown	n SILT, some fine	to medium sand, w	ell graded, leafy	organic matter, wet, no or	dor	WSED101N
	1.2			3						
4	2.0	ML		Brown 4	n sandy SILT, fine	e to medium grain, p	oorly graded tow	ards medium, some leafy	organic matter, moist, no odor	
	0.8	ML		Brown odor	n sandy SILT, fine	e to medium grain, p	oorly graded tow	ards medium, mica flakes	s, some leafy organic matter, moist, organic	WSED103N
6	0.4	SM			brown silty SANE	D, fine to medium gr	ain, little woody c	rganic matter, wet, slight	organic odor	WOEDLOTH
	0.6	ML		Brown	n SILT, mica flake	es, trace fine sand, ı	noist, no odor			WSED105N
8	1.0									WSED107N
10	1.7			10						WSED1 9'-10'
		R	emarks:							
83	ECOM 20 Guilford Dlumbia, Mi	l Road Su								

Boring Log

BORING #: SED10C

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Wash	hington, DC, MD	Logged By: David Smith/Jeremy Joiner					
Proje	ct: Bennir	ng Road F	acility		Northing:	450738.10	Easting:	1324112.83	Drilling Company: ASI					
Proje	ct #: 6028	37343			Water Surf	ace Elevation	(ft MLLW):	2.89	Drilling Method: Vibracore					
Start	Date: 11/	11/2013			Top of Sec	diment Elevat	ion (ft MLLW	/): 1.49	Recovery (ft): 9.1	_				
Finis	h Date: 1	1/11/2013	1		Depth of C	oring (fbm):	10		Surface Sample Method: Ponar					
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS									
-	0.0	ML		Mediu	ım brown SILT at	t top, gradual transit	tion to fine sand at	bottom of sampler. Sm	all amount of organic debris (<5% by volume).	SED10C00N				
	0.0	ML			n SILT, little fine (grain micaceous sa	and, trace small gr	ravel, woody organic ma	atter, wet	SED10C 6"-12"				
2	0.0	ML		1.5 Brown	n SILT, little fine ç	grain micaceous sa	and, trace small gr	ravel, wet		SED10C01N				
	0.0			3						SEDIOCOTA				
4	0.1	SM		Browr	n silty SAND, fine	e to medium grain,	well graded, mica	ceous, very moist to we	t					
	0.2	SM		Brown 5	n silty SAND, fine	e to medium grain,	poorly graded tow	vards fine grain, micaced	ous, wet	SED10C03N				
6	1.4	ML			n sandy SILT, fine	e grain, micaceous	s, very moist			SED10C05N				
	1									SEDIOGOSA				
8	0.8	PT ML	77 77 7	8	,	organic matter, little grain, micaceous s				SED10C07N				
	0.5													
10				10						SED10C 9'-10'				
AE 83	ECOM 20 Guilford Dlumbia, M	d Road Su	emarks:											

Boring Log

BORING #: SED8B

Sheet 1 of 1

Client: PEPCO Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner Northing: 450124.44 Project: Benning Road Facility **Easting:** 1323699.75 Drilling Company: ASI Project #: 60287343 Water Surface Elevation (ft MLLW): -0.14 Drilling Method: Vibracore **Start Date:** 11/13/2013 Top of Sediment Elevation (ft MLLW): -6.64 Recovery (ft): 9 Depth of Coring (fbm): 10 Finish Date: 11/13/2013 Surface Sample Method: Ponar

1 111131	Date.	1/13/2013		Beptit of Corning (ISIII). 10	Surface Sample Metriou. 1 Orial	
Oepth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Descriptio Classification Scheme: US	on GCS	Soil Sample Identification
		ML	Medi	um brown SILT with increasing fine sand, trace organic matter		
	0.0		0.5		S	SED8B00N
	0.0	ML	Brow	n SILT, some fine to medium grain micaceous sand, wet, organic odor	SE	ED8B 6"-12"
2	0.0	SM	1.5 Brow	n silty SAND, fine to medium grain, micaceous, well graded, trace small grav	rel, very moist to wet, no odor	
	0.0	SM	````	n silty SAND with woody organic debris, fine to medium grain, micaceous, we		SED8B01N
_ 4	0.0	SM	Brow	n silty SAND, fine to medium grain, micaceous, well graded, trace small grav		SED8B03N
	0.0	ML	4.5 Brow	n clayey SILT, lean, no plasticity, little fine to medium grain micaceous sand,	moist, no odor	
_ 6 _	0.0					SED8B05N
	0.0		7			SEDOBOJIV
8	0.0	SM	Brow	n silty SAND, fine to coarse grain, well graded, trace lean clay, mica flakes, v		
	0.0				s	SED8B07N
10	0.0		10		SE	ED8B 9'-10'
		Re	emarks:		,	

Remarks:

AECOM 8320 Guilford Road Suite L Columbia, MD 21046

Л		\frown		
H	L	U	Λ	7

BORING #: SEDBACK15

Client	: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	Logged By: David Smith/Jeremy Joiner			
Projec	t: Bennir	ng Road F	acility		Northing:	439976.35	Easting:	1317502.26	Drilling Company: ASI			
Projec	t#: 6028	37343			Water Surf	face Elevation	(ft MLLW):	-0.21	Drilling Method: Vibracore			
Start I	Date: 11/	12/2013			Top of Sec	diment Elevat	tion (ft MLLV	V): -6.01	Recovery (ft): 8.9			
Finish	Date: 11	1/12/2013			Depth of C	oring (fbm):	10.2		Surface Sample Method: Ponar			
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic			Soil and Rock Description Classification Scheme: USCS						
0		ML		Light/i	medium brown SI	ILT, approximately	50% small grave	el, organic debris, and biva	alve shells			
	0.0			0.5						SEDBACK1500N		
_	0.0	ML		Dark I	brown SILT, glass	s fragments, woody	/ organic debris, s	ome fine to medium sand	l, well graded, wet, organic odor	SEDBACK15 6"- 12"		
2	0.0	ML		2 Brown	n SILT, black woo	ody, leafy organic m	natter, wet, organi	c odor		SEDBACK1501N		
	0.0			3								
4	0.0	ML		Brown	n SILT, wet, no or	rganic odor				SEDBACK1503N		
	0.0			5								
6	0.0	ML		Brown	n SILT, black woo	ody, leafy organic m	natter, wet, organi	c odor		SEDBACK1505N		
_	0.0	ML		6.5 Dark I	brown sandy SIL1	T, little lean clay, no	p plasticity, fine gr	ain, micaceous, wet, orga	inic odor	SEBBACK1303IV		
8	0.0									SEDBACK1507N		
	0.0											
⁻ 10	0.0			10						SEDBACK15 9'-10'		
		D.	emarks:	-1						'		
ΛE	COM	K	emarks:									
832	20 Guilford Iumbia, Mi	d Road Su	ite L									
	iairibia, IVII	∠ 1U40										

Boring Log

BORING #: SED6.5D

Clien	t: PEPCC)			Location:	3400 Benning	g Road, Was	hington, DC, MD	D Logged By: David Smith/Jeremy Joiner			
Proje	ct: Bennii	ng Road F	acility		Northing:	449651.75	Easting:	1323798.17	Drilling Company: Normandeau	Env.		
Proje	ect #: 6028	37343			Water Surf	ace Elevatio	n (ft MLLW):	NA	Drilling Method: Vibracore			
Start	Date: 11/	25/2013			Top of Sed	liment Elevat	tion (ft MLLV	V): 2.46	Recovery (ft): 8.2			
Finis	h Date: 1/	29/2014			Depth of Co	oring (fbm):	10		Surface Sample Method: Hand	Augered		
Depth (ft bgs)	PID (ppm)	USCS Code	Graphic				Soil and Classificat	Rock Description ion Scheme: USC	es	Soil Sample Identification		
0		OL		Dark	brown SILT lots o	prown SILT, lots of woody organic matter, wet, organic odor						
	0.0	OL.		Daix	SIOWIT GILT, IOG C	n woody organic in	iattor, wet, organi	3 0001		SED6.5D00N SED6.5D 6"-12"		
2	1.6			2								
-	0.0	ML		Brow	n clayey SILT, lear	n, no plasticity, little	e fine to medium ç	grain sand, well graded, r	moist, organic odor	SED6.5D01N		
4	2.2	ML SM		3.5 Brown		to coarse grain, we	ell graded, some s	small gravel, wet, organic	race small gravel, moist, organic odor	SED7.5D03N		
	0.6	IVIL		Glayi	isi ilgili biowii ciaj	ey SiLi, lean, no	to low plasticity, s	ori, moist				
6	0.5	ML	-	6 Grayi	ish light brown clay	/ey SILT, lean, no	to low plasticity, s	oft, micaceous, trace fin	e sand, moist	SED7.5D05N		
	0.5	ML		7	brown clovey CII 7		legicity coft mic	occours trops fine good	maint			
8	0.4	IVIL		Dark	orown dayey SILI	, теан, но ю юж р	nasuony, sun, inic	aceous, trace fine sand,	moist	SED7.5D07N		
	0.5	ML		8.5 Dark	brown clayey SILT	Γ, lean, no plasticty	/, trace to fine mic	aceous sand, moist				
		R	emarks:									
	ECOM			-								
83	320 Guilford Olumbia, M		uite L									

А				ı
A	L	Λ	И	ı

BORING #: SEDBACK2

Client: PEPCO	Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy J		Joiner
Project: Benning Road Facility	Northing: 465951.44 Easting: 1327084.09 Drilling Company: Normandea		īnv.
Project # : 60287343	Water Surface Elevation (ft MLLW): 1.19	Drilling Method: Vibracore	
Start Date: 12/3/2013	Top of Sediment Elevation (ft MLLW): -1.81	Recovery (ft): 1.6	
Finish Date: 1/31/2014	Depth of Coring (fbm): 2.8	Surface Sample Method: Hand A	ugered
Depth (ft bgs) PID (ppm) USCS Code Graphic	Soil and Rock Description Classification Scheme: USC	s	Soil Sample Identification
O.O SW SHOW	n SAND, fine to medium, well graded, mica flaking, little small gravel, little silt, s	aturated, no odor	SEDBACK200N
0.67 Gray	and brown GRAVEL, little fine to medium sand, well graded, trace silt, saturate		SEDBACK2 6"-12"
0.0 Dark	gray SAND with silt, fine to medium grain, very tight, trace gravel, moist		SEDBACK201N
Remarks: Refusal at	2.8'		
AECOM 8320 Guilford Road Suite L Columbia, MD 21046			

Boring Log

BORING #: SEDBACK3

Client: PEPCO			Location: 3400 Benning Road, Washington, DC, MD Logged By: David Smith/Jeremy Joiner			/ Joiner					
Project: Benning Road Facility			Northing:	462717.77	Easting:	1329107.33	Drilling Company: Normandeau Env./ASI				
Project #: 60287343				Water Surfa	ace Elevation	(ft MLLW):	2.46	Drilling Method: V	ibracore/		
Start Date : 11/15/2013 T					Top of Sediment Elevation (ft MLLW): -0.44 Recovery (ft): 2.9						
Finish	Date: 1/	30/2014			Depth of Co	oring (fbm):	4.5		Surface Sample Me	thod: Ponar	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS					Soil Sample Identification	
	0.0	SM		0.5	White SAND mixed with medium brown SILT, coarse grain sand, small rounded gravel					SEDBACK300N	
	0.0	GW		50% ·	GRAVEL, small to	large, subrounded	I, brown coarse s	and, mica flakes, trace w	oody organic matter, saturate	d, odor	SEDBACK3 6"-12"
2	0.0										
2		SP		60%	SAND, 40% grave	el, small to large, su	ubrounded, brown	n coarse sand, mica flake	s, trace woody organic matter	r, some mollusk	SEDBACK301N
				snells 2.25	s, trace silt, saturat	lea					
	0.0	GW		80% mollu: 2.75	sk shells, trace silt	and, small to large t t, saturated ean CLAY, low plas			nica flakes, trace woody orga	nic matter, some	
4	0.0	CL		3.6 Redd	lish-brown sandy C	CLAY, fat, low to m	edium plasticity,	īrm, trace small gravel, n	ioist		SEDBACK303N
4				4.5							
		R	emarks:	Refusal at	4.5'						
832	COM 0 Guilford umbia, M	d Road Su									



Phase II Landside Investigation Boring Logs

А		^		
A		U	Λ	И

BORING #: AST3A-1A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448586.01 Easting: 1324467.62	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/2/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/2/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SPG		0.2_Stone cover	
L.		0.0			Black SAND and GRAVEL, coarse, some rocks, dry, trace metal debris	0-1
			SM		Red brown, silty SAND, medium to coarse, some rocks and concrete fragments, dry	
2		0.0			2	
			SP		Brown SAND, medium to coarse, some silt, trace gravel, dry	
L .	5.0	0.0			3	
			SP		Brown SAND, medium to coarse, some silt, trace gravel, moist	
4	1	0.0			4	
		0.0	SM		Red brown, silty SAND, medium to coarse, moist	

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

A				
Δ			7 1	M
		\smile		

BORING #: CT16S09H Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449144.99 Easting: 1324617.65	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/4/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/4/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	^{əpo} o sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SPG		0.2Large stone cover	
		10.7	5. 0	, (\.0	Black SAND and GRAVEL, coarse, dry, loose, slight fuel-like odor	
Г			SPG	\. ان ان ان ان	Black SAND and GRAVEL, coarse, dry, loose, slight fuel-like odor	
2		34.3		Ø 0	2	1-2
			SP		Brown SAND, medium to coarse, trace gravel, some dark gray silty clay (possibly stained) intermixed, strong fuel-like odor, moist	
	5.0	77.9			3	2-3
			GP		Dark gray/brown GRAVEL and stones (1/2 - 1"), large, slight fuel-like odor, moist	
4		27.2			4	
			GP		Dark gray/brown GRAVEL and stones (1/2 - 1"), large, slight fuel-like odor, moist	
		8.7		00000	5	

Remarks:

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

Boring Log

BORING #: CT16S09I Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 1324615.28 Easting: 449151.16	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/4/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/4/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SPG		0.2Large stone cover	
		14.7	5. 0	\sim	Black SAND and GRAVEL, large, compact, dry	
Г			SP		Black SAND, coarse, some stones (1/4 - 1/2"), compact, dry	
2		28.5			2	1-2
			SP		Black/brown SAND, coarse, some gravel and stones (1/4 - 1/2"), strong petroleum-like odor, possible staining, moist	
	5.0	25.2			3	
			SP		Black/brown SAND, coarse, some gravel and stones (1/4 - 1/2"), strong petroleum-like odor, possible staining, moist	
4		118.7			4	
			SP		Black/brown SAND, coarse, some gravel and stones (1/4 - 1/2"), trace gray silty clay intermixed, possible staining, moist	
		44.0			5	

Remarks:

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

A			
Δ		I_{Λ}	И

BORING #: DPBACK03
Sheet 1 of 1

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer		
Project: Benning Road Facility					Northing: Easting: Drilling Company: GSI		
Project #: 60340344					Surface Elevation (msl): NA	Groundwater Encountered (ft bgs):	NA NA
Start Date: 3/2/2017					Drilling Method: DPT	Total Depth (ft): 18	
	Date: 3					l com Dopun (i.y.	
		0,2011					
Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS		
			MLS		Brown sandy SILT with trace small subround gravel, somewhat moist,	somehwat loose, soft	
			MLS		Orange/brown sandy SILT with trace gray clay, somewhat moist, som	ewhat firm, somewhat loose	
2	5.0	0.0	MLS		Orange/brown sandy SILT, somewhat moist, somewhat compact		
_			SM		Orange/brown silty SAND, fine, some coarse sand, loose, somewhat	moist	
4			SM	 ::::::	Orange and gray silty SAND, fine, very loose, somewhat moist, soft		
			SW		5	5.5.4 and 0.2.0.5.41 brown vallouish brown	
6			SW		Very pale brown yellowish SAND, fine to coarse, angular, clay at 5.3-5 sandstone gravel at 8.3 ft., dry	5.5 π. and 8.3-8.5 π., prown, yellowish prown,	
	3.8	0.0					
10					10		
12			sw		Very pale brown yellowish SAND, fine to coarse, angular; sandstone of	gravel at 11-11.8 ft., moist at 11.2-11.8 ft.	
12	3.8	0.0	СН		Brownish yellow mottled light gray CLAY, stiff, high plasticity, dry		
14							
			SW		15		
16	3.0	0.0	SW	/ <u>/</u> //////////////////////////////////	Very pale brown yellowish SAND, fine to coarse, angular, very dry		
	0.0			//.//./ /////////////////////////			
18					118		
		R	emarks:				
	СОМ						
Su	00 Virginia ite 110 Itsville, M	a Manor R D 20705	doad				

A	00	
Δ		M

BORING #: DPBACK08

Client: Pepco	Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer				
Project: Benning Road Facility	Northing: Easting: Drilling Company: GSI				
Project #: 60340344	Surface Elevation (msl): NA Groundwater Encountered (ft bgs):				
Start Date: 3/2/2017	Drilling Method: DPT	Total Depth (ft): 30			
Finish Date: 3/2/2017					
Recovery Length (feet) (feet) PID (ppm) USCS Code	Soil and Rock Description Classification Scheme: USCS				
MLS	Brown sandy SILT, trace small round gravel, somewhat moist, somewl	nat firm, trace organic root debris, somewhat loose			
2 MLS	Brown sandy SILT, trace gravel, small, round, somewhat moist, firm, s	omewhat loose to compact			
5.0 0.0 MLS	Brown sandy SILT, somewhat moist, loose, somewhat soft				
SM	Brown silty SAND, somewhat moist, loose, somewhat soft				
4 SP	Brown SAND with trace silt, loose, moist, soft				
sw ./././	Orangish brown, yellowish brown, white SAND, fine to coarse, angular,	dry			
8 2.8 0.0					
10	10				
SW CL	Orangish brown, yellowish brown, white SAND, fine to coarse, angular. 10.8 Orangish brown, red, gray, sandy CLAY, soft, sand, coarse, low plastic 11.7				
12 2.8 0.0 SP	Orangish, reddish brown SAND, coarse, soft, dry				
16	Orangish, reddish brown SAND, coarse, soft, dry, more clay content, o	rangish brown			
18 2.6 0.0 SP	Very dark greyish brown SAND, fine, loose to medium dense, moist				
Remarks:					
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705					

А		\frown		4
4			Λ	И

BORING #: DPBACK08
Sheet 2 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: Easting:	Drilling Company: GSI
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/2/2017	Drilling Method: DPT	Total Depth (ft): 30
Finish Date: 3/2/2017		

Recovery Length (feet) USCS Code PID (ppm) Graphic Depth (ft bgs) Soil and Rock Description Classification Scheme: USCS 20 Brownish yellow SAND, fine, angular, medium dense to dense, moist Yellowish brown SAND, fine, dense, moist, sandstone cobble at 22.6 ft., moist 22 3.8 0.0 Orangish brown, red, gray CLAY, medium stiff, high plasticity 24 Orangish brown, red, gray CLAY, medium stiff, high plasticity, moist at $28.6-28.9 \, \text{ft.}$; sand, fine, grey and white at $29.4-30 \, \text{ft.}$; Arundel 26 0.0 5.0 28

Remarks:	

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

30

-	2011	
Δ	C C IM	

BORING #: DPBACK10

Client	: Pepco				Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert	
Projec	Project: Benning Road Facility North			Northing: 445123.10 Easting: 1320862.14 Drilling Company: E2CR		
Projec	Project #: 60340344 Surface Elevation (msl): NA Groundwater Encountered (ft		Surface Elevation (msl): NA Groundwater Encountered (ft bgs):	11		
	Date: 8/1				Drilling Method: DPT Total Depth (ft): 50	
Finish	Date: 8/	30/2017				
O Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			TOPSOIL SC		0.3 Topsoil and grass Dark brown sandy LOAM, soft, organic material (roots)	
2	5.0		SP	<i>[[],[],[]</i>	Brown SAND, fine to medium, some small gravel, small stones (1/4-1/2"), mixed throughout, moist	
4			SM		Brown silty SAND, some small gravel, fine to medium sand, moist	
·			SM		Brown silty SAND, some small gravel, fine to medium sand, saturated, large stones (>1")	
68	5.0	0.0	SM		Brown silty SAND, tight, trace small stones, dry to moist	
			FILL		Brown/black, crushed rock and stone, large gravel, dry Brown silty SAND, tight, trace small stones, dry to moist	
10			SP		9.16 Gray SAND, medium, some silt, tight, moist 10	
			SP FILL	×××××	Gray SAND, medium, some silt, tight, brick fragments throughout, glass, moist 10.83 11	
12	1.0	0.0	SPG		Brown/gray GRAVEL and SAND, large, silty, medium grained sand, some stones (<1/2"), saturated	
16					-	
 18	1.6	0.0	SM	。	18 Brown silty SAND, some large gravel, large stones (1/2-1"), saturated, soft	16-20
20						
		R	emarks:	Groundwa	ter Sample Collected: 16 - 20 ft bgs and 42 - 46 ft bgs	
800 Sui	COM 00 Virginia ite 110 tsville, MI	Manor Ro				

A		\smallfrown		4
Δ			л	Л
	•		•	4

BORING #: DPBACK10

Sheet 2 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 445123.10 Easting: 1320862.14	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 11
Start Date : 8/16/2017	Drilling Method: DPT	Total Depth (ft): 50
Finish Date: 8/30/2017		
PID (ppm) PID (ppm) Craphic	Soil and Rock Descr Classification Scheme	Soil Sample Interval (feet)
22 1.0	Brown silty SAND, some large gravel, large stones (1/2-1"), saturated,	soft (continued)
26 28		
32 2.0 0.0	35	
36 SM SM 3.3 0.0 SM SM	Brown/gray silty SAND, some large gravel, large stones (1/2-1"), saturated, 38.25 Brown silty SAND, some large gravel, large stones (1/2-1"), saturated,	
Remarks: Ground	vater Sample Collected: 16 - 20 ft bgs and 42 - 46 ft bgs	
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705	20 . 250 dila 12 . 10 . 10 go	

Boring Log

BORING #: DPBACK10 Sheet 3 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 445123.10 Easting: 1320862.14	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 11
Start Date: 8/16/2017	Drilling Method: DPT	Total Depth (ft): 50
Finish Date: 8/30/2017		

Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SM		Brown silty SAND, some large gravel, large stones (1/2-1"), saturated, soft (continued) 41.08	
42			SM		Dark gray/black silty SAND, soft, moist 42	
	2.3	0.0	SPG Ø		Dark gray GRAVEL and SAND, large, coarse, saturated	
44			 ◊ 			42-46
46			, , , , , , , , , , , , , , , , , , ,	ø: 0 , ○ : ○ .	46	
			CL		Red/gray CLAY	
48	3.5	0.0				
50					50	

Remarks: Groundwater Sample Collected: 16 - 20 ft bgs and 42 - 46 ft bgs

-	00	
Δ		\mathbf{N}
		/ V I

BORING #: DPBACK14

Client: Pepco		Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer		
Project: Benning Road Facility		Northing: 446794.67 Easting: 1328627.63 Drilling Company: GSI		
Project #: 60340344		Surface Elevation (msl): NA Groundwater Encountered (ft bgs): 9		
Start Date: 3/7/2017		Drilling Method: DPT Total Depth (ft): 25		
Finish Date: 3/7/2017				
O (ff bgs) Recovery Length (feet) PID (ppm) USCS Code	Graphic	Soil and Rock Descr Classification Scheme	Soil Sample Interval (feet)	
5.0 0.0 CL		Orangish brown SAND, fine, some coarse, loose, dry 4 Greyish brown silty CLAY, high plasticity, dry, stiff and soft		
		5		
6 CL CL SANDSTONE		Orangish brown gray mottled sandy silty CLAY, stiff, high plasticity, mo 7.4 Dark red sandstone, weathered, brittle, fine grain	ist	
8 4.5 0.0 SP		Orangish brown SAND, very fine, compact, very moist at 9 ft., dense		
10		10		
12 4.5 0.0		Orangish brown and brown SAND, very fine, compact, dense, very mo	ist throughout	
16		17.2	15-19	
18 4.8 0.0 CL		Dark brownish yellow, sandy silty CLAY, high plasticity, soft, dry	13-19	
20 sc		Brown SAND, coarse, mottled gray clay, dry		
	Groundwat	er Sample Collected: 15 - 19 ft bgs	J	
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705				

A	=	U	Λ	7

BORING #: DPBACK14 Sheet 2 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer	
Project: Benning Road Facility	Northing: 446794.67 Easting: 1328627.63	Drilling Company: GSI	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 9	
Start Date: 3/7/2017	Drilling Method: DPT	Total Depth (ft): 25	
Finish Date: 3/7/2017			

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SP		Orangish brown and brown SAND, coarse, dense, moist, grey clay at 20.6-20.8 ft.	
22	4.6	0.0	CL		Gray red mottled sandy CLAY, stiff, dense, coarse sand, sandstone gravel at 21.3 ft., moist 22.8	
_ 24			СН		Grey, dark grey, dark red CLAY, very stiff, high plasticity, dry, Arundel	

Remarks: Groundwater Sample Collected: 15 - 19 ft bgs

					4
Δ				м	7
\boldsymbol{H}	=	_	$\boldsymbol{\smile}$		7

BORING #: DPBACK16

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert					
Project: Benning Road Facility					Northing: 444160.27 Easting: 1320555.10 Drilling Company: E2CR					
	ct #: 6034				Surface Elevation (msl): NA Groundwater Encountered (ft bgs):		15			
	Date : 8/1				Drilling Me	thod: DPT			Total Depth (ft): 50	
Finis	h Date: 8/	29/2017		<u> </u>						
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic			Soi Class	il and Rock Descri sification Scheme	iption : USCS	Soil Sample Interval (feet)
			TOPSOIL SC			and grass wn sandy LOAM, me	edium, orange ma	aterial (roots), some grav	el, dry	
	1		SM	777777	1 Brown sil	ilty SAND, medium, s	some gravel and	small stones (<1/2"), bro	ken porcelain and metal pieces, moist	
2					2					
	5.0	0.0	SM			lty SAND, medium, s	some gravel and	small stones (<1/2"), bro	ken porcelain and metal pieces, broken glass, dry	
			SP					all stones, trace brick fra	gments	
4			CL		4	ilty CLAY, tight, mois				
			SM			ilty SAND, saturated	, some small grav	vel		
			GP		5 Black/bro	own/gray GRAVEL, I	arge, silty sand,	oyster shells, brick, conci	rete, moist	
6										
	1									
8	4.8	0.0								
	1									
10				000	10 No Reco	N/An/				
					Nonceo	very				
	1									
12	-									
	0.0									
]									
14	-									
-										
16	1									
]									
	0.0									
18	- 0.0									
20					20					
20	1				tor Comple	Collocted: 00	04 ft b = -	d 40 44 ft		
ΔΕ	ECOM	K	emarks:	FIOUIDWA	ter sample (Collected: 20 -	24 It bgs an	d 40 - 44 ft bgs		
80	00 Virginia iite 110	Manor Ro	doad							
	eltsville, MI	20705								

-	00	
Δ		\mathbf{N}
		/ V I

BORING #: DPBACK16

Sheet 2 of 3

Client: Pepco		Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert		
Project: Benning Road Facility		Northing: 444160.27 Easting: 1320555.10 Drilling Company: E2CR		
Project #: 60340344		Surface Elevation (msl): NA Groundwater Encountered (ft bgs):		
Start Date: 8/16/2017		Drilling Method: DPT Total Depth (ft): 50		
Finish Date: 8/29/2017				
C Depth (ft bgs) Recovery Length (feet) PID (ppm) USCS Code	Graphic	Soil and Rock Descr Classification Scheme	Soil Sample Interval (feet)	
1.0 0.0 SM		Dark gray silty SAND, medium sands, saturated, possible sheen, soft	20-24	
26 0.0		27.16		
28 2.1 1.0 OL		Dark gray SILT, no sands, moist, soft		
30		32.33 Dark gray SAND, medium, moist		
36 40		37 Dark gray silty SAND, medium sands, moist, soft		
Remark	: Groundwa	ter Sample Collected: 20 - 24 ft bgs and 40 - 44 ft bgs		
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705		(Continued Next Page)		

Boring Log

BORING #: DPBACK16

Sheet 3 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 444160.27 Easting: 1320555.10	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 15
Start Date: 8/16/2017	Drilling Method: DPT	Total Depth (ft): 50
Finish Date: 8/29/2017		

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
 42			SM SPG OL	• <u> </u>	Dark gray SILT, moist, tight 41.83	
44	2.1	0.0	SP		Dark gray SAND, medium, some silt, moist	40-44
46			СН		45 Arundel CLAY	
48	5.0	0.0			50	

Remarks: Groundwater Sample Collected: 20 - 24 ft bgs and 40 - 44 ft bgs

-			
-			

Boring Log

BORING #: DPOS-01 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449465.76 Easting: 1325160.10	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/23/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/23/2017		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	
		0.0	PT	71 71 7	0.4 Grass roots, topsoil	
2	5.0	0.0	SM		Brown sitty SAND, fine, little small to large subrounded gravel, little cobbles, trace fill (plastic, glass, slag, brick), moist, little boulders 2.8	
4		0.8	SM		Dark grayish brown silty SAND, fine, little small to large subrounded gravel, little cobbles, trace fill (coal, glass), faint odor, moist	

