

Appendix F

Boring Logs

Boring logs for the remaining sample locations in Garfield Avenue collected via soil core are included in this Appendix. Logs were not generated for grab samples collected during excavation activities, typically designated by “PB”, “SWE”, or “SW” in the Location ID. In addition, boring logs were not identified for the following locations:

114GAR-3
TPA
TPB

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe Dual Tube	Coordinates (NJSPNAD83) x: 610983.848
Date Started Drilling: 5/3/2017 8:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683775.904
Date Finished Drilling: 5/3/2017 10:00:00 AM	Core Size: 2.0 in	Boring Total Depth: 18 ft
Logged By: S. Paige	Project Manager: Scott Mikaelian	Depth to Water: 10.0 ft
Physical Location: Actual-WS		Surface Elevation: 14.098 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1	3	0.0	dry to wet	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to wet, no odor, no staining, water at 10.0 feet.		
2								
3								
4								
5	3	0.0						
6								
7								
8								
9								
10	2	0.0						
11								
12								
13								
14								
15	3	0.0	dry	SM		fine to medium silty SAND, trace fine to medium gravel, (7.5YR 3/2) dark brown, dense, dry, no odor, no staining. Soils consistent with UNDno.	114-A5B-WS-15.0-15.5	
16			dry to moist	SP			medium to coarse SAND, (5YR 4/3) reddish brown, dense, dry to moist, no odor, no staining, refusal at 18.0 feet. Soils consistent with UNDno.	114-A5B-WS-17.0-17.5
17								
18								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe Dual Tube	Coordinates (NJSPNAD83) x: 610998.79
Date Started Drilling: 5/2/2017 12:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683799.831
Date Finished Drilling: 5/2/2017	Core Size: 2.0 in	Boring Total Depth: 26 ft
Logged By: S. Paige	Project Manager: Scott Mikaelian	Depth to Water: 8.0 ft
Physical Location: Actual-WS		Surface Elevation: 14.222 ft NAVD88

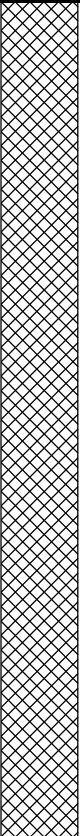
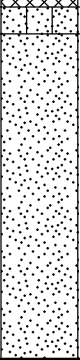
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
1	2	0.0	dry to wet	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to wet, no odor, no staining, water at 8.0 feet.			
2									
3									
4									
5									
6	3	0.0							
7									
8									
9									
10									
11	5	0.0							
12									
13									
14				moist			SP		114-A6B-WS-13.0-13.5
15									114-A6B-WS-15.0-15.5
16	5	0.0							
17								114-A6B-WS-17.0-17.5	
18									
19								114-A6B-WS-19.0-19.5	
20									
21	5	0.0							
22								114-A6B-WS-21.0-21.5	
23									
24								114-A6B-WS-23.0-23.5	
25									
25	1	0.0					114-A6B-WS-25.0-25.5		
26									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS_A.GDT - 6/6/17 12:10

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe Dual Tube	Coordinates (NJSPNAD83) x: 611024.498
Date Started Drilling: 5/2/2017 9:55:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683836.11
Date Finished Drilling: 5/2/2017	Core Size: 2.0 in	Boring Total Depth: 22 ft
Logged By: S. Paige	Project Manager: Scott Mikaelian	Depth to Water: 8.0 ft
Physical Location: Actual-WS		Surface Elevation: 14.694 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1-5	2.5	0.0	dry to wet	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to wet, no odor, no staining, water at 8.0 feet.		
5-10	3	0.0						
10-15	3	0.0						
15-16	5	0.0	dry	SM		fine to medium silty SAND, some fine to medium gravel, (7.5YR 4/2) brown, dense, dry, no odor, no staining. Soils consistent with UNDno.	114-AB7B-WS-15.5-16.0	
16-17			dry	SP			medium to coarse SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, dense, dry, no odor, no staining, refusal at 22.0 feet. Soils consistent with UNDno.	114-AB7B-WS-17.4-17.9
17-19								114-AB7B-WS-19.4-19.9
19-21	2	0.0					114-AB7B-WS-21.4-21.9	
21-22								

Notes:

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG_LOGS_A_GDT - 6/6/17 12:10

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610820.1
Date Started Drilling: 8/18/2014 11:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683524.3
Date Finished Drilling: 8/18/2014 12:40:00 PM	Core Size: 3 in	Boring Total Depth: 20.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 8.749 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1	5	4.7	moist	FILL		DGA, trace brick, (10YR 4/1) dark gray, non plastic, loose, moist, no odor.	114-GA-A`5A-0.0-0.5	
		3.5	moist	FILL			DGA, (10YR 4/2) dark grayish brown, non plastic, loose, moist.	114-GA-A`5A-2.0-2.5
2	5						114-GA-A`5A-4.0-4.5	
3								
4								
5	5	2.7	moist	FILL		fine to coarse silty DGA, little mica, little gravel, (10YR 4/2) dark grayish brown, non plastic, loose, moist, no odor, iron oxide staining.		
6		5.7	moist	FILL				
7		0.5	moist	FILL			ASH, little silt, little cobbles, (10YR 3/1) very dark gray, non plastic, loose, moist, no odor.	114-GA-A`5A-6.0-6.5
8							fine to medium clayey SILT, trace mica, trace ash, (10YR 4/2) dark grayish brown, low plasticity, moist, no odor.	114-GA-A`5A-8.0-8.5
9		0.0	moist	OH				silty CLAY, little organics, (10YR 4/1) dark gray, medium plasticity, moist, slight sulfur odor. Soils consistent with UNDorg.
10	0.0	moist	OL	clayey SILT, little organics, (10YR 4/2) dark grayish brown, low plasticity, medium dense, moist, no odor. Soils consistent with UNDorg.	114-GA-A`5A-9.0-9.5			
11	5	0.0	moist	SM		fine silty SAND, trace mica, (10YR 4/2) dark grayish brown, non plastic, moist, no odor. Soils consistent with UNDno.	114-GA-A`5A-10.0-10.5	
12		0.0	dry to moist	SM			fine to coarse silty SAND, trace pebbles, non plastic, loose, dry to moist, no odor, iron oxide staining, reddish brown. Soils consistent with UNDno.	114-GA-A`5A-12.0-12.5
13		0.0	dry to moist	SP			fine SAND, little medium to coarse sand, non plastic, loose, dry to moist, no odor, iron oxide staining, reddish brown. Soils consistent with UNDno.	114-GA-A`5A-14.0-14.5
14	5.5					fine to medium SAND, little coarse sand, little cobbles, non plastic, loose, moist, no odor, reddish brown. Soils consistent with UNDno.		
15		0.0	moist	SW				114-GA-A`5A-16.0-16.5
16		0.0	wet	SW			fine to medium SAND, trace cobbles, non plastic, loose, wet, reddish brown. Soils consistent with UNDno.	114-GA-A`5A-18.0-18.5
17	5.5							
18								114-GA-A`5A-20-20.5
19								
20								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

PPG - 2012-08 RA PPG_LOGS_A.GDT - 6/13/17 11:43

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610789.3
Date Started Drilling: 8/18/2014 9:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683475.7
Date Finished Drilling: 8/18/2014 10:30:00 AM	Core Size: 3 in	Boring Total Depth: 20.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 8.922 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
1	5	7.3	moist	FILL		DGA, (10YR 4/2) dark grayish brown, non plastic, dense, moist.	114-GA-A`7A-0.0-0.5		
		7.2	moist	FILL			DGA, (10YR 4/2) dark grayish brown, non plastic, medium dense to dense, moist.	114-GA-A`7A-2.0-2.5	
2	5						114-GA-A`7A-4.0-4.5		
3									
4									
5	5	7.5		FILL		fine to medium silty SAND, some ash, (10YR 4/2) dark grayish brown.	114-GA-A`7A-6.0-6.5		
6									
7		7.2	moist to wet	FILL			SILT, trace fine sand, (10YR 4/2) dark grayish brown, low plasticity, medium stiff, moist to wet, no odor.	114-GA-A`7A-8.0-8.5	
8									
9	5	4.9		MH		SILT, little roots, trace very fine sand, (10YR 4/1) dark gray, low plasticity, medium stiff. Soils consistent with UNDorg.	114-GA-A`7A-8.5-9.0		
10		0.0		MH			SILT, little roots, trace very fine sand, (10YR 4/2) dark grayish brown, low plasticity, medium stiff. Soils consistent with UNDno.	114-GA-A`7A-9.0-9.5	
11	5	0.0	saturated	ML		SILT, trace fine gravel, (10YR 4/2) dark grayish brown, low plasticity, very loose to medium soft, saturated. Soils consistent with UNDno.	114-GA-A`7A-10.0-10.5		
12		0.0	wet	ML			SILT, some fine to coarse gravel, (10YR 4/2) dark grayish brown, non plastic, medium stiff, wet. Soils consistent with UNDno.	114-GA-A`7A-12.0-12.5	
13		2.0	wet	SP				fine to medium SAND, some fine gravel, little coarse gravel, (2.5YR 4/3) reddish brown, non plastic, dense to very dense, wet. Soils consistent with UNDno.	114-GA-A`7A-14.0-14.5
14	5.5					medium to coarse SAND, some fine gravel, little coarse gravel, trace cobbles, (2.5YR 3/3) dark reddish brown, non plastic, very dense, wet to saturated. Soils consistent with UNDno.	114-GA-A`7A-16.0-16.5		
15		2.0	wet to saturated	SP					
16									114-GA-A`7A-18.0-18.5
17									
18							114-GA-A`7A-20.0-20.5		
19									
20									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

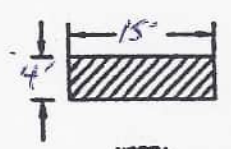
TEST PIT FIELD LOG

	PROJECT DESCRIPTION <u>PPG - Site 114</u> LOCATION <u>Garfield Ave., South</u>	TEST PIT No. <u>GAR-1</u> FILE No. _____ DATE <u>2/16/12</u>
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ENGINEER <u>Tom Crott</u>	EXCAVATION EQUIPMENT CONTRACTOR <u>ENTACE</u> OPERATOR _____ MAKE _____ MODEL _____ CAPACITY _____ REACH _____	GROUND ELEV. _____ TIME STARTED <u>2/16/12 @ 0700</u> TIME COMPLETED <u>2/16/12 @ 1145</u>
WEATHER <u>30-40s, light rain</u>		