Remarks: Groundwater Sample Collected: 16 - 20 ft bgs and 46 - 50 ft bgs

_		
Δ		M
		<i>,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

BORING #: DPOS-02

Client: Pepco				Location:	Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert								
Projec	t: Bennir	ng Road F	acility		Northing:	449445.87	Easting:	1325283.62	Drilling Company: E2CR				
Projec	t#: 6034	10344			Surface El	levation (msl):	NA		Groundwater Encountered (ft bgs):	25			
Start I	Date: 8/18	8/2017		_	Drilling Me	ethod: DPT			Total Depth (ft): 50				
Finish	Date: 8/3	24/2017											
O Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS							
 2			FILL		1.4	il, mulch; 2-17" asph n SAND and GRAVI		broken glass, concrete fi	ragments, dry				
	5.0	0.0	SPG		Light tar (<1/2"),		EL, coarse, large,	broken glass, concrete fi	ragments, brick fragments and small stones				
 4			SP	<i>\$</i> 0	Tan SAI	Tan SAND, medium to coarse, brick fragments, trace gravel, dry							
			SPG		Black S	Black SAND and GRAVEL, medium to coarse, dry							
8	1.2	0.0	FILL		Fill, black, gray, crushed rock and stone, brick fragments, glass, dry								
12	1.1	0.0			15								
16	0.0	0.0	NO CORE		No reco	overy							
			Groundwa	ter Sample	Collected: 16	- 20 ft bas. 24	4 - 28 ft bgs and 4	6 - 50 ft bgs					
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705					ы оапре	Conceied. 10	20 11 093, 24	T ZO IL DYS AIRU 4	o oo it byo				

Boring Log

BORING #: DPOS-02

Sheet 2 of 3

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert					
Proje	ct: Bennir	ng Road F	acility		Northing: 449445.87 Easting: 1325283.62 Drilling Company: E2CR					
Proje	ct #: 6034	10344			Surface Elevation (msl): NA Groundwater Encountered (ft bgs):	25				
Start	Date: 8/1	8/2017			Drilling Method: DPT Total Depth (ft): 50					
Finis	h Date: 8/	24/2017								
Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS Black SAND and SILT coarse, some small stones (<1/2"), saturated; 10-21" Gray silt, some very fine sand, trace small					
22	1.8	0.0	SP-OL		Black SAND and SiL1 coarse, some small stones (<1/2"), saturated; 10-21" Gray silt, some very fine sand, trace small gravel, moist					
			OL		Gray SILT, some very fine sand, trace small gravel, saturated					
26	3.8	0.0	SPG	° 0°	Brown SAND and GRAVEL, coarse, small, some small stones (<1/2"), saturated 5.5 Gray silty CLAY, compact, moist					
30					30					
32	-		CL		Gray silty CLAY, compact, moist 31.33 Gray silty CLAY, trace fine sands, compact, moist					
34	5.0	0.0			35					
36			CL		Gray silty CLAY, trace fine sands, compact, moist 37.25					
38	5.0	0.0	SM		Gray silty SAND, medium grained, increasing sands, saturated 38.5 Gray/light brown SAND, fine to medium, saturated					
40					40					
40	1		omarka:	Grounders	<u>-</u>					
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705				Groundwa	ter Sample Collected: 16 - 20 ft bgs, 24 - 28 ft bgs and 46 - 50 ft bgs					

Boring Log

BORING #: DPOS-02

Sheet 3 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 449445.87 Easting: 1325283.62	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 25		
Start Date: 8/18/2017	Drilling Method: DPT	Total Depth (ft): 50		
Finish Date: 8/24/2017				
f f				

Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SM		Gray silty SAND, medium grained, increasing sand, saturated 41.66	
42			SP		Gray SAND, medium to coarse, trace small gravel, saturated	
-	2.7	0.0				
44					45	
46			SP		Gray SAND, medium to coarse, trace small gravel, saturated	
48	4.0	0.0	CL SPG	<i>.</i> O.	47.66 47.83 Clay Gray SAND and GRAVEL, coarse and large, some small stones (<1/2"), saturated	
50				0.0	50	

Remarks: Groundwater Sample Collected: 16 - 20 ft bgs, 24 - 28 ft bgs and 46 - 50 ft bgs

-			
-			

Boring Log

BORING #: DPOS-03

Client: Pepco				Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert								
Projec	t: Bennii	ng Road F	acility		Northing:	449323.38	Easting: 13	325465.16	Drilling Compa	any: E2CR		
Projec	t#: 6034	10344			Surface Ele	vation (msl):	NA		Groundwater I	Encountered (ft bgs):	10.2	
Start I	Date: 8/1	7/2017			Drilling Met	hod: DPT			Total Depth (ft) : 50		
Finish	Date: 8/	21/2017										
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS						
			TOPSOIL SP	7, 1.7. 1.7. 1.7.	1 7 7 7	ne needles n SAND, fine to me	edium, roots, dry					
			SP		1							
			SP		Brown SA	IND, medium, trace	small stones (<1/2"),	ary				
2			SPG		Black SAN	ND and GRAVEL, fi	ine, small, broken gla	ss, dry				
	5.0	0.0		(\)		,	3.	,				
			SP		Brown SA	ND, fine, dry						
4					4							
			SP		Orange-bi	Orange-brown SAND, medium, trace silt, slight moist						
_					5							
			SP		Brown SA	ND, medium to coa	arse, some small ston	es (<1/2"), dry				
6												
8	3.2	0.0										
10			SP		10 10.16 Dark brow	n SAND coarse tr	race gravel, trace sma	all stones (<1/2") mo	niet	,		
			SP		Dark brow	n SAND, coarse, tr	race gravel, trace sma	all stones (<1/2"), sa	turated			
12	2.6	0.0	Ji		Orange-ui	Orange-brown SAND, coarse, some gravel, trace small stones (<1/2"), saturated						
			SPG	0. Y Y	15.58		RAVEL, coarse, large		(<1/2"), saturated;			
16			SM		Orange-bi	rown silty SAND, mo	oist, medium hardnes	ss;				
			CL		Gray, clay 17.33	r, soft, small contain	ning layer;					
18	3.1	0.0	SM		Gray-brow 17.91	Grav-brown silty SAND, medium hardness, moist:						
20			SPG		Orange-bi	Orange-brown SAND and GRAVEL, coarse, large, some stones (1/4-1/2"), saturated						
20					1	N-111 1 12	40.61	0 50 51				
		Re	emarks:	Groundwa	iter Sample C	Collected: 12 -	16 ft bgs and 4	6 - 50 ft bgs				
AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705												

A		\smallfrown		4
Δ			л	Л
	•		•	4

BORING #: DPOS-03

Sheet 2 of 3

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert						
Proje	ct: Bennir	ng Road F	acility		Northing:	449323.38	Easting:	1325465.16	Drilling Comp	any: E2CR	
Proje	ct #: 6034	10344			Surface Ele	vation (msl):	NA		Groundwater	Encountered (ft bgs):	10.2
Start	Date : 8/1	7/2017			Drilling Met	thod: DPT			Total Depth (f	t): 50	
Finis	h Date: 8/	21/2017									
Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic			Clas	il and Rock Descr sification Scheme	:: USCS		Soil Sample Interval (feet)
	3.2	0.0	SPG		25			arge, some stones (1/4-3			
28	4.2	0.0	CL	0.0	26.41			arge, some stones (1/4-3			
30					30						
32	5.0	0.0	CL		-	with some silt, me	edium hardness, i	ow plasticity, dry, hardne	ss increases with dep	vth	
36 38 40	5.0	0.0	SM		Gray, silty	sand, very fine sa	nd, soft, moist				
		Re	emarks:	Groundwa	ter Sample (Collected: 12 -	· 16 ft bas an	d 46 - 50 ft bgs			
Remarks: Grounds AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705					ст одтрю С						

Boring Log

BORING #: DPOS-03

Sheet 3 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 449323.38 Easting: 1325465.16	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 10.2		
Start Date: 8/17/2017	Drilling Method: DPT	Total Depth (ft): 50		
Finish Date: 8/21/2017				

Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	apoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			OL		Gray, silt, trace very fine sand, soft, moist 41.41	
42			SP		Gray SAND, fine to medium, trace small gravel, saturated	
_ 44	4.2	0.0			45	
46			SP		Gray SAND, fine to medium, trace small gravel, saturated 45.91 Decomposed wood, tree	
 48 	3.0	0.0	SPG	ο Δ. ο Δ. ο Δ. ο Δ.	Gray SAND and GRAVEL, coarse, large, large stones (>1"), saturated	

Remarks: Groundwater Sample Collected: 12 - 16 ft bgs and 46 - 50 ft bgs

-			

А					
Δ	_			И	И
		•	•	•	,

BORING #: KMY-DU01 Sheet 1 of 1

-							
Client	Pepco				Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility					Northing: 449363.66 Easting: 1323505.30	Drilling Company: GSI	
Projec	Project #: 60340344				Surface Elevation (msl): NA Groundwater Encountered (ft bgs):		
Start [Date: 4/7	/2017			Drilling Method: DPT	Total Depth (ft): 20	
Finish	Date: 4	/20/2017					
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Descri Classification Scheme	: USCS	Soil Sample Interval (feet)
2 4	5.0		sc		Orangish brown clayey SAND, fine to medium, soft, dense, low plastici	ty, moist	0-1
6			SP	<i>(//////</i>	Brown SAND, fine to medium, some silt, dry, soft		5-6
8	4.1	0.0	ML		7.3 Brown SILT with sand, fine, soft, moist 8.9		
10			SM		Gray silty SAND, soft, moist to wet		
			SM		Gray silty SAND, soft, moist to wet		10-11
12	4.8	0.0	CL		Gray silty CLAY, high plasticity, with trace sand, soft, moist		
_ 16			CL		Gray silty CLAY, high plasticity, with trace sand, soft, moist		15-16
18	3.7	0.0			18.7		
			omorko:	Grounder	utor Sample Collected: 9 15 ft has	L	
800 Sui	COM 00 Virginia ite 110 Itsville, M	a Manor Ro	emarks:	Giounawa	tter Sample Collected: 8 - 15 ft bgs		

Boring Log

BORING #: KMY-DU02

Client: Pepco		Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility		Northing: 448717.63 Easting: 1323341.50 Drilling Company: GSI		
Project #: 60340344		Surface Elevation (msl): NA	Groundwater Encountered (ft bgs):	10.4
Start Date: 4/7/2017		Drilling Method: DPT	Total Depth (ft): 20	
Finish Date: 4/21/2017				
C Depth (ft bgs) Recovery Length (feet) PID (ppm) USCS Code	Graphic	Soil and Rock Descr Classification Scheme	:: USCS	Soil Sample Interval (feet)
		Orangish brown and brown SILT and SAND, some clay, sand, fine, loo	ose, dense, medium platicity, moist	0-1
5.0 SC		Dark brown with some orangish brown clayey SAND, fine, dense, soft,	medium plasticity, moist to wet	
8 2.4 0.0		Dark brown silty SAND, moist, soft 5.9 Dark gray SAND, fine, trace silt, moist, trace gravel, some cobbles (1//	2 in.)	5-6
	-	10 10.4 Dark gray SAND, fine, trace silt, moist, trace gravel, some cobbles (1//	2 in.)	
SPG SM SM	· 0 °	Black SAND and GRAVEL, coarse, trace silt, saturated to wet 11.4 Gray silty SAND, soft, wet		10-11
14 SP		13.5 Gray SAND, fine, some silt, tight, wet		
		16.8 Gray silty CLAY, high plasticity, moist, sand lens at 18.2 to 18.3 ft.		15-16
18 5.0 0.0		20		
	Grounders	tor Sample Collected: 10 14 ft has		
Remarks: AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705	Groundwa	tter Sample Collected: 10 - 14 ft bgs		

A				
Δ			7 1	M
		\smile		

BORING #: KMY-DU03

		O//I			Bornig Log	;	Sheet 1 of 1
Client:	Pepco				Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility					Northing: 448663.73 Easting: 1323559.22 Drilling Company: GSI		
Project	#: 603	40344			Surface Elevation (msl): NA	Groundwater Encountered (ft bgs)	: 10.3
Start Da	ate: 4/7	7/2017			Drilling Method: DPT	Total Depth (ft): 17.1	
Finish I	Date: 4	/21/2017					
Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Descr Classification Scheme	iption b: USCS	Soil Sample Interval (feet)
2			CL-ML		Brown and light brown SILT and CLAY, soft, medium plasticity, dry		0-1
4	5.0		SP		2.5 Orangish brown and light brown SAND, medium, loose, moist at 5 ft.		
6			SP SP		Brown SAND, medium to coarse, some silt, some cobbles (1/2-1 in.), 6.2 Dark brown SAND, medium to coarse, some silt, some cobbles (1/2-1		5-6
8	1.4				10		
			SP SM		10.3 Dark brown SAND, medium to coarse, some silt, some cobbles (1/2-1 Brown silty SAND, very soft, saturated	in.), moist	10-11
12			000		12.2		10-11
14	3.2		SPG		Brown SAND and GRAVEL, coarse, some cobbles (1/2-1 in.), saturate		
16	2.1		SPG		Brown SAND and GRAVEL, coarse, some cobbles (1/2-1 in.), saturate	ed	15-16
		Re	emarks:	Groundwa	nter Sample Collected: 15 - 19 ft bgs		

A				
Δ			I_{Λ}	V.
		\smile	•	

Finish Date: 2/28/2017

0.0

Boring Log

BORING #: SOBACK01 Sheet 1 of 1

3-4

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 453387.05 Easting: 1319864.18	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/28/2017	Drilling Method: DPT	Total Depth (ft): 4	

Recovery Length (feet) USCS Code PID (ppm) Graphic Depth (ft bgs) Soil and Rock Description Classification Scheme: USCS TOPSOIL Leaves TOPSOIL Dark brown, topsoil, loose, roots and organic material, moist 0.0 4.0 Orange silty SAND, tight, moist, organic material 0.0 SP Light tan/white SAND, fine, trace silt, dry, brittle, tight

Boring Log

BORING #: SOBACK02/DPBACK07

Sheet 1 of 2 Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer Easting: Project: Benning Road Facility Northing: 447619.60 1328627.26 Drilling Company: GSI Project #: 60340344 Surface Elevation (msl): Groundwater Encountered (ft bgs): NA Start Date: 2/28/2017 Drilling Method: DPT Total Depth (ft): 23 Finish Date: 3/2/2017 Recovery Length (feet) **USCS** Code PID (ppm) Graphic Soil and Rock Description Classification Scheme: USCS Dark brown topsoil with SAND, coarse, moist, rocks, organic materials, loose 0.0 SP Brown SAND, medium to coarse, moist, loose, organic material 0.0 Light tan/white silty SAND, tight, brittle 5.0 3-4 0.0 Yellowish brown and gray mottled SAND, fine to coarse, some interbedded grey and white, yellowish brown clay, some sandstone gravel at 5.2-5.3 and 5.8-6.1 ft., moist at 5.1-5.3 ft. SW 6 CH Reddish brown, red, orangish brown CLAY, stiff to soft, high plasticity, silt 7.8-10 ft. interbedded 8 <u>10</u> Yellowish brown, gray, mottled red CLAY, silty, medium stiff, dry, high plasticity 12 14 Dark brown, mottled gray and red CLAY, stiff, high plasticity, dry Reddish brown, mottled gray CLAY, very stiff, dry, high plasticity 16 18 20 Remarks: **AECOM** 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

А				
Δ		U	Λ	И
	•		•	,

BORING #: SOBACK02/DPBACK07 Sheet 2 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer							
Project: Benning Road Facility	Northing: 447619.60 Easting: 1328627.26	Drilling Company: GSI							
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA							
Start Date: 2/28/2017	Drilling Method: DPT	Total Depth (ft): 23							
Finish Date: 3/2/2017									

Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			СН		Reddish brown, mottled gray, CLAY, very stiff, dry, high plasticity, some mottled brownish yellow (Arundel Clay) 23	

Remarks:

Boring Log

BORING #: SOBACK03/DPBACK11

_			-				Sneet 1 of
Client	: Pepco				Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer	
Projec	t: Benni	ng Road f	acility		Northing: 444497.88 Easting: 1329214.24	Drilling Company: GSI	
Projec	t#: 6034	40344			Surface Elevation (msl): NA	Groundwater Encountered (ft bgs)	: NA
Start I	Date: 3/2	/2017			Drilling Method: DPT	Total Depth (ft): 22.7	
Finish	Date: 3/	/3/2017					
O Depth (ft bgs) Recovery Length (feet) PID (ppm) USCS Code					Soil and Rock Descri Classification Scheme	iption : USCS	Soil Sample Interval
			TOPSOIL	7, 18. 7, 18. 7,			0.1
2	5.0	0.0	SP		Brown SAND, medium to coarse, topsoil, rock and gravel, moist, loose Brown/orange silty SAND, moist to wet, soft		0-1
4					5		3-4
			CL		Brownish yellow, brown, very silty CLAY, soft, medium plasticity, dry		
8 -	4.7	0.0	СН		Reddish brown gray mottled CLAY, stiff, high plasticity, dry		
12			СН		Reddish brown gray mottled CLAY, stiff, high plasticity, dry		
	4.8	0.0	CL		Brownish yellow very silty CLAY, soft, medium plasticity, moist		
14			CH		Reddish brown gray mottled CLAY, stiff, high plasticity, dry		1

Remarks:

CL

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

0.0

4.9

16

18

20

Reddish brown gray mottled CLAY, stiff, high plasticity, dry

Reddish black gray mottled silty CLAY, medium stiff, high plasticity, dry

А					
Δ	_			И	И
		•	•	•	,

BORING #: SOBACK03/DPBACK11 Sheet 2 of 2

Client	: Pepco				Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer				
Projec	t: Benni	ng Road F	acility		Northing: 444497.88 Easting: 1329214.24 Drilling Company: GSI				
Projec	t#: 6034	40344			Surface Elevation (msl): NA Groundwater Encountered (ft bgs				
Start [Date: 3/2	/2017			Drilling Method: DPT Total Depth (ft): 22.7				
Finish	Date: 3/	/3/2017							
Oc Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS				
22	2.7	0.0	СН		Reddish black, gray mottled silty CLAY, medium stiff, high plasticity, dry, siltstone at 20.8-21.1 ft., grey weathered firm, moist at 21.2-21.4 and 22-22.3 ft.				

Remarks:

Λ		\frown		A
A	L	U	Λ	71

BORING #: SOBACK04 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer		
Project: Benning Road Facility	Northing: 445546.29 Easting: 1323248.40	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 4/5/2017	Drilling Method: DPT	Total Depth (ft): 4		
Finish Date: 4/5/2017				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
_ 2	4.0	0.0	sc		Orangish brown, brown, dark brown SAND and silty CLAY, medium, soft, low plasticity, dry/somewhat moist, brick and other debris	
4					4	

Remarks:

Boring Log

BORING #: SOBACK04/DPBACK04

Client: Pepco					Location:	3400 Benning	Road, Wash	hington, DC	Logged By: Dan Hulbert			
Project: Benning Road Facility					Northing:	Northing: 445546.29 Easting: 1323248.40 Drilling Company: E2CR						
Project #: 60340344					Surface Ele	evation (msl):	NA		Groundwater Encountered (ft bgs):	18.5		
Sta	t Date: 8/1	7/2017			Drilling Me	thod: DPT			Total Depth (ft): 41.5			
Fini	sh Date: 8/	22/2017										
O Depth	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS						
			TOPSOIL SP	71/2.71/2.71	100000		ome small gravel	, roots, broken glass, dry	,	0-1		
- 2			SM		Orange-b	prown silty SAND, me	edium grained, d	ry, bottle, broken glass, b	prick fragments			
			SM		Orange-b fragments		edium grained, d	ry, bottle, broken glass, b	orick fragments, small stones (<1/2"), brick, coal			
-	5.0	0.0								3-4		
4_	_		SP		Brown SA	AND, fine to medium	ı, dry, loose					
-			SP		Brown SA	AND, very fine, tight,	moist					
6	_				7.25							
8	3.4	0.0	SP		Brown SA	AND, very fine, trace	silt, tight, moist					
- 10					110							
-	-		SP		Brown S <i>i</i>	AND, very fine to me	dium, grain size	increasing with depth, m	oist to saturated, tight;			
12			SM			ty SAND, tight, mois	t;					
			CL			y CLAY, soft, moist,	gray medium sar	nd, loose from 35-36				
- 14	3.3	0.0			15							
16			CL		Gray, silt <u>ı</u>	y CLAY, soft, moist,	gray medium sar	nd				
-	-		SP		17.08 Grav SAN	ND, fine to medium,	moist, tight					
18	4.0	0.0	SM		17.75	SAND, moist, tight						
					18.5							
- 20	-		SP		Tan/gray	SAND, coarse, trace	e fine gravel, sat	urated				
		R	emarks:	Groundwa	ter Sample (Collected: 20 -	24 ft bas					
	AECOM						3					
8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705												
Ľ.												

A		^		4
Δ	_		I_{Λ}	И
		\mathbf{v}	•	,

BORING #: SOBACK04/DPBACK04

Sheet 2 of 3

Client: Pepco	Location:3400 Benning Road, Washington, DCLogged By:Dan Hulbert		
Project: Benning Road Facility	Northing: 445546.29 Easting: 1323248.40 Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA Groundwater Encountered (ft I	ogs): 18.5	
Start Date: 8/17/2017	Drilling Method: DPT Total Depth (ft): 41.5		
Finish Date: 8/22/2017			
Recovery Length (feet) (feet) PID (ppm) USCS Code	Soil and Rock Description g Classification Scheme: USCS	Soil Sample Interval (feet)	
	Gray/tan SAND and GRAVEL, coarse, large, some stones (1/4-3/4"), saturated 2.1.91 22.08 Gray SAND, very fine ,loose, moist		
2.6 0.0 SPG C	Gray/tan SAND and GRAVEL, coarse, large, some stones (1/4-3/4"), saturated		
26 CL CL	Light gray/red silty CLAY, very tight, moist 26.5 Red silty CLAY, very tight		
28 2.9 0.0			
30 32 5.0 0.0			
36 38 5.0 0.0 			
Remarks: 0 AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705	froundwater Sample Collected: 20 - 24 ft bgs		
	(Continued Next Page)		

Boring Log

BORING #: SOBACK04/DPBACK04 Sheet 3 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert					
Project: Benning Road Facility	Northing: 445546.29 Easting: 1323248.40	Drilling Company: E2CR					
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 18.5					
Start Date: 8/17/2017	Drilling Method: DPT	Total Depth (ft): 41.5					
Finish Date: 8/22/2017							

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CL		Red silty CLAY, very tight (continued)	
-	1.5	0.0			41.5	

Remarks: Groundwater Sample Collected: 20 - 24 ft bgs

		\frown		
A	=	U	Λ	И

BORING #: SOBACK05 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer		
Project: Benning Road Facility	Northing: 447594.39 Easting: 1320831.45	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 4/5/2017	Drilling Method: DPT	Total Depth (ft): 4		
Finish Date: 4/5/2017				

1 111131	i Date.	3/2017				
Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
2	4.0	0.0	SP		Dark brown and black SAND, coarse to medium, loose, dry, abundant brick and other debris throughout	

Boring Log

BORING #: SOBACK05/DPBACK15 Sheet 1 of 3

Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert

Project: Benning Road Facility Northing: 447594.39 Easting: 1320831.45 Drilling Company: E2CR

Project #: 60340344 Surface Elevation (msl): NA Groundwater Encountered (ft bgs): 21.6

Start Date: 8/15/2017 Drilling Method: DPT Total Depth (ft): 55

Finish Date: 8/28/2017

Finish	Date: 8	/28/2017						
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)		
			TOPSOIL	71 14. 1/1 1/1. 1/1	0.3 Topsoil and grass			
			SC		Brown/tan sandy LOAM, soft, trace organic root material	0-1		
F -			SP	///////	Brown SAND with silt, fine to medium grained, some stones and gravel, moist			
					Eroth of the militial, line to median grands, come stories and graves, most			
2			SP		2 Brown SAND with silt, fine to medium grained, some stones and gravel, large concrete/asphalt fill material, broken glass,			
			35		moist			
L -		0.0			3			
			GP		Brown/black GRAVEL, large, crushed asphalt, some sand, moist	0.4		
4						3-4		
				0000	4.5			
			SP		Coarse SAND and oyster shells			
ΓŢ			FILL		5.33 Brick			
6			FILL		Black/tan/light brown rock, gravel, asphalt, dry, brittle			
\vdash \dashv								
	3.3	0.0						
8	3.3	0.0						
L 4								
10								
			FILL	*****	10.66 10.91_Brick			
T 1			FILL	******	Black/tan/light brown rock, gravel, asphalt, dry, bottle, glass, oyster shells, moist, leafy material			
12								
12			CM	\bowtie	12.16			
	2.5	0.0	SM		Dark gray/gray silty SAND, depositional leaf matter, moist			
F -				::::::				
.								
14								
				::::::				
					15			
			SPG	<u>اب ب</u>	Black/tan/light brown GRAVEL and SAND, large, coarse, some stones, concrete, cloth, broken glass, moist			
16				$\cdot \circ \cdot \bigcirc \cdot \circ \cdot$				
			SM	N	16.25 Dark gray silty SAND, soft, moist			
					Same gray only of the, contyniolog			
T 1								
18	1.3	0.0		·:·:·:				
├ ┤				·:·:·:				
_				::::::				
20								
	Remarks: Groundwater Sample Collected: 24 - 28 ft bgs and 50 -54 ft bgs							

Remarks: Groundwater Sample Collected: 24 - 28 ft bgs and 50 -54 ft bgs

Boring Log

BORING #: SOBACK05/DPBACK15 Sheet 2 of 3

Client: Pepco	t: Pepco Location: 3400 Benning Road, Washington, DC			
Project: Benning Road Facility	Northing: 447594.39 Easting: 1320831.45	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 21.6		
Start Date: 8/15/2017	Drilling Method: DPT	Total Depth (ft): 55		
Finish Date: 8/28/2017				

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
20	œ		SM		Dark gray silty SAND, soft, moist (continued)	
			Civi		20.83	
			SM		Light gray/light blue silty SAND, soft, moist 21.58	
22			SPG		Brown GRAVEL and SAND, large, coarse, some stones (1/4-1"), saturated	
	3.6	0.0		\circ \circ		
-	0.0			ø: .0:		
24				6.0.0		
				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
+			1	₽0		
26				0. V. V		
				<i>□</i>		
28	3.5	0.0	OL	φ. · · · · · · · · · · · · · · · · · · ·	27.58 Dark gray, SILT, trace fine sand, moist	
					28.41	
			PT	<u> </u>	Depositional layer of leaves	
30				<u> </u>		
30			1	1, 11, 11,		
				711 711 7		
00				<u> </u>	31.66 31.83 Cray citty SAND majet	
32			SM		31.83 Gray silty SAND, moist Alternating layers of depositional leaves and moist gray silty SAND	_
	5.0	0.0				
34						
					35	
			SM		Gray silty SAND, moist 35.66	
_ 36			SP		Gray SAND, medium to coarse, trace small gravel, saturated	
			SM		36.58 Gray silty SAND, moist, intermittent layers of depositional leaves	
[
38	5.0	0.0				
				:::::::		
40				·····	40	

Remarks: Groundwater Sample Collected: 24 - 28 ft bgs and 50 -54 ft bgs

А					
Δ	_			И	И
		•	•	•	,

BORING #: SOBACK05/DPBACK15

AECOM		Boring Log	Sheet 3 of 3		
Client: Pepco		Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facilit	y	Northing: 447594.39 Easting: 1320831.45	Drilling Company: E2CR		
Project #: 60340344		Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 21.6		
Start Date: 8/15/2017		Drilling Method: DPT	Total Depth (ft): 55		
Finish Date: 8/28/2017					
oth	Graphic	Soil and Rock Desci Classification Scheme			

O (ft bgs)	Recovery Lengt (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
40			SM		Gray silty SAND, moist 40.66	
			GP	0000	Gray GRAVEL, small, trace fine sand, trace small stones (<1/4"), saturated, 25-26" depositional layers of leaves	
42						
42						
	3.6	0.0				
 			0.0	0000	43.58 Gray GRAVEL, small, trace fine sand, trace small stones (<1/4"), saturated	
44			GF	200	Gray GRAVEL, Small, trace time sand, trace small stones (< 1/4), Saturated	
				000		
46				0000		
				0000		
48	3.0	0.0				
50			-			
				0000		
1 1						
52				6000		
	3.6	0.0	PT	$\sim 10^{\circ}$	52.41 52.75 Layer of leaves	
			CH		Arundel clay	
54						
					55	

Remarks:	Groundwater	Sample Collected:	24 - 28 ft bgs and 50	0 -54 ft bgs

_			
_			

A			
Δ		I_{Λ}	И

BORING #: SOBACK06 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 451508.96 Easting: 1320783.91	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/28/2017	Drilling Method: DPT	Total Depth (ft): 4	
Finish Date: 2/28/2017			

1	. – ato. –	_0,_0				
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			TOPSOIL	71 V. 71 V. 7		0-1
2			SM		Dark brown silty SAND, dry, compact, organic materials	0-1
	4.0	0.0	SM		Light brown and white silty SAND, dry, brittle, tight	
						3-4

Remarks:

A	20	
Δ		\mathbf{N}

BORING #: SOBACK07/DPBACK06 Sheet 1 of 2

Client: Pepco			Location:	3400 Benning	Road, Wash	nington, DC	Logged By: Matt Spencer			
Proj	ect: Bennir	ng Road F	acility		Northing:	453527.57	Easting:	1321557.44	Drilling Company: GSI	
Proj	Project #: 60340344					evation (msl):	NA		Groundwater Encountered (ft bgs):	NA
Star	t Date: 2/2	7/2018			Drilling Me	thod: DPT			Total Depth (ft): 22	
Fini	sh Date: 2/	28/2017								
O Depth	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS			Soil Sample Interval (feet)	
			SP		Light bro	wn SAND, medium, t	trace silt, soft, ro	ots, organic material, dry		
2	5.0	0.0	SM		Light bro	wn silty SAND, tight,	organic material	, dry		
- 4_			SP		Light bro	wn SAND, medium, l	trace silt, tight, or	ganic material, dry		
6			SP		6.6	n red SAND, fine, little			lar, moist to wet at 6.2 ft, dense	
- 8 -	4.6	0.0	Сп		9.6					
10 	5.0	0.0	СН		Reddish	yellow mottled red an	nd purple CLAY,	very stiff, high plasticity,	dry (Arundel clay)	
16 - 18	4.0	0.0	СН		Yellowist grey at 1	n brown, mottled red 8 to 19 ft., with hard	CLAY, very stiff, Arundel clay	high plasticity, 15.5 to 17	7.3 ft. primarily red mottled with yellowish brown	
20										
Γ.	F0014	Re	emarks:							
8	ECOM 000 Virginia Juite 110 Beltsville, MI		load							

A	 ~		
4	.U	Λ	И
, w			

BORING #: SOBACK07/DPBACK06 Sheet 2 of 2

Client: Pepco					Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer				
Projec	ct: Benni	ng Road F	acility		Northing: 453527.57 Easting: 1321557.44	Drilling Company: GSI				
Projec	ct #: 603	40344			Surface Elevation (msl): NA	Groundwater Encountered (ft bgs):	NA			
Start I	Date: 2/2	7/2018			Drilling Method: DPT	Total Depth (ft): 22				
Finish	Date: 2	/28/2017								
Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS					
	2.0	0.0	СН		Yellowish brown, mottled red CLAY, very stiff, high plasticity, 15.5 to 1 grey at 18 to 19 ft., with hard Arundel clay (continued) 22	Yellowish brown, mottled red CLAY, very stiff, high plasticity, 15.5 to 17.3 ft. primarily red mottled with yellowish brown grey at 18 to 19 ft., with hard Arundel clay (continued)				

Remarks:

-	-	
Δ		1
_		

BORING #: SOBACK08/DPBACK12

		<u> </u>			209 209	,	Sheet 1 of 2			
Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer					
Projec	ct: Benni	ng Road F	acility		Northing: 446903.48 Easting: 1323513.39	Drilling Company: GSI				
Projec	ct #: 603	40344			Surface Elevation (msl): NA	Groundwater Encountered (ft bgs)): 22.4			
Start I	Date: 4/5	/2017			Orilling Method: DPT Total Depth (ft): 29					
Finish	Date: 4	/18/2017								
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Desc Classification Schem	e: USCS	Soil Sample Interval (feet)			
2	5.0	0.0	CL		Orangish brown, dark brown, mottled gray silty CLAY, sitff and mediu changes to gray-light gray from 3 to 4 ft.	m stiff, medium plasticity, somewhat moist, color	0-1			
4					5		3-4			
			CL	<i>\$//////</i>	Orangish brown, reddish brown sandy CLAY, firm, medium plasticity, 5.6		_			
	2.0	0.0			Gray to dark gray silty CLAY, firm, medium plasticity, moist from 6 to 0					
12	4.3	0.0	CL		Brown to dark brown silty CLAY, soft, medium plasticity, laminated wi dry	th silt, moist at 13.0 ft., sandstone gravel at 13.0 ft.				
16	3.8	0.0	CL		Brown to dark brown silty CLAY, soft, medium plasticity, laminated wi	th silt				
800 Sui	COM 00 Virginia ite 110	a Manor Ro		Groundwa	tter Sample Collected: 21 - 25 ft bgs					

Boring Log

BORING #: SOBACK08/DPBACK12 Sheet 2 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer		
Project: Benning Road Facility	Northing: 446903.48 Easting: 1323513.39	Drilling Company: GSI		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 22.4		
Start Date: 4/5/2017	Drilling Method: DPT	Total Depth (ft): 29		
Finish Date: 4/18/2017				

Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CL		Brown to dark brown silty CLAY, soft, medium plasticity, laminated with silt (continued) 22.4	
	4.3	0.0	SC CL		Brown, dark brown and yellowish brown SAND and CLAY, soft, loose, sandstone cobbles from 22.4 to 23.2 ft. and 23.6 to 23.9 ft., wet 23.9 Reddish brown and mottled gray CLAY, soft, high plasticity, dry	
			СН		Reddish brown, yellowish brown and mottled gray CLAY, silty, very hard, high plasitcity, dry (Arundel clay)	
	3.6	0.0			29	

Remarks: Groundwater Sample Collected: 21 - 25 ft bgs

А				
Δ			I_{Λ}	M
	•	•	•	

BORING #: SOBACK10/DPBACK01 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer							
Project: Benning Road Facility		Northing: 442393.07 Easting: 1324538.28 Drilling Company: GSI						
Project #: 60340344		Surface Elev	vation (msl):	NA		Groundwater Encountered (ft bgs):	3.5	
Start Date: 3/7/2017		Drilling Meth	Drilling Method: DPT Total Depth (ft): 15					
Finish Date: 3/7/2017								
C Depth (ft bgs) Recovery Length (feet) PID (ppm) USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS					
TOPSOIL	7, 1. 7, 1. 7,							
		11			e gravel, medium, round,	nd, coarse, some gravel, large		
2			. canay c.e., can	radioa, com, com	omat compact, como ca	and, econoci, como grafor, rango		
5.0 MLS			n sandy SILT, satr	ruated, soft, loose	e, some sand, coasrse, s	ome gravel, coarse		
4 0.0 SPG	· 0 · 0	5			nd large, saturated, loose			
		7				wet, sandstone gravel present throughout		
SP CLS	/////////		grey SAND, fine a grey, sandy SILT			vet, sandstone gravel present throughout		
8 2.3 0.0					,			
0.0		15						
Remarks: AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705								

А				4
A	=	U	Λ	И

BORING #: SOBACK11
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer					
Project: Benning Road Facility	Northing: 446512.25 Easting: 1325016.99	Drilling Company: E2CR					
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA					
Start Date: 4/7/2017	Drilling Method: DPT	Total Depth (ft): 4					
Finish Date: 4/7/2017							

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CL		Light brown, orangish brown, silty CLAY, firm, medium plasticity, dry, some ss cobbles	0-1
2					2	
	4.0	No PID	СН		Grayish brown and brown CLAY, some silt, stiff, high plasticity, dry	
4					4	3-4

-		~		
Δ			И	и
		\smile	•	,

BORING #: SOBACK12/DPBACK09 Sheet 1 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: 451106.18 Easting: 1327368.99	Drilling Company: GSI
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 5.5
Start Date: 4/4/2017	Drilling Method: DPT	Total Depth (ft): 23.4
Finish Date: 4/18/2017		

1 1111311	Date: 4	10/2017				
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
Ť			TOPSOIL	71 18. 15 18. 71	0.25_Dark brown organic overburden	
2	5.0	0.0	SM		Orangish brown and dark brown silty SAND, fine, angular, soft, moist at roughly 4 ft., clayey matrix throughout	0-1
4	5.0	0.0				3-4
			SM		5 Orangish brown silty SAND, fine, soft, some sandstone gravel, dry	
6			SW		Gray and light gray SAND, fine to coarse, loose, sandstone cobbles at 6.2 to 7 ft., wet	
8	2.0	0.0				
10			SP	/. <u>/.</u> ./././//	10.5 Orangish brown SAND, medium, medium dense, sandstone cobbles and gravel throughout, wet	
12	3.2	0.0				
14			00		15	
16_			SP	· A. · A	White and orangish brown SAND, coarse, angular, medium dense, moist 16.7	
 18	2.7	0.0	SW		Orangish brown SAND, fine to coarse, medium dense, sandstone cobbles and gravel throughout, moist	
20		_		<u> </u>	tor Sample Collected: 16 20 ft has	

Remarks: Groundwater Sample Collected: 16 - 20 ft bgs

А		^		
Δ			Λ	И
	•		•	

BORING #: SOBACK12/DPBACK09 Sheet 2 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: 451106.18 Easting: 1327368.99	Drilling Company: GSI
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 5.5
Start Date: 4/4/2017	Drilling Method: DPT	Total Depth (ft): 23.4
Finish Date: 4/18/2017		

Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SW	//////////////////////////////////////	Orangish brown SAND, fine to coarse, medium dense, sandstone cobbles and gravel throughout, moist (continued) 1.2	
_ 22	3.4	0.0	СН		Brown, reddish brown, and mottled gray CLAY, stiff/very stiff, high plasticity, dry (Arundel) 3.4	

Remarks: Groundwater Sample Collected: 16 - 20 ft bgs

A	=	U	Λ	7

BORING #: SOBACK13

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: 444258.44 Easting: 1322878.35	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 4/5/2017	Drilling Method: DPT	Total Depth (ft): 4
Finish Date: 4/5/2017		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CL		Orangish brown and very dark brown silty CLAY, soft, low plasticity, dry, some sandstone cobbles	0-1
2	4.0	0.0				
4					4	3-4

A			
Δ		Λ	И

BORING #: SOBACK14
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 453759.47 Easting: 1323622.17	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/3/2017	Drilling Method: DPT	Total Depth (ft): 3
Finish Date: 3/3/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
	3.0	0.0	SM ML		Light brown/red sandy SILT, trace fine roots, loose, soft, very little moisture Light brown and red SILT with trace clay, dry	0-1

A	=	U	Λ	7

BORING #: SOBACK15 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 454385.13 Easting: 1324917.01	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/27/2017	Drilling Method: DPT	Total Depth (ft): 4	
Finish Date: 2/27/2017			

	Dutc. Z					
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
_ 2	4.0	0.0	SM		Orange-brown silty SAND, soft, organic material, moist	0-1

Remarks:

				4
Δ			I_{Λ}	•
		V	Λ	

Finish Date: 2/28/2017

8000 Virginia Manor Rdoad

Beltsville, MD 20705

Suite 110

Boring Log

BORING #: SOBACK16/DPBACK02 Sheet 1 of 2

Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer

Project: Benning Road Facility Northing: 455005.08 Easting: 1324848.90 Drilling Company: GSI

Project #: 60340344 Surface Elevation (msl): NA Groundwater Encountered (ft bgs): NA

Start Date: 2/27/2017 Drilling Method: DPT Total Depth (ft): 23

Recovery Length (feet) **USCS** Code PID (ppm) Graphic Soil and Rock Description Classification Scheme: USCS Light brown SAND, medium to coarse, dry, organic material, loose, grass/topsoil cover SM Orange-brown silty SAND, tight, dry, organic material 0.0 5.0 SM Brown/white silty SAND, tight, dry 3-4 Yellowish brown to gray mottled silty CLAY, low plasticity, medium stiff, somewhat moist at 6 ft. 6 0.0 Yellowish brown, red, gray mottled CLAY, high plasticity, very stiff, dry 4.2 8 10 СН Red and little yellowish brown mottled CLAY Light brown SAND, fine, dense, moist, interbedded with hard dry clay, yellowish brown at 12-12.4, 13-13.3, 13.9-14.1 ft. 12 4.8 0.0 Light brown SAND, fine, dense, moist 16 0.0 4.7 18 20 Remarks: **AECOM**

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SOBACK16/DPBACK02 Sheet 2 of 2

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: 455005.08 Easting: 1324848.90	Drilling Company: GSI
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/27/2017	Drilling Method: DPT	Total Depth (ft): 23
Finish Date: 2/28/2017		

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
	3.2	0.0	SP		Pinkish grey SAND, fine, dense, somewhat moist, mottled brownish yellow at 22.1-23 ft.	

-	-	~	-	4
Δ			л	Л
	•		//	7

BORING #: SOBACK17/DPBACK05 Sheet 1 of 2

Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer

Project: Benning Road Facility Northing: 454066.94 Easting: 1329476.81 Drilling Company: GSI/E2CR

Project #: 60340344 Surface Elevation (msl): NA Groundwater Encountered (ft bgs): 11.2

Start Date: 2/28/2017 Drilling Method: DPT Total Depth (ft): 39

Finish Date: 2/28/2017

Finish	Date: 2	/28/2017				
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			TOPSOIL	717. 71V. 7		
			SP		Dark brown, medium to coarse SAND, topsoil, moist, loose, organic material, rocks	0-1
2			SP		2 Dark brown, coarse SAND, moist, large gravel, loose	
	5.0	0.0				
-						
4						3-4
<u> </u>			SP		5	
			55		Reddish brown, reddish yellow SAND, fine, some sandstone gravel at 6 to 8.3ft., loose, fine, dry	
6						
8	3.3	0.0				
10					40	
_ 10			SP		Reddish brown, reddish yellow, SAND, fine, some sandstone gravel, loose, fine, dry	
			SW	./././	11.2 Orangish brown SAND, fine to coarse, abundant sandstone gravel at 12.9 to 13.6 ft., small to large, very moist	
12				<u> </u>		
	3.6	0.0		<u>//</u>		
F +	5.0	3.5		/////		
14				1777		
				<u>//.</u>	15	
			SW	<u>///////</u>	Orange brown SAND, fine to coarse, abundant sandstone cobbles at 15 to 16.6 ft., small to large, very moist	
16				17:17		
				17.7.7.		
h =				<u>//</u>		
18	3.2	0.0		<u>/.'.'/.'/</u>		
				17:17		
				17.7.7.		
				<u>//</u>		
20				1./././	20	
1						

Remarks: Groundwater Sample Collected: 13 - 17 ft bgs

Boring Log

BORING #: SOBACK17/DPBACK05 Sheet 2 of 2

Client: Pepco			Location: 3400 Benning Road, Washington, DC Logged By: Matt Spencer			
ect: Benning Road Facility Northing: 454066.94 Easting: 1329476.81 Drilling Company: GSI/E2CR			Drilling Company: GSI/E2CR			
t#: 603	60340344 Surface Elevation (msl): NA Groundwater Encountered (ft bgs):			11.2		
Date: 2/2	28/2017			Drilling Method: DPT Total Depth (ft): 39		
Date: 2	/28/2017	ı				
Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS		
		SW	//.//		mall to large, moist	
		OL-OH			ft.	
4.9	0.0	MI-CH		24 Orangish brown SAND and SILT, fine loose, moist		
		WIE-011				
		SW		Grey and white SAND, fine, coarse grained, loose, very moist		
				27		
3.6	0.0			30		
3.2	0.0	SW		Grey, brown, brownish yellow, mottled red SAND, fine to coarse, moi clay at 33.1 ft., mottled gray and red	st, sandstone cobbles present throughout, very stiff	
4.0	0.0	СН		Reddish brown, mottled gray CLAY, stiff, high plasticity, dry (Arundel	Clay)	
COM 00 Virginia			Groundwa	ster Sample Collected: 13 - 17 ft bgs		
	COM 3.6	##: 60340344 Date: 2/28/2017 Date: 2/28/2017 4.9	##: 60340344 Date: 2/28/2017 Date: 2/28/2017 ### OL-OH 4.9 0.0 ML-CH SW SP 3.6 0.0 SW 3.2 0.0 Remarks: COM OVirginia Manor Rdoad	## : 60340344 Date: 2/28/2017 Date: 2/28/2017 ### GOON	The content of the colors of t	### Surface Elevation (msi): NA Groundwater Encountered (ft bgs): Date: 2/28/2017 Drilling Method: DPT Total Depth (ft): 39 Soil and Rock Description Classification Scheme: USCS

-	-	~	-	4
Δ			л	Л
	•		//	7

BORING #: SOBACK18/DPBACK13

Sheet 1 of 3

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert		
Project: Benning Road Facility					Northing: 446369.96 Easting: 1321086.38 Drilling Company: GSI		
Proje	ct #: 6034	10344			Surface Elevation (msl): NA Groundwater Encounter	ered (ft bgs): 5.2	
Start	Date: 4/1	9/2017			Drilling Method: DPT Total Depth (ft): 45		
Finish	n Date: 4/	20/2017				-	
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS		
			CL		Orangish brown and dark brown sandy CLAY, fine, soft, low plasticity, dry	0-1	
2	5.0	0.0					
			SP		Dark brown and black SAND, medium, some clay, loose, abundant constrution debris and broken glass	3-4	
4			511		2		
6			SP SP		2—Bricks, crushed rock, fill debris Dark gray SAND, coarse, broken glass and brick, wet		
0	-		CL	<i>/////////////////////////////////////</i>	2 Dark gray silty CLAY, soft, moist, medium plasticity		
8	3.0	0.0					
10							
10 12 - 14	3.7	0.0	CL		Dark gray silty CLAY, soft, moist, medium plasticity, trace sand, fine 5 Dark gray silty CLAY, soft, moist, high plasticity, trace sand, fine		
16			СН		Dark gray sitty CLAY, soft, moist, high plasticity, trace sand, fine		
18	3.2	0.0	OL		Dark gray SILT, some sand, fine, moist		
			emarks:	Groundwa	er Sample Collected: 6 - 10 ft bgs		
Remarks: Groundw AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705					,		

				4
Δ			I_{Λ}	•
		V	Λ	

BORING #: SOBACK18/DPBACK13 Sheet 2 of 3

Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert

Project: Benning Road Facility Northing: 446369.96 Easting: 1321086.38 Drilling Company: GSI

Project #: 60340344 Surface Elevation (msl): NA Groundwater Encountered (ft bgs): 5.2

Start Date: 4/19/2017 Drilling Method: DPT Total Depth (ft): 45

							_
Finish	Finish Date: 4/20/2017						
Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS		Soil Sample Interval (feet)
20			SM		Dark gray sandy SILT, moist, soft, lots of material (small rocks) throug	hout	
	5.0	0.0	CL				
24					25		
_ 26			CL		Dark gray silty CLAY, moist, soft		
_ 28	4.8	0.0	SM		29.5 Dark gray sandy SILT, moist, soft, lots of organic material (small, shall	ou mate)	
30						ow 1003)	
			SP	V. N. O. O. N. O.	30.5 Dark gray SAND, coarse, cobbles (1/2-1 in. diameter), wet		
F -			SP	1	Dark gray to light tan SAND, coarse, cobbles (1/2-1 in. diameter), wet		
32							
J2							
	2.9	0.0					
t 1							
34							
36							
	1.4	0.0					
38	1.4	3.0					
F -							
10							
40		I .		Rest establish	1	I	
I		R	emarks:	Groundwa	ter Sample Collected: 6 - 10 ft bas		

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705

Remarks: Groundwater Sample Collected: 6 - 10 ft bgs

A			-		
A	=	L	U	Λ	И

BORING #: SOBACK18/DPBACK13 Sheet 3 of 3

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 446369.96 Easting: 1321086.38	Drilling Company: GSI	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 5.2	
Start Date: 4/19/2017	Drilling Method: DPT	Total Depth (ft): 45	
Finish Date: 4/20/2017			

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SP SP		40.5 Dark gray to light tan SAND, coarse, cobbles (1/2-1 in. diameter), wet (continued) Dark gray to light gray/green SAND, coarse, cobbles (1/2-1 in. diameter), wet	
42			51		41.8	
42	2.3	0.0	СН		Arundel CLAY	
44					45	

Remarks: Groundwater Sample Collected: 6 - 10 ft bgs

-			
-			

А				
Δ			$I\Lambda$	И
		\smile	•	,

BORING #: SOBACK19F

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer		
Project: Benning Road Facility	Northing: 449700.48 Easting: 1325107.84	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 4/4/2017	Drilling Method: DPT	Total Depth (ft): 4		
Finish Date: 4/4/2017				

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
2	4.0	0.0	SP		Orangish brown and brown SAND, fine to medium, loose, sand stone cobbles at 0 to 1 ft. interval, moist at 0 to 2 ft., wet at 2 to 4 ft., hole collapsing during to surface at roughly 3 ft. water	0-1
4					4	3-4

Remarks:

A		~		
A			Λ	И

BORING #: SU-BK-01 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: 454392.00 Easting: 1327237.88	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 4/4/2017	Drilling Method: DPT	Total Depth (ft): 4
Finish Date: 4/4/2017		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
	4.0	0.0	MLS		Orangish brown sandy SILT, coarse, sandstone cobbles at 0 to 1 ft. and 3 to 4 ft., medium, angular, dry	0-1
4					4	3-4

Remarks:

Λ					4
A	=	L	U	Λ	И

BORING #: SU-BK-02 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer	
Project: Benning Road Facility	Northing: 454777.51 Easting: 1328149.06	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 4/4/2017	Drilling Method: DPT	Total Depth (ft): 4	
Finish Date: 4/4/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
	4.0	0.0	CL		Orangish brown silty sandy CLAY, fine, sandstone gravel at 0 to 1 ft. interval, dry	0-1
					4	3-4

Remarks:

Boring Log

BORING #: SUSDP04-1A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448834.07 Easting: 1324095.73	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/1/2017	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 8/1/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SPG		0.2Compact stone and gravel cover	
		0.2	0.0	ο	Dark brown, black SAND and GRAVEL, coarse, some stones, compact, dry	
			SP		Dark brown SAND, coarse, some gravel, compact to loose, dry	
2		0.1			2	
			SP		Dark brown SAND, coarse, some gravel, compact to loose, dry	
		0.0			3	2-3
	6.0		SP		Black SAND and crushed coal, coarse, coal fragments throughout, compact, dry	
4		0.0			4	3-4
			SP		Dark brown SAND, coarse, trace coal fragments, compact to loose, dry	
		0.0			5	4-5
			SP		Brown SAND, medium, dry to moist	
6		0.0			6	

Remarks:

Boring Log

BORING #: SUSDP04-1C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448809.68 Easting: 1324116.34	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/1/2017	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 8/1/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					0.5 Crushed stone and gravel	
		0.0	SP		Light brown SAND, fine to medium, some stone and gravel, compact, dry	
2		0.0	SP		1.7 2 Black SAND, coarse, crushed coal, compact, dry	_
		0.0	SP		Black SAND, coarse, crushed coal, coal fragments throughout, compact, dry	2-3
	6.0				3.5	
4		0.0	SP		Brown SAND, medium, trace coal fragments, dry	3-4
		0.0				4-5
6		0.0			6	

Remarks:	

Boring Log

BORING #: SUSDP04-1E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448783.89 Easting: 1324092.60	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/1/2017	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 8/1/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					0.5 Crushed stone and gravel	
		0.0	SP		Dark gray/black SAND, coarse, trace metal debris, some gravel, loose, dry	
					1.5	
2		0.0	SP		Black SAND, coarse, crushed coal, trace gravel, loose, soft	
		0.0				2-3
4	6.0	0.0	SP		3.3 Light brown/tan SAND, medium to coarse, trace crushed coal, loose, dry 4	3-4
		0.0	SP		Brown SAND, fine to medium, loose, dry	4-5
6		0.0			6	

Boring Log

BORING #: SUSDP04-1G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448809.30 Easting: 1324066.24	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/1/2017	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 8/1/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					0.5 Compact stone and gravel	
		0.0	SP		Light brown SAND, coarse, some gravel, some concrete debris, compact, dry	
2		0.0	SP		Light brown SAND, medium to coarse, some gravel, compact, moist	
		0.0	SP-OL		Dark gray SAND and SILT, coarse, some large stones (1/2 - 1"), some gravel, saturated	
	6.0		SP-OL		Dark gray SAND and SILT, coarse, some large stones (1/2 - 1"), some gravel, moist	
4		0.0	SPG		Black SAND and GRAVEL, coarse, some crushed coal, dry	3-4
		0.0	SP		Black SAND and crushed coal, coarse, loose, soft, dry	4-5
6		0.0	GP	601100	5.5 Dark gray GRAVEL, large, some coarse sand, dry	5-6

Boring Log

BORING #: SUSDP04-2I Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond	
Project: Benning Road Facility	Northing: 448766.55 Easting: 1324095.97	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/1/2008	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 2/1/818			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		1.2Asphalt Surface	
L		0.0	SWG		Medium and dark brown gravelly SAND, fine to coarse, small to large, angular to subrounded (fill gravel), dry	
2		0.0	SM	2	Black silty SAND, very fine to coarse, little small gravel, angular to subrounded, coal fragments, slightly moist	
	5.0	0.1	GPS		Black sandy GRAVEL (primarily coal), very fine to coarse, small, dry	2-3
4		0.0	SWG		Black gravelly SAND (primarily coal), very fine to coarse, small, dry	
			SWG)	Black gravelly SAND (primarily coal), very fine to coarse, small, dry	
		0.0	SP	5	Black gravelly SAND (primarily coal) very fine to coarse, small, dry, grading to orange-brown SAND, fine, dry at the bottom, no odor	

Remarks:

A				
Δ			I_{Λ}	V.
		\smile	•	

BORING #: SUSDP05-1C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449160.88 Easting: 1324112.78	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 7/31/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 7/31/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SM		0.2Grass and hay	
		0.0	J		Brown/gray silty SAND, rock fragments, dry	0-1
			SP		Dark gray, black SAND, medium, some gravel, loose, dry	
2		0.0				1-2
					2.5	
	5.0	0.0	SP		Brown SAND, fine to medium, loose, dry	
4		0.0				
		0.0			5	

Remarks:

А		~		1
Δ	_		Λ	И
		\mathbf{G}	м	,

BORING #: SUSDP05-1E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 449133.52 Easting: 1324082.50	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 7/31/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 7/31/2017			

	. D ato: //					
Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					0.2Grass and hay	
		0.0	SP-OL		Brown SAND and SILT, medium, some gravel, loose, dry	0-1
			SP		Dark brown SAND, medium, some gravel, loose, dry, concrete refusal between 20"-24"	1-2
2		0.1			2	1-2
			SP		Orange-brown SAND, fine to medium, loose, dry	
	5.0	0.0			3	
4		0.0	SP		Orange-brown SAND, fine to medium, some gravel, loose, slightly moist	
		0.0			5	

Boring Log

BORING #: SUSDP05-1G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 449160.00 Easting: 1324059.32	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 7/31/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 7/31/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					0.2Grass and hay	0.4
L		0.0	SM		1 Brown/gray silty SAND, rock fragments, hard, dry	0-1
			SM		Gray silty SAND, metal fragments, rock fragment, hard, dry	
2		0.0			2	1-2
			SM		2.3 Gray silty SAND, some gravel, hard, dry	
L	5.0	0.0	SP		Light brown SAND, fine to medium, trace gravel, loose, dry	2-3
		0.0				
4		0.0	1			
		0.0			5	

Boring Log

BORING #: SUSDP05-2M Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond
Project: Benning Road Facility	Northing: 449159.28 Easting: 1324034.11	Drilling Company: E2CR
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/1/2008	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 2/1/818		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			TOPSOIL		10.1/Grass, topsoil	
		0.2	CL		Medium orangish brown silty CLAY, low plasticity, little small to large gravel, subangular to subrounded, slightly moist	0-1
			GWS		Dark brown sandy GRAVEL, fine to coarse, small to large, angular to subrounded, concrete and various types of rock, dry	
2		0.0			2	1-2
			SP		Orange-brown SAND, fine, trace small to large gravel, subangular to rounded, slightly moist	
	5.0	0.1			3	
			SP		Orange-brown SAND, fine, slightly moist	
4		0.0				
		0.0			5	

Remarks:

Boring Log

BORING #: SUSDP08-1E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facility	oject: Benning Road Facility Northing: 448888.29 Easting: 1324313.53			
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 8/2/2017	Drilling Method: DPT	Total Depth (ft): 5		
Finish Date: 8/2/2017				

	. Date : 0					
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	FILL		0.2 \(\subseteq \text{Stone cover} \) 0.7 Crushed rock and stone, compact	0-1
-		1.2	SPG		Brown/tan SAND and GRAVEL, coarse, some stones, compact, dry	0-1
2		0.2		· · · · · · · · · · · · · · · · · · ·	2	1-2
	5.0	0.0	SPG	0 O	Brown/tan SAND and GRAVEL, coarse, some stones, brick fragments, compact, dry	
4		0.0	SPG	. O.	Brown/tan SAND and GRAVEL, coarse, some stones, some large rocks, compact, dry	
		0.0		0.0	5	

A				
Δ			I_{Λ}	v
		V	•	7

Finish Date: 8/3/2017

Boring Log

BORING #: SUSDP08-2G Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448864.60 Easting: 1324375.03	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/3/2017	Drilling Method: DPT	Total Depth (ft): 4	

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.2Stone cover	
		0.0	SPG		Crushed rock and stone, compact	0-1
F +	ŀ		SP		Brown/tan SAND and GRAVEL, coarse, some stones, compact, dry	
2		0.1	<u>.</u>		Brown SAND, medium to coarse, some gravel and stones, compact, dry	1-2
	4.0	0.0			3	
4		0.0	SP		Brown SAND, medium to coarse, some gravel and stones, compact, saturated	

Remarks:

Boring Log

BORING #: SUSDP08-3I Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448865.00 Easting: 1324393.87	Drilling Company: E2CR	
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/2/2017	Drilling Method: DPT	Total Depth (ft): 5	

Finish Date: 8/2/2017

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	FILL SPG	****	0.2\Stone cover 0.5Crushed rock and stone, compact Brown/tan SAND and GRAVEL, coarse, some stones, some root material, compact, dry	0-1
2		0.0			2	1-2
	5.0	0.0	SPG	, O O	Brown/tan SAND and GRAVEL, coarse, some stones, some root material, compact, saturated	
4		0.0	SPG	· · · · · · · · · · · · · · · · · · ·	Brown/tan SAND and GRAVEL, coarse, some stones, some root material, compact, saturated to moist	
		0.0	SPG	, O O	Brown/tan SAND and GRAVEL, coarse, some stones, some root material, compact, moist to dry	

		^		
Δ			7 1	v
	•	\smile		

BORING #: SUSDP08-3K Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448836.15 Easting: 1324370.71	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/3/2017	Drilling Method: DPT	Total Depth (ft): 4.5
Finish Date: 8/3/2017		