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK No.
0'	8" ASPHALT			
1'	6" CONCRETE			
2'	8" Reddish brown WELL GRADED SAND, some fine to coarse gravel, few silt	M		
3'	2.0' Gray to olive gray SILTY SAND, some medium to coarse sand, little fine to coarse gravel and 3-8" angular cobbles + mica boulders - 25% FILL (coal ash, cinders, nails, and bricks) mixed throughout	M		
4'				
5'	Bottom of Excavation at 4.5' bsg			
6'				
7'	Bottom of Excavation at Ca 25' bsg			
8'				
9'				
10'				
11'				
12'				
13'				
14'				

REMARKS: Test pit completed on Garfield Ave, near SW corner of Site 114, in order to locate sewer line and determine distance to shoring alignment

TEST PIT PLAN  VOLUME = _____ cu.yd.	LEGEND: BOULDER COUNT <table style="width: 100%;"> <tr> <th>SIZE RANGE CLASSIFICATION</th> <th>LETTER DESIGNATION</th> </tr> <tr> <td>6"-18"</td> <td>A</td> </tr> <tr> <td>18"-36"</td> <td>B</td> </tr> <tr> <td>36" and Larger</td> <td>C</td> </tr> </table>	SIZE RANGE CLASSIFICATION	LETTER DESIGNATION	6"-18"	A	18"-36"	B	36" and Larger	C	PROPORTIONS USED TRACE (TR.) 0-10% LITTLE (L.) 10-20% SOME (SO) 20-35% AND 35-50%	ABBREVIATIONS F-FINE N-MEDIUM C-COARSE F/M-FINE TO MEDIUM F/C-FINE TO COARSE V-VERY GR-GRAY BN.-BROWN YEL-YELLOW	EXCAVATION EFFORT E _____ EASY M _____ MODERATE D _____ DIFFICULT GROUNDWATER ELAPSED TIME TO READING (HRS.) _____ G.W. No Groundwater
SIZE RANGE CLASSIFICATION	LETTER DESIGNATION											
6"-18"	A											
18"-36"	B											
36" and Larger	C											

G:\WILCOX\TESTPIT

TEST PIT FIELD LOG

PROJECT P16-512 114
 DESCRIPTION Garfield Ave.
 LOCATION Garfield Ave.

TEST PIT No. GAR-2
 FILE No. _____
 DATE 2/15/12

ENGINEER Tom Craft
 WEATHER 40s overcast, mist

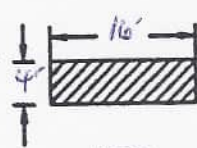
EXCAVATION EQUIPMENT
 CONTRACTOR ENTRACT
 OPERATOR _____
 MAKE _____ MODEL _____
 CAPACITY _____ REACH _____

GROUND ELEV. _____
 TIME STARTED 2/15/12 @ 1150
 TIME COMPLETED 2/15/12 @ 1230

DEPTH	SOIL DESCRIPTION	EXCAV. EFFORT	BOULDER COUNT QTY. CLASS	REMARK No.
0'	8" ASPHALT			
1'	3'4" Dark gray well graded SAND WITH SAND GRAVEL AND SILT, wet at 3.5' wood debris from 2-4'	M		
2'				
3'				
4'	Bottom of Excavation at 4' bsg			
5'				
6'				
7'				
8'				
9'				
10'				
11'				
12'				
13'				
14'				

▽
DTW=3.5'

REMARKS: Test pit completed to 4' bsg in order to locate a 72" sewer utility.

<p style="text-align: center;">TEST PIT PLAN</p>  <p style="text-align: center;">NORTH</p> <p>VOLUME= _____ cu.yd.</p>	<p style="text-align: center;">LEGEND: BOULDER COUNT</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">SIZE RANGE CLASSIFICATION</th> <th style="text-align: left;">LETTER DESIGNATION</th> </tr> <tr> <td>6"-18"</td> <td>A</td> </tr> <tr> <td>18"-36"</td> <td>B</td> </tr> <tr> <td>36" and Larger</td> <td>C</td> </tr> </table>	SIZE RANGE CLASSIFICATION	LETTER DESIGNATION	6"-18"	A	18"-36"	B	36" and Larger	C	<p style="text-align: center;">PROPORTIONS USED</p> <p>TRACE (TR.) 0-10%</p> <p>LITTLE (L.) 10-20%</p> <p>SOME (SO) 20-35%</p> <p>AND 35-50%</p>	<p style="text-align: center;">ABBREVIATIONS</p> <p>F-FINE M-MEDIUM C-COARSE F/M-FINE TO MEDIUM F/C-FINE TO COARSE V-VERY GR-GRAY BN.-BROWN YEL-YELLOW</p>	<p style="text-align: center;">EXCAVATION EFFORT</p> <p>E _____ EASY M _____ MODERATE D _____ DIFFICULT GROUNDWATER</p> <hr/> <p>ELAPSED TIME TO READING (HRS.) _____ G.W. No Groundwater</p>
SIZE RANGE CLASSIFICATION	LETTER DESIGNATION											
6"-18"	A											
18"-36"	B											
36" and Larger	C											

G:\WELLOCK\TESTPIT

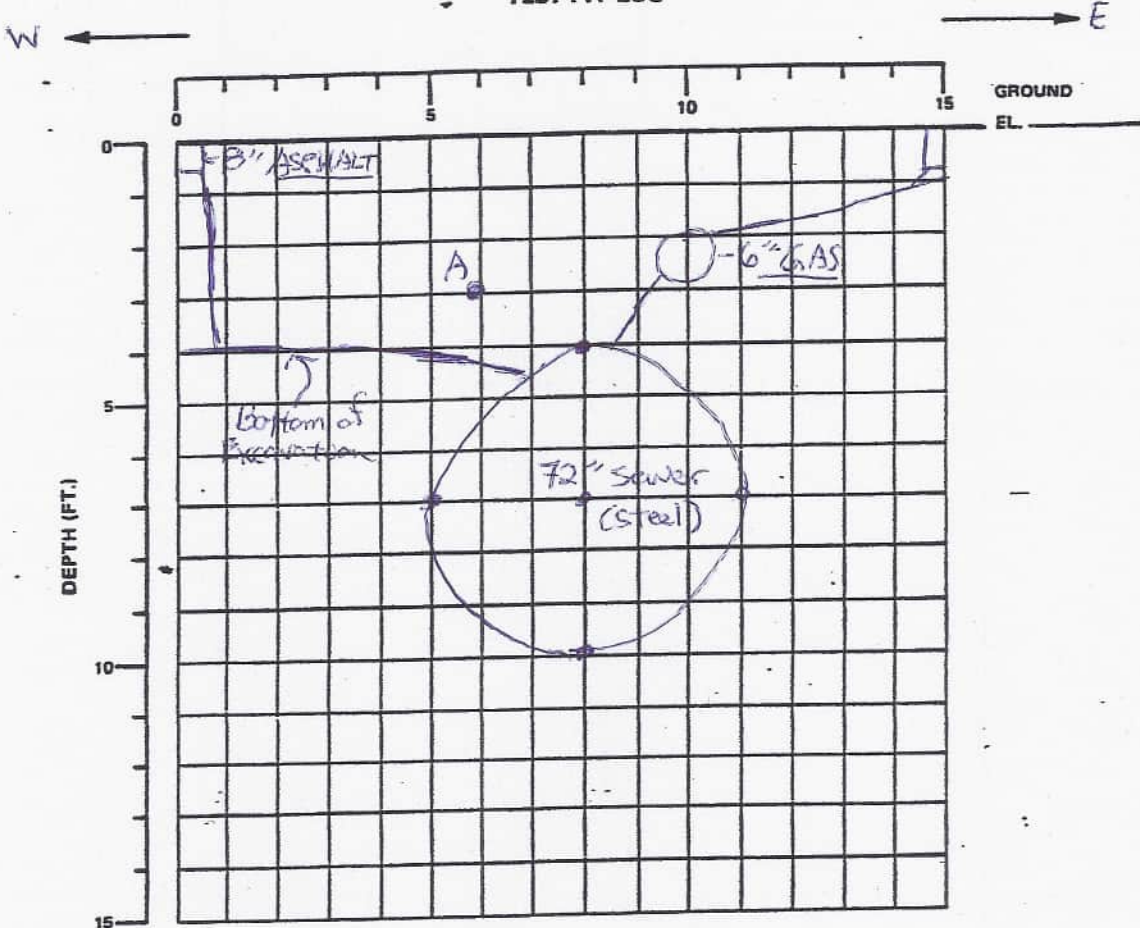
FIGURE 1. TEST PIT LOG

JOB NO. 20150739
 PROJECT PPG
 DATE 2/15/12

TEST PIT NO. 114GAR-2
 LOCATION SITE 114 Gasfield Ave
 LOGGED BY Tom Craft

AECOM
 Metcalf & Eddy, Inc.

TEST PIT LOG



NOTES: Excavation completed to
4' bsg in order to
locate 72" sewer
line

NO.	DEPTH
<u>A</u>	<u>3.0' - ID: 114GAR-2-3.0</u>
_____	_____
_____	_____
_____	_____
_____	_____

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60279173-GA.RI.RPT.HDS	Drilling Method: Direct Push/Hand Auger	Coordinates (NJSPNAD83) x: 610612
Date Started Drilling: 1/24/2017 8:50:00 AM	Rig Type: Geoprobe/Hand Auger	Coordinates (NJSPNAD83) y: 683364
Date Finished Drilling: 1/24/2017 9:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 7 ft
Logged By: E. Acs	Project Manager: Bill Spronz	Depth to Water: 4.5 ft
Physical Location: Actual - Historical Data Study		Surface Elevation: 15.845 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-2	5	0.0		ASPHALT		ASPHALT	
			moist	FILL		SILT, trace fine sand and clay, (7.5YR 3/2) dark brown, firm, moist, no odor, no staining.	114-MW16AB-O-2.0-2.5
5-6	2	0.0	wet	FILL		fine silty SAND, (10YR 5/4) yellowish brown, medium dense, wet, no odor, no staining, water at 4.5 feet.	114-MW16AB-O-4.5-5.0 114-MW16AB-O-5.5-6.0
7							

Notes:
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 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: No CCPW (COPR or GGM) identified in any interval of this boring.