Recovery Length (feet)	PID (ppm)	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		SPG		Otorie dover	
	0.0	5. 5	\sim	Dark brown/black SAND and GRAVEL, coarse, some stones, concrete debris, compact, dry	0-1
		SP		Brown/tan SAND, coarse, some small gravel, some stones, rock, and concrete debris, compact, dry	
	0.0				
4.5					
4.5	0.0			3	
		SW	/////	Brown SAND, fine to coarse, some fine to coarse angular gravel, little silt, slight odor, moist	
	0.7			4	
	1.4	SW	<u>/</u>	4.5 Brown SAND, fine to coarse, some fine to coarse angular gravel, little silt, trace debris (plastic, brick), slight odor, moist	
	covery Le (feet)	Recovery Le (feet)	BPG (Leet) Wecovery Leet) O.0 SPG O.0 SPG O.0 SW O.7 SW	Recovery Letter (feet) Oo OO OO OO OO OO OO OO OO O	Soil and Rock Description Classification Scheme: USCS SPG Dark brown/black SAND and GRAVEL, coarse, some stones, concrete debris, compact, dry Dark brown/black SAND, coarse, some stones, rock, and concrete debris, compact, dry SP Brown SAND, fine to coarse, some fine to coarse angular gravel, little silt, slight odor, moist SW Brown SAND, fine to coarse, some fine to coarse angular gravel, little silt, trace debris (plastic, brick), slight odor, moist

Remarks:

		^		
Δ			7 1	v
	•	\smile		

BORING #: SUSDP10-3F

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448809.87 Easting: 1324734.69	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/8/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/8/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					0.4 Mixed stone and grass cover	
		0.0	SM		Strong brown and dark brown silty SAND, fine, trace subrounded gravel, trace slag, moist	0-1
			SM		Strong brown silty SAND, fine, some subrounded gravel, trace slag, moist	
2		0.0			2	1-2
			SW	/////	Strong brown SAND, well graded, some silt, some subrounded gravel, moist to wet	
	5.0	0.0			3	
			SW	<u>/</u>	Strong brown SAND, well graded, some silt, some subangular gravel, moist to wet	
4		0.0		////		
		0.0		//////	5	

Remarks:	

Boring Log

BORING #: SUSDP10-3G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448783.65 Easting: 1324734.03	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/8/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/8/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			014		0.3 Mixed stone and grass cover	
		0.0	SM		Dark brown silty SAND, fine, some subrounded gravel, moist	0-1
<u> </u>						
2		0.0				1-2
			SM		Strong brown and dark brown silty SAND, fine, trace subrounded gravel, moist	
	5.0	0.0				2-3
Γ -			SM		Strong brown silty SAND, fine, trace subrounded gravel, trace subangular gravel, moist	
4		0.0				
			SM		Strong brown silty SAND, fine, some subrounded gravel, moist to wet	
		0.0			5	

Remarks:

Boring Log

BORING #: SUSDP10-3X

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448860.90 Easting: 1324629.12	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/8/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/8/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.1	TOPSOIL SPG	0	O.4 Topsoil and grass cover Strong brown SAND and GRAVEL, fine to coarse, small to large, little silt, trace organics, moist	0-1
2		0.0	SM		Dark reddish brown silty SAND, fine to coarse, some angular gravel, small to large, moist	1-2
	5.0	0.0	SM		Dark reddish brown silty SAND, fine to coarse, some angular gravel, small to large, little clay, moist	2-3
4		0.0	ML		Reddish brown clayey SILT, little fine sand, little angular gravel, small, moist	3-4
		0.0			5	4-5

Remarks:

A			
Δ		I_{Λ}	И

BORING #: SUSDP10-4E Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels			
Project: Benning Road Facility	Northing: 448791.92 Easting: 1324759.19	Drilling Company: E2CR			
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA			
Start Date: 2/1/2008	Drilling Method: DPT	Total Depth (ft): 5			
Finish Date: 2/1/818					

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	GW		Gray GRAVEL (base course), small to large, wet at 0.8'	
			ML		1.2 Reddish brown SILT, little fine sand, dry	
2		0.0			2	1-2
			ML	1	Reddish brown SILT, little fine sand, little small to large rounded gravel, little silt, wet	
	5.0	0.0			3	
			GW		Strong brown GRAVEL, small to large, rounded, little fine to coarse sand, wet	
4		0.0				
		0.0			5	

Remarks:

А		~		1
Δ	_		Λ	И
		\mathbf{G}	м	,

Client: Pepco

Boring Log

Location: 3400 Benning Road, Washington, DC

BORING #: SUSDP10-4NW Sheet 1 of 1

gged By:	Ben Daniels	

Project: Benning Road Facility

Northing: 44882.30 Easting: 1324606.79

Drilling Company: E2CR

Project #: 60340344

Surface Elevation (msl): NA

Groundwater Encountered (ft bgs): NA

Stort Pote: 1/20/2018

Drilling Mothod: DBT

 Start Date:
 1/30/2018
 Drilling Method:
 DPT
 Total Depth (ft):
 5

 Finish Date:
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018
 1/30/2018

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	SM ASPHALT ML		0.4 Brown silty SAND, fine, some small to large angular gravel, moist O.7 Asphalt Brown SILT, some large angular gravel, little fine sand, trace clay, moist	, 0-1
2		0.0			2	1-2
	5.0	0.0	SM		Black stained silty SAND, fine, some small to large angular gravel, some fill (coal), trace clay, dry	2-3
4		0.0	ML		Brown SILT, little large rounded gravel, moist, trace fill (coal and brick) 4	3-4
		0.0	CL		Brown and gray mottled silty CLAY, dry 5	

Remarks:

Boring Log

BORING #: SUSDP11-1A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449258.54 Easting: 1324625.00	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 10
Start Date: 2/22/2018	Drilling Method: DPT	Total Depth (ft): 18.4
Finish Date: 3/28/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		6.1	SM		Dark brown silty SAND, fine, some gravel, small to large, angular, trace fill (coal), moist, faint odor	0-1
2		36.6	SM		Very dark brownish gray silty SAND, fine, some gravel, small to large, angular, little fill (coal slag), moist, moderate odor	1-2
		33.2	SP		Dark grayish brown SAND, fine, little silt, trace gravel, small, angular, trace fill (glass), moist, moderate odor	2-3
4	6.0	26.0	MLS		Very dark gray sandy SILT, fine, little small to large gravel, subround, trace fill (glass, ceramic, fabric), moist, moderate odor	3-4
		25.1	MLS		Very dark gray sandy SILT, fine, little gravel, small to large, subround, some fill (glass, coal, metal), moist, moderate odor	4-5
6		20.5	SM		Very dark gray silty SAND, fine, some small to large subangular gravel, some fill (glass, metal, wood), moist, moderate odor	5-6
 8 10	2.4	0.5	sw		Grayish brown SAND, fine to coarse, little gravel, small to large, angular, medium dense, faint odor, moist	6-7
- 10			SP	<i>/··· /·</i>	Grayish brown SAND, fine, medium dense, wet, faint odor	
12	3.5	0.2	CL		Grayish brown silty CLAY, low plasticity, medium soft, moist	
16			CL		Light brown CLAY, medium soft, low plasticity, trace wood fragments, fine sand at 17.3' to 17.5', moist	
18	3.4	0.0	SP		17.8 Light brown SAND, fine, medium dense, wet 18.4	

Boring Log

BORING #: SUSDP11-1B

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449257.33 Easting: 1324675.32	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/16/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 3/16/2018		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASRHALT		10.1/\Asphalt	
		1.2			Brown silty SAND, fine, some small to large angular gravel, little fill (coal, bricks, debris, concrete, wire), faint odor, moist	0-1
2		1.7			2	1-2
		0.3	SM		Brown silty SAND, fine, trace clay, some small to large angular gravel, trace fill (coal), faint odor, moist	2-3
Г	6.0		SP		Brownish and yellowish SAND, fine, moist	
4		0.0			4	3-4
		0.0	SP		Dark brown SAND, fine, some small rounded gravel, little silt, trace fill (coal), moist 5	4-5
6		0.0	SP		Pale brown SAND, fine to medium, some small to large rounded gravel, moist 6	5-6

Remarks:

		\frown		
Δ			Λ	VI.
	•	\smile	•	

Boring Log

BORING #: SUSDP11-1H

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449258.37 Easting: 1324575.29	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/16/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 3/16/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			GW		0.5 Gray GRAVEL, small to large, some fine to coarse sand, moist	
L _		0.0	ASPHALT		Asphalt 1	0-1
2		0.0	SP		Dark grayish brown SAND, fine, some small to large gravel, angular, some silt, moist	1-2
		0.0			3	2-3
4	6.0	0.3	ML		Brown SILT, little fine sand, little small to large gravel, angular, trace fill (wood), faint odor, moist	3-4
		0.2	GP		Brown GRAVEL, large, rounded, some silt, little fine sand, little small rounded gravel, moist	4-5
6		0.7	ML		Dark grayish brown SILT, some large rounded gravel, little small rounded gravel, trace fine sand, slight staining, moist, faint odor	5-6

Remarks:

Boring Log

BORING #: SUSDP11-2A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449279.29 Easting: 1324626.42	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/16/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 3/16/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS			
			ASPHALT		10.1/Aspahlt			
		0.0	SM		Dark gray silty SAND, fine, some small to large angular gravel, moist	0-1		
2		0.7	SM		Dark grayish brown silty SAND, fine, little small to large angular gravel, trace fill (coal), moist	1-2		
		0.1	SP		Dark yellowish brown fine SAND, trace small to large round gravel, trace silt, moist	2-3		
4	6.0	0.0	SM		Grayish brown silty SAND, fine to coarse, some small to large subrounded gravel, moist	3-4		
		0.0				4-5		
6		0.0			6	5-6		

Boring Log

BORING #: SUSDP11-2D

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels				
Project: Benning Road Facility	Northing: 449262.94 Easting: 1324725.28	Drilling Company: E2CR				
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA				
Start Date: 4/5/2018	Drilling Method: DPT	Total Depth (ft): 6				
Finish Date: 4/5/2018						

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	GW		Dark gray gravelly SAND, small to large, angular, little silt, moist	0-1
2		0.0	SM		Gray silty SAND, fine, some small to large angular gravel, moist	1-2
		0.0	SM		Gray silty SAND, fine, some small to large angular gravel, trace coal, moist	
4	6.0	0.0	CL		Pale brown and gray mottled CLAY, stiff, medium plasticity, dry	
		0.0			5	
6		0.0	SP		Brown SAND, fine, some small to large subrounded gravel, little silt, moist	

Remarks:	

Boring Log

BORING #: SUSDP11-2N

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 449258.83 Easting: 1324525.11	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 4/6/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 4/6/2018			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	SW		Brownish gray SAND, fine to coarse, some gravel, small to large, angular, little silt, moist 1	0-1
2		0.0	SW	//	Brownish gray SAND, fine to coarse, some gravel, small to large, angular, little silt, little fill (slag), moist	1-2
		0.0	SW	/////	Brownish gray SAND, fine to coarse, some small to large angular gravel, little silt, little fill (slag), little cobbles, moist	2-3
4	6.0	0.0	ML		Pale brown SILT, some gravel, small to large, angular, little sand, fine, little fill (glass)	
		0.0	CL		Dark reddish brown silty CLAY, trace gravel, small, angular, trace fill (coal), moist	
6		0.0			6	

Remarks:	

Boring Log

BORING #: SUSDP12-1A

Sheet 1 of 1

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert			
Project: Benning Road Facility					Northing: 448457.47 Easting: 1324836.56 Drilling Company: E2CR			
Project #: 60340344					Surface Elevation (msl): NA Groundwater Encountered (ft bgs):			
Start I	Date: 8/1	0/2017			Drilling Method: DPT Total Depth (ft): 20			
Finish	Date: 8	/23/2017						
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS			
		1.3	ASPHALT FILL	-	10.1/\Asphalt cover	0-1		
		1.3	SM SM	- ·:·:·:·:	Black sitly SAND, fine, some subrounded gravel, moist Black and brown sitly SAND, fine, some subangular gravel, trace slag, moist			
2		0.0			Black and brown slity SAND, fine, some subangular gravel, trace slag, moist	1-2		
	5.0	25.2	SM		Black and strong brown silty SAND, fine, some subangular gravel, brick pieces, moist	, odor 2-3		
4		0.3			4	3-4		
		0.0	SM		Brown silty SAND, fine, trade subangular gravel, moist			
			SM	- :::::::::	Black silty SAND, compact, moist			
6			FILL		5.8 Brick, crushed			
L -			SM	******	6.7 Black/dark gray silty SAND, some gravel, soft, saturated			
8		0.0			10			
			SM		Black/dark gray silty SAND, some gravel, soft, saturated	10-11		
			SM	- ::::::::	11 Dark gray silty SAND, soft, saturated			
12			0.0	*****	11.9	11-12		
		0.0	SP SM	-	1√2	12-13		
		0.0	OL		13 Dark gray SILT, soft saturated	13-14	-	
14						14-15		
-			OL		15 Dark gray SILT, soft saturated	14.10		
16			SM		17 Dark gray silty SAND, trace gravel, soft, saturated			
18		0.0	SP		18 Dark gray SAND, coarse, some gravel, some stones (<1/2"), saturated 18.8			
20								
ΛE	СОМ	R	emarks:					
800 Sui	OOM 00 Virginia ite 110 Itsville, M	a Manor R D 20705	doad				_	

Boring Log

BORING #: SUSDP12-1C

Sheet 1 of 1

Client: Pepco					Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert					
Project: Benning Road Facility					Northing: 448430.40 Easting: 1324860.36 Drilling Company: E2CR					
Proje	ct #: 6034	10344			Surface Elevation (msl): NA Groundwater Encountered (ft bgs):			10		
Start	Date: 8/1	0/2017			Drilling Method: DPT Total Depth (ft): 20					
Finish	Date: 8/	23/2017								·
Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS			Soil Sample Interval (feet)	
		0.9	FILL			∏Gravel Cover ☐ Black crushed FILL, some sub angular gravel, moist				
2			MLS		2			ed fill and slag, moist		1-2
	5.0	0.0	FILL		4	ushed FILL and slag				2-3
			FILL		5			some brick pieces, mois	st	4-5
6			FILL SPG		Brown S.	ushed rock and ston SAND and GRAVEL,		some crushed rock and	I stone, brick fragments, dry	5-6
	1.4	0.0	FILL		6.3 Black cru	ushed rock and ston	ne, broken metal, m	oist		
					10					
			FILL OL			ushed rock and ston by SILT, soft, trace fi		aturated		10-11
12	1.9	0.0			Jamegra	, c, co., acco				11-12
1.9 0.0					15					
16			OL SPG			ay SILT, soft, trace fi		arge, compact, saturate	d	
18	3.5	0.0			20					
		Re	emarks:							
80 Su	COM 00 Virginia ite 110 Itsville, MI	Manor Ro								

Boring Log

BORING #: SUSDP12-1E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448407.52 Easting: 1324839.87	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 18	
Start Date: 8/11/2017	Drilling Method: DPT	Total Depth (ft): 20	
Finish Date: 8/23/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	SM		Brown and black silty SAND, fine, some subangular gravel, some slag, moist 1	0-1
2		0.0	MLS		Strong brown and black sandy SILT, fine, some clay, trace slag, trace subrounded gravel, moist 2	1-2
	5.0	0.0	SM		Strong brown silty SAND, fine, trace clay, moist to wet	2-3
4		0.0	SM		Strong brown silty SAND, fine, with gray clay, moist to wet	3-4
		0.0	CL		Strong brown and gray sandy CLAY, fine, some silt, moist	4-5
6			CL		Reddish brown/gray CLAY, tight	
8	4.0	0.0				
10						
10			CL		10 Reddish brown/gray CLAY, tight	10-11
10						11-12
12	4.4	0.0				12-13
-						13-14
14						14-15
 			CL		15 Reddish brown/gray CLAY, tight	
16						
-	F.0	0.0	SP		17.2 Brown SAND, coarse, some gravel, limestone fragments, some stones	
18	5.0	0.0	SP		18 Blue SAND, coarse, some gravel, limestone fragments, some stones, saturated	
-					19.5	
20			SP		20 Dark brown SAND, coarse, some gravel, limestone fragments, some stones, saturated	

Remarks:

Boring Log

BORING #: SUSDP12-1G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448432.80 Easting: 1324809.44	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 16
Start Date: 8/11/2017	Drilling Method: DPT	Total Depth (ft): 20
Finish Date: 8/23/2017		
ngth e		· ·

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.2_Gravel Cover	
L		0.0			Black crushed fill with slag, some fine silty sand, moist 1	0-1
2		0.0	FILL		Black crushed fill with slag, some fine silty sand, trace coal, moist 2	1-2
	5.0	0.0	SM		Strong brown silty SAND, fine, trace subangular gravel, moist to wet	2-3
4		0.0			А	3-4
		0.0	CL		Strong brown sandy CLAY, fine, some silt, moist	4-5
-			CL		Light brown CLAY, tight, dry	
6					6.3	
			SM		Brown silty SAND, tight, moist	
8	3.0	0.0				
10			CL	111111111111111111111111111111111111111	10 Brown/gray/red CLAY, tight, moist	
						10-11
12						11-12
	5.0	0.0				12-13
14						13-14
			CL		15 Description (Leaf CLAY sight projet	14-15
16					Brown/gray/red CLAY, tight, moist 16	
			SPG		Brown SAND and GRAVEL, coarse and large, some stones, limestone rocks, moist to saturated	
18	4.3	0.0	SPG	ØO	17.4 17.5 Black SAND and GRAVEL, coarse and large, some stones, limestone rocks, moist to saturated Brown SAND and GRAVEL, coarse and large, some stones, limestone rocks, moist to saturated	
			SPG	J```;`;\ <u>`</u> \	18.4	
			SPG	- C	18.8 Black SAND and GRAVEL, coarse and large, some stones, limestone rocks, moist to saturated Brown SAND and GRAVEL, coarse and large, some stones, limestone rocks, moist to saturated	
20				Ø 0	20	
			1	الت	۵۷	1

Remarks:

A				
Δ			I_{Λ}	V.
		\smile	•	

Boring Log

BORING #: SUSDP12-2K

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond
Project: Benning Road Facility	Northing: 448387.96 Easting: 1324781.08	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/30/2018	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 1/30/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	^{əpo} o sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			GP		10.1/\Gravel surface	
		0.0	SPG		Medium brown gravelly SAND, fine to coarse, small to large, angular to subangular, slightly moist to dry	0-1
2		0.0	SW	/////// //////////////////////////////	Medium orangish brown SAND, very fine to coarse, little small to large gravel (primarily small), subangular to subrounded, trace silt, slightly moist to dry	1-2
	5.0	0.0	SP		Medium orange-brown SAND, very fine to fine, trace coarse sand, trace small to large gravel, subangular to subrounded, slightly moist to dry 3	
4		0.0	SM		Medium orange-brown silty SAND, very fine to fine, trace small gravel, subangular, trace clay, very low plasticity, slightly moist to dry	
		0.0	SP		Medium orange-brown SAND, very fine to fine, trace clay, very low plasticity, moist	

Remarks:

Boring Log

BORING #: SUSDP12-3A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC Logged By: Sharon Drummond		
Project: Benning Road Facility	Northing: 448504.73 Easting: 1324828.67 Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 10	
Start Date: 2/1/2018	Drilling Method: DPT Total Depth (ft): 19.8		
	Finning mounds. 21 1 Total Sopial (it). 10:0		
Finish Date: 3/28/2018		<u> </u>	
C (ft bgs) Recovery Length (feet) PID (ppm) USCS Code	Soil and Rock Descr Classification Scheme	Soil Sample Interval (feet)	
ASPHALT GWS	40.2Asphalt	prounded 0-1	
SP GWS GWS	Orange-brown SAND, fine, trace gravel		
SWG	Black sandy GRAVEL, fine to coarse, small to large, subangular to sub Dark brown gravelly SAND, fine to coarse, few small gravel, little orange		
FILL MATERIAL	FILL, coble size concrete, brick, conduit and ceramic, gravel size brick	go brown only only in ordinger, originaly motor	
5.0 0.0	clay	2-3	
CL ///////	Orange CLAY with red mottling, slightly moist		
4 SW SW	√ 3.8 → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little small slag gravel, little glass, dry → Black SAND, very fine to coarse, little glass, dry → Black SAND, very fine to coarse, little glass, dry → Blac	,	
GWS	Dark brown sandy GRAVEL, fine to coarse, small to large, angular to s wire, metal and coal, slightly moist		
SM	5 Dark brown silty SAND, some small to large angular gravel, medium de	ense moist	
	built brown birty of the strain to large angular graver, mediam as	Shoc, most	
ML	Grayish brown SILT, little clay, trace sand, medium stiff, moist		
-			
8 2.9 0.0			
10 ML	10 Dark grayish brown SILT, little fine sand, medium soft, wet		
WIL	Dark grayish brown SILT, little line sand, medium sort, wet	10-11	
12 SP SP SP SP SP SP SP SP SP SP SP SP SP	12 Brown SAND, fine, medium loose, wet		
CL	Grayish brown silty CLAY, medium soft, moist, fine sand at 14.5' to 14.	.7'	
16	15.9		
	Grayish brown SAND, fine, loose, wet	and loop wet	
GW	Grayish brown GRAVEL, small to large, angular, some fine to coarse s	sand, loose, wet	
SW	Grayish SAND, fine to coarse, some small to large angular gravel, loos: 19.8	se, wet	
Remarks:			
AECOM			
8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705			

Boring Log

BORING #: SUSDP15-1C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448484.32 Easting: 1325252.30	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): 10.8
Start Date: 8/14/2017	Drilling Method: DPT	Total Depth (ft): 15
Finish Date: 8/22/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.4 Gravel Cover	
		0.0	SM		Dark brown and strong brown silty SAND, fine, trace clay, some subrounded gravel, trace coal, dry	0-1
+ +			SM	· · · · · · · · · · · · · · · · · · ·	Dark brown and strong brown silty SAND, fine, trace clay, trace slag, dry, odor	
		1.9	J			1-2
2			MLS		Dark brown sandy SILT, fine, moist, some slag, some coal, trace subangular gravel, trace brick pieces, trace clay, odor	
	5.0	2.5	IVILO		Dark brown samuy SiL1, line, moist, some siag, some coal, trace subangular graver, trace blick pieces, trace ciay, odd	2-3
† †						
4		1.7				3-4
		1.3			5	
			SP		Brown/dark gray SAND, medium to coarse, trace coal, trace gravel, dry	
6		0.4				5-6
			SP		6.2 6.3_/Black SAND, medium, possible staining	
		0.7	0.		Brown/dark gray SAND, medium to coarse, trace coal, trace gravel, dry	6-7
					7.5	
8	4.0		SM		7.9 Tan/white silty SAND, tight, dry	7-8
			SP		Brown/dark gray SAND, medium to coarse, trace coal, trace gravel, last 2" moist	
		0.0				8-9
F -						
1						9-10
10			SP		10 Brown/dark gray SAND, medium to coarse, trace gravel, tight, moist	
) or		Brown/dark gray SAND, medium to coarse, trace gravei, tignt, moist 10.8	10-11
F -			SP		Brown SAND, medium to coarse, trace gravel, tight, moist to saturated	-
1			SP		Dark gray SAND, medium, some silt, trace gravel, soft, saturated	
12						
	5.0	0.0			12.9	
} ┤			SM		Dark gray silty SAND, medium grained, soft, moist	
14				[•:•:•:•]		
				:::::		
					15	

Boring Log

BORING #: SUSDP15-1G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448483.84 Easting: 1325194.48	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/15/2017	Drilling Method: DPT	Total Depth (ft): 15
Finish Date: 8/30/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL	$\times\!\!\times\!\!\times\!\!\times$	0.4 Gravel Cover	
		0.0	SM		Strong brown and brown silty SAND, fine, with subrounded gravel, saturated from rain, some clay	0-1
Γ 7			SM]	Strong brown sandy SILT, fine, trace clay, with black crushed fill and slag, odor	
2		6.4				1-2
-			SM		2 Dark brown and black sandy SILT, fine, some slag, brick pieces, trace subrounded gravel, moist, odor	
	5.0	14.0			· · · · · · · · · · · · · · · · · · ·	
	5.0	- 11.0	SM		Strong brown and brown sandy SILT, fine, with gravel, some slag	-
			SIVI		Strong brown and brown sarray SiL1, line, with graver, some stag	
4		0.0			4	
			SM		Strong brown and brown sandy SILT, fine, with gravel, some slag, moist	
		0.0			5	
T 7			SM		Brown gray silty SAND, some gravel, trace coal, slag, tight, dry	
6						5-6
\vdash						
						6-7
						7-8
8	2.9	0.0				7-0
						8-9
F 1				::::::		
10					40	9-10
10			SM	$\{\cdot,\cdot,\cdot,\cdot\}$	10 Brown gray silty SAND, some gravel, trace coal, slag, tight, moist	
					10.8	10-11
F -			FILL		11Brick	
			OL		Dark gray, black SILT, soft, moist	
12					12]
			SP		12.1_/Black SAND, coarse	/
	2.9	0.0	OL	H	Dark gray, black SILT, soft, moist	
h 1				 		
_ 14						
					15	

Remarks:

A				
Δ			I_{Λ}	V.
		\smile	•	

Boring Log

BORING #: SUSDP19-1D

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447833.81 Easting: 1325692.69	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/22/2017	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 8/22/2017			

Oepth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.9	0-1
2		1.3	SM		Brown silty SAND, fine to medium, little angular gravel, small to large, little coarse sand, trace cobbles, trace fill(brick fragments), moist, faint odor	1-2
					3	2-3
4	6.0	1.0	SM		Dark brown silty SAND, fine, little angular gravel, small to large, moderate odor, trace fill (coal), moist	3-4
		1.8	CL		Dark grayish brown silty CLAY, trace angular gravel, small to large, trace fill (wood fragments), moist, moderate odor	4-5
6		0.4	SM		Dark grayish brown silty SAND, fine, some angular gravel, small to large, faint odor, moist 6	5-6

Remarks:

Project: Benning Road Facility

Client: Pepco

Boring Log

Location: 3400 Benning Road, Washington, DC

Easting:

1325644.66

BORING #: SUSDP19-1F Sheet 1 of 1

Logged By: Dan Hulbert	
Drilling Company: E2CR	

Project #:60340344Surface Elevation (msl):NAGroundwater Encountered (ft bgs):NAStart Date:8/22/2017Drilling Method:DPTTotal Depth (ft):4.8

Finish Date: 8/22/2017

Drilling Method: DP1

Total Depth (ft): 4.8

Northing: 447840.60

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
2	4.8	0.1	ASPHALT SM		Asphalt 0.8 0.9 Description Silty SAND, fine, little subangular gravel, small to large, moist, faint odor	1-2
4		0.1	SM		Dark grayish brown silty SAND, fine, some subrounded gravel, small to large, little fill (wood fragments), moist, faint odor	3-4 4-5

Remarks:

Boring Log

BORING #: SUSDP19-2D

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447879.86 Easting: 1325733.14	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/17/2017	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 8/17/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
			FILL		Gravel base 1.1	0-1
		0.0	SM	*****	Dark brown silty SAND, fine, with subangular gravel and slag, dry	1.0
2					2	1-2
			SM		Dark brown silty SAND, fine, with subangular gravel and slag, brick pieces, dry	2-3
L]		0.0			3	2-3
	6.0		SM		Brown silty SAND, fine, with subangular gravel, some medium sand, moist	
4		0.0				3-4
		0.0			5	4-5
		0.0	SM		Brown silty SAND, fine, with subangular gravel, some medium sand, with large concrete pieces and stones, moist	5-6
6		0.0			6	

Remarks:

Finish Date: 8/16/2017

Boring Log

BORING #: SUSDP19-2M Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447873.44 Easting: 1325618.56	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/16/2017	Drilling Method: DPT	Total Depth (ft): 5.1	

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt Cover	0-1
2			CONCRETE		Concrete Slab	
	5.1				3	2-3
4		0.0	SM		Dark brown silty SAND, fine, with subangular gravel, trace coal pieces, wood debris, moist	3-4
		0.9	SM		Black crushed fill with fine silty SAND, glass pieces, brick pieces, concrete, subangular and subrounded gravel, dry	4-5
_		0.0	SM	1	55.1/Black crushed fill with fine silty SAND, glass pieces, brick pieces, concrete, subangular and subrounded gravel, dry, large concrete block at 5.1'	5-6

Remarks:

Boring Log

BORING #: SUSDP19-20

Sheet 1 of 1

Client	: Pepco				Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert		
		ng Road F	acility		Northing: 447930.94 Easting: 1325619.16 Drilling Company: E2CR		
	t#: 603		<u> </u>		Surface Elevation (msl): NA Groundwater Encountered (ft bgs):	15	
	Date: 3/2				Drilling Method: DPT Total Depth (ft): 20		
Finish	Date: 8	/28/2017					
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)	
					Previously Sampled	0-1	
2	5.0				3	2-3	
		1.8	MLS		Dark brown sandy SILT, fine, little clay, little angular gravel, small to large, faint odor, moist	3-4	
4		1.0	SM	1:1:1:1:	Dark brown silty SAND, fine, little angular gravel, small to large, trace fill (glass), faint odor, moist		
		9.7	-		-	4-5	
6		6.9			6	5-6	
		0.3	ML		Very dark brown SILT, little fine sand, little small angular gravel, moist, faint odor	6-7	
8	4.0					7-8	
10			ML		Dark grayish brown SILT, little clay, medium soft, moist		
		0.7	SP	<u> </u>	10.9	10-11	
12		0.3	58		Pale brown SAND, fine, medium dense, moist	11-12	
_ 14	1.7				15		
			GP	0000	Pale brown GRAVEL, small, subrounded, little fine sand, little large gravel, loose, wet		
16 18 	2.8	0.0	SW		Light gray SAND, fine to coarse, little small subangular gravel, trace large gravel, very loose, wet		
20				<u>///.</u>	20		
		R	emarks:				
800 Sui	COM 00 Virginia ite 110 Itsville, M	a Manor R D 20705	doad				

Boring Log

BORING #: SUSDP19-2P

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 447922.99 Easting: 1325659.63	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/17/2017	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 8/17/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
					Hand cleared/soft dug to 5' bgs	0-1
						0-1
2						
					3	2-3
	6.0	0.0	SM		Dark brown silty SAND, fine, subangular gravel, coal pieces, moist	3-4
4		0.0				0-7
		0.0			5	4-5
_			SM		Dark brown silty SAND, fine, subangular gravel, coal pieces, brick pieces, moist	
6		0.0			6	5-6