30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Soft Dig/Geoprobe	Coordinates (NJSPNAD83) x: 610681.8125
Date Started Drilling: 4/8/2013 8:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683259
Date Finished Drilling: 4/8/2013 2:59:00 PM	Core Size: 3 in	Boring Total Depth: 21 ft
Logged By: MI	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: Site 143 - A`15A		Surface Elevation: 12.4 ft NAVD88

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	1	0.0		1	CONCRETE		CONCRETE	
	1	0.0	dry	3	FILL		fine to medium SAND, little fine gravel, (7.5YR 3/2) dark brown, non plastic, loose, dry, no odor, no staining.	
2	2	0.0	dry	3	FILL		fine to medium SAND, little fine gravel, (7.5YR 3/2) dark brown, non plastic, loose, dry, no odor, no staining.	
	2	0.0	dry	3	FILL		fine to medium GRAVEL, little fine sand, (7.5YR 3/2) dark brown, non plastic, loose, dry, no odor, no staining.	
3	3	0.0	dry	6	FILL		fine to medium SAND, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/1) very dark gray, non plastic, loose, dry, no odor, no staining.	
	4	0.0	dry	6	FILL		fine to medium SAND, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/1) very dark gray, non plastic, loose, dry, no odor, no staining.	
5	5	0.0	moist	6	FILL		fine SAND, with ash, little cinders, coal, (7.5YR 4/1) dark gray, non plastic loose, moist no odor no staining	
	6			6	NR		NO RECOVERY	
7	7	0.0	moist	6	FILL		SILT, some cinders, coal, fine sand little ash, (7.5YR 3/3) dark brown, non plastic soft, moist no odor no staining	
	8	0.8		NR	NR		NO RECOVERY	
9	9	0.0	moist	3	FILL		SILT, little fine sand, trace roots, (7.5YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining.	
	10	2						
11	11	0.0	moist	3	FILL		SILT, little fine sand, trace roots, (7.5YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining.	
	12	2						
13	13	0.0	slightly moist	3	FILL		fine to medium SAND, some fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor.	
	14	1.8	slightly moist	3	FILL		fine to medium SAND, some fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor.	
15	15	0.0	slightly moist	NR	NR		NO RECOVERY	
	16	1.3		3	FILL		fine to medium SAND, some fine to coarse gravel, trace cobbles, fill material, (2.5YR 4/6) red (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor.	
17	17			NR	NR		NO RECOVERY	
	18	2	0.0	slightly moist	3	FILL		fine to medium SAND, some fine to coarse gravel, trace cobbles, fill material, (2.5YR 4/6) red (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor.
19	19	0.0	slightly moist	10	SM		fine SAND, with medium gravel, trace silt, (2.5YR 4/8) red, non plastic, dense, slightly moist, no odor, no staining. Soils consistent with UNDno.	143-P3A-A`15A-18.0-18.5
	19			10	SM		fine SAND, with medium gravel, trace silt, (2.5YR 4/8) red, non plastic, dense, slightly moist, no odor, no staining. Soils consistent with UNDno.	143-P3A-A`15A-18.0-18.5X
20	20	1.5	slightly moist	10	SM		fine SAND, with medium gravel, trace silt, (2.5YR 4/8) red, non plastic, dense, slightly moist, no odor, no staining. Soils consistent with UNDno.	143-P3A-A`15A-18.5-19.0
	20			NR	NR		NO RECOVERY	143-P3A-A`15A-20.0-20.5
21				NR	NR		NO RECOVERY	

PPG - PPG_LOGS.GDT - 4/24/13 13:28

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Client: PPG	BORING ID:	
Site: PPG - Jersey City, NJ	A6	
Start Date: 9/2/2002	Project: Site Investigation	Page: 1 of 2
End Date: 9/2/2002	Coordinates: X-610797.7 Y-683480.19	Depth of Boring: 16.00
	Elevation: 12.35	Geologist:
	Drill Subcontractor: Terra Probe	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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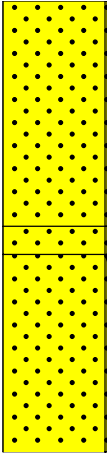
0		SILT: Organics, silt, wet			
		CONCRETE			
		FILL: Yellow/orange, trace silt, sand, damp	0.0 ppm		
		FILL: Brown, fine sand, wet	0.0 ppm		
		FILL: Orange and brown clay, laminations	0.0 ppm		
		FILL: Orange and brown clay, laminations	0.0 ppm		
		FILL: Black, fine sand, some gravel, ash, coal, coke, slag	0.0 ppm		
			0.0 ppm	A6 (6.5-7.0)	TAL Metals, Cr+6
			0.0 ppm		
		FILL: COKE/SLAG	0.0 ppm		
			0.0 ppm	A6 (8.5-9.0)	TAL Metals, Cr+6
			0.0 ppm		
		SILT: Brown, fine	0.0 ppm		
		PEAT: Brown, organic material (meadow mat)	0.0 ppm	A6 (10.5-11.0)	TAL Metals, Cr+6, SVOCs, PCBs, VOCs, Cyanide
			0.0 ppm		
12					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG		BORING ID: A6
Site: PPG - Jersey City, NJ		
Start Date: 9/2/2002	Project: Site Investigation	Page: 2 of 2
	Coordinates: X-610797.7 Y-683480.19	Depth of Boring: 16.00
End Date: 9/2/2002	Elevation: 12.35	Geologist:
	Drill Subcontractor: Terra Probe	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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12		SAND: Brown/gray fine	0.0 ppm		
			0.0 ppm		
14		SAND: Brown/gray fine, small gravel	0.0 ppm		
		SAND: Orange, coarse	0.0 ppm		
16		NULL: End of Boring at 16 ft.			

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30 Knightsbridge Road, Piscataway, NJ 08854
(732)-564-3200 office telephone

Boring ID: A'-8A

Project Name: PPG Soil PA PA	Drilling Company: SGS	Drilling Water Level (bgs):
Project Number: 907-1001	Drilling Method: Geoprobe	Boring Total Depth (bgs):
Date Started Drilling: 9/20/11	Rig Type:	Grout Depth (bgs):
Date Finished Drilling: 9/20/11	Core Size: 2 in	Boring Total Depth (bgs):
Physical Location: Site 114, 30-Area Grid	Logged By: M. Merdinger	(Note: bgs = below ground surface)

Depth Range	Recovery ft/ft	PID (ppm)	Moisture Content	GA Class.	USCS	Garfield Avenue Sites Classification & Modified Unified Soil Classification System	
						Surface Cover and Thickness: Gravel (0.1')	Sample name & #:
0-1	2.5	0.0	Moist			0.0-1.0 Dark Brown (SILT, little fill (coal, ceramic, slag) and organics, moist, Trace soft, N/O.	114-A'-8A-0.0 1351 MS/MSD
1-2		0.0	↓				
2-3		0.0	↓			1.0-2.5 Brown to Reddish Brown (SILT, some interbedded Ash and crushed coal, trace clay, mottled, soft, moist, N/O.	114-A'-8A-2.0 1356 MS/MSD XCR only
3-4							
4-5							
5-6	2.5	0.0	wet			5.0-6.0 Brown (ASTT and CINDERS, little silt, and fine gravel, wet, loose, N/O.	114-A'-8A-5.0 1405
6-7		0.0	↓				114-A'-8A-6.0 1410
7-8		0.0	↓			6.8-7.5 Light Brown (F SAND, some silt, little coal frags, moist, loose, N/O.	114-A'-8A-6.0X 1415
8-9							
9-10							
10-11	3.5	0.0	wet			10.0-12.0 SAA, trace interbedded SILT	114-A'-8A-10.0 1430
11-12		0.0	↓			12.0-12.2 Block PEAT, Silty Clay Trace organics, moist, soft, sulfur odor.	
12-13		0.0	Moist			12.2-13.0 Gray (wet SAND, little silt, trace rounded gravel, wet, soft loose, N/O.	
13-14		0.0				13.0-13.5 Reddish Brown (F-C SAND, some rounded gravel, little silt, dense, wet, N/O.	
14-15							
15-16							
16-17							
17-18							
18-19							
19-20							

Stratigraphic Unit Depth Intervals (bgs):		Comments:
1)	4)	9/21/11 - Sampled for Tot CE, XCR, e h/pH, TCLPCR
2)	5)	
3)	6)	

Project Name: PPG Garfield Ave	Drilling Company: Terra Probe Incorporated
Project Number: 60240739	Drilling Method: Direct Push (Geoprobe)
Date Started Drilling: 9/3/2003	Rig Type:
Date Finished Drilling: 9/3/2003	Core Size: 1.25 inches
Logged By:	Project Manager: Chris Martell
Physical Location: IRM#1	Surface Elevation: 10.89 ft NAVD88
Coordinates (NJSPNAD83) x: 610958.6875	
Coordinates (NJSPNAD83) y: 683743.3125	
Boring Total Depth: 18 ft	
Depth to Water:	

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				ASPHALT			
				SAND		Black	BC8S0.5-1)
1				SAND		Brown, some silt	BC8S1.5-2)
2			damp	SILT		Light orange, trace sand, some ash, trace cobble	BC8S1-1.5)
3							
4			wet	SAND		Gray, some silt	
5			saturated	SAND		Gray, little gravel	
6							
7			wet	PEAT		Black, organic material	BC8S7-7.5)
8			wet	SILT		Black, fine	
9							BC8S9-9.5
10			wet	SAND		Red brown, trace silt, cobble	
11							
12			wet	SAND		Red brown, trace silt	
13			wet	SAND		Red brown, trace silt, cobble	
14							
15							
16			wet	SAND		Red brown, trace silt, cobble, weathered rock fragment	
17							
18						End of Boring	

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments:

Client: PPG	BORING ID: C9	
Site: PPG - Jersey City, NJ		
Start Date: 9/3/2003	Project: Site Investigation	Page: 1 of 2
	Coordinates: X-611015.15 Y-683832.21	Depth of Boring: 23.00
End Date: 9/3/2003	Elevation: 12.97	Geologist:
	Drill Subcontractor: Terra Probe	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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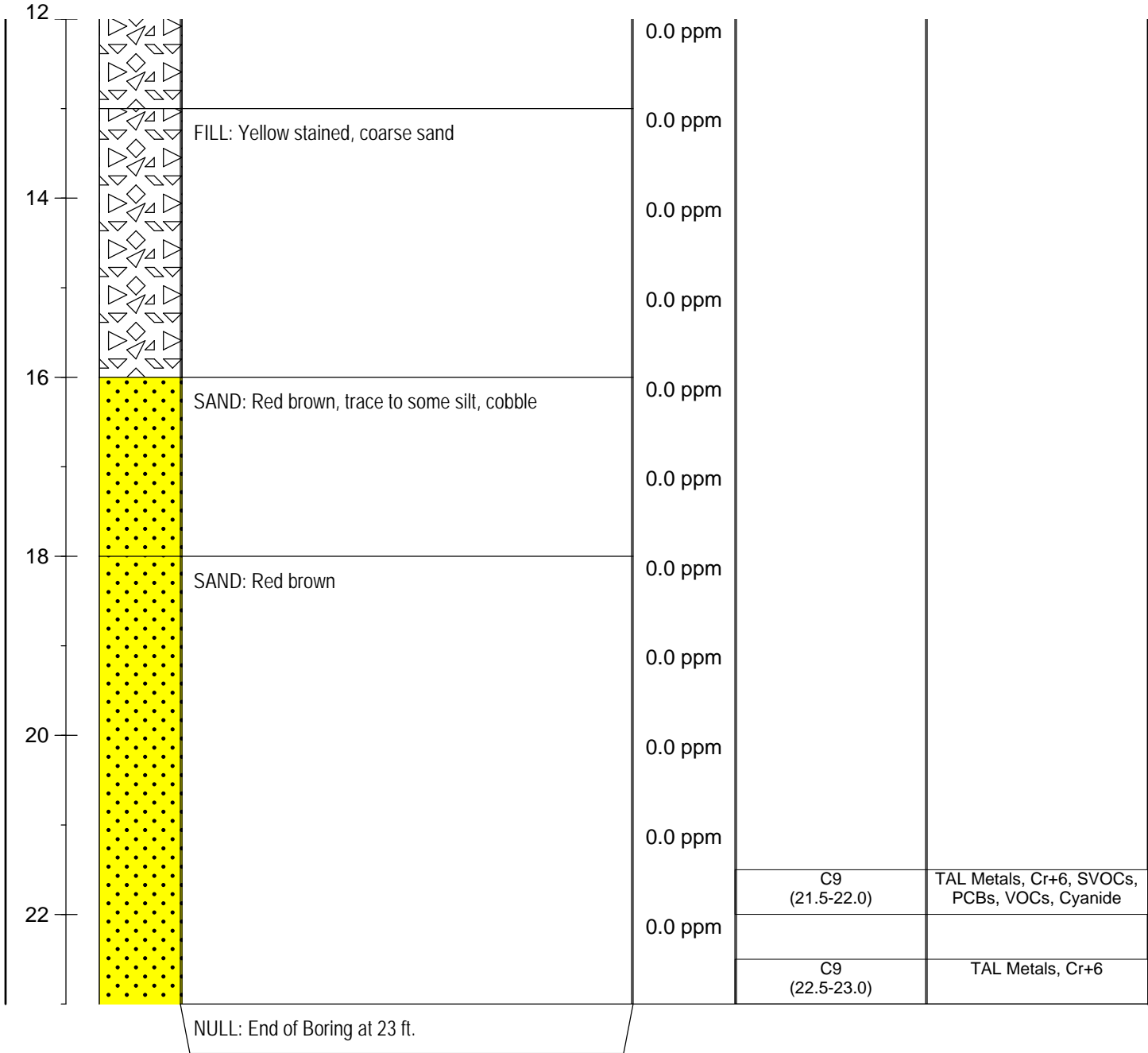
0	ASPHALT				
	FILL: Brown fine sand, wood, brick, cobble (yellow stained), some silt		0.0 ppm	C9 (0.5-1.0)	TAL Metals, Cr+6
			1.8 ppm	C9 (1.0-1.5)	TAL Metals, Cr+6
2	FILL: Brown fine silt, trace sand		26 ppm	C9 (2.5-3.0)	TAL Metals, Cr+6, SVOCs, PCBs, VOCs, Cyanide
4	FILL: Brown to gray-yellow, fine sand, some silt		32 ppm		
			4 ppm		
6			0.0 ppm		
			0.0 ppm	C9 (7.0-7.5)	TAL Metals, Cr+6
8	FILL: Brown/yellow/orange, fine sand, trace silt, cobble		0.0 ppm		
			0.0 ppm		
10	FILL: Brown silt, with wood		0.0 ppm		
			0.0 ppm		
12					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID: C9	
Site: PPG - Jersey City, NJ		
Start Date: 9/3/2003	Project: Site Investigation	Page: 2 of 2
	Coordinates: X-611015.15 Y-683832.21	Depth of Boring: 23.00
End Date: 9/3/2003	Elevation: 12.97	Geologist:
	Drill Subcontractor: Terra Probe	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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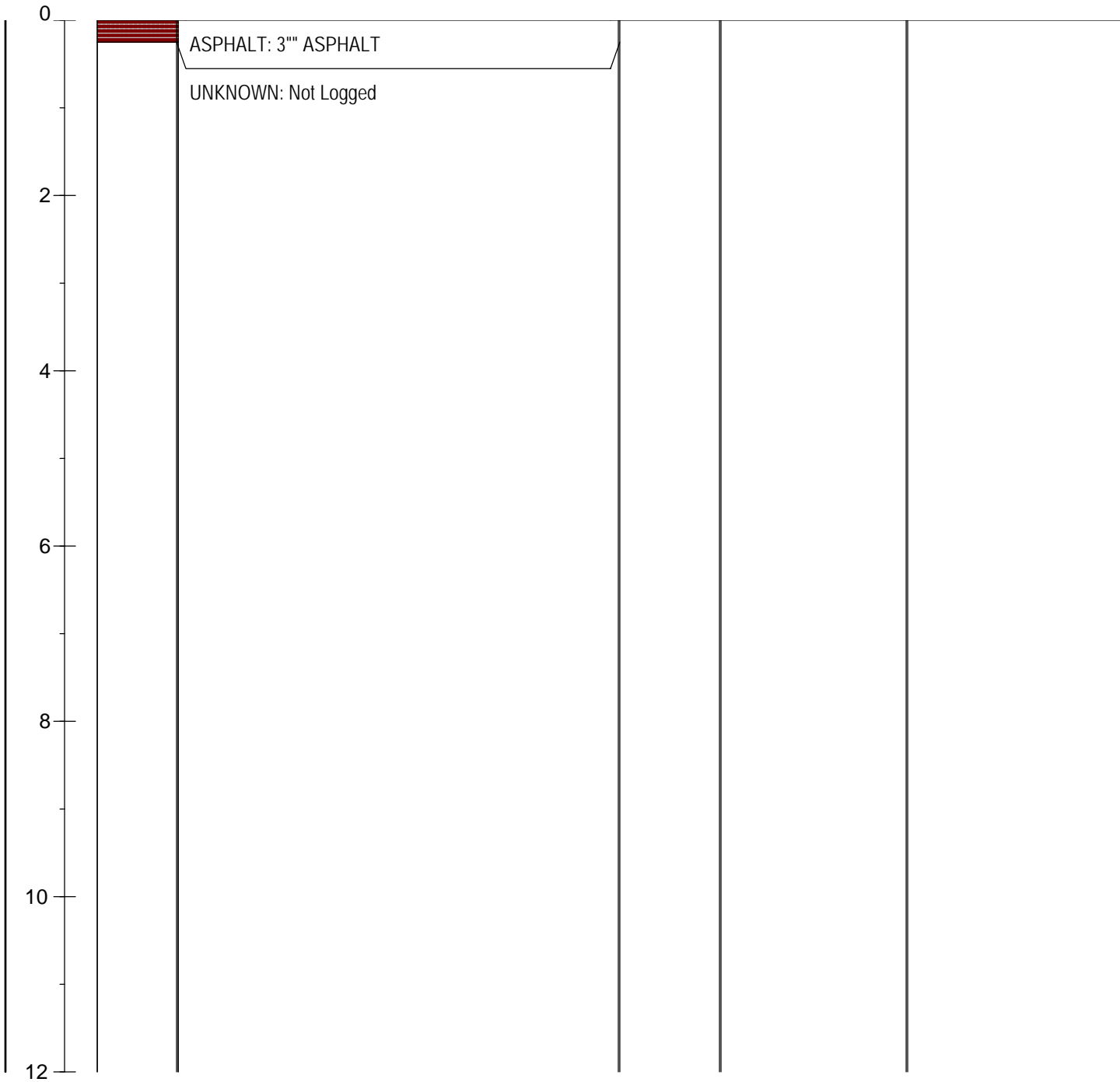
Client: **PPG**
 Site: **PPG - Jersey City, NJ**

BORING ID:
C9V

Start Date: 10/6/2005
 Project: **Site Investigation**
 Coordinates: X-611014.86 Y-683837.42
 End Date: 10/6/2005
 Elevation: 13.00
 Drill Subcontractor: Ameridrill

Page: 1 of 4
 Depth of Boring: 36.00
 Geologist: McCray, Scott
 Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG		BORING ID: C9V
Site: PPG - Jersey City, NJ		
Start Date: 10/6/2005	Project: Site Investigation	Page: 2 of 4
	Coordinates: X-611014.86 Y-683837.42	Depth of Boring: 36.00
End Date: 10/6/2005	Elevation: 13.00	Geologist: McCray, Scott
	Drill Subcontractor: Ameridrill	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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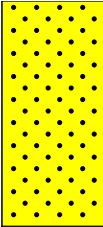
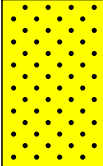

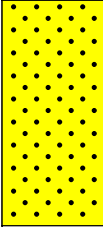
12					
14					
16					
18					
20					
22					
24					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID: C9V	
Site: PPG - Jersey City, NJ		
Start Date: 10/6/2005	Project: Site Investigation	Page: 3 of 4
End Date: 10/6/2005	Coordinates: X-611014.86 Y-683837.42	Depth of Boring: 36.00
	Elevation: 13.00	Geologist: McCray, Scott
	Drill Subcontractor: Ameridrill	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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24		SAND: Dusky Red (10R 3/4) fine-very fine SAND, some Silt, little angular to rounded Gravel, damp, trace of Green color in small patches throughout, wet	0.0 ppm		
				C9VA 25.0-25.5	Cr+6
26		NR: No Recovery			
28		SAND: Same as above (SAA) without Green color patches	0.0 ppm		
				C9VB 29.0-29.5	Cr+6
30		GRAVEL: Dusky Red (10R 3/4) coarse angular to subangular GRAVEL, some coarse-fine Sand, little Silt, wet			
		NR: No Recovery			
32		SAND: Dusky Red (10R 3/4) medium-fine SAND, some Silt, trace Gravel, wet (32-33'), damp (33-34')	0.0 ppm		
				C9VC 33.0-33.5	Cr+6
34		NR: No Recovery			
36					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG		BORING ID:			
Site: PPG - Jersey City, NJ		C9V			
Start Date: 10/6/2005	Project: Site Investigation	Page: 4 of 4			
	Coordinates: X-611014.86 Y-683837.42	Depth of Boring: 36.00			
End Date: 10/6/2005	Elevation: 13.00	Geologist: McCray, Scott			
	Drill Subcontractor: Ameridrill	Driller:			
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters

36

NULL: End of Boring at 36 ft.

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610619.877
Date Started Drilling: 4/22/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683269.884
Date Finished Drilling: 4/25/2011	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: B. Daniels, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 5 ft
Physical Location: SW corner of Garfield Avenue & Carteret Avenue		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0	dry	1	Fill		Concrete Brown (7.5YR 5/4) CLAY and SILT, trace fine Gravel, trace Organics, medium stiff, moist. Slight organic odor.	EF-B36_0.5
2		0	moist	3	Fill			EF-B36_2.0
3		0						EF-B36_2.5
4		0						EF-B36_4.0
5		0						
6	3.1	0	wet	3	Fill		Reddish Brown (5YR 5/4) fine SAND and SILT, trace Mudstone, slightly mottled, loose to medium dense, wet. No odor.	EF-B36_6.0
7		0	wet	10	SP-SM			EF-B36_7.5
8		0	wet	10	SP-SM			No Recovery
9	2.8						Same as above, soft to medium dense.	
10		0	wet	10	SP-SM			
11		0	wet	10	SP-SM			
12		0	wet	10	SP-SM			EF-B36_12.0
13	1.4						Reddish Brown (2.5YR 4/4) SILT and fine to medium sub-round to sub-angular Gravel (Red Mudstone fragments), little medium Sand, dense, moist. No odor. No Recovery	
14		0	moist	10	GM			
15		0	moist	11	GM			
16		0	moist	11	GM			EF-B36_15.5
17	0.7						Reddish Brown (2.5YR 4/4) fine to medium angular to sub-round GRAVEL, some coarse Sand, little Silt and fine Sand, dense, moist. No odor. No Recovery	
18		0	moist	11	GM			
19		0	moist	11	GM			
20		0	moist	11	GM			EF-B36_20.0
21								
22								
23								
24								
25								
26							End of boring at 25 ft.	
27								
28								
29								
30								
31								
32								
33								
34								
35								

Comments: No COPR/GGM identified at this location.

PPG - GINT STD US LAB.GDT - 11/3/11 14:35 - \\USPSW2\FP001\ENVIRONMENT\PISCATAWAY\PROJECT\PPG-NJC\PROGRAM9-WORKFILES\PROJECT MANAGER-CATALDO\BGA RI-SOIL INVESTIGATION\FIELD WORKING LOGS\GINT L



30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: EF-37

Page: 1

Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610679.529
Date Started Drilling: 4/22/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683445.78
Date Finished Drilling: 4/25/2011	Core Size: 2 in	Boring Total Depth: 16.5 ft
Logged By: B. Daniels, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 5 ft
Physical Location: South side of French Park, in gated area		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number	
1	3.8	0	dry	2	Fill		Black Asphalt	EF-B37_0.5	
2		0	moist	3	Fill		Brown (7.5YR 4/3) fine to coarse SAND, some fine to coarse Gravel and Fill Material (slag, coal, glass, brick), little Silt, loose to medium dense. No odor.	EF-B37_2.0	
3		0							EF-B37_2.5
4		0							EF-B37_4.0
5		0	moist	3	Fill		Yellowish Brown (10YR 5/4) fine SAND and SILT, trace Fill Material (slag, ash, cinders), loose. No odor.		
6		0	wet	3	Fill		Same as above.		EF-B37_6.0
7		0	wet	10	SP-SM		Reddish Brown (2.5YR 4/4) SILT, some medium to coarse Sand, little fine to medium Mudstone fragments, very loose to medium dense. No odor.		EF-B37_7.5
8		0							
9		0	wet	10	SP-SM		No Recovery		
10		0							
11	1.8	0	moist	10	SP-SM		Reddish Brown (2.5YR 4/4) SILT and fine SAND, some fine to medium Rock fragments (Mudstone, Quartzite), medium dense. No odor.	EF-B37_11.0	
12		0	moist	10	SP-SM		No Recovery		
13		0							
14									
15		0							
16	0.2		moist	13	GM		Black DIABASE and Red MUDSTONE fragments (weathered), little Silt, very dense.		
17			moist	13	GM		No Recovery		
18							Refusal at 16.5 ft.		
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Comments: No COPR/GGM identified at this location.

PPG - GINT STD US LAB.GDT - 11/3/11 14:35 - \\USPSW2\FP001\ENVIRONMENT\PISCATAWAY\PROJECT\PPG-NJC\PROGRAM9-WORKFILES\PROJECT MANAGER-CATALDO\BGA-RI-SOIL INVESTIGATION\FIELD WORKING LOGS\GINT.L



30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610761.209
Date Started Drilling: 4/22/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683529.983
Date Finished Drilling: 4/22/2011	Core Size: 2 in	Boring Total Depth: 3.8 ft
Logged By: B. Daniels	Project Manager: Robert Cataldo	Depth to Water: N/A ft
Physical Location: Garfield Avenue, near OSB-5		

(Note bgs = below ground surface)

PPG - GINT STD US LAB.GDT - 9/21/11 12:04 - C:\DOCUMENTS AND SETTINGS\STANCHAKIMMY DOCUMENTS\IMY EQUIS WORK\PPG - JERSEY\GARFIELD AVENUE GROUP OF SITES\GARFIELD AVENUE GROUP OF SITES.GPJ

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0	dry	3	OL		Black Topsoil, some Organics, dry, loose. No odor.	EF-B38_0.5
2		0	dry	3	Fill		Dark Brown (7.5YR 3/2) fine to medium SAND, some fine to medium Gravel and Fill Material (coal, slag, brick, glass), trace Silt, medium dense. No odor.	EF-B38_2.0
3		0	moist	3	Fill		Very Dark Grayish Brown (10YR 3/2) SILT and CLAY, little medium to coarse Gravel and Fill Material (slag, brick, debris), medium stiff. Slight organic odor.	EF-B38_2.5
4							Refusal at 3.8 ft.	
5								
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Comments: No COPR/GGM identified at this location.



30 Knightsbridge Road, Piscataway, NJ 08854
732.564.3200 office telephone

Boring ID: EF-38A

Page: 1

Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610761.701
Date Started Drilling: 4/25/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683534.172
Date Finished Drilling: 4/26/2011	Core Size: 2 in	Boring Total Depth: 23 ft
Logged By: E. Acs, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 4.6 ft
Physical Location: Garfield Avenue, near OSB-5		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0	dry	1	Fill		Concrete Sidewalk	EF-B38A_0.5
2		0	dry	6	Fill		Black to Very Dark Gray (10YR 3/1) fine to medium SAND, some fine to medium Gravel, Ash and Cinders, loose. No odor. Reddish Brown (5YR 4/4) fine to medium SILTY SAND, little Clay, loose. No odor.	EF-B38A_2.0
3		0		3	Fill			EF-B38A_2.5
4		0						EF-B38A_4.0
5		0	moist wet	3	Fill		Gray to Dark Gray Brown (10YR 3/3) SILT, trace fine Sand and Clay, soft. No odor. Brown (7.5YR 5/3) SILT, trace fine to coarse Sand, very soft. No odor.	
6		0		3	Fill			EF-B38_6.0
7	3.2	0					Reddish Brown (2.5YR 4/4) fine to medium SAND and Silt, little fine sub-round Gravel, soft to medium dense.	EF-B38_7.5
8			wet	10	SP-SM			
9			wet	10	SP-SM		No Recovery	
10		0					Same as above, little fine to medium sub-round Gravel.	
11		0	wet	10	SP-SM			EF-B38_11.0
12	2						No Recovery	
13			wet	10	SP-SM			
14							Same as above, little fine to medium sub-round Gravel.	
15		0						EF-B38_16.0
16			moist	10	SP-SM		No Recovery	
17	1.4		moist	10	SP-SM			
18							Same as above, little fine to medium sub-round Gravel.	
19		0						
20							Same as above, little fine to medium sub-round Gravel.	
21	2	0	moist	10	SP-SM			EF-B38_21.0
22			wet	10	SP-SM		Reddish Brown (2.5YR 4/4) fine SAND, some Silt, trace fine angular Gravel at 21.9 ft, loose to medium dense. No odor.	
23			wet	10	SP-SM		No Recovery	
24							Refusal at 23 ft.	
25								
26								
27								
28								
29								
30								
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Comments: No COPR/GGM identified at this location.

PPG - GINT STD US LAB.GDT - 11/3/11 14:35 - \\USPSW2\FP001\DATA - \USPSW2\FP001\ENVIRONMENT\PISCATAWAY\PROJECT\PPG-NJC\PROGRAM9-WORKFILES\PROJECT MANAGER-CATALDO\BGA-RI-SOIL INVESTIGATION\FIELD WORKING LOGS\GINT.L



30 Knightsbridge Road, Piscataway, NJ 08854
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Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610822.756
Date Started Drilling: 4/25/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683631.856
Date Finished Drilling: 4/26/2011	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: E. Acs, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 4.4 ft
Physical Location: Garfield Avenue, near center of French Park Building		

(Note bgs = below ground surface)

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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0	dry	3	OL		Topsoil and Grass	EF-B39_0.5
2		0	dry to moist	6	Fill		Black to Very Dark Gray (10YR 3/3) fine to medium SAND, little fine to coarse Gravel, Ash and Cinders, little Silt, loose. No odor.	EF-B39_2.0
3		0	moist	3	Fill			EF-B39_2.5
4		0	moist					EF-B39_4.0
5		0	moist wet	3	Fill		Very Dark Gray (10YR 3/1) SILT, little Clay, trace fine to medium Sand and Gravel, organics, medium stiff.	
6		0		3	Fill			EF-B39_6.0
7	2		moist	10	SP-SM		Brown (7.5YR 4/3) SILT, some fine Sand, trace medium angular Gravel and Clay, slight Black staining, very soft.	
8			moist	10	SP-SM			Reddish Brown (2.5YR 4/4) SILT and medium SAND, some fine to medium angular Gravel, trace Clay, dense. No odor.
9								
10								
11		0						EF-B39_11.0
12	2		moist	10	SP-SM		Reddish Brown (2.5YR 4/4) and Weak Red (10R 4/4) coarse SAND and SILT, some fine to medium Gravel and Mudstone fragments, dense. No odor.	
13			moist	10	SP-SM			No Recovery
14								
15								
16		0						
17	2		moist	10	SP-SM		Reddish Brown (2.5YR 4/4) fine SAND and SILT, little fine angular Gravel, medium dense. No odor.	EF-B39_17.0X
18			moist	10	SP-SM			EF-B39_17.0
19								
20		0						EF-B39_20.0
21	1		moist	10	SP-SM		Same as above, little medium angular Gravel. Liner in core barrel shattered, only 1 ft of recovery left for sample.	
22			moist	10	SP-SM			No Recovery
23								
24								
25								
26							End of boring at 25 ft.	
27								
28								
29								
30								
31								
32								
33								
34								
35								

Comments: No COPR/GGM identified at this location.



30 Knightsbridge Road, Piscataway, NJ 08854
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Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610859.097
Date Started Drilling: 4/25/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683692.277
Date Finished Drilling: 4/26/2011	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: E. Acs, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 4.6/20 ft
Physical Location: Garfield Avenue, near north end of French Park Building		

(Note bgs = below ground surface)

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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0	dry	3	OL		Topsoil and Grass	EF-B40_0.5
2		0	dry	3	Fill		Black to Very Dark Gray (10YR 3/3) fine to medium SAND, little fine to coarse Gravel, Ash and Cinders, little Silt, loose. No odor.	EF-B40_2.0
3		0	dry	3	Fill		Reddish Brown (5YR 4/4) fine to medium SILTY SAND, trace fine to coarse Gravel, loose. No odor.	EF-B40_2.5
4		0	moist	3	Fill		Very Dark Gray (10YR 3/1) SILT, little Clay, trace fine to medium Sand and Gravel, organics, medium stiff.	EF-B40_4.0
5		0	wet	3	Fill		Same as above.	
6		0						EF-B40_6.0
7		0						
8	3.6	0	moist	3	Fill		Dark Grayish Brown (10YR 4/2) SILT, interbedded with Yellowish Brown (10YR 5/6) fine Sand, medium dense. No odor.	EF-B40_7.5
9			moist	10	SP-SM			
10		0	moist	10	SP-SM		Reddish Brown (2.5YR 4/4) fine SAND and SILT, little fine angular Gravel, medium dense. No odor.	
11		0	moist	10	SP-SM		No Recovery	
12							Same as above, fine to coarse SAND.	EF-B40_11.0
13	2		moist	10	SP-SM		No Recovery	
14								
15		0						EF-B40_15.0
16			moist	10	SP-SM		Same as above, fine to coarse SAND.	
17			moist	10	SP-SM		No Recovery	
18	0.3							
19								
20		0						
21		0	wet	10	SP-SM		Reddish Brown (2.5YR 4/4) SILT and medium SAND, some fine to medium angular Gravel and coarse Sand, dense. No odor.	
22		0	wet	10	SP-SM		Core liner shattered in Core Barrel.	
23	2.5						No Recovery	
24								
25								
26							End of boring at 25 ft.	
27								
28								
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33								
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35								

Comments: No COPR/GGM identified at this location.



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Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 610927.99
Date Started Drilling: 4/26/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683804.273
Date Finished Drilling: 4/29/2011	Core Size: 2 in	Boring Total Depth: 22 ft
Logged By: B. Daniels, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 3.3 ft
Physical Location: Garfield Avenue, near French Park Parking Lot		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0	dry	2	Fill		Black Asphalt	EF-B41_0.5
2		0	dry	3	Fill		Brown (7.5YR 4/3) fine to medium SAND, little Silt and fine to medium angular Gravel, little Fill Material (ash, cinders, slag), loose. No odor.	EF-B41_2.0
3		0	moist	3	Fill		Black (7.5YR 2.5/1) fine SANDY SILT, trace fine angular Gravel and Fill Material (debris), soft. Organic odor.	EF-B41_2.5X
4		0	moist	3	Fill		Brown (7.5YR 4/3) CLAYEY SILT, trace fine to coarse angular Gravel, medium stiff. No odor.	EF-B41_2.5
5		0	wet	3	Fill		Strong Brown (7.5YR 5/6) SILT and very fine SAND, soft. No odor.	EF-B41_4.0
6		0						
7	2.7	0	wet	10	SP		Reddish Brown (5YR 4/4) very fine and fine SAND, trace Silt, loose. No odor.	EF-B41_7.0
8			wet	10	SP		No Recovery	
9		0						
10		0						
11		0	moist	10	SP-SM		Weak Red (10YR 4/4) fine SAND and fine sub-round GRAVEL, little Silt, medium dense. No odor.	
12		0	moist to wet	10	SP-SM		Black to Strong Brown (7.5YR 5/6) to Reddish Brown (5YR 4/4) SILT graded to fine Sand, trace Shells, medium firm to loose. No odor.	EF-B41_12.5
13	5	0						
14		0						
15		0	moist	10	ML		Reddish Brown (5YR 4/4) SILT, some fine sub-angular Gravel, dense. No odor.	
16		0	wet	10	ML		Strong Brown to Reddish Brown SILT, some fine to medium Sand, trace fine angular Gravel, loose. No odor.	
17		0						
18	3.8							EF-B41_17.5
19			moist	11	GP-GM		Reddish Brown (2.5YR 4/4) fine to medium SAND and GRAVEL, angular, some Silt, dense. No odor.	
20		0	moist	11	GP-GM	No Recovery		EF-B41_20.0
21			moist	11	GP-GM		Same as above.	
22	0.5		moist	11	GP-GM		No Recovery	
23							Refusal at 22 ft.	
24								
25								
26								
27								
28								
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33								
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35								

Comments: No COPR/GGM identified at this location.

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30 Knightsbridge Road, Piscataway, NJ 08854
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Boring ID: EF-42

Page: 1

Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 611001.931
Date Started Drilling: 4/26/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683907.586
Date Finished Drilling: 4/29/2011	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: B. Daniels, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 3.5 ft
Physical Location: Garfield Avenue, near Light Rail		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number	
1		0	dry	3	Fill		Brown (7.5YR 4/2) fine to coarse angular GRAVEL and fine to medium SAND, trace Fill Material (brick) and organics, loose. No odor.	EF-B42_0.5	
2		0						EF-B42_2.0	
3		0	moist	3	Fill			Very Dark Brown (7.5YR 2.5/2) CLAY and SILT, trace fine to coarse angular Gravel and Fill Material (brick), medium stiff. No odor.	EF-B42_2.5
4		0	wet	3	Fill			Same as above.	EF-B42_4.0
5		0							
6	1.6	0	wet	3	Fill		Dark Brown (7.5YR 3/4) fine to medium angular GRAVEL, trace Silt, loose. No odor.	EF-B42_6.0	
7		0	moist	3	Fill			Dark Grayish Brown (10YR 4/2) SILT, grading to very fine Sand and Silt, trace Shells, soft. No odor.	
8								No Recovery	
9									
10		0							
11	1.2	0	moist	3	Fill		Dark Gray (10YR 4/1) SILT, some interbedded medium Sand and fine angular Gravel, soft. No odor.	EF-B42_10.5	
12			wet	3	Fill			No Recovery	
13			wet						
14									
15		0							
16	1.8	0	moist	10	SP-SM		Reddish Brown (2.5YR 4/4) fine SAND, little Silt, trace fine angular Gravel, dense. No odor.	EF-B42_16.0	
17									
18			moist	10	SP-SM			No Recovery	
19									
20		0							
21	1.6	0	moist	10	ML		Reddish Brown (2.5YR 4/4) SILT, some very fine Sand, little medium angular Gravel, dense. No odor.	EF-B42_21.0	
22			moist	10	ML			No Recovery	
23									
24									
25									
26							End of boring at 25 ft.		
27									
28									
29									
30									
31									
32									
33									
34									
35									

Comments: No COPR/GGM identified at this location.

PPG - GINT STD US LAB.GDT - 11/3/11 14:35 - \\USPSW2\FP001\ENVIRONMENT\PISCATAWAY\PROJECT\PPG-NJC\PROGRAM9-WORKFILES\PROJECT MANAGER-CATALDO\BGA RI-SOIL INVESTIGATION\FIELD WORKING LOGS\GINT L



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Project Name: PPG Soil RIWP	Drilling Company: SGS	
Project Number: 6015-4801	Drilling Method: Airknife/Geoprobe	Coordinates (NJSPNAD83) x: 611069.834
Date Started Drilling: 4/26/2011	Rig Type: Airknife/Geoprobe	Coordinates (NJSPNAD83) y: 683962.263
Date Finished Drilling: 4/29/2011	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: B. Daniels, M. Merdinger	Project Manager: Robert Cataldo	Depth to Water: 3.5 ft
Physical Location: Garfield Avenue, near Light Rail		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample Number
1		0		1	Fill		Concrete	EF-B43_0.5
2		0	dry to moist	3	Fill		Brown (7.5YR 4/3) fine to coarse SAND and SILT, some little fine to coarse angular Gravel, trace Fill Material (slag) and Boulders, loose. No odor.	EF-B43_2.0
3		0	moist	3	Fill			EF-B43_2.5
4		0	wet	3	Fill		Brown (7.5YR 4/2) CLAY and Silt, little fine to medium Sand and Gravel, trace Fill Material, soft. No odor.	EF-B43_4.0
5		0						EF-B43_4.0
6	1.7	0	moist	3	Fill		Dark Grayish Brown (10YR 4/2) SILT, some fine Sand, trace fine angular Gravel and Cobbles, soft. No odor.	EF-B43_6.0
7			moist	3	Fill		No Recovery	
8								
9								
10		0						
11	2	0	moist	3	Fill		Same as above, some Gray to Green mottling, trace Shells.	EF-B43_11.0
12								
13			moist	10	SP-SM		Reddish Brown (2.5YR 4/4) fine SAND and SILT, medium dense. No odor.	
14			moist	10	SP-SM			No Recovery
15		0						
16	1.7	0	moist	10	ML		Reddish Brown (2.5YR 4/4) to Weak Red (10R 4/4) SILT, some medium Sand, little medium angular Gravel, dense. No odor.	EF-B43_16.0
17			moist	10	ML			No Recovery
18								
19								
20		0						
21	2.3	0	wet	10	ML		Black SILT, semi-cohesive, firm. No odor.	EF-B43_21.0
22			wet to moist	10	ML			
23			moist	10	ML		No Recovery	
24								
25							End of boring at 25 ft.	
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								

Comments: No COPR/GGM identified at this location.

PPG - GINT STD US LAB.GDT - 11/3/11 14:35 - \\USPSW2\FP001\DATA_USPSW2\FP001\ENVIRONMENT\PISCATAWAY\PROJECT\PPG-NJC\PROGRAM9-WORKFILES\PROJECT MANAGER-CATALDO\BGA-RI-SOIL INVESTIGATION\FIELD WORKING LOGS\GINT L

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60154801	Drilling Method: Soft Dig/Geoprobe	Coordinates (NJSPNAD83) x: 610626.8125
Date Started Drilling: 8/31/2012 9:07:00 AM	Rig Type: Geoprobe	Coordinates (NJSPNAD83) y: 683334.4375
Date Finished Drilling: 8/31/2012 11:00:00 AM	Core Size: 2 in	Boring Total Depth: 20 ft
Logged By: Ben Daniels	Project Manager: Chris Martell	Depth to Water:
Physical Location:		

(Note bgs = below ground surface)

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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1				1	CONCRETE		CONCRETE	
1-2			moist	3	FILL		silty SAND, and fine to coarse gravel trace fill material, (7.5YR 4/3) brown, moist, no odor, subangular, (coal, concrete, asphalt) trace organics.	
2-3			wet	3	FILL		SILT, little fine to medium sand and fine to coarse gravel, (7.5YR 5/4) brown, wet, no odor, angular, Trace fill material (wood fragments). Wet at 2 f t.	
5	33.6		moist	10	ML		SILT, little fine to medium gravel, (7.5YR 4/4) brown, stiff, moist, no odor, angular	EF-B118-5.0-5.5
7			moist	10	ML		SILT, little fine to medium gravel, (5YR 4/4) reddish brown, soft, moist, no odor, angular	EF-B118-7.0-7.5
10	44.4		dry	10	ML		SILT, little fine to coarse sand and fine to coarse gravel, (5YR 4/3) reddish brown, stiff, dry, no odor, angular	
15	30		wet	10	SW		fine to medium SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, dense, wet, no odor, angular	EF-B118-16.0-16.5
17			wet	10	SP		fine SAND, (5YR 4/3) reddish brown, dense, wet, no odor	
17-18			wet	11	GW		fine SAND, little coarse sand and fine to medium gravel, (7.5YR 4/4) brown, dense, wet, no odor, angular medium to coarse GRAVEL, (5YR 4/3) reddish brown, loose, wet, no odor, angular, Pulverized rock.	EF-B118-17.0-17.5

Comments:



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732.564.3200 office telephone

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60154801	Drilling Method: Soft Dig/Geoprobe	Coordinates (NJSPNAD83) x: 610579
Date Started Drilling: 8/31/2012 9:06:00 AM	Rig Type: Geoprobe	Coordinates (NJSPNAD83) y: 683356.6875
Date Finished Drilling: 8/31/2012 10:33:00 AM	Core Size: 2 in	Boring Total Depth: 7.4000009536743 ft
Logged By: Ben Daniels	Project Manager: Chris Martell	Depth to Water:
Physical Location:		

(Note bgs = below ground surface)

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Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
					1 CONCRETE		CONCRETE	
1		0.0	moist	3	FILL		fine to medium SAND, little silt and fine to medium gravel, (7.5YR 5/3) brown, moist, no odor, angular, Trace fill material (coal, brick)	
2		0.0	moist	10	ML		SILT, little fine to coarse sand and fine to coarse gravel, (5YR 5/4) reddish brown, moist, angular	
3								
4								EF-B119-4.0-4.5
5								
6	16.8		moist	10	ML		SILT, little fine to medium sand and fine to medium gravel, (5YR 4/4) reddish brown, medium soft, moist, no odor, angular	EF-B119-6.0-6.5
7								

Comments:

Client: PPG	BORING ID: GA	
Site: PPG - Jersey City, NJ		
Start Date: 3/15/2004	Project: Site Investigation	Page: 1 of 2
End Date: 3/15/2004	Coordinates: X-610700.73 Y-683335.9	Depth of Boring: 20.00
	Elevation: 13.94	Geologist: R. Feinberg
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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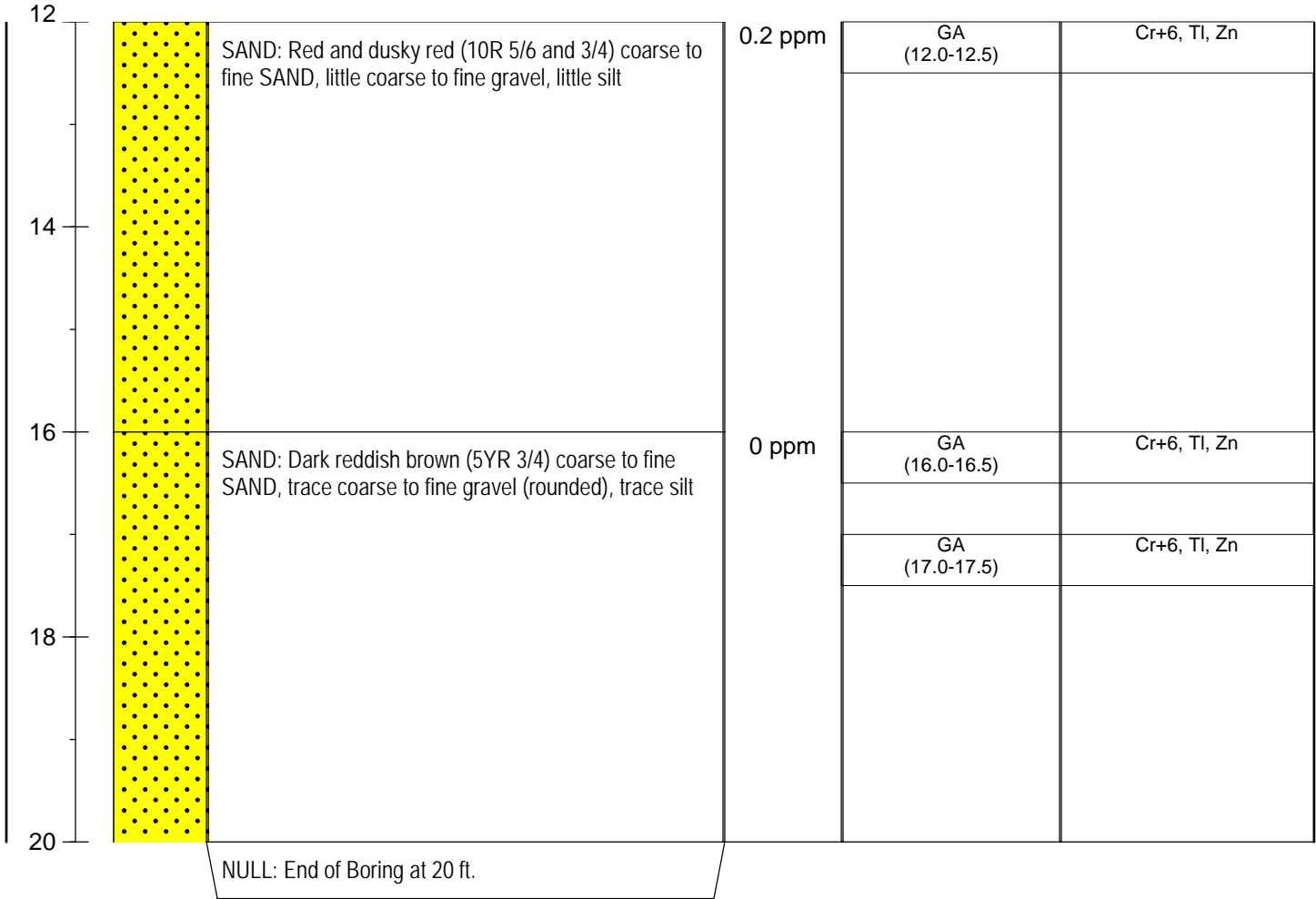
0		CEMENT: Concrete (2")		GA (0.1-0.5)	Cr+6, Tl, Zn
0.5		FILL: Grayish brown (10YR 5/2) coarse to fine SAND, little coarse to fine gravel, trace silt, trace crushed rock/Red and weak red (10R 4/6 and 2.5Y 4/2) clayey SILT, trace fine sand, trace coal		GA (0.8-1.8)	Cr+6, Tl, Zn
2					
4		FILL: Reddish gray, black and reddish brown (2.5YR 5/1, 5YR 2.5/1 and 4/4) coarse to fine SAND, some coarse to fine gravel, trace silt, (coal ash), dry (14")/Very dark gray, dark brown and black (10YR 3/1 and 3/3, GLEY1 2.5/N) SILT, some coarse to fine sand	0.1 ppm	GA (4.0-4.5)	Cr+6, Tl, Zn
6				GA (5.2-6.2)	Cr+6, Tl, Zn (includes duplicate)
8		FILL: Dusky red (2.5YR 3/2) coarse to fine SAND, trace coarse to fine gravel, trace silt, trace vegetation	0.6 ppm	GA (8.0-8.5)	Cr+6, Tl, Zn
9				GA (8.5-9.0)	Cr+6, Tl, Zn
10		SILT: Very dark grayish brown (10YR 3/2) clayey SILT, wet (27")/Dark brown (7.5YR 3/2) coarse to fine SAND, little silt			
12					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

THIS IS A PRELIMINARY DRAFT. IT HAS BEEN PREPARED BASED ON PRELIMINARY INFORMATION AND ON ASSUMPTIONS. NO ONE MAY RELY ON THIS DRAFT. IT IS SUBJECT TO CHANGE AS ADDITIONAL INFORMATION BECOMES AVAILABLE OR IS CLARIFIED.

Client: PPG		BORING ID: GA
Site: PPG - Jersey City, NJ		
Start Date: 3/15/2004	Project: Site Investigation	Page: 2 of 2
	Coordinates: X-610700.73 Y-683335.9	Depth of Boring: 20.00
End Date: 3/15/2004	Elevation: 13.94	Geologist: R. Feinberg
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

THIS IS A PRELIMINARY DRAFT. IT HAS BEEN PREPARED BASED ON PRELIMINARY INFORMATION AND ON ASSUMPTIONS. NO ONE MAY RELY ON THIS DRAFT. IT IS SUBJECT TO CHANGE AS ADDITIONAL INFORMATION BECOMES AVAILABLE OR IS CLARIFIED.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610894.693
Date Started Drilling: 10/30/2016 11:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683689.094
Date Finished Drilling: 10/30/2016 12:40:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 3.5
Physical Location: Actual- GA PDI		Surface Elevation: 10.302 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	4.5	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
2			moist	FILL		fine silty SAND, little fill debris, (5YR 2.5/1) black, medium dense, moist, no odor, no staining, water at 3.5 feet.	GAR-PDI-A`1B-1.5-2.0
3							
4							GAR-PDI-A`1B-3.5-4.0
5				NR		NO RECOVERY	
6	5	0.0	wet	FILL		SILT, trace fill debris, (5YR 4/1) dark gray, firm, wet, no odor, no staining.	GAR-PDI-A`1B-5.5-6.0
7				FILL		WOOD, no odor, no staining.	GAR-PDI-A`1B-6.5-7.0
8							
9							
10	5	0.0	wet	SW		fine to coarse silty SAND, trace fine to coarse gravel, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`1B-10.0-10.5
11							GAR-PDI-A`1B-11.5-12.0
12							
13							
14							
15	5	0.0	wet	SW		fine to coarse SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`1B-15.5-16.0
16							GAR-PDI-A`1B-17.5-18.0
17							
18							
19							
20	1	0.0					GAR-PDI-A`1B-19.5-20.0
21							GAR-PDI-A`1B-20.0-20.5

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610909.636
Date Started Drilling: 10/30/2016 10:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683713.76
Date Finished Drilling: 10/30/2016 11:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 3.0
Physical Location: Actual- GA PDI		Surface Elevation: 10.378 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			moist	FILL		fine to medium SAND, little fill debris, (7.5YR 3/4) dark brown, moist, no odor, no staining. medium to coarse GRAVEL, little ash, trace cinders, (5YR 2.5/1) black, medium dense, moist to wet, no odor, no staining, water at 3.0 feet.	GAR-PDI-A'2B-1.5-2.0
			moist	FILL			
			wet	FILL		SILT, trace wood, fill debris and shells, (5YR 6/1) gray, soft, wet, no odor, no staining.	GAR-PDI-A'2B-3.5-4.0
	NR		NO RECOVERY				
5-10	5	0.0	wet	FILL		SILT, some fill debris, little wood, (5YR 6/1) gray, soft, wet, no odor, no staining.	GAR-PDI-A'2B-5.5-6.0
			wet	ML		SILT, trace fine sand, (5YR 6/3) light reddish brown, firm, wet, no odor, no staining. Soils consistent with UNDno. fine to coarse silty SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A'2B-8.0-8.5
			wet	SM			
11-20	5	0.0					GAR-PDI-A'2B-9.5-10.0
							GAR-PDI-A'2B-11.5-12.0
							GAR-PDI-A'2B-13.5-14.0
							GAR-PDI-A'2B-15.5-16.0
							GAR-PDI-A'2B-17.5-18.0
20-21	1	0.0	wet	SM		fine silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A'2B-19.5-20.0 GAR-PDI-A'2B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610925.569
Date Started Drilling: 10/23/2016 12:20:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683740.349
Date Finished Drilling: 10/23/2016 1:10:00 PM	Core Size:	Boring Total Depth: 21 ft
Logged By: KW	Project Manager: Scott Mikaelian	Depth to Water: 3.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.448 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4.5	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			dry to moist	FILL		fine silty SAND, trace fill debris, (7.5YR 3/3) dark brown, dense, dry to moist, no odor, no staining.	GAR-PDI-A`3B-1.0-1.5
			saturated	FILL		CINDERS, some ash, (5YR 6/1) gray, loose, saturated, no odor, no staining, water at 3.5 feet.	GAR-PDI-A`3B-3.0-3.5
			saturated	FILL		fine to medium silty SAND, trace fill debris, (5YR 2.5/1) black, medium dense, saturated, no odor, no staining.	
5			NR		No Recovery		
6-9	5	0.0	saturated	FILL		CINDERS, some ash, little wood, (5YR 2.5/1) black, loose, saturated, no odor, no staining.	GAR-PDI-A`3B-5.0-5.5
							GAR-PDI-A`3B-6.0-6.5
			saturated	ML		SILT, (5YR 6/1) gray, stiff, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`3B-6.5-7.0
			saturated	ML		SILT, (7.5YR 6/3) light brown, stiff, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`3B-7.0-7.5
10-14	5	0.0	saturated	SM		fine to coarse silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, dense, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`3B-9.0-9.5
15-18	5	0.0	saturated	SW		fine to coarse SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, loose, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`3B-11.0-11.5
19-20	1	0.0	saturated	SP		fine SAND, some fine to coarse gravel, (5YR 4/3) reddish brown, very dense, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`3B-13.0-13.5
20-21							GAR-PDI-A`3B-15.0-15.5
							GAR-PDI-A`3B-17.0-17.5
							GAR-PDI-A`3B-19.0-19.5
							GAR-PDI-A`3B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610941.377
Date Started Drilling: 10/23/2016 11:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683767.313
Date Finished Drilling: 10/23/2016 12:15:00 PM	Core Size:	Boring Total Depth: 21 ft
Logged By: KW	Project Manager: Scott Mikaelian	Depth to Water: 5.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.559 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	3.5	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			dry to moist	FILL		fine to medium silty SAND, trace fill debris, (5YR 2.5/1) black, dense, dry to moist, no odor, no staining.	GAR-PDI-A`4B-1.0-1.5
				NR		No Recovery	GAR-PDI-A`4B-3.0-3.5
5-10	4.5	0.0	saturated	FILL		fine to medium silty SAND, trace fill debris, (5YR 2.5/1) black, medium dense, saturated, no odor, no staining, water at 5.5 feet.	GAR-PDI-A`4B-5.0-5.5
			saturated	ML			SILT, little fine sand, (7.5YR 6/3) light brown, firm, saturated, no odor, no staining. Soils consistent with UNDno.
							GAR-PDI-A`4B-6.0-6.5
							GAR-PDI-A`4B-7.0-7.5
						NR	
11-15	4	0.0	wet	SP		fine to coarse SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, loose, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`4B-11.0-11.5
			saturated	SM			fine to medium silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, dense, saturated, no odor, no staining. Soils consistent with UNDno.
				NR		No Recovery	
16-20	5	0.0	wet	ML		SILT, (7.5YR 6/3) light brown, soft, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`4B-15.0-15.5
			saturated	SP			fine to coarse SAND, some fine to coarse gravel, (5YR 4/3) reddish brown, dense, saturated, no odor, no staining. Soils consistent with UNDno.
20-21	1	0.0					GAR-PDI-A`4B-19.0-19.5
							GAR-PDI-A`4B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610954.148
Date Started Drilling: 10/23/2016 10:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683788.677
Date Finished Drilling: 10/23/2016 11:15:00 AM	Core Size:	Boring Total Depth: 21 ft
Logged By: KW	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.732 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			moist	FILL		SILT, little cinders, trace ash and fill debris, (7.5YR 3/3) dark brown, soft, moist, no odor, no staining.	GAR-PDI-A`5B-1.5-2.0
				NR		No Recovery	GAR-PDI-A`5B-3.5-4.0
5-10	5	0.0	wet	FILL		SILT, trace ash and fill debris, (5YR 2.5/1) black, soft, wet, no odor no staining, water at 5.0 feet.	GAR-PDI-A`5B-5.0-5.5
			wet	ML		SILT, trace fine sand, (5YR 6/3) light reddish brown, firm, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`5B-5.5-6.0
							GAR-PDI-A`5B-7.5-8.0
							GAR-PDI-A`5B-9.5-10.0
11-15	5	0.0	saturated	SM		fine silty SAND, trace fine gravel, (5YR 4/3) reddish brown, loose, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`5B-11.5-12.0
							GAR-PDI-A`5B-13.5-14.0
							GAR-PDI-A`5B-15.5-16.0
							GAR-PDI-A`5B-17.5-18.0
20-21	1	0.0				fine to medium silty SAND, some fine to coarse gravel, (5YR 4/3) reddish brown, dense, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`5B-19.5-20.0 GAR-PDI-A`5B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610801.306
Date Started Drilling: 11/17/2016 11:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683501.142
Date Finished Drilling: 11/17/2016 12:15:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.478 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	5	0.0	wet	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, wet, no odor, no staining, water at 4.0 feet.		
2								
3								
4								
5	4	0.0						
6			wet	FILL		fine to medium SAND, some ash, little fill debris, (5Y 2.5/2) black, loose, wet, no odor, no staining.	GAR-PDI-A`6A-6.0-6.5	
7			moist	SP		fine to medium SAND, trace silt, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6A-6.5-7.0	
8			wet	ML		SILT, (7.5YR 4/3) brown, soft, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6A-8.0-8.5	
9				NR		NO RECOVERY		
10	5	0.0	wet	SM		fine silty SAND, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6A-10.0-10.5	
11								
12			wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
13							GAR-PDI-A`6A-14.0-14.5	
14	5	0.0						
15								
16								
17							GAR-PDI-A`6A-16.0-16.5	
18								
19							GAR-PDI-A`6A-18.0-18.5	
20	1	0.0	wet	SM		fine to medium silty SAND, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610971.311
Date Started Drilling: 10/23/2016 9:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683816.329
Date Finished Drilling: 10/23/2016 10:25:00 AM	Core