Remarks:

Boring Log

BORING #: SUSDP19-3F

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 447872.88 Easting: 1325761.23	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/18/2017	Drilling Method: DPT	Total Depth (ft): 5.2
Finish Date: 8/18/2017		

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt Cover	
			FILL		Gravel Base	
			SM		Gravel and concrete with black fine silty SAND, glass pieces, dry	
2		0.0			2	1-2
			SM		Brown silty SAND, fine, subangular gravel, concrete pieces, moist	
	5.2	0.0				2-3
4		0.0			4	3-4
			SM		Large gravel and concrete (2-4" diameter) with brown fine silty SAND, moist	
		0.0				4-5
		0.0)		<u>15.2</u>	
						5-6

Remarks:

Boring Log

BORING #: SUSDP19-3S Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 447878.32 Easting: 1325581.45	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/24/2017	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 8/24/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
J		0.0	ASPHALT CONCRETE	P. S. A. P.	0.9 Concrete	0-1
2		0.0	SM SP		Brown silty SAND, fine, little subrounded gravel, small to large, moist Brown SAND, fine, little silt, trace angular gravel, small to large, moist	1-2
		0.4	SM		Dark brownish gray silty SAND, fine, little subangular gravel, small to large, trace fill (brick, slag), little medium to coarse sand, moist, faint odor	2-3
4	6.0	0.3				3-4
		0.7				4-5
6		0.5			6	5-6

Remarks:

Boring Log

BORING #: SUSDP19-3V Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 447958.44 Easting: 1325595.71	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/24/2017	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 8/24/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT	300000000000000000000000000000000000000		
		3.7	SP		Yellowish brown SAND, fine, little silt, little medium to coarse sand, little subrounded gravel, small to large, moderate	0-1
		18.8	SM		odor, moist Dark brownish gray silty SAND, fine, little angular gravel, small to large, trace fill (wood, brick), moderate odor, moist	1-2
2		18.8			Daik brownish gray sitty skryb, line, little angular graver, small to large, trace lill (wood, blick), moderate odor, moist	
			SM		Dark brownish gray silty SAND, coarse, some angular gravel, small to large, moist, faint odor	
					3	2-3
	6.0		SM		Dark brownish gray silty SAND, coarse, some angular gravel, small to large, moist, moderate odor	
4					4	3-4
			SM		Dark brownish gray silty SAND, coarse, some angular gravel, small to large, trace fill (brick, concrete), moist, moderate odor	
						4-5
6			SM		Dark brownish gray silty SAND, fine, little angular gravel, small to large, little fill (brick, glass, rubber, coal, bottle cap), moist, moderate odor	5-6

Remarks:	

Finish Date: 8/18/2017

6

Boring Log

BORING #: SUSDP19-3X Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 447949.89 Easting: 1325660.35	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/18/2017	Drilling Method: DPT	Total Depth (ft): 6

Recovery Length (feet) USCS Code PID (ppm) Graphic Depth (ft bgs) Soil and Rock Description Classification Scheme: USCS ASPHALT Asphalt Cover FILL Gravel base SM Black and strong brown silty SAND, fine, with subangular gravel, odor, dry to moist 0.0 SM Black silty SAND, fine, with subangular gravel, and subrounded gravel, coal pieces, moist 2-3 1.1 6.0 SM Black silty SAND, fine, with subangular gravel, and subrounded gravel, coal pieces, trace brick pieces, moist 1.1 SM Black silty SAND, fine, with large subangular gravel (2" diameter), and subrounded gravel, coal pieces, trace brick 4-5 1.0 Black silty SAND, fine, with large subangular gravel (2" diameter), and subrounded gravel, coal pieces, glass pieces, slag, trace brick pieces, moist to wet SM 5-6 1.3

Re	ma	rks
ĸe	ma	rks:

Boring Log

BORING #: SUSDP19-4N

Sheet 1 of 1

		Glieet 1 of 1
Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447997.13 Easting: 1325664.31	Drilling Company: GSI
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs):
Start Date: 1/25/2018	Drilling Method: DPT	Total Depth (ft): 19
Finish Date: 3/28/2018		
epth t bgs) ary Length feet) (ppm)	Soil and Rock Descri Classification Scheme	

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.4 Asphalt	
L _		0.6	SP		Reddish brown SAND, fine, little silt, little small to large round gravel, moist, faint odor	0-1
			SM		Brown silty SAND, fine, trace small angular gravel, moist, faint odor	4.0
2		0.8	SM		2	1-2
	5.0	0.0	SM		Dark grayish brown silty SAND, fine, trace clay, little fill (coal fragments), concrete cobbles from 2.8 to 3 ft.	2-3
Ī. ⁻		2.7	ML		Dark gray SILT, some fine sand, little small to large angular gravel, dry, moderate odor, little wood fragment fill, wood up to 4" diameter	3-4
4			ML	1	Dark gray SILT, some fine sand, little small to large angular gravel, dry, moderate odor, little wood fragment fill, wood up	
-		0.5			to 4" diameter, wood stained black	4-5
6		0.3			6	5-6
		0.4	MLS		Very dark gray sandy SILT, fine, little small angular gravel, stiff, moist, faint odor	6-7
	2.2					7-8
8					10	
- 10			CL		Grayish brown silty CLAY, soft, low plasticity, moist	
L		0.0			***	10-11
			SP	<i>(/////////</i>	11.2 Yellowish brown SAND, fine, little medium to coarse sand, moist, wet	44.40
12						11-12
	3.0	0.0				
14						
-			SP		15 Yellowish brown SAND, fine, little medium to coarse sand, some small to large subangular gravel at 16.8' to 17.4', moist,	
16					wet,	
10						
		0.0				
	4.0					
18					18	
		0.0	SP		Brownish yellow SAND, fine, medium loose, wet	

		-		
Δ			$I\Lambda$	4
	•	\mathbf{u}	•	,

Boring Log

BORING #: SUSDP19-4NW

Sheet 1 of 1

Client: Pepco				Location: 3400 Benning Road, Washington, DC Logged By: Ben Daniels	
Project: Benni	ng Road F	acility		Northing: 448018.53 Easting: 1325561.19 Drilling Company: GSI	
Project #: 60340344				Surface Elevation (msl): NA Groundwater Encountered (ft bgs):	
Start Date: 2/1	/2018			Drilling Method: DPT Total Depth (ft): 18.4	
Finish Date: 3/	28/2018				
th Js) Length t)	(md	Sode	ıic	O. H. and D. ale December 2	mple /al ()

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
0	<u> </u>		ASPHALT	100000000000000000000000000000000000000	Acabelli.	
			SP		Asphalt Reddish brown SAND, fine, some small to large round gravel, little silt, trace wood fill, moist	0-1
		0.0	SM		Dark brown silty SAND, some fine to coarse angular gravel, moderate odor, moist	
2		3.2			2	1-2
		0.0	MLS		Very dark gray fine sandy SILT, little small to large gravel, trace glass fill, dry, cobble sized concrete blocks from 2.8 to 3.2 ft.	2-3
4	6.0	0.0	GW	X	Brown GRAVEL, small to large, angular, (concrete and cobble fragements), some fine to coarse sand, little silt, dry	3-4
		1.2	MLS		Dark grayish brown sandy SILT, fine to coarse, some gravel, small to large, angular, dry, faint odor	4-5
6		3.6	MLS		Dark grayish brown fine to coarse sandy SILT, some small to large angular gravel, dry, faint odor, some wood fragments, trace brick and metal	5-6
		1.4	ML		Very dark brown SILT, little fine sand, faint odor, moist	6-7
8	2.1					7-8
10					10	
		0.0	ML		Dark gray clayey SILT, moist, soft	10-11
12	3.2	0.0	CL		Pale brown CLAY, some silt, very soft, low plasticity, moist	11-12
14						
16	3.4	0.0			17.5	
18		0.0	SP		Gray SAND, fine, little small subrounded gravel, medium dense, wet 18.4	

Remarks:	
----------	--

Boring Log

BORING #: SUSDP19-4W

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447875.01 Easting: 1325525.12	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/1/2008	Drilling Method: DPT	Total Depth (ft): 5.8
Finish Date: 2/1/818		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT SM		Asphalt 0.7 Reddish brown silty SAND, fine to medium, little small to large rounded gravel, moist, faint odor	0-1
2		0.1	SM		Brown silty SAND, fine, little small to large angular gravel, cobbles, metal plate at 1.8', moist, faint odor	1-2
		0.1	FILL		Brown GRAVEL and concrete/brick FILL, small to large, angular, some fine silty sand, concrete boulder at 2.8' - 3.1', moist, faint odor	2-3
4	5.8	0.1	SM		Brown silty SAND, fine, some small to large angular gravel, little fill (rubber, slag, brick, coal, concrete), moist, faint odor	3-4
		0.1			5	4-5
		0.0	SP		Brown SAND, fine, little silt, moist 5.8	5-6

Remarks:

Boring Log

BORING #: SUSDP19-5N

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448060.85 Easting: 1325666.07	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/21/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 2/21/2018		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) OIA	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	SP		Yellowish brown SAND, fine, little small to large rounded gravel, moist	0-1
			SM		Dark brown silty SAND, fine, some small to large angular gravel, with cobbles (concrete fragments), moist	
2		0.0			2	1-2
			ML		Pale brown SILT, little small to large angular gravel, trace fill (brick), moist	
		0.0			3	2-3
	6.0		GW		Dark brown sandy GRAVEL, fine to coarse, small to large, angular, little silt, little fill (concrete fragments) with cobbles, moist	
4		0.0			Hioist 4	3-4
			ML		Dark brown sandy SILT, fine, little small to large angular gravel, trace fill (ceramic, glass, slag), moist	
		0.0				4-5
6		0.0			6	5-6

А			
Δ		Л	И
	•	•	

Boring Log

BORING #: SUSDP19-5NW

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448093.41 Easting: 1325509.01	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/21/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 2/21/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT	9 9	Asphalt 0.7	0-1
L		0.0	SP	6280030628003060		0-1
2		0.0	SM		Very dark gray silty SAND, fine, some small to large angular gravel, little fill (concrete fragments), with cobbles, moist	1-2
		0.0			3	2-3
4	6.0	1.1	SM		Very dark gray silty SAND, fine, some small to large angular gravel, little fill (concrete fragments), with cobbles, moist, faint odor	3-4
		0.0	SM		Black stained silty SAND, fine, some small to large angular gravel, some fill (concrete, metal, brick, glass, coal, fabric), moist 5	4-5
6		0.6	SM		Black stained silty SAND with slag and organic fibers, fine, some small to large angular gravel, some fill (concrete, metal, brick, glass, coal, fabric), moist 6	5-6

Remarks:

		-		1
Δ			Λ	и
	•	\smile	•	•

Boring Log

BORING #: SUSDP19-5W
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447891.38 Easting: 1325477.01	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/21/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 2/21/2018			

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
2			ASPHALT CONCRETE SM		0.4 Asphalt 0.9 Concrete 1 Prown fine silty SAND, little small to large round gravel, moist Dark grayish brown fine silty SAND, little fine to coarse angular gravel, moist	
4	6.0	0.0	FILL SM SP		Very dark gray stained COBBLES (concrete fragments), some fill (metal bolts), some small to large angular gravel, little fine to coarse sand, tace silt, moist, asphalt covering half of hole at 3.5 ft. Dakr grayish brown fine silty SAND, some small to large angular gravel, moist Pale brown fine SAND, little small to large angular gravel, trace slag fill, moist	

Remarks:

Boring Log

BORING #: SUSDP19-6N

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448114.90 Easting: 1325656.18	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/15/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 3/15/2018		

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	
		1.4	SM		1 Strong brown silty SAND, fine, some small to large rounded gravel, faint odor, moist	0-1
2		1.7	SM		Dark brown silty SAND, fine, some small to large subangular gravel, little fill (concrete fragments), with cobbles, moist	1-2
		6.8	SM		Dark brown silty SAND, fine, some small to large subangular gravel, little fill (concrete fragments), trace coal, with cobbles, moist	2-3
4	6.0	8.3			4	3-4
		0.0	CL		Gray CLAY, medium plasticity, trace wood fragments, moist	4-5
6		0.0	CL		Strong brown silty CLAY, little fine sand, moist	

Finish Date: 3/16/2018

Boring Log

BORING #: SUSDP19-6NW Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448155.78 Easting: 1325459.80	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/15/2018	Drilling Method: DPT	Total Depth (ft): 5.2

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	SP		Pale brown SAND, fine, some small to large angular gravel, little silt, moist	0-1
			SM		Mixed pale and dark brown silty SAND, fine, some small to large angular gravel, with cobbles, faint odor, moist	
2		6.0			2	1-2
			SP		Brown SAND, fine to medium, some small to large angular gravel, with cobbles, little silt, some fill (concrete fragments), faint odor, moist	
	5.2	0.3	CONCRETE		Concrete block	2-3
T 1			CONSIDER	4 4 7 4		
4		0.0	SM		Brown silty SAND, fine, some small to large angular gravel, with cobbles, moist	3-4
			SM		Dark brown silty SAND, fine, some small to large angular gravel, with cobbles, faint odor, moist	
		0.2				4-5
		0.7]		5.2	5-6

Remarks:

Boring Log

BORING #: SUSDP19-6W

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447898.64 Easting: 1325427.49	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/16/2018	Drilling Method: DPT	Total Depth (ft): 3.7
Finish Date: 3/16/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		1.0	ASPHALT		Asphalt 0.7	0-1
L -			SW	1./////	1 Yellowish brown SAND, fine to coarse, little small rounded gravel, trace large rounded gravel, trace silt, dry, faint odor	
2	0.7	2.0	SM		Brown silty SAND, fine, little small angular gravel, trace fill (slag), faint odor, moist	1-2
	3.7	2.8	SM		Very dark brownish gray silty SAND, fine, little small to large angular gravel, little fill (slag, coal, concrete fragments), trace coarse sand, moist, moderate odor	2-3
		1.1			3.7	3-4

Remarks:

Δ			7 1	v
		v		

Boring Log

BORING #: SUSDP19-7N

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448158.39 Easting: 1325663.16	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 4/5/2018	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 4/5/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			TOPSOIL	******	0.1/Organics/top soil Brown silty SAND, fine, some small to large angular gravel, trace fill (brick), trace organics, moist	
L _		0.0	SM		1	0-1
			SM		Brown silty SAND, fine, some small to large angular gravel, trace fill (coal), moist	
2		0.0			2	1-2
			SM		Dark brown silty SAND, fine to coarse, some small to large angular gravel, little fill (concrete), with cobbles, moist	
	5.0	0.0				2-3
4		0.0			4	3-4
			MLG		Yellowish brown gravelly SILT, small to large, angular, some fill (concrete, metal), moist	
		0.0		r 614.	5	4-5

_			
_			

Boring Log

BORING #: SUSDP19-7NW
Sheet 1 of 1

	· · · · · · · · · · · · · · · · · · ·	
Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448200.55 Easting: 1325414.81	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 4/5/2018	Drilling Method: DPT	Total Depth (ft): 4.5

Finish Date: 4/5/2018

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			TOPSOIL	/: 1: 1: 1: ::	0.1/Organics/top soil	1
		0.0	MLS		Dark brown sandy SILT, fine, trace fill (coal, Belgium block), moist	0-1
2		0.0	SW	//////// /////////////////////////////	Very dark gray SAND, fine to coarse, some gravel, small to large, angular, little silt, little fill (concrete), with cobbles, moist 2	1-2
	4.5	0.0	MLG		Yellowish brown gravelly SILT, small to large, angular, some cobbles, with concrete boulders, moist	2-3
4		0.0	GW		Brown GRAVEL, small to large, angular, little silty sand, fine to coarse, with cobbles and boulders, moist	3-4
		0.0		.00.	4.5	4-5

Remarks:

Boring Log

BORING #: SUSDP19-7W

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447903.12 Easting: 1325377.32	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 4/5/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 4/5/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	0-1
L		0.3	SM		1 Yellowish brown silty SAND, fine, some gravel, small to large, angular, faint odor, dry	0-1
2		0.7	SP		Yellowish brown SAND, fine, little silt, dry	1-2
		0.2				2-3
4	6.0	0.1			4	3-4
		0.0	SP		Yellowish brown SAND, fine, little silt, moist to wet	4-5
6		0.0			6	5-6

Remarks:

Boring Log

BORING #: SUSDP21-1C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 447909.33 Easting: 1326050.65	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 8/24/2017	Drilling Method: DPT	Total Depth (ft): 5		
Finish Date: 8/24/2017				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.7	0-1
 		0.8	SM		Light gray silty SAND, fine, some angular gravel, small to large, dry to moist, faint odor 1.4	
2		0.1	ASPHALT		Asphalt 2	1-2
	5.0	0.0	SM		Brown silty SAND, fine, some angular gravel, small to large, little fill (brick), moist	2-3
			CONCRETE			
4			MLS		Dark brown sandy SILT, fine, little round gravel, small to large, moist, trace fill (glass)	3-4

Remarks:

Finish Date: 8/25/2017

Boring Log

BORING #: SUSDP21-3A Sheet 1 of 1

Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Northing: 447992.22 Easting: 1326031.48	Drilling Company: E2CR	
Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/25/2017 Drilling Method: DPT		
	Northing: 447992.22 Easting: 1326031.48 Surface Elevation (msl): NA	

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	FILL		0-10" asphalt; 10-16" CR6, gravel	
		0.0			1.3	
2		0.0	FILL		Black STONE (>1"), large, some coarse sand, trace gravel, dry	1-2
			FILL		2.5 Concrete slab	2-3
L	5.0	0.0	SP		Dark brown SAND, medium, trace small gravel, some stones (<1/2"), dry	2-3
4		0.0	SP		Dark brown/brown SAND, medium, trace small gravel, some stones (<1/2"), brick fragments, dry	
		0.0			j	

Boring Log

BORING #: SUSDP21-3G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447895.61 Easting: 1326110.03	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/28/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 8/28/2017			

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.1	ASPHALT		0-0.5' asphalt; 0.5-0.7' gravel base course 0.7	0-1
L -		0.0	SM		Brown silty SAND, some angular gravel, small to large, little fill (concrete), moist, faint odor	0-1
		0.0	FILL	\bowtie	1.5 Concrete blocks/boulders	
2	5.0		MLS		Brown sandy SILT, fine, little round gravel, small to large, moist	2-3
4			MLS		Strong brown sandy SILT, fine, little round gravel, small to large, little sand, wet	

Remarks:

A				
Δ			7 1	И
	•	ullet		,

Finish Date: 8/28/2017

Boring Log

BORING #: SUSDP21-3M

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447829.51 Easting: 1326045.73	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/28/2017	Drilling Method: DPT	Total Denth (ft): 5	

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0-0.7' asphalt; 0.7-0.9' gravel base course	
		0.0	<u> </u>		0.9	0-1
├		1.8	SM		Brown silty SAND, fine, little sand, medium to coarse, little round gravel, small to large, trace cobbles, moist, faint odor	
2		0.4			2	1-2
			SM		Brown silty SAND, fine, some angular gravel, small to large, little medium to coarse sand, little fill (concrete fragments), little cobbles, moist	2-3
L	5.0					2-3
			ML		Brown clayey SILT, little fine to coarse sand, little subround gravel, small to large, moist, trace fill (slag)	
4		0.0				3-4
					5	4-5

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705 Sheet 1 of 1

Boring Log

BORING #: SUSDP21-3Q

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447856.82 Easting: 1325934.85	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/24/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 8/24/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT		Asphalt 0.7	0-1
		1.5	GW		Light brown angular GRAVEL, small to large, some fine to coarse sand, trace silt, dry 1.3	
2	5.0	0.0	SP		Strong brown SAND, fine, little silt, trace small angular gravel, moist to wet	
4		0.1	SM		Yellowish brown silty SAND, fine, trace small to large subround gravel, moist	
			OL		Yellowish brown SILT, little fine sand, trace small to large subround gravel, trace fill (brick), coal, moist	

Remarks:

Boring Log

BORING #: SUSDP21-3T

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447939.82 Easting: 1325963.13	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/25/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 8/25/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CONCRETE	7 4 4 7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	0-8" concrete; 8-15" CR6, gravel	
2		0.0	SP	4 4 4 4	1.3 Brown SAND, fine to medium, some silt, some gravel, some stones (<1/2"), moist 2	1-2
	5.0	0.0	SP		Brown SAND, fine to medium, some silt, some gravel, some stones (<1/2"), brick and concrete fragments, moist	2-3
4			GP		Stone and gravel, large, some fine to medium sand, limited sample volume, dry	3-4
			GP		Stone and gravel, large, some fine to medium sand, limited sample volume, dry	

A				
Δ			I_{Λ}	v
		V	•	7

BORING #: SUSDP21-3V Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447975.41 Easting: 1325970.50	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/25/2017	Drilling Method: DPT	Total Depth (ft): 5	

Finish Date: 8/25/2017

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CONCRETE		0-8.5" concrete; 8.5-15" CR6, gravel	
-		0.0		A A A A	1.3	
2			SP		Brown SAND, fine to medium, some silt, some stones (1/2" - 1"), trace gravel, moist	1-2
			1			
L _	5.0	0.0			3	
			SP		Brown SAND, fine to medium, silty sand, some silt, some stones (1/2" - 1"), trace gravel, moist to wet	
4		0.0			4	
			GP		Gray GRAVEL, some coarse sand, moist to wet	
		0.0			5	

Remarks:

Boring Log

BORING #: SUSDP21-5W

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447912.71 Easting: 1325877.44	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/26/2018	Drilling Method: DPT	Total Depth (ft): 4.5
Finish Date: 1/26/2018		

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT SW-GW	° 5 ⊕ 5 ½ 5 ° ⊕ ° 6 ° 5 • €	Asphalt 0.7 Consider CDAVID and CDAVID (here exerce) fine to exerce a small to large exercise day.	. 0-1
2		0.0	SM		Dark brown silty SAND, fine to coarse, some gravel, small to large, subangular, cobble/fill (brick, concrete fragments), moist	1-2
	4.5	0.0	GW	K	Dark brown sandy GRAVEL, small to large, little silt, cobbles/fill (concrete fragments, brick), moist	2-3
4		0.0				
		0.0			4.5	

Remarks:

Boring Log

BORING #: SUSDP21-6W

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447916.14 Easting: 1325846.60	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/21/2018	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 2/21/2018			

O (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT	•	Asphalt 0.6	0-1
		0.0	GW		1 Gray sandy GRAVEL (base coarse), well graded, angular, moist	
2		0.0	SP		Brown SAND, fine, some silt, little small to large gravel, angular, moist	1-2
	5.0	0.0	ML		Brown SILT, some small to large gravel, angular, little fill (brick), trace fine sand, moist	
4		0.0	MLS		Brown sandy SILT, fine, little small to large gravel, angular, trace fill (brick), trace clay, moist	
		0.0	SW		Brown SAND, fine to coarse, some small to large gravel, angular, little silt, trace fill (metal), wet	

Remarks:

Boring Log

BORING #: SUSDP43-2J

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448493.79 Easting: 1324735.90	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/8/2017	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 8/8/2017		

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.3 Stone cover	
		0.0	FILL		Black crushed fill material and slag, some fine sands	0-1
			FILL		Black crushed fill material, some slag, some subangular gravel, some fine sands	
2		0.0			2	1-2
			SM		Brown silty SAND, fine, some slag, some brick pieces, moist to wet	0.0
L		0.0			3	2-3
	6.0		SM		Brown silty SAND, fine, some brick pieces, moist to wet	
4		0.0				3-4
						4.5
L _		0.0				4-5
6		0.0			6	

Remarks:

Boring Log

BORING #: SUSDP43-2M

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448535.24 Easting: 1324708.61	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/9/2017	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 8/9/2017		

Oepth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.5 Stone cover	
		0.0	GP		Subangular GRAVEL, some black crushed fill, some organics (root debris)	0-1
			SM		Dark brown silty SAND, fine, some subangular gravel, some subrounded gravel, moist	
2		0.0			2	1-2
			SM		Strong brown silty SAND, fine, some subrounded gravel, trace slag, trace subangular gravel, moist	0.0
L _		0.0			3	2-3
	6.0		MLS		Strong brown sandy SILT, fine, trace subangular gravel, moist	
4		0.0			4	3-4
		0.0	MLS		Strong brown sandy SILT, fine, trace subangular gravel, trace clay, moist	4-5
6		0.0			6	

Remarks:

Boring Log

BORING #: SUSDP43-3A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448623.32 Easting: 1324764.25	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/9/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/9/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT	9	0-0.7' asphalt; 0.7-1.2' gravel base	
2		0.0	SM		1.2 Brown silty SAND, fine, some clay, some subrounded gravel, moist 2	1-2
	5.0	0.0	SM		Brown silty SAND, fine, some clay, moist	2-3
4		0.0	FILL		Black fill, bricks, gravel, asphalt	3-4
			FILL		Fill, bricks, large gravel (~6-8" diameter) 5	4-5

A				
Δ			I_{Λ}	v
		V	•	7

Finish Date: 1/30/2018

Boring Log

BORING #: SUSDP43-3P

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond		
Project: Benning Road Facility	Northing: 448431.10 Easting: 1324725.50	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 1/30/2018	Drilling Method: DPT	Total Depth (ft): 5		

Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			GP CL		0.1_/\Gravel ground cover	
			SW	//////	Orange silty CLAY, low plasticity, trace coarse sand, slightly moist Light gray SAND, fine to coarse, some white fill gravel, small to large, angular, trace silt, dry	0-1
2			SWG		Dark brown gravelly SAND, fine to coarse, small to large, gravel includes brick fragments, coal slag and rounded to subrounded rock, trace silt, slightly moist to dry, creosote-like odor	1-2
	5.0	0.3	MLS		Medium brown sandy SILT, few sand, very fine to coarse, trace small gravel, subrounded, dry	2-3
4			MLS		Medium brown sandy SILT, few sand, very fine to coarse, little gravel, small to large, subangular to subrounded, trace orange silty clay, dry 4	
			SM		Medium dark brown silty SAND, very fine to coarse, few silt, little gravel, small to large, subangular to subrounded, trace glass fragments, dry	

Remarks:

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705 Sheet 1 of 1

Boring Log

BORING #: SUSDP43-3T Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond	
Project: Benning Road Facility	Northing: 448566.93 Easting: 1324667.56	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/30/2018	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 1/30/2018			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	GP SWG		10.1/Gravel ground cover 10.4/Medium orange brown gravelly SAND, fine to coarse, small to large, little silt Black gravelly SAND, very fine to coarse, small to large, subangular to subrounded, little silt, slightly moist	0-1
2		0.0	SWG		1.4 Gray gravelly SAND, very fine to coarse, small to large, subangular to subrounded, gravel includes slag, little silt, slightly moist	1-2
	5.0	0.0	GWS		Very dark brown sandy GRAVEL, small to large, angular to subrounded, mostly slag (yellowish/reddish), fine to coarse sand, creosote-like odor	
4		0.0	GC		Orange and brown clayey GRAVEL, small to large, angular to subrounded, little sand, fine to coarse, trace rounded cobble, gravel consists primarily of rocks with several pieces of slag, slight odor	
		0.0	GW	X	Dark brown SLAG, gravel sized, small to large, little sand sized slag, coarse, wet at 4.2'	

Remarks:

A				
Δ			I_{Λ}	v
		V	•	7

BORING #: SUSDP43-4NW
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 448580.85 Easting: 1324646.98	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 2/23/2018	Drilling Method: DPT	Total Depth (ft): 5		

Finish Date: 2/23/2018

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT		Asphalt 1	
2		0.0	SM		Dark brown silty SAND, fine, some small to large gravel, angular, trace medium to coarse sand, moist	1-2
	5.0	0.0	ML		Brown SILT, little fine sand, little small to large GRAVEL, angular, little fill (slag), moist	2-3
4		0.0	SM		Brown silty SAND, fine, some small to large gravel, angular, some fill (slag, brick), with cobbles, moist	
		0.0	CL		Grayish brown silty CLAY, little fine sand, little small to large gravel, angular, little fill (brick), moist	

Remarks:

		^		
Δ			7 1	v
	•	\smile		

BORING #: SUSDP43-4SW Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 448415.79 Easting: 1324673.89	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/23/2018	Drilling Method: DPT	Total Depth (ft): 5	

Finish Date: 2/23/2018

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	SM		Dark brown silty SAND, fine, some small to large gravel, angular, trace fill (coal), moist	0-1
2		1.8	MLS		Dark grayish brown sandy SILT, fine, some small to large gravel, angular, trace fill (brick, fabric), moist, faint odor	1-2
	5.0	0.1	GP		Very dark gray GRAVEL, large, angular, little fine to coarse sand, little large gravel, angular, trace silt, trace fill (slag, fabric), moist, moderate odor 3	2-3
4		0.0	ML		Yellowish brown SILT, little fine sand, moist, faint odor	
		0.0	ML		Yellowish brown SILT, little very fine sand, trace fine gravel, angular, moist	

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SUSDP43-5NW Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448605.21 Easting: 1324618.67	Drilling Company: E2CR
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/15/2018	Total Depth (ft): 5	

Finish Date: 3/15/2018

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt	0-1
L.		0.0	014/		0.9	0-1
			GW	1	1	
2		0.0	SM		Strong brown silty SAND, fine, moist	1-2
			SM]:•:•:•!•	Strong brown silty SAND, fine, some gravel, small to large, angular, little fill (brick fragments), moist	
L	5.0	0.0			3	
			ML		Brown SILT, little gravel, small to large, angular, moist	
4		0.0			4	
			ML		Brown SILT, little gravel, small to large, angular, with cobbles, moist	
		0.0			5	

Remarks:

А		^		
A		U	Λ	И

BORING #: SUSDP44-1D

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448849.57 Easting: 1324730.55	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/9/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 8/9/2017			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CONCRETE		0-0.6' concrete pad; 0.6-1.2' gravel base	
					1.2	
2		0.0	SM		Strong brown silty SAND, fine, moist	1-2
			SM		Strong brown silty SAND, fine, with subrounded gravel, moist	1.5-2.5
	5.0	0.0				2-3
4		0.0				3-4
		0.0			5	

Remarks	:

-		

Boring Log

BORING #: SUSDP44-1H

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448892.64 Easting: 1324703.62	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/9/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/9/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CONCRETE	4 4 4	0-0.6' concrete pad; 0.6-1.2' gravel foundation beneath concrete pad	
					1.2	
			SM		Strong brown and black silty SAND, fine, some subrounded gravel, moist	
2		0.0				1.5-2.5
	5.0	0.0			3	2-1
			SM		Strong brown silty SAND, fine, some subrounded gravel, moist	
4		0.0			4	3-4
			SM		Strong brown silty SAND, fine, with subrounded gravel, moist	
		0.0			5	

Remarks:	

Boring Log

BORING #: SUSDP44-2N

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 448892.38 Easting: 1324696.18	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 8/9/2017	Drilling Method: DPT	Total Depth (ft): 5		
Finish Date: 8/9/2017				

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			CONCRETE	P & P P P P P P P P P P P P P P P P P P	0-0.6' concrete pad; 0.6-1.6' gravel base	
					1.6	1-2
2		0.0	SM		2 Strong brown and black silty SAND, fine, some subrounded gravel, moist	
			SM		Strong brown silty SAND, fine, some subrounded gravel, moist	
	5.0				3	2-3
			SM		Strong brown silty SAND, fine, trace subangular gravel, moist	
4		0.0			4	
			SM]	Reddish brown silty SAND, fine, some subrounded gravel, moist	
		0.0			-	

Remarks:	

Finish Date: 1/26/2017

Boring Log

BORING #: SUSDP48
Sheet 1 of 1

		1	
Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer	
Project: Benning Road Facility	Northing: 448346.01 Easting: 1325216.80	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/26/2017	Total Depth (ft): 5		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
2 4	5.0	No PID reading	ASPHALT FILL / MLS MLS		Asphalt 0.9 Terown to light brown FILL, firm to soft, sandstone cobbles, small Light brown SILT and SAND, fine to coarse, compacted, firm, some sandstone cobbles, small 2 Dark brown to black SILT and SAND, coarse to medium, abundant sandstone cobbles, glass and other debris present	0-1 1-2 2-5

Remarks:

A			
Δ		Λ	И

BORING #: SUSDP48-1C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 448345.86 Easting: 1325244.46	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 8/15/2017	Drilling Method: DPT	Total Depth (ft): 5		
Finish Date: 8/15/2017				

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0-0.3' asphalt cover; 0.3-0.8' gravel base	0-1
		0.0	SM		0.8 Brown and dark brown silty SAND, fine, with subrounded and subangular gravel, wet	0-1
2		0.0				1-2
	5.0	0.0			3	
			SM		Brown and dark brown silty SAND, fine, with strong brown clay, wet	
4		0.0			4	
		0.0	SM		Brown silty SAND, fine, with well graded gravel, large concrete (~4-5" diameter), wet	

Remarks:	

A		\frown		
Δ			Λ	и
		\smile	•	

Finish Date: 8/16/2017

Boring Log

BORING #: SUSDP48-1E Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448319.24 Easting: 1325218.19	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/16/2017	Drilling Method: DPT	Total Depth (ft): 5	

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0-0.3' asphalt cover; 0.3-1' gravel base	
					1	
			FILL		Black crushed fill with fine silty SAND, some subangular gravel, some slag, dry	1-2
2		0.0			2	1-2
			SM		Dark brown silty SAND, fine, some subangular gravel, brick pieces, dry	
	5.0	0.0			3	
			SM]:•:•:•	Dark brown silty SAND, fine, some subangular gravel, brick pieces, moist	
4		0.0			4	
			MLS		Brown sandy SILT, fine, some subangular gravel, coal pieces, moist, odor	
		1.6			5	

Remarks:

А		\frown		
Δ			Λ	v
		\smile	M	

BORING #: SUSDP48-1G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448345.59 Easting: 1325185.71	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/16/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 8/16/2017			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT	•	0-0.5' asphalt; 0.5-1.2' gravel base	
					1.2	
2		2.2	SM		Strong brown silty SAND, fine, with subangular gravel, moist	1-2
			MLS		Strong brown sandy SILT, fine, slag, moist	
L -	5.0	0.0			3	
4		0.0	SP		Black and brown SAND, fine, some silt, some subangular gravel, moist	
		0.0			5	

Remarks:	

А		~		1
Δ	_		Λ	И
		\mathbf{G}	м	,

BORING #: SUSDP48-2E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 448343.97 Easting: 1325274.15	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/30/2018	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 1/30/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.3Asphalt	
		0.0	SW	<u>/ / / / / / / / / / / / / / / / / / / </u>	Gray SAND, fine to coarse, some silt, little small to large gravel, angular, moist	0-1
			SM		Dark brown silty SAND, fine, little small to large gravel, angular, little fill (brick fragments, slag), moist	
2		0.0			2	1-2
			SM		Dark brown silty SAND, fine, little small to large gravel, angular, little fill (brick fragments, slag), boulder-sized concrete	
L	5.0	0.0			fragment at 2.7', moist 3	
			SM		Dark brown silty SAND, fine, little small to large gravel, angular, little fill (brick fragments, slag, glass, wood, wire), moist	
4		0.0			4	
			ML		Dark brown SILT, some small to large gravel, angular, little fine sand, little fill (concrete fragments, wood, metal, wire), moist	
		0.0			5	

Remarks:

Boring Log

BORING #: SUSDP49
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448475.33 Easting: 1324939.37	Drilling Company: E2CR
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/11/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/11/2017		

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0-0.6' asphalt cover; 0.6-0.9' gravel base	
					0.9	0-1
F -		1.6	SM		1Dark brown silty SAND, fine, with subrounded gravel, trace to some clay, moist, odor	/
2		1.7			Dark brown silty SAND, fine, trace to some clay, trace slag, trace coal, moist, odor	1-2
			OL		Gray and strong brown SILT, some fine sand, dry to moist	
	5.0	0.0			3	2-3
Γ			SP		Strong brown and black SAND, fine, some tan clay, some coal, moist	
4		0.0			4	
			SP		Strong brown and black SAND, fine, trace coal, moist	1
		0.0			5	

Remarks:

А		~		1
Δ	_		Λ	И
		\mathbf{G}	м	,

BORING #: SUSDP49-1C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448474.34 Easting: 1324964.26	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/11/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/11/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0-0.6' asphalt cover; 0.6-0.9' gravel base	
					0.9	0-1
F 1		1.2	SM		1Brown silty SAND, fine, some subrounded gravel, moist to wet, odor	
2		1.6			Brown silty SAND, fine, some subrounded gravel, trace clay, wood debris, subangular gravel, moist to wet, odor	1-2
			SP		Strong brown SAND, fine, some clay, moist	
	5.0	0.0			3	2-3
			SP		Strong brown SAND, fine, some clay, some coal, moist	
4		0.0			4	
			SP		Strong brown and black SAND, fine, some silt, some subangular gravel, some subrounded gravel, trace coal, moist	
		0.0			5	

Remarks:

A	=	U	Λ	7

BORING #: SUSDP49-1E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448444.52 Easting: 1324942.27	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/11/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/11/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt cover 0.6	0-1
L		3.2	SM		1 Strong brown silty SAND, fine, with subrounded gravel, dry, odor	0-1
			MLS		Strong brown sandy SILT, fine, some clay, with brown fine sand, some subangular gravel, trace subrounded gravel,	
2		0.0			moist 2	1-2
			MLS		Strong brown sandy SILT, fine, some clay, moist	
	5.0	0.0			3	2-3
			SP		Strong brown and black SAND, fine to medium, some silt, some coal pieces, trace subrounded gravel, moist	
4		0.0			4	3-4
			SP		Strong brown and brown SAND, fine to medium, some silt, some subangular gravel, trace coal, moist	
		0.0			5	4-5

Remarks:

Boring Log

BORING #: SUSDP50
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448598.52 Easting: 1324848.39	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/10/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/10/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.5 Gravel cover	
			SP		Brown SAND, fine to medium, some subrounded gravel, trace slag, dry to moist, odor	0-1
2		6.3			2	1-2
			SM		Brown silty SAND, fine, some subrounded gravel, plastic debris, moist, odor	
	5.0	3.5				2-3
4		1.3			4	
		0.0	SM		Brown silty SAND, fine, some subrounded gravel, some clay, plastic debris, moist, odor	

Boring Log

BORING #: SUSDP50-2A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448652.69 Easting: 1324851.34	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/8/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/8/2017		

	Date. Of					
Oepth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0.3 Stone cover	
		1.9	SM		Dark brown silty SAND, fine, some angular gravel, moist, faint odor	0-1
2		0.2	FILL		Black crushed FILL (slag, debris), grain size of silt to cobbles, wet	1-2
			SM		Strong brown silty SAND, moist	
	5.0	0.2			3	2-3
4		0.0	OL		Strong brown SILT, some fine sand, some clay, moist to wet	
		0.0			5	

A				
Δ			I_{Λ}	v
		V	•	7

BORING #: SUSDP50-3A Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond
Project: Benning Road Facility	Northing: 448672.62 Easting: 1324852.92	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/30/2018	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 1/30/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	GP GPS		0.1/Gravel ground cover White GRAVEL (fill) and dark brown silty SAND, very fine to coarse, dry 1	0-1
2		0.0	SWG		Very dark brown gravelly SAND, very fine to coarse, small to large (primarily small, rock and slag), angular to subrounded, dry 2	1-2
	5.0	0.1	SP-SC		Medium orange-brown SAND intermixed with light gray chunks of clay, very fine to fine, medium to low plasticity, orange mottling in clay, dry 3	
4		0.0	SP-SC		Medium orange-brown SAND intermixed with light gray chunks of clay, very fine to fine, medium to low plasticity, orange mottling in clay, slightly moist	
		0.0	SP-SC FILL		4.4 Medium orange-brown SAND intermixed with light gray chunks of clay, very fine to fine, medium to low plasticity, orange mottling in clay, slightly moist	
		0.0		\bowtie	5 Black FILL, gravel-sized, small	

Remarks	:

A			
Δ		Λ	И

BORING #: SUSDP53
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Matt Spencer
Project: Benning Road Facility	Northing: 447972.38 Easting: 1325144.63	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/31/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 1/31/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt Asphalt	
			FILL	\bowtie	Light brown to brown silt and sand and clay FILL, firm to soft, loose, sandstone cobbles, small to large	0-1
2			SP-SM		Light brown SAND and SILT, coarse, soft, very loose, some clay matrix, mottled gray clay present	1-2
	5.0	0.0	SP		Light brown to orange SAND and SILT and CLAY, soft, very loose, gray mottled clay, 4 and 5 ft. mostly clay, mottled gray	
4						2-5

Re	ma	rks
ĸe	ma	rks:

Boring Log

BORING #: SUSDP64
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448581.83 Easting: 1324922.32	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/10/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/10/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0-0.5' asphalt cover; 0.5-1.1' gravel base	0-1
-					1.1	
2		0.0	SM		Brown silty SAND, fine, some subrounded gravel, some subangular gravel, moist trace slag 2	
	5.0	0.0	SM		Brown silty SAND, fine, some subrounded gravel, some subangular gravel, moist trace slag, slight color change to strong brown	
4	-	0.0	SP		Strong brown SAND, fine to medium, some silt, some subrounded gravel, moist	
	-	0.0	SP		Strong brown SAND, fine to medium, some silt, some subrounded gravel, moist, slight color change to brown	

Remarks:

Λ		\frown		
A	L	U	Λ	/1

BORING #: SUSDP65
Sheet 1 of 1

Client: Pepco			Location: 3400 Benning Road, Washington, DC			Logged By: Ben Daniels			
Project: Benning Road Facility			Northing:	448487.74	Easting:	1325094.21	Drilling Company: E2CR		
Project #: 60340344			Surface Elevation (msl): NA			Groundwater Encountered (ft bgs): NA			
Start Date: 1/30/2018			Drilling Method: DPT				Total Depth (ft): 5		
Finish Date: 1/30/2018									
	ength	(E	ode	v					g _

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			GP OM	0000	0.1	1
			SM		0.3 2" stone and dark brown sity SAND, fine, moist	
F -			ML		Dark brown slity SAND, fine, little small to large rounded gravel, moist	1
					Dark brown fine sandy SILT, little clay, trace small angular gravel, dry	
2					2	
			CL		Brown CLAY, little silt, trace fine sand, moist	
	5.0	0.0				
F -						
4					4	_
			GW		Grayish brown GRAVEL, small to large, angular, some fine sand, little silt, little slag plastic fill, dry	
					5	
			1			1

Client: Pepco

Boring Log

Location: 3400 Benning Road, Washington, DC

BORING #: SUSDPCT16-1C Sheet 1 of 1

Logged By: Sharon Drummond					
Drilling Com					

 Project:
 Benning Road Facility
 Northing:
 449141.01
 Easting:
 1324640.48
 Drilling Company:
 E2CR

 Project #:
 60340344
 Surface Elevation (msl):
 NA
 Groundwater Encountered (ft bgs):
 NA

 Start Date:
 2/1/2008
 Drilling Method:
 DPT
 Total Depth (ft):
 5

Start Date: 2/1/2008 Drilling Method: DP1 Total Depth (ft): 5

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		1.0	SWG		Medium dark gray gravelly SAND, fine to coarse, small to large, angular to subrounded (fill gravel), mostly dry, odor, asphalt surface	0-1
2		2.0	SWG		Medium orangish brown gravelly SAND, fine to coarse, small to large, angular to subrounded, moist, odor	1-2
	5.0	4.1	CL-ML		Orangish brown silty CLAY and medium dark brown gravelly SILT, few gravel, small, subangular to subrounded, little coarse sand, trace organics (wood), slightly moist, odor	2-3
4		2.4	GW-GM		Dark brown silty GRAVEL, small to large, angular to subrounded, little medium to coarse sand, trace organics (wood), trace slag material, trace clay, moist, odor	3-4
		0.4	GW-GM		Medium brown silty GRAVEL, small to large, angular to subrounded, little medium to coarse sand, trace organics (wood), trace slag material, little orangish-brown clay, moist, very slight odor	4-5

Remarks:

A				
Δ			I_{Λ}	v
		V	•	7

BORING #: SUSDPCT16-1E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond	
Project: Benning Road Facility	Northing: 449117.35 Easting: 1324610.82	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/1/2008	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 2/1/818			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.9	SWG		Black gravelly SAND, fine to coarse, small to large, angular to subrounded (fill), trace silt, dry, slight odor, asphalt surface	0-1
2		11.5	SW		Orangish dark brown SAND, very fine to coarse, mostly fine, little gravel, subangular to subrounded, trace silt, moist, odor	1-2
	5.0	0.5	CL		Medium orangish brown silty CLAY, trace coarse sand, low plasticity, mostly dry, slight odor	2-3
4		0.1	CH		Orangish gray CLAY, mottled, trace coal fragment, trace coarse sand, high plasticity, slightly moist, very slight odor	
		0.1	CH		Orangish gray CLAY, mottled, trace coal fragments, trace subrounded gravel, trace coarse sand, high plasticity, slightly moist 5	

Remarks	:

¹	

A				
Δ			I_{Λ}	v
		V	•	7

BORING #: SUSDPCT16-1G

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Sharon Drummond	
Project: Benning Road Facility	Northing: 449144.43 Easting: 1324591.54	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/1/2008	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 2/1/818			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		2.3	GWS		Black sandy GRAVEL, fine to coarse, small to large, angular to subangular, combination of fill gravel and slag, cobble (slag), strong odor, asphalt surface	0-1
2		3.8	SWG		Dark brown gravelly SAND, very fine to coarse, small to large, angular to subrounded, gravel includes slag and trace coal, strong odor	1-2
	5.0	4.5	ML		Medium orange brown clayey SILT, little fine to coarse sand, trace small gravel, moist, odor	2-3
4		0.3	CL		Dark brown silty CLAY, little small to large gravel, subangular to subrounded, trace sand, fine, low plasticity, moist, odor	3-4
		0.3	СН		Orange and dark brown CLAY with red and gray mottling, little subrounded gravel, high plasticity, moist, slight odor	4-5

Remarks:	

		^		
Δ			7 1	v
	•	\smile		

BORING #: SUSDPCT16-2E Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449137.96 Easting: 1324669.43	Drilling Company: E2CR
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/22/2018	Drilling Method: DPT	Total Depth (ft): 5

Finish Date: 2/22/2018

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		14.9	ASPHALT SM		0.4 Asphalt Brown silty SAND, fine to medium, some coarse sand, little small to large gravel, subrounded, moist, moderate odor	0-1
2		10.2	SM		Brown well graded silty SAND, some gravel, small to large, subangular, trace fill (coal, brick), moist, faint odor	1-2
	5.0	23.1	SM		Brown silty SAND, fine, some gravel, small to large, subrounded, trace fill (coal, brick), moist, moderate odor	2-3
4		6.1	SM		Brown silty SAND, fine, some gravel, small to large, subrounded, trace fill (coal, brick), moist, faint odor	3-4
		0.7	CL		Dark brown silty CLAY, some gravel, small to large, angular, little sand, fine to coarse, moist, faint odor	4-5

А			
Δ		Л	И
	•	•	

BORING #: SUSDPCT16-2I

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449096.22 Easting: 1324615.29	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/22/2018	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 2/22/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	0-1
		14.1	SW	1/1/1	Gray SAND, fine to medium, some small to large gravel, angular, little coarse sand, moist, faint odor	0-1
			ML		Pale brown SILT, trace small to large gravel, rounded, trace bill (brick), moist, faint odor	
2		8.0			2	1-2
			CL		Grayish brown silty CLAY, trace sand, fine, moist, faint odor	
	5.0	0.8			3	2-3
			CL		Grayish brown CLAY, trace fill (brick, wood) with cobbles (concrete fragments), moist, faint odor	
4		0.5			4	3-4
		1.2	SM		Brown silty SAND, fine to medium, some small to large gravel, rounded, trace clay, trace fill (brick, metal), moist, faint odor	4-5

Re	ma	rks
ĸe	ma	rks:

А				
Δ		U	Λ	и
	•	v	•	

BORING #: SUSDPCT16-2M

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449145.05 Easting: 1324566.60	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/22/2018	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 2/22/2018		

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			GP	بملبكم	0.2Blue stone (3") ground cover	1
		0.2	SM		Dark brown silty SAND, fine, little small to large gravel, angular, moist	0-1
			SM		Very dark gray silty SAND, fine, little small to large gravel, angular, little fill (slag), moist, strong odor	
2		74.5			2	1-2
			SM		Very dark gray silty SAND, fine, little small to large gravel, angular, little fill (slag), wet, slight sheen, strong odor	
	5.0	75.2			3	2-3
ΓΙ			ML		Dark grayish brown clayey SILT, little fine sand, little small to large gravel, angular, wet, slight sheen, strong odor	
4		14.5			4	3-4
		12.9	FILL		Black SAND (coal fill), fine to coarse, trace small gravel, angular, wet, moderate odor	4-5

Remarks:

A				
Δ			I_{Λ}	V.
		\smile	•	

BORING #: SUSDPCT16-3P Sheet 1 of 1

Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Ben Daniels

Project: Benning Road Facility Northing: Easting: Drilling Company: E2CR

Project #: 60340344 Surface Elevation (msl): NA Groundwater Encountered (ft bgs): NA

Start Date: 7/2/2018 Drilling Method: DPT Total Depth (ft): 5

Finish Date: 7/2/2018

Soil and Rock Description Classification Scheme: USCS O.0 SWG O.							
2 5.0 SWG Output Dark orangish brown gravelly SAND, fine to coarse, small to large, subangular to subrounded gravel, trace light orange-gray clay, low plasticity, trace wood, dry, 0-2 inch of blue stone Dark orangish brown gravelly SAND, fine to coarse, small to large, subangular to subrounded gravel, trace light orange-gray clay, low plasticity, trace coal, trace wood, dry SC Orangish brown gravelly SAND, fine to coarse, small to large, subangular to subrounded gravel, trace light orange-gray clay, low plasticity, trace coal, trace wood, dry Orangish brown clayey SAND, fine to coarse, mostly fine/trace gravel, small to large, subangular to rounded, trace black silt, trace small black gravel (coal), moist Orange-brown and black sandy CLAY, fine to coarse, mostly fine, little, small to large, gravel, subangular to rounded, low plasticity, moist		covery Le (feet)			Graphic		Sam terva feet)
2 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0			0.0	SWG		Dark orangish brown gravelly SAND, fine to coarse, small to large, subangular to subrounded gravel, trace light orange-gray clay, low plasticity, trace wood, dry, 0-2 inch of blue stone Dark orangish brown gravelly SAND, fine to coarse, small to large, subangular to subrounded gravel, trace light	
Orange-brown and black sandy CLAY, fine to coarse, mostly fine, little, small to large, gravel, subangular to rounded, low plasticity, moist	2	5.0		SC		2 Orangish brown clayey SAND, fine to coarse, mostly fine/trace gravel, small to large, subangular to rounded, trace black	
	4	5.0		CL			

^				
Δ		U	Λ	И
	•	v	•	

BORING #: SUSDPCT16-3Q

Sheet 1 of 1

Client: Pepco	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 449098.97 Easting: 1324538.67	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 6/29/2018	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 6/29/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			SWG	~.@	0.2Gravel/stone	
		2.6	owo.		Dark brown gravelly SAND, fine to coarse, small to large gravel, angular to subrounded, trace silt, dry	0-1
			ML		1.5 Medium orange-brown sandy SILT, fine, trace clay, slightly moist	
2		2.1	MLS		Black gravelly SAND, fine to coarse, small, subrounded, trace orange silty clay, slightly moist 2.1	1-2
			SWG		2.5 Medium orange-brown gravelly SAND, fine to coarse (primarily fine), small, subangular to subrounded, trace silt, moist	
	5.0	5.5	CL		3 Light orange-brown CLAY, trace sand, fine, low plasticity, slightly moist	2-3
4		10.2	ML		Medium dark brown clayey SILT, trace sand, fine to coarse, trace gravel, small to large, subangular to subrounded, low plasticity, trace roots, slightly moist, slight odor	
		7.7	MLS		Medium dark brown sandy SILT with red CLAY, silt includes little small gravel, fine to coarse sand, trace slag/coal, moist	

Remarks:

A -				
Δ.	-		Λ	v
	-	V	м	71

0.3

6

Boring Log

BORING #: SUSDPCT16-3R Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449123.73 Easting: 1324539.51	Drilling Company: E2CR
Project #: 60340344	Groundwater Encountered (ft bgs): NA	
Start Date: 5/31/2018	Drilling Method: DPT	Total Depth (ft): 6

Finish Date: 5/31/2018 Recovery Length (feet) **USCS** Code PID (ppm) Graphic Depth (ft bgs) Soil and Rock Description Classification Scheme: USCS Brown silty SAND, fine, some small to large angular gravel, trace organics (roots), trace fill (plastic), moist 4.2 Brown silty SAND, fine, little small to large subrounded gravel, trace fill (coal, slag), moist 1-2 5.0 Brown to black SILT, trace fill (slag), trace large angular gravel, moist 2-3 3.3 6.0 SP Mixed pale brown and black SAND, fine, little silt, trace small to large round gravel, moist 3-4 0.2 SM Grayish brown silty SAND, fine, little small to large angular gravel, little fill (brick, slag), moist 4-5 3.7 ML Dark grayish brown SILT, little small to large angular gravel, trace fill (brick, concrete), moist

Boring Log

BORING #: SUSDPCT16-3S

Sheet 1 of 1

4-5

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449147.04 Easting: 1324540.35	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/15/2018	Drilling Method: DPT	Total Depth (ft): 4.3
Finish Date: 3/15/2018		

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	SM		0.1/Stone cover Very dark brown silty SAND, some small to large gravel, subrounded, trace coal, moist	0-1
2		0.0			2	1-2
	4.3	3.0	GW		Very dark gray GRAVEL, small to large, angular, little fine sand, little silt, moist to wet at 2.7', faint odor	2-3
4		1.5	СН		Strong brown and light gray mottled CLAY, high plasticity, stiff, wet, faint odor	3-4
		0.5			4.3	

Remarks:

		^		
Δ			I_{Λ}	v
		\smile		,

BORING #: SUSDPCT16-4W

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 449147.59 Easting: 1324517.38	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 4/6/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 4/6/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ML		0.2Stone cover	
		0.0	IVIL		Yellowish brown sandy SILT, fine, little small angular gravel, moist	0-1
Γ			ML		Yellowish brown SILT, fine, trace small angular gravel, trace fill (coal), moist	
2		0.0			2	1-2
			SP		Yellowish brown SAND, fine, little small to large rounded gravel, little silt, moist	2-3
L		0.8			3	2-3
	6.0		ML		Yellowish brown clayey SILT, trace small rounded gravel, moist	
4		1.3				3-4
		0.0				4-5
L -		0.0				
6		0.0			6	

Remarks:	

A				
Δ			I_{Λ}	v
		V	•	7

Project: Benning Road Facility

Client: Pepco

Boring Log

Location: 3400 Benning Road, Washington, DC

Easting:

Northing:

BORING #: SUSDPGD21-A1

Logged By: Ben Daniels

Drilling Company: E2CR

Sheet 1 of 1

Projec	ct #: 6034	40344			Surface Elevation (msl): NA Groundwater Encountered (ft bgs)		Surface Elevation (msl): NA Groundwater Encountered (ft bgs): NA	
Start I	Date: 7/2	/2018			Drilling Method: DPT	Total Depth (ft): 4		
Finish	Date: 7/	/2/2018						
O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Descr Classification Scheme		Soil Sample Interval (feet)	
		0.0	ASPHALT GWS		0.5 Asphalt Brown sandy GRAVEL, fine to coarse, small to large, angular to subar	ogular day		
L		0.0	GWS		1	igular, dry		
2		0.0	SW-GW		Medium brown SAND and GRAVEL, fine to coarse, small to large, and trace wood, moist 2	gular to subrounded, fill (concrete/rocks), trace silt,		
	4.0	0.0	GWS		Medium brown sandy GRAVEL, fine to coarse, small to large, angular slightly moist 3	to subrounded, with fill (brick, metal, concrete),		
4		0.0	GWS		Medium brown sandy GRAVEL, fine to coarse, small to large, angular moist	to subrounded, with fill (metal, concrete), slightly		

Re	ma	rks
ĸe	ma	rks:

Δ		Λ	и
		м	4

BORING #: SUSDPGD21-C3

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447791.84 Easting: 1325974.27	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 7/2/2018	Drilling Method: DPT	Total Depth (ft): 6		
Finish Date: 7/2/2018				

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	0-1
L		0.0	GWS		Light gray-brown sandy GRAVEL, fine to coarse, small to large, angular, mostly dry	0-1
2		0.0	SW-GW		Dark brown SAND and GRAVEL, fine to coarse, small to large, angular to subrounded, trace orange clay (clumps), dry	1-2
	6.0	0.0	SWG		Medium orange-brown gravelly SAND, fine to coarse, small to large, subangular to subrounded, mostly fine sand, trace silt, slightly moist	2-3 3-4
		0.0	SP		Medium orange-brown gravelly SAND, trace gravel and fill (slag/concrete), subrounded to rounded gravel, trace sand, coarse, trace clay, moist	

Remarks	:

Boring Log

BORING #: SUSDPGD21-C5

Sheet 1 of 1

Client: Pepco	Pepco Location: 3400 Benning Road, Washington, DC			
Project: Benning Road Facility	Northing: 447805.33 Easting: 1325964.07	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 5/31/2018	Drilling Method: DPT	Total Depth (ft): 6		
Finish Date: 5/31/2018				

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT		Asphalt 0.7	0-1
-			GW		1.1 Gray GRAVEL, small to large, angular, some sand, fine to coarse, dry (base course)	
2		1.1	SM		Brown silty SAND, fine to coarse, some gravel, small to large, angular, trace fill (slag), with cobbles, moist	1-2
		2.0			3	2-3
4	6.0	1.0	SM		Brown silty SAND, fine to coarse, some gravel, small to large, angular, trace fill (trace coal), with cobbles, moist	3-4
		0.0	SP		Strong brown SAND, fine, moist 5	4-5
6		0.0	SM		Brown silty SAND, fine, some gravel, small to large, angular, little fill (brick, slag), with cobbles, moist	

Remarks:

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SUSDPGD21-D1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447789.83 Easting: 1325994.56	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 5/30/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 5/30/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	0.4
L		0.0	GP		Gray GRAVEL (base course), large, angular, little small angular gravel, little sand, fine to coarse, dry	0-1
			SM		Brown silty SAND, fine, little gravel, small to large, angular, trace fill (brick, plastic), moist	
2		0.0			2	1-2
			SM		Brown silty SAND, fine, some gravel, small to large, angular, moist	
		0.0				2-3
r 1	6.0		1			
4		0.0			4	3-4
			SC		Pale brown clayey SAND, fine, some silt, little gravel, small to large, angular, moist	
		0.0				4-5
† 1			1			
l 6		0.0			6	

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SUSDPGD21-E1

		Sneet 1 of 1
d Rv	Ren Daniels	

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447794.95 Easting: 1326003.15	Drilling Company: E2CR		
Project #: 60340344	ect #: 60340344 Surface Elevation (msl): NA			
Start Date: 5/30/2018	Drilling Method: DPT	Total Depth (ft): 5.4		
Finish Date: 5/30/2018				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	
		0.0	GP	٥٥٥٥	1 Gray GRAVEL, large angular, some small angular gravel, little fine to coarse sand, dry	0-1
Γ			ML		Dark brown SILT, little small to large subangular gravel, little fine sand, trace fill (brick), strong odor, moist	
2		1009.0			2	1-2
			ML	1	Brown SILT, little small to large subrounded gravel, trace fine to coarse sand, trace fill (coal), moist	
	5.4	10.3			3	2-3
	• • •		ML	1	Brown SILT, some small to large angular gravel, little fine to coarse sand, trace fill (concrete fragments), moist	
4		0.0				3-4
		0.5			5	4-5
Γ -		0.0	ML	1	5.4 Brown SILT, trace small to large angular gravel, moist	

Boring Log

BORING #: SUSDPGD21-F1
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447800.07 Easting: 1326011.74	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 5/30/2018	Total Depth (ft): 4.5		

Finish Date: 5/30/2018

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code		Graphic		Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT GP	. U		0.7	Asphalt Gray GRAVEL, large, angular, little gravel, small, angular, little sand, fine to coarse, dry	0-1
2		2.0	ML				Brown SILT, little gravel, small to large, angular, trace fill (brick, coal), moist	1-2
	4.5	0.0				3		2-3
4		0.0	ML			4	Brown SILT, little gravel, small to large, angular, trace sand, fine, trace fill (coal), moist	3-4
		0.1	ML			4.5	Brown SILT, some gravel, small to large, angular, little fine sand, trace fill (coal, slag, brick), moist	4-5

Boring Log

BORING #: SUSDPGD21-G1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447805.20 Easting: 1326020.33	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 4/4/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 4/4/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	GW		Light gray GRAVEL (base course), small to large, angular, little fine to coarse sand, moist	0-1
			ML		Brownish gray SILT, trace gravel, small, angular, trace tar-like material, moist, strong odor	
2		57.0			2	1-2
			ML	1	Brown SILT, little fine sand, trace gravel, small, round, faint odor, moist	
		0.6			3	2-3
	6.0		CL		Strong brown CLAY, some silt, little sand, fine, low plasticity, moist, faint odor	
4		0.4			4	3-4
			MLS		Brown sandy SILT, fine, trace clay, trace gravel, small, round, moist	
		0.0		: : : :	5	4-5
			MLS]: :: :: ::	Brown sandy SILT, fine, trace clay, trace gravel, small, round, moist to wet	
6		0.0			6	5-6

Remarks:

		^		
Δ			I_{Λ}	v
		\smile		,

BORING #: SUSDPGD21-G2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447810.29 Easting: 1326014.92	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 4/4/2018	Drilling Method: DPT	Total Depth (ft): 2.7		
Finish Date: 4/4/2018				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	- 0-1
 		0.0	GW		1.1 Light gray GRAVEL (base course), small to large, angular, little sand, fine to coarse, dry	0-1
2	2.7	0.0	GW		Brown GRAVEL, small to large, rounded, trace sand, fine to coarse, wet	1-2
		0.0			2.7	2-3

Remarks:

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SUSDPGD21-H1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447811.54 Easting: 1326028.86	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 3/14/2018	Drilling Method: DPT	Total Depth (ft): 6		
Finish Date: 3/14/2018				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	GW		Light gray GRAVEL (base course), small to large, angular, little fine to coarse sand, dry	0-1
2		1.6	ML		Dark brown SILT, little clay, trace fine to coarse sand, trace small angular gravel, moist	1-2
		0.0			3	2-3
4	6.0	0.0	ML		Yellowish brown SILT, little fine sand, little small to large rounded gravel, moist	
		0.0	ML		Yellowish brown SILT, little fine sand, some small to large rounded gravel, little cobbles, moist	
6		0.0	SM		Brown silty SAND, fine, little small to large rounded gravel, moist to wet 6	

Remarks:	

A				
Δ			I_{Λ}	V.
		\smile	•	

BORING #: SUSDPGD21-H2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447817.73 Easting: 1326022.60	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 3/14/2018	Drilling Method: DPT	Total Depth (ft): 3		
Finish Date: 3/14/2018				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT		Asphalt 0.7	0-1
-		0.0	GW		Light gray angular GRAVEL, small to large, angular, little fine to coarse sand, dry	
2	3.0	0.0	GW		Brown GRAVEL, small to large, rounded, trace fine to coarse sand, moist, terminate boring due to caving gravel	1-2
		0.0			3	2-3

Remarks:

Boring Log

BORING #: SUSDPGD21-I1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447818.30 Easting: 1326035.24	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 2/20/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 2/20/2018			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
L			GW	HLA	Gray GRAVEL (base course), small to large, angular, little fine to coarse sand, dry	0-1
			SM		Dark brown silty SAND, fine, some small to large gravel, subrounded, little medium sand, moist	
2						1-2
					2.5	2-3
			ML	<u> </u>	3 Strong brown SILT, moist	2-3
4	6.0	PID Error	MLS		Strong brown sandy SILT, fine, trace small to large gravel, rounded, moist	3-4
			CL		Red and light gray mottled CLAY, moist	
6			SP		Brown SAND, very fine, wet	

Remarks:

Boring Log

BORING #: SUSDPGD21-I2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447824.49 Easting: 1326028.98	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 2/20/2018	Drilling Method: DPT	Total Depth (ft): 2.5		
Finish Date: 2/20/2018				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
	2.5	PID Error	ASPHALT		Asphalt 0.6	30 0-1
			GW		1 Gray GRAVEL, small to large, angular, little fine to coarse sand, dry	0-1
2			GP		Light brown GRAVEL, large, round, little fine to coarse sand, moist	
			GP		Light brown GRAVEL, large, round, trace fine to coarse sand, moist End of boring at 2.5' due to caving gravel	2-3

Remarks:

		^		
Δ			I_{Λ}	v
		\smile		,

BORING #: SUSDPGD21-J1 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447825.02 Easting: 1326042.23	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/24/2018	Drilling Method: DPT	Total Depth (ft): 6	

Finish Date: 1/24/2018

		,				
Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	GWS		Light gray sandy GRAVEL (base course), small to large, dry	0-1
_			SM		Dark brown silty SAND, fine, little small to large gravel, angular, moist	
2		5.2			2	1-2
			SP		Dark brown SAND, fine, some silt, little small to large gravel, angular, moist	
		0.0			3	2-3
	6.0		ASPHALT		Asphalt 3.6	
4		0.0	GW	.40.	4 Very dark gray GRAVEL, small to large, angular, some fine sand, trace silt, dry	3-4
			ML		Strong brown SILT, little fine sand, trace clay, moist	
		0.0			5	4-5
			CL		Dark grayish brown CLAY, some silt, moist	
6		0.0			6	5-6
⊢ Ŭ	l			1//////////////////////////////////////		ь

Boring Log

BORING #: SUSDPGD21-J2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels		
Project: Benning Road Facility	Northing: 447832.31 Easting: 1326035.68	Drilling Company: E2CR		
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA		
Start Date: 1/24/2018	Drilling Method: DPT	Total Depth (ft): 3.5		
Finish Date: 1/24/2018				

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	0-1
		0.0	SW-GW	\$.	Light gray SAND and GRAVEL, fine to coarse, small to large, angular (base course), dry	0-1
2	3.5	0.0	GW	X	Brown GRAVEL, small to large, rounded, some fine sand, little silt, moist	1-2
	0.0	0.0	GW		Brown GRAVEL, small to large, rounded, trace fine sand, trace silt, moist Boring ended at 3.5' due caving gravel	2-3
		0.0			3.5	3-4

Remarks:

Finish Date: 1/24/2018

Boring Log

BORING #: SUSDPGD21-K1 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447832.31 Easting: 1326050.48	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/24/2018	Drilling Method: DPT	Total Depth (ft): 6

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	
			ASPHALT		0.5 Asphalt	
		0.0	GW		Light gray GRAVEL (base course), small to large, some fine to coarse sand, dry	0-1
			SM	7.7.7.7	Dark brown silty SAND, fine, little gravel, small to large, rounded, moist, moderate odor	
2		38.8			2	1-2
			SM	 :::::::	Brown silty SAND, fine, some small to large gravel, rounded, cobbles (construction debris, concrete boulder), moist	
		0.0		· · · · · · · · · · · · · · · · · · ·	3	2-3
	6.0		SM]::::::	Dark brown silty SAND, fine, little small to large gravel, angular, little cobbles	
4		0.0				3-4
				:-:-:-		
L		0.0			5	4-5
			ML		Strong brown SILT, little clay, trace large gravel, round, moist	
6		0.0			6	5-6

Remarks:

Finish Date: 1/26/2018

Boring Log

BORING #: SUSDPGD21-K1.5

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447837.41 Easting: 1326045.64	Drilling Company: E2CR
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/26/2018	Drilling Method: DPT	Total Depth (ft): 4.4

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	0-1
L		0.0	GW		1 Light gray GRAVEL (base course), small to large, angular, some fine to coarse sand, dry	0-1
			SM		Brown silty SAND, fine, some gravel, small to large, angular, trace fill (rubber, metal), moist	
2		0.0			1.8	1-2
			FILL MATERIAL	2	2—Wood plank	
	4.4		OIVI		Brown silty SAND, fine, some small to large gravel, subangular, cobbles, moist	2-3
		0.0		`````	3	2-3
ΓΊ			ML		Dark brown SILT, little fine sand, little fine gravel, angular, trace fill (brick), moist	
4		0.0				3-4
		0.0			4.4	
			,			4-5

Remarks:

AECOM 8000 Virginia Manor Rdoad Suite 110 Beltsville, MD 20705 Sheet 1 of 1

		Λ	M
	•	и	71

BORING #: SUSDPGD21-K2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447839.96 Easting: 1326043.08	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/24/2018	Drilling Method: DPT	Total Depth (ft): 2.5
Finish Date: 1/24/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.6	0-1
L		0.0	GW	• • • • •	1 Light gray GRAVEL (base course), small to large, angular, some sand, fine to coarse, dry	0-1
	2.5		SM		Brown silty SAND, fine, some small to large gravel, angular, trace fill (plastic and rubber), moist	
2	2.5	0.0				1-2
		0.0			2.5	2-3
I						2-3

Remarks:

Boring Log

BORING #: SUSDPGD21-L1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447839.94 Easting: 1326058.16	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/20/2018	Drilling Method: DPT	Total Depth (ft): 6
Finish Date: 2/20/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt 0.8	0-1
F ⊢			GW		1——Gray GRAVEL (base course), small to large, angular, moist	\longrightarrow
2			SM		Dark brown silty SAND, fine, some gravel, small to large, angular, with cobbles, moist, faint odor	1-2
			SM		Brown silty SAND, fine to medium, some gravel, small to large, angular, with cobbles and boulders (concrete), moist	2-3
4	6.0	PID Error	FILL		FILL, concrete cobbles and boulders, little dark brown silty sand, fine, little gravel, small to large, angular moist	3-4
			GW		Very dark gray GRAVEL, small to large, angular, some sand, fine, little silt, with cobbles, dry	4-5
6			SP		Yellowish brown SAND, fine, little silt, wet	

Remarks:	

Boring Log

BORING #: SUSDPGD21-L2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447847.09 Easting: 1326050.39	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 2/20/2018	Drilling Method: DPT	Total Depth (ft): 5.5
Finish Date: 2/20/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT			Asphalt 0.6	0.4
			GW	• 7 0	•	Light gray GRAVEL, small to large, angular, some sand, fine to coarse, dry	0-1
Γ			SM			Brown silty SAND, fine to coarse, little gravel, small, rounded, moist	
2				· : · : · :		2	1-2
			SM	}````	•	Brown silty SAND, fine to coarse, little small gravel, rounded, with fill (trash, styrofoam), moist	
	5.5	PID				3	2-3
Γ	0.0	Error	FILL	\bowtie	\otimes	FILL, concrete blocks and fragments, cobbles and boulder-sized, little dark brown silty SAND, fine to coarse, moist	
4				\bowtie	\bowtie	4	3-4
			GW		•	Very dark gray GRAVEL, fine to coarse, angular, little silty sand, fine, with cobbles (concrete), moist	
					Š	5	4-5
			ML			5.5 Brown SILT, little sand, fine, wet	

Remarks:

Boring Log

BORING #: SUSDPGD21-M1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447847.81 Easting: 1326065.26	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 3/14/2018	Drilling Method: DPT	Total Depth (ft): 6.5	
Finish Date: 3/14/2018			

Oepth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT		Asphalt 0.6	0-1
L		0.0	GW		Light gray GRAVEL (base course), small to large, angular, little fine to coarse sand, moist	0-1
			CONCRETE	P. A. A. P.	1.4 Concrete block	_
2		0.0	SM	$ \cdot;\cdot;\cdot;\cdot $	Brown silty SAND, fine, some small to large angular gravel, moist 2	1-2
			SM		Brown silty SAND, fine to coarse, some small to large angular gravel, concrete cobbles, moist	
		1.5			3	2-3
	6.5		GW		Dark brown GRAVEL, small to large, angular, little fine to coarse sand, trace silt, with concrete cobbles, moist	
4	0.5	0.1			4	3-4
			GW		Very dark gray sandy GRAVEL, well graded, little silt, with cobbles, moist	
		0.1		. 6.	5	4-5
			SP		Yellowish brown SAND, fine, little silt, wet	
6		0.0			6	
		0.0	CL		6.5 Gray CLAY, low plasticity, moist	

Remarks:

Boring Log

BORING #: SUSDPGD21-M2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 447854.61 Easting: 1326057.90	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 3/14/2018	Drilling Method: DPT	Total Depth (ft): 5.2
Finish Date: 3/14/2018		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		Asphalt	
		0.0			0.7	0-1
⊢ ⊣			GW		Light gray GRAVEL (base), small to large, angular, little fine to coarse sand, dry	
			SM		Brown silty SAND, fine, some small to large subrounded gravel, trace fill (light blue form), moist	
2		0.4			2	1-2
			SM	†`.`.`.	Dark brown silty SAND, fine, some small to large rounded gravel, with cobbles, moist	
		0.1				2-3
L J	5.2	0.1				
1		0.0				3-4
4			1		Brown COBBLES, some large angular gravel, trace small angular gravel, trace fine to coarse sand, dry	
					brown GODDELO, some range angular graver, trace small angular graver, trace line to coarse saint, try	4-5
		0.0			5	4-5
		\ 0.0	GW		5.2—Brown GRAVEL, small to large, angular, little fine to coarse sand, moist	,
i			r			

Remarks:

Boring Log

BORING #: SUSDPGD21-N1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447854.74 Easting: 1326071.99	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 4/4/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 4/4/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	GW		Light gray GRAVEL, small to large, angular, little fine to coarse sand, dry	0-1
2		488.0	MLS		Dark grayish brown sandy SILT, fine, little gravel, small to large, angular, trace fill (brick), moist, strong odor	1-2
		0.0	ML		Yellowish brown SILT, little gravel, small to large, angular, trace fine to coarse sand, with cobbles, moist	2-3
4	6.0	0.0				3-4
		0.0			5	
6		0.0	ML		Gray clayey SILT, low plasticity, moist to wet	

Remarks:

-		

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SUSDPGD21-N2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447861.53 Easting: 1326064.23	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 4/4/2018	Drilling Method: DPT	Total Depth (ft): 2.3	
Finish Date: 4/4/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	ASPHALT		Asphalt 0.7	0-1
L -		0.0	GW		1 Light gray sandy GRAVEL (base course), well graded, dry	
2	2.3	0.4	ML		Brown SILT, little gravel, small to large, subangular, little sand, fine, trace fill (metal wire, debris), moist, faint odor	1-2
					2.3	2-3

Remarks:

		Λ	M
	•	и	71

BORING #: SUSDPGD21-P1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447871.29 Easting: 1326087.96	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 5/30/2018	Drilling Method: DPT	Total Depth (ft): 6	
Finish Date: 5/30/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	
			ASPHALT		0.4 Asphalt	
		0.0	GW		Gray GRAVEL, small to large, angular, little sand, fine to coarse, dry	0-1
2		1124.0	SM		Brown silty SAND, fine, trace small to large angular gravel, trace slag, trace fill (glass, metal), strong odor, moist	1-2
		23.5	SW		Brown SAND, fine to coarse, little silt, little gravel, small to large, angular, faint odor, moist	2-3
4	6.0	1.0	SP		Light brownish gray SAND, fine, little clay, trace silt, trace fill (slag), trace gravel, large, round, faint odor, moist	
		0.0	SM		Yellowish brown silty SAND, fine, trace gravel, small to large, rounded, moist	
6		1.7	ML		Brown SILT, trace fine sand, trace gravel, small to large, angular, moist	

Remarks:	

_			
_			

A -				
Δ.	-		Λ	v
	-	V	м	71

BORING #: SUSDPGD21-R1

Sneet	1	от	1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447890.25 Easting: 1326106.28	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/23/2018	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 1/23/2018			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	SM		Brown silty SAND, fine, little small to large, gravel, angular, little blue stone (base course), moist	0-1
			SM		Brown silty SAND, fine, trace debris (glass, slag), moist	
2		0.0			2	1-2
			SM		Brown silty SAND, fine, trace to little cobbles, concrete fragments, trace debris (glass, slag), concrete boulder at 2.5' to 3', moist	
	5.0	0.0			·	2-3
			ML		Brown SILT, little small to large gravel, rounded, moist	
4		0.0				3-4
			1			
		0.0			5	

Remarks:

		Λ	M
	•	и	71

BORING #: SUSDPGD21-R2

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447896.43 Easting: 1326099.44	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/23/2018	Drilling Method: DPT	Total Depth (ft): 3.2	
Finish Date: 1/23/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
	3.2	0.0	ASPHALT		0.5 Asphalt	0-1
			SW	//////	Gray SAND, fine to coarse, some small to large gravel, angular (base course), moist	
2		0.0	SM		Brown silty SAND, fine, little small to large gravel, angular, trace fill (slag), moist Refusal at 3.2'; irregular concrete boulder encountered	1-2
		0.0				2-3

3-4

Remarks:

Boring Log

BORING #: SUSDPGD21-S1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447896.81 Easting: 1326112.54	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/23/2018	Drilling Method: DPT	Total Depth (ft): 4.5	
Finish Date: 1/23/2018			

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		O.5 Asphalt	
L		0.0	SM		Grayish brown silty SAND, fine, some small to large gravel, angular (base course blue stone), moist	0-1
			SM		Brown silty SAND, fine, little small to large gravel, rounded, moist	
2		0.0		$ \cdot \cdot\cdot _{2}$	2	1-2
			SM		2.3 Brown silty SAND, fine, some clay, little gravel, small, angular, little fill (wire, slag, metal), moist	
	4.5	0.0	CONCRETE	D A A D	Concrete boulder	2-3
Γ]			ML		Brown SILT, little small to large gravel, rounded, moist	
4		0.0			4	
		0.0	SW	/////	Strong brown SAND, fine to coarse, little silt, little small to large gravel, rounded, moist Refusal on cobble at 4.5'	

Remarks:

		^		
Δ			$I\Lambda$	M
		\mathbf{v}		

BORING #: SUSDPGD21-S2

Sheet	1	of	1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels	
Project: Benning Road Facility	Northing: 447903.36 Easting: 1326106.56	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 1/24/2018	Drilling Method: DPT	Total Depth (ft): 2.8	
Finish Date: 1/24/2018			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			ASPHALT		0.5 Asphalt	
		0.0	SM		Brown silty SAND, fine, little small to large gravel, angular, moist	0-1
2	2.8	0.0	SM		Brown silty SAND, fine, some small to large gravel, angular to rounded, moist	1-2
		0.0	SM		Brown silty SAND, fine, some small to large gravel, rounded, moist to wet Refusal at 2.8' on irregular concrete	

Remarks:

Boring Log

BORING #: TA1E0

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert				
Project: Benning Road Facility	Northing: 448960.18 Easting: 1324064.34	Drilling Company: E2CR				
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA				
Start Date: 8/1/2017	Drilling Method: DPT	Total Depth (ft): 5				
Finish Date: 8/1/2017						

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		Large STONE and GRAVEL 1	
			ASPHALT		1.5 Asphalt	
2			SP		Brown SAND, fine to medium, trace silt, soft, loose, moist	1-2
	5.0	0.0			3	2-3
4			SP		Brown SAND, fine to medium, soft, loose, moist	3-4
		0.0			5	

Remarks:

Finish Date: 7/31/2017

Boring Log

BORING #: TA1E1

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448961.30 Easting: 1324111.62	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 7/31/2017	Drilling Method: DPT	Total Depth (ft): 5

Oepth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL	XXXXXX	0.2	
2	5.0	0.0	SPG		Dark brown/black SAND and GRAVEL, medium to coarse, medium to large, some rocks and stones (1/2" - 1"), brick fragments, loose, dry	0-1 1-2
4		0.0	SP		Orange brown SAND, fine to medium, trace gravel, loose, slightly moist	

Remarks:	

Boring Log

BORING #: TA1E10

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 448955.80 Easting: 1324577.18	Drilling Company: E2CR	
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA	
Start Date: 8/8/2017	Drilling Method: DPT	Total Depth (ft): 5	
Finish Date: 8/8/2017			

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
				XXXXXXX	0.2Stone cover	
		0.0	SM		Brown silty SAND, fine, some small to large angular gravel, moist	0-1
			SM		Strong brown silty SAND, fine, trace coal fragments, moist	
2		0.0			2	1-2
			SM		Strong brown silty SAND, fine, little small to large rounded gravel, trace debris (coal, brick fragments), moist	
L	5.0	0.0			3	
			SM	$[\cdot;\cdot;\cdot;\cdot]$	Grayish brown silty SAND, fine, little small to large subrounded gravel, moist to wet	
4		0.0			4	
			SM		Grayish brown silty SAND, fine, little small to large subrounded gravel, trace coal, moist to wet	
		0.0			5	

Remarks:

•	
\neg	
- 1	

Boring Log

BORING #: TA1-E11

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Ben Daniels
Project: Benning Road Facility	Northing: 448950.77 Easting: 1324616.15	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 1/30/2018	Drilling Method: DPT	Total Depth (ft): 4
Finish Date: 1/30/2018		
ength (m)		nple

O Depth (ft bgs)	Recovery Length (feet)	(mdd) Old	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL	MANANA A	10_1/Stone surface cover	1
		0.0	SM		Very dark brownish gray silty SAND, fine, small to large angular gravel, trace organics	0-1
2		0.0	GW-SP		Brown SAND graded to dark gray GRAVEL, fine, small to large, angular, moist	
	4.0		SM		Brown silty SAND, fine, little small to large gravel, subangular, trace fill (coal), moist	
L		0.0		`````	3	
4		0.0	MLS		Mixed brown and black sandy SILT, fine, little clay, little fill (coal), moist Refusal at 4.0' (boulder encountered) 4	

Remarks:

Boring Log

BORING #: TA1E9

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert					
Project: Benning Road Facility	Northing: 448947.70 Easting: 1324514.82	Drilling Company: E2CR					
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA					
Start Date: 8/3/2017	Drilling Method: DPT	Total Depth (ft): 5					
Finish Date: 8/3/2017							

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	epoo sosn	Graphic	Soil and Rock Description Classification Scheme: USCS	
			FILL SW		0.1/Stone cover Brown SAND, fine to coarse, angular GRAVEL, small to large, dry, compact	0.4
		0.0			1.2	0-1
2		0.0	GP	0000	Dark gray GRAVEL and WOOD, large angular, little silt, moist	1-2
-			SP		Brown to black SAND, fine, little medium to coarse sand, little subangular gravel, little debris (coal fragments, grain size	
	5.0	0.0			of fine sand to small angular gravel), silt, moist	
4	Tan to dark brown SAND, fine, little silt, trace medium to coarse sand, trace debris (brick, coal fragments), trace angular gravel, dry		Tan to dark brown SAND, fine, little silt, trace medium to coarse sand, trace debris (brick, coal fragments), trace fine angular gravel, dry			
		0.0	SM		Tan to dark brown silty SAND, fine, little fine to coarse sand, trace small to large angular gravel, trace debris (brick, coal fragments), moist 5	

Remarks:

Boring Log

BORING #: TA1G10

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert					
Project: Benning Road Facility	Northing: 449062.09 Easting: 1324566.88	Drilling Company: E2CR					
Project # : 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA					
Start Date: 8/4/2017	Drilling Method: DPT	Total Depth (ft): 5					
Finish Date: 8/4/2017							

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
		0.0	FILL		0-2" large stone cover; 2-8" crushed rock and stone 0.6	0-1
L		0.0	SP		Brown SAND, medium to coarse, dry, compact, trace small gravel	0-1
			SP		Brown SAND, medium to coarse, dry, compact, trace small gravel, trace coal slag fragments	
2		0.0			2	1-2
			SP		Brown SAND, medium, some sandy silt, dry, compact	
	5.0	0.0			3	
			SP		Dark brown SAND, medium, some sandy silt, dry, compact	
4		0.0				
		0.0			5	

Boring Log

BORING #: TA1G9

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert					
Project: Benning Road Facility	Northing: 449067.33 Easting: 1324522.94	Drilling Company: E2CR					
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA					
Start Date: 8/4/2017	Drilling Method: DPT	Total Depth (ft): 5					
Finish Date: 8/4/2017							

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL		0-0.2' loose stone and gravel, weeds; 0.2-1' crushed rock and stone	
		0.0			1	0-1
			SP		1.5 Black SAND, medium to coarse, crushed coal, dry	
2		0.0	SP		Brown SAND, medium, trace small gravel, dry	1-2
			SP		Brown SAND, medium, trace small gravel, trace small stone, dry	
	5.0	0.0			3	2-3
			SP		Brown SAND, medium, some stones (1/2 - 1"), some silty clay	
4		0.0				
			OL		4.3 Light brown/tan SILT, tight, high plasticity	
		0.0	J. J.		Eight brownivan Sier, tight, night plasticity	

Boring Log

BORING #: TA1H9

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449094.64 Easting: 1324523.72	Drilling Company: E2CR
Project #: 60340344	Surface Elevation (msl): NA	Groundwater Encountered (ft bgs): NA
Start Date: 8/4/2017	Drilling Method: DPT	Total Depth (ft): 5
Finish Date: 8/4/2017		

O Depth (ft bgs)	Recovery Length (feet)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Interval (feet)
			FILL	XXXXXX	0.2Large stone cover	
		0.0	SPG	φ	Dark gray SAND and GRAVEL, coarse, large, some stones (1/4 - 1/2") dry, compact, some concrete debris	0-1
			SP		Dark gray/brown SAND, coarse, some silt, trace stones, moist, some concrete debris	
2		0.0			2	1-2
			MLS		Dark gray/brown sandy SILT, trace small gravel, moist, medium plasticity	
	5.0	0.0			3	
4		0.0	MLS		Dark gray/brown sandy SILT, trace small gravel, moist, medium plasticity, moist	
-7		0.0			5	

Remarks:



Phase II Sediment Boring Logs

Boring Log

BORING #: SED1.5B

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 447688.20 Easting: 1323208.90	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -3.136425339	Drilling Method: Vibracore
Start Date: 6/15/2017	Depth of Coring (fbm): 8	Recovery (ft): 7.6
Finish Date: 6/15/2017	Surface Sample Method: Petite Ponar	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		ML		Dark gray SILT, saturated, some sand, fine to medium, trace organics (leaves)	
	0				0-1
	0				0-1
 		-			
	0			1.6	
	0	SP		Dark gray SAND, fine to medium, mica fragments, moist, trace silt	
2	0	_			
	0.5				
	0.5	MLS		2.75 Dark gray sandy SILT, fine to medium, moist, some leaves, organic lens (leaves and twigs) from 3 to 3.1 ft. and 3.4 to 3.5 ft., trash (plastic) at 5.4 ft.	2-3
	0.6			(plasue) at 3.4 it.	
4	0.5	-			
	0.6				4-5
	1.1				
	0.5				
6	1.3				
	2]			6-7

Remarks:	Remarks:
----------	----------

Boring Log

BORING #: SED1.5C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447788.50 Easting: 1323332.00	Drilling Company: Normandeau Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore	
Start Date: 6/21/2017	Depth of Coring (fbm): 10	Recovery (ft): 8	
Finish Date: 6/21/2017	Surface Sample Method: Petite Ponar		

		-		Carrage Carrage Treatment 1 care 1 care	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		ML		Dark gray SILT, some sand, fine to medium, some organics (leaves and twigs), moist, plastic trash (plastic) at 3.9 ft.	
	0				0-0.33
					0.33-0.67
	0				0.67-1
	0.1				1-1.33
		-			1.33-1.67
2	0.1				1.67-2
	2.1				2-2.33
	0.1	_			2.33-2.67
	0.3				2.67-3
					3-3.33
	1.9				3.33-3.67
	1.9				3.67-4
4		-			
	1.4	GW		1.4 Dark gray/black GRAVEL, well-graded, moist, some organics (twigs), trash (plastic) at 5.25 ft.	4-4.33
	3.3			Built gray/back of the E., Hell graded, most, some organice (imgs), tradit (placed) at 0.20 ft.	4.33-4.67
-	3.3				4.67-5
	5				5-5.33
					5.33-5.67
6	2.8				5.67-6
	3.6	ML		Dark gray SILT, some sand, fine to medium, some organics (leaves and twigs), moist, sand lens at 6.46 to 6.5 ft., fine to medium	6-6.33
		-			6.33-6.67
	1.3				6.67-7
	1.2				7-7.33
	0.9				
8	0.0				
├ ┤					
10		<u> </u>	1	10	
		R	Remarks:		

Remarks:

Boring Log

BORING #: SED4B

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448900.30 Easting: 1323088.70	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -5.7875	Drilling Method: Vibracore
Start Date: 6/14/2017	Depth of Coring (fbm): 8.1	Recovery (ft): 8
Finish Date: 6/15/2017	Surface Sample Method: Petite Ponar	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		SP		Dark gray SAND, fine to medium, some silt, some organics (leaf material), trace clam shell, organic odor, trace mica fragments, saturated, compact	
	0				0-1
	0			1.1	
	0	MLS		Dark gray sandy SILT, trace sand, fine to medium, organic odor, trace organics (leaf material), saturated, soft	
2	0.3	SP		2	
	2.8	SP		Dark gray SAND, fine to medium, some silt, some organics (leaf material), trace clam shell, organic odor, trace mica fragments, saturated, compact	
	1.2				2-3
	1.2				
	3.3				
	4.0		<u>, , , , , , , , , , , , , , , , , , , </u>	3.75	
4	4.8	PT ML		3.9 Organic lens of leaves and sticks Dark gray SILT with trace sand, organic lens (leaves and sticks) from 5.46 to 5.5 ft.	
	2.4				
	2.1				4-5
<u> </u>	2.1				
	1.7				
6	3			0.05	
	3.7	MLS		6.25 Bark gray sandy SILT, trace sand, fine to medium, mica fragments, organic odor, trace organics/leaf material, saturated, soft	
		SP		SAND, fine to medium, trace silt, mica fragments, saturated, compact	6-7
	7.7				
	4.1				7-8
	2.6				
8				8.1	
			1-1-15-15-1	(U. 1	J

-			4
Δ		Л	Л
		•	

BORING #: SED4C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 448888.10 Easting: 1323146.10	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -3.655555556	Drilling Method: Vibracore
Start Date: 6/14/2017	Depth of Coring (fbm): 10	Recovery (ft): 9.8
Finish Date: 6/14/2017	Surface Sample Method: Petite Ponar	
		_

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	1.2	ML		Dark gray SILT with fine sand, some leaves, shells, twigs, medium plasticity, sand lens from 26 to 27 and 45 to 48 in., organic lens from 50 to 52, 56 to 58, 64 to 66, 73 to 75, and 84 to 85 in., organic odor from 45 to 48 in.	
	1.1				0-1
	1.6				
2	2.1				
	3.1				
	9.7				2-3
	17.8				
4	10.2				
	6.5				
	5.7				4-5
	9.1				
6	6.9				
	14.2				0.7
	7.5				6-7
	10.4				
8	5.9			8.1	
	8.2	ML		Dark gray SILT with fine sand, some leaves, shells, twigs, medium plasticity, gradual increase in stiffness to medium stiffness	8-9
	5.8				8-9
	7.5				
10				10	
		R	emarks:		

Boring Log

BORING #: SED5B

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert				
Project: Benning Road Facility	Northing: 449349.10 Easting: 1323266.70	Drilling Company: Normandeau Env.				
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -8.513265306	Drilling Method: Vibracore				
Start Date: 6/19/2017	Depth of Coring (fbm): 6.7	Recovery (ft): 6.7				
Finish Date: 6/19/2017	Surface Sample Method: Petite Popar					

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		ML		Dark gray, SILT, some fine sands, trace organics (twigs), saturated	0-0.33
	0				0.33-0.67
	0	SP		OAND, file to fredidiff, trace organics	0-1 0.67-1
F -		ML		1.1 Dark gray SILT, some fine sand, moist, petroleum like odor, sand lens from 22.5 to 30 ft., fine to medium	
	3.8	IVIL		San gray St. 1, Some the Sand, most, periodent inc Soot, Sand fold from 22.3 to 50 ft., the to Heddin	1-1.33
	5.7				1.33-1.67
2	5.7				1.67-2
	6.1				2-2.33
					2.33-2.67 2-3
	3.6				2.67-3
	6.4				3-3.33
	0.4				3.33-3.67
4	5.4				3.67-4
					4-4.33
	4.4				4.33-4.67
	5.9	SM		4.8 Dark gray silty SAND, fine to medium, some organics (leave and twigs)	4-5 4.67-5
		1			5-5.33
	2.5				5.33-5.67
	1.9	SW	1.77.7	5.75 Dark gray SAND, fine to coarse, tight, moist	
6	1.5		/ <u>·</u>	Built gray of wite, file to course, tight, filest	5.67-6
	1.5		<u>/////</u>		6-6.33 6-7
			17.7.	6.7	

Boring Log

BORING #: SED5C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449338.10 Easting: 1323337.10	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -1.867763158	Drilling Method: Vibracore
Start Date: 6/14/2017	Depth of Coring (fbm): 10	Recovery (ft): 9.8
Finish Date: 6/14/2017	Surface Sample Method: Petite Ponar	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.3	ML		Dark gray SILT, trace sand, fine, trace organic material (roots, leaves), fine sand lens from 18-19 in., moist	
	1.2				0-1
	1.2			1.5	
2	1.5	ML		Dark gray SILT, trace mica, organic odor, trace fine sand, moist	
	1.8				
	2.2				2-3
	1.1				
4	1				
	1.2				
	1.7				4-5
	1.8				
6	1.5				
	1.7				
	2.2				6-7
	1.2				
8	1.7				
	1.3				8-9
	1.1	-		9	o- y
	0.7	SP		Dark gray SAND with silt, fine, trace mica, moist	
10				10	
		R	Remarks:		

Beltsville, MD 20705

Boring Log

BORING #: SED6.5D

Sheet 1 of 1

Client: Pepco					Location: 3400 Benn	ing Road, Wash	nington, DC	Logged By: Dan Hulbert	_	
Project: Benning Road Facility					Northing: 449651.80	Easting:	1323798.20	Drilling Company: Normandeau Env.		
Projec	t#: 6034	40344			Top of Sediment Eleva	tion (ft MLLW):	2.64	Drilling Method: Vibracore		
Start I	Date: 6/2	/22/2017 Depth of Coring (fbm): 9.5 Recovery (ft): 9.2								
Finish	Date: 6/	27/2017			Surface Sample Metho	d: Petite Pona	ar			
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic		Soil and Rock Description Classification Scheme: USCS					
	_	ML		0.23	gray SILT, saturated, trace organi				0-0.33	
	0	ML		Dark (gray SILT, some sand, fine to me	dium, some organics	(roots and leaves), soft,	moist	0-1	
	0.7									
	0.4									
2	3.1			2						
_		ML		Dark	gray SILT, trace sand, fine to med	lium, soft to medium	stiff, some organics (roc	ots and leaves)		
	1.9								2-3	
	1.7									
	1.4									
4	1.6									
	1								4-5	
	1.1									
	2									
6	1.1									
	0.7								6-7	
 	0.9								V-1	
	0.7									
8	0.5									
	0.6								8-9	
	9.5									
		R	emarks	: Porewater	Sample Collected					
800	COM 00 Virginia ite 110	Manor R			,					

-			~		4
Δ				Л	И
	_	_			_

BORING #: SED6.5E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 449649.40 Easting: 1323969.80	Drilling Company: Normandeau Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): 1.69	Drilling Method: NA	
Start Date: 6/8/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33	
Finish Date: 6/8/2017	Surface Sample Method: Petite Ponar		

O Oepth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	MLS		Dark gray SILT and SAND, fine, loose, large stones (0.5-1 in.), sticks, trash 0.3	0-0.33

Remarks: Porewater Sample Collected

-		

-			~		4
Δ				Л	И
	_	_			_

Finish Date: 6/8/2017

Boring Log

Surface Sample Method: Petite Ponar

BORING #: SED6A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449707.20 Easting: 1323401.30	Drilling Company: Normandeau Env.
Project # : 60340344	Top of Sediment Elevation (ft MLLW): -6.122222222	Drilling Method: NA
Start Date: 6/8/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33

USCS Code PID (ppm) Graphic Depth (ft bgs) Soil and Rock Description Classification Scheme: USCS SM Dark gray silty SAND, loose, leaves, some sticks and shells 0-0.33 NA

Remarks: Porewater Sample Collected

-			~		4
Δ				Л	И
	_	_			_

BORING #: SED6B Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert		
Project: Benning Road Facility	Northing: 449687.40 Easting: 1323424.80 Drilling Company: Normandeau	Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -7.644444444 Drilling Method: NA		
Start Date: 6/8/2017	Depth of Coring (fbm): 0.33 Recovery (ft): 0.33	Recovery (ft): 0.33	
Finish Date: 6/8/2017	Surface Sample Method: Petite Ponar		

Oepth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	
	NA	SM		Dark gray silty SAND, loose, leaves, some sticks, shells 0.3	0-0.33

Remarks: Porewater Sample Collected

-			~		4
Δ				Л	И
	_	_			_

BORING #: SED6C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert				
Project: Benning Road Facility	Northing: 449590.20 Easting: 1323525.10	Drilling Company: Normandeau Env.				
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: NA				
Start Date: 6/7/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33				
Finish Date: 6/7/2017	Surface Sample Method: Petite Popar					

Oepth (ft bgs)	PID (ppm)	USCS Code	Grapnic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	ML		Dark gray SILT, loose, saturated, some shells, twigs, trace trash 0.3	0-0.33

Remarks: Porewater Sample Collected

-			~		4
Δ				Л	И
	_	_			_

BORING #: SED7.5D Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449865.90 Easting: 1323906.90	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): 2.55	Drilling Method: NA
Start Date: 6/9/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/9/2017	Surface Sample Method: Petite Ponar	

Depth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	ML		Dark gray clayey SILT, saturated, high plasticity, some trash, trace twigs and leaves 0.3	0-0.33

Remarks: Porewater Sample Collected

_		~		
A			Λ	И

BORING #: SED7.5E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449782.70 Easting: 1324043.60	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): 1.6	Drilling Method: NA
Start Date: 6/8/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/8/2017	Surface Sample Method: Petite Ponar	

Oepth (ft bgs)	(mdd) Old	USCS Code	Grapnic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	NA	ML		Dark gray SILT, loose, saturated, some sticks/twigs and leaves, organic sheen 0.3	0-0.33

Remarks: Porewater Sample Collected

А		\frown		4
A		U	Λ	Л

BORING #: SED7A

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449966.00 Easting: 1323526.80	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -3.937931035	Drilling Method: NA
Start Date: 6/9/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/9/2017	Surface Sample Method: Petite Ponar	

O Depth (ft bgs)	PID (ppm)	apos sosn	 Grapnic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	ML		Dark gray SILT, loose, soft 0.3	0-0.33

Remarks: Porewater Sample Collected

A		~		4
A		U	Λ	/

BORING #: SED7B Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449847.40 Easting: 1323647.80	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -2.305102041	Drilling Method: NA
Start Date: 6/7/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/7/2017	Surface Sample Method: Petite Ponar	

	O Oepth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
1		0	CL-ML	o.	Dark gray SILT and CLAY, loose, high plasticity, trace sand, saturated, shells, snails, twigs, sheen, petroleum-like odor	0-0.33

Remarks: Porewater Sample Collected

Boring Log

BORING #: SED7D

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449789.60 Easting: 1323814.30	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): 2.26	Drilling Method: Vibracore
Start Date: 6/27/2017	Depth of Coring (fbm): 10	Recovery (ft): 9.7
Finish Date: 6/27/2017	Surface Sample Method: Petite Ponar	
m m c c c c c c c c c c c c c c c c c c		pple

O Depth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	ML		Dark gray SILT, trace sand, fine to medium, moist, soft	0-0.33
	0.7				0-1
	0.9				
2	0.8				
	1				2-3
	0.8				
	1.5				
4	1.8	ML		3.75 Dark gray SILT, trace sand (fine to medium), moist, soft, black staining, petroleum odor	
	5.4				
	4.6				4-5
	8.6				
				5.8	
6	4.4	SP			
	4.1	ML	П	Dark gray SILT, trace sand, fine to medium, moist, soft	6-7
	2.6				
	4.4				
8	4.4				
	4				
	2				8-9
	2				
10		_		Descriptor Sample Collected	<u> </u>

Remarks: Porewater Sample Collected

Boring Log

BORING #: SED7E

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449728.20 Easting: 1323942.70	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): 1.81	Drilling Method: Vibracore
Start Date: 6/22/2017	Depth of Coring (fbm): 9.25	Recovery (ft): 8.25
Finish Date: 6/22/2017	Surface Sample Method: Petite Ponar	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	SP		Dark gray SAND, fine to medium, trace silt, some gravel (0.25-0.5 in.), moist to saturated	0-0.33
	0	_			0.33-0.67
	0.7				0.67-1
	0.9	ML		1.25 Dark gray SILT, trace sand, fine to medium, soft, saturated	1-1.33
					1.33-1.67
2	1.1	-			1.67-2
	1.2				2-2.33
		-			2.33-2.67
-	1.8	-			2.67-3
	2				3-3.33
				3.9	3.33-3.67
4	5.1	ML		Dark gray SILT, trace sand, fine to medium, soft, black staining, moist, petroleum like odor	3.67-4
	13.2				4-4.33
	5.8				4.33-4.67
-	5.0				4.67-5
	5.3				5-5.33
6	5.7				5.67-6
0		-			6-6.33
	5.9	- SP		6.4 Dark gray SAND, fine to medium, some silt, black staining, saturated	6.33-6.67
	5.2				6.67-7
		-		7.4	7-7.33
	5	- SP		7.4 Dark gray SAND, fine to medium, soft, saturated	7.33-7.67
8	6.3				7.67-8
	5.3				
				9.25	

Remarks:	Porewater Sample Collected
AECOM 8000 Virginia Manor Road Suite 110	
Beltsville, MD 20705	

-		-	_	4
Δ			Λ	Л
		$\overline{}$		4

BORING #: SED7F

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 449660.60 Easting: 1324119.90	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): 2.11	Drilling Method: NA
Start Date: 6/8/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/8/2017	Surface Sample Method: Petite Ponar	

Oepth (ft bgs)	(mdd) Old	USCS Code	1	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	NA	ML			Dark gray SILT, loose, some sand, coarse, saturated, some sticks/twigs and leaves 0.3	0-0.33

Remarks: Porewater Sample Collected

-				
Δ			Λ	M
		_	•	

BORING #: SED8A

bert	
ormandeau Env	

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 450167.50 Easting: 1323627.00	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -1.817602041	Drilling Method: NA
Start Date: 6/9/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/9/2017	Surface Sample Method: Petite Ponar	

Oepth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	ML	0.3 Dark gray SILT,	loose, soft	0-0.33

Remarks: Porewater Sample Collected

-			~		4
Δ				Л	И
	_	_			_

BORING #: SED8B Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 450124.40 Easting: 1323699.80	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -6.6375	Drilling Method: NA
Start Date: 6/9/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/9/2017	Surface Sample Method: Petite Ponar	

:	O Depth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		0	SM	· · · · · · o	Dark gray silty SAND, loose, saturated, some corbicula (clams)	0-0.33

Remarks:

orewater Sample Collected		

	_	~	M	•
4			JN	И

BORING #: SED8C

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 450062.60 Easting: 1323810.50	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): -1.56	Drilling Method: NA
Start Date: 6/7/2017	Depth of Coring (fbm): 0.33	Recovery (ft): 0.33
Finish Date: 6/7/2017	Surface Sample Method: Petite Ponar	

Depth (ft bgs)	(mdd) Old	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	ML		Dark gray SILT, loose, some sand, fine, saturated, some shells, twigs 0.3	0-0.33

Remarks: Porewater Sample Collected

А				
Δ			$I\Lambda$	И
	•	\mathbf{U}		,

BORING #: SEDBACK16

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 461605.40 Easting: 1329539.60	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/22/2017	Depth of Coring (fbm): 3	Recovery (ft): 3.9
Finish Date: 6/22/2017	Surface Sample Method: Petite Ponar	
Start Date: 6/22/2017	Depth of Coring (fbm): 3	Drilling Method: Vibracore

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		ORGANICS	74 18. 77 18. 71	Dark gray organics (leaves, twigs, wood), trace silt, trace sand, fine to medium, saturated, slight sewage like odor	0-0.33
	0.4		1/. 21.1/		0-0.33
		1	<u> </u>		
	5	- SP	<i>i,</i> ; ; , ; , ; 0.		
		3 34		Dark gray SAND, fine to medium, some silt, moist, some organics (leaves, twigs, wood)	
	7.5				
					1-3
2	0.8				
	0.8)			
			3		

Remarks: Porewater

F	Porewater	Sample	Collected

Λ				
A		U	Λ	И

BORING #: SEDBACK17

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 459358.20 Easting: 1329694.40	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/21/2017	Depth of Coring (fbm): 4.1	Recovery (ft): 3.3
Finish Date: 6/21/2017	Surface Sample Method: Petite Poper	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	SM		Dark gray sandy SILT, fine to medium sand, saturated, 4 to 4.5 in. and 9.5 to 10 in. organic lens (leaves and twigs)	0-0.33
	0.4				
	0.2			1.5	
2	0.2	ML		Dark gray SILT, moist, some sand, fine to medium, trace mica, moist, soft, 23.5 to 24 in. organic lens (leaves and twigs)	
	1.4				1-3
	0.3				
	1				
_ 4				4.1	

Remarks: Porewater Sample Collected

Λ					4
A	=	L	U	Λ	И

Finish Date: 6/21/2017

Boring Log

Surface Sample Method: Petite Ponar

BORING #: SEDBACK18 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 456839.30 Easting: 1329623.30	Drilling Company: Normandeau Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore	
Start Date: 6/21/2017	Depth of Coring (fbm): 3.25	Recovery (ft): 1.5	

O Depth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.3	SP		Dark gray SAND, fine to medium, trace silt, tight, some organics (twigs and leaves). clam shells, some gravel and stones, moist to saturated, no odor	0-0.33
	0.9				
	0.3				1-3
2					
-				3.25	

Remarks: Porewater Sample Collected

Λ				
A		U	Λ	И

BORING #: SEDBACK19 Sheet 1 of 1

		t
		1
		ı

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 455288.90 Easting: 1328365.20	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/20/2017	Depth of Coring (fbm): 2.25	Recovery (ft): 1.75
Finish Date: 6/20/2017	Surface Sample Method: Petite Ponar	

O Depth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.52	SW		Dark gray SAND, well graded, saturated to moist, large stones (1-1.5), organic odor	0-0.33
	0.02		/////		
ļ _	0.1		/////		
	0.1		////		1-3
			<u>////</u>		-
2			/////	2.25	

Remarks: Porewater Sample Collected

_				

Λ				
A		U	Λ	И

BORING #: SEDBACK20 Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 454320.60 Easting: 1325556.60	Drilling Company: Normandeau Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore	
Start Date: 6/20/2017	Depth of Coring (fbm): 7.8	Recovery (ft): 4.3	
Finish Date: 6/20/2017	Surface Sample Method: Petite Ponar		

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
Ť		ORGANICS	3 74 1× - 77 1× - 7	Organics (leaves and twigs)	0-0.33
	0.1		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	0.5	0-0.55
	0.1	SP		Dark gray SAND, fine to medium, moist, some organics (leaves and twigs), no odor	
	0.2	-			
2	0.1				
	0.2	ML		Dark gray SILT, trace sand, fine to medium, trace organics, moist, no odor	1-3
				2.8	
L -	0.4	SP		Dark gray SAND, fine to medium, moist, some organics (leaves and twigs)	
	0.3	-			
4	0.3				
	0.4				3-5
6					
				7.8	

Remarks:	Porewater Sample Collected
or Road	

		\frown		
Δ			Λ	v
			м	•

BORING #: SEDBACK21

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 452024.50 Easting: 1324615.00	Drilling Company: Normandeau Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore	
Start Date: 6/14/2017	Depth of Coring (fbm): 4	Recovery (ft): 4	
Finish Date: 6/14/2017	Surface Sample Method: Petite Ponar		

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	2	SP		Dark gray SAND, fine to medium, mica fragments (7-16 in.), moist, compact, little trash, little leaf materials	0-0.33
ļ _	10.3				
	3.5	SP		1.3 Black coal and SAND, medium to coarse, well graded gravel and stone as big as 2 in., moderate petro related odor	
2	36.2				
	10.5			2.4	1-3
		ML		Dark gray SILT, soft, moist to saturated	
L _	10.2				
	8.5				
	12.6				3-5
4				4	

Remarks:

А				
Δ			$I\Lambda$	И
	•	\mathbf{U}		,

BORING #: SEDREF01
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert	
Project: Benning Road Facility	Northing: 447475.10 Easting: 1323134.10	Drilling Company: Normandeau Env.	
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore	
Start Date: 6/16/2017	Depth of Coring (fbm): 5.8	Recovery (ft): 5.8	
Finish Date: 6/19/2017	Surface Sample Method: Vibracore		

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	SP		Dark gray SAND, fine to medium, saturated, some silt, clam shells, trace organics (leaves and twigs) 0.5	
	0.1	SP		Dark gray SAND, fine to medium, moist, some silt, clam shells, trace organics (leaves and twigs), organic lens (leaves and twigs) from 12 to 16 in. and 46 to 48 in., trash debris and 48 in.	0-1
	0				
2	1.9				
	2.6				2-3
-	1.8				
	2.7				
4	3.5			4	
	11.5	ML		Dark gray SILT, some sand, fine to medium, soft, organic odor, trash debris at 50 in.	
	4.7				4-5
	1.7				
	1.4			5.8	

Remarks:	:
----------	---

_				
-				
_				

Λ					4
A	=	L	U	Λ	И

Finish Date: 6/15/2017

Boring Log

BORING #: SEDREF02 Sheet 1 of 1

Client: Pepco Location: 3400 Benning Road, Washington, DC Logged By: Dan Hulbert Project: Benning Road Facility **Northing:** 447498.70 **Easting:** 1323199.70 Drilling Company: Normandeau Env. Top of Sediment Elevation (ft MLLW): NA Drilling Method: Vibracore Project #: 60340344 Start Date: 6/15/2017 Depth of Coring (fbm): 10 Recovery (ft): 9.2 Surface Sample Method: Vibracore

				P	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		SP	4.500,000	Dark gray SAND, fine to medium, some silt, saturated, trace organics (leaves), shells, mica fragments, soft	
	0				
	-	-			0-1
	0.7			0.9	
F +	0.7	ML		Dark gray SILT, trace sand, fine, trace mica fragments, trace organics (leaves), moist, soft, sand lens from 20 to 21 ft., fine to	1
	0			medium	
	0				
2	0.4				
	0.6				
					2-3
	2.1				
	1.1				
		-			
4	2.6				
-		-			
	2.6				
					4-5
	2.8				
F +		-			
	1.5				
	3.5				
6	3.3	-			
	2.0				
	3.2	-			6-7
	4.0			6.9	3-7
 	4.3	SP		Dark gray SAND, fine to medium, compact, trace mica fragments, trace silt, moist, decomposed pieces of wood	
	2.8				
8	3.5				
1	4	1			
]					
10				10	
		•			•
1		R	Remarks:		

Remarks:

Boring Log

BORING #: SEDREF03

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 445798.70 Easting: 1322638.70	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/15/2017	Depth of Coring (fbm): 10	Recovery (ft): 9
Finish Date: 6/15/2017	Surface Sample Method: Vibracore	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0	SP		Dark gray SAND, fine to medium, some silt, moist, trace trash, trace mica fragments, trace shells	
	0.5				0-1
	0.3	-		1.5	
2	1.2	SM		Dark gray sandy SILT, fine to medium, organic odor, trace mica fragments, soft, moist to saturated, sand lens from 45 to 47 in., fine to medium	
	1.6				
	0.7				2-3
	0.8	_			
4	1.3	-			
	1	-			4-5
	0.7			5	
	0.4	ML		Dark gray SILT, trace sand, fine, moist, stiffens as it gets deeper	
6	0.6				
	0.5	_			6-7
	0.2	ML		6.8 Very dark gray SILT, trace sand, fine, moist, stiffens as it gets deeper	-
	0.1	_			
8	0	-			
	0	-			8-9
-	0				-
10				10	
		F	Remarks:		

Λ					4
A	=	L	U	Λ	И

BORING #: SEDREF04

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 445793.70 Easting: 1322717.00	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/16/2017	Depth of Coring (fbm): 10	Recovery (ft): 8.6
Finish Date: 6/16/2017	Surface Sample Method: Vibracore	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.1	SP		Dark gray SAND, fine to medium, some silt, moist, slight indistinguishable odor, trace organics, shells, leaves, trace mica, organic lens (leaves and twigs) from 27 to 27.5 in.	0-1
	2				
-	2.7				
2	1.3				
_	1.6				2-3
	1				-
	1.1	ML	1	3.2 Dark gray SILT, some sand, fine to medium, moist, soft, trash (plastic debris) at 48 in.	
4	2.8	ML		4	
	3.2	IVIL		Dark gray SILT, some fine to medium sands, moist, soft, black staining, petroleum like odor	4-5
	3.1				
	4.3				
6	4				
	2.5				6-7
	2.3				
	3.1				
8	3.6				
	2.7				8-9
10				10	

Remarks:

Boring Log

BORING #: SEDREF05

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 445796.30 Easting: 1322846.30	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/16/2017	Depth of Coring (fbm): 10	Recovery (ft): 9.8
Finish Date: 6/16/2017	Surface Sample Method: Vibracore	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.1	SP		Dark gray SAND, fine to medium, some silt, some organics (leave and sticks), moist	
	0.1	ML		0.5 Dark gray SILT with trace sand, fine, black intermittent staining, petroleum like odor, moist, sand lens from 18 to 19 in., fine to medium	0-1
	3				
2	2.9				
	2.4				
	2.1	ML		2.7 Dark gray SILT with trace sand, fine, sand lens from 51 to 52 in. and at 63 in., fine to medium	2-3
† †	2.1				
4	2.2				
	3.3				4-5
	4.1				
	2.7				
6	1.9				
	1.8				
	1.9	ML	_	6.7 Dark gray SILT with trace fine sands, organics, leaves, intermixed throughout	6-7
	0.8				
8	1.1				
J	0.8				8-9
	0.9				
10			l	10	

А			
A	=		VI

BORING #: SEDREF06

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 444613.50 Easting: 1322461.10	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/16/2017	Depth of Coring (fbm): 10	Recovery (ft): 10
Finish Date: 6/16/2017	Surface Sample Method: Vibracore	

—		1	1	- Carrier Carrier Medical Carrier	
O Depth (ft bgs)	PID (ppm)	nscs code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		ML		Dark gray SILT with some sand, fine to medium, black intermittent staining, staining fades towards bottom of core, petroleum-like odor, oraganic lens with sand from 38 to 39 in., 45 to 45.5 in., and 56 to 56.5 in., fine to medium	
	0.2	-		Cook, oraganio eno marcana nomos to comin, ao to accomin, ana como comin, inici to mediam	0-1
	1.1				
	2				
	2	_			
2	2.2	-			
	4.5				
		-			2-3
	8.5				
	7.8				
4	6				
-		-			
	5.3	-			4-5
	5.2				
	4.2				
		-			
6	4.7	_			
	5.9				
	5.4				6-7
h +		-			
	8.7				
8	8.4				
	5.4				
	5.4	_			8-9
	5.5	-			
	7.7				
	12.3				
10				10	

Remarks:

Λ					4
A	=	L	U	Λ	И

BORING #: SEDREF07
Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 444275.60 Easting: 1322239.60	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/16/2017	Depth of Coring (fbm): 10	Recovery (ft): 10
Finish Date: 6/16/2017	Surface Sample Method: Vibracore	

O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
		SP		Dark gray SAND, fine to medium, saturated, with organic material (leaves and twigs) 0.4	
	0	SP		Dark gray SAND, fine to medium, trace silt, mica fragments, trace organic matter (leave and twigs), organic odor	0-1
-	0.4	_			
	1.3	ML		1.3 Dark gray SILT, some sand, fine to medium, moist to saturated, fine to medium sand lens from 29 to 30 in. and at 55 in., moist to saturated, organic lens (leaves and twigs from 42 to 43 in., 49 to 50 in., trash debris (plastic) at 59 in.	
2	0.8			saturated, organic lens (leaves and twigs norm 42 to 40 int., 49 to 30 int., dash debris (plastic) at 39 int.	
	1.4				
	0.9	-			2-3
-	0.9	_			
		_			
4	0.8	_			
	0.9	-			4-5
	1.1			4.9	
	1.2	- SP		Dark gray SAND, fine to medium, with some silt, satruated	
	1.3	-			
6		SP	-	Dark gray SAND, fine to medium, with some silt, satruated, intermittent black staining and slight petroleum like odor	
	2.1	_			6-7
-	3.3	_			
	4.8	_			
8	3.4	-			
	5.6	-			8-9
	5.2				<u> </u>
	4.7				
10	3.5			10	
1			omarke:		

Remarks:

Boring Log

BORING #: SEDREF08

Sheet 1 of 1

Client: Pepco	Location: 3400 Benning Road, Washington, DC	Logged By: Dan Hulbert
Project: Benning Road Facility	Northing: 444295.40 Easting: 1322362.10	Drilling Company: Normandeau Env.
Project #: 60340344	Top of Sediment Elevation (ft MLLW): NA	Drilling Method: Vibracore
Start Date: 6/16/2017	Depth of Coring (fbm): 10	Recovery (ft): 9.7
Finish Date: 6/19/2017	Surface Sample Method: Vibracore	

1 111131	Date. 0	713/2017		Surface Sample Metriod. Vibracore	
O Depth (ft bgs)	PID (ppm)	USCS Code	Graphic	Soil and Rock Description Classification Scheme: USCS	Soil Sample Identification
	0.5	SP		Dark gray SAND, fine to medium, strong human waste odor, trace silt, plastic debris, clam shells, moist, medium soft	
	2.1				0-1
	2.5	ML		1.2 Dark gray SILT, trace fine to medium sand, black staining, petroleum like odor, moist, medium soft, sand lens from 48 to 60 in. and 60.75 to 61 in., fine to medium, strong petroleum-like odor from 48 to 60 in.	
2	1.9	-			
	4.7	_			2-3
	5.5	_			
	4.3	_			
4	7.4	-			
	3.4	-			4-5
-	6.7	-			
	3.8 4.2	_			
6	3.5	_			
	8.1	-			6-7
	9.3				
8	10.4				
	8.6	-			8-9
-	10.8	-			
	6.6				
10	0.0			10	
1		_			

Remarks: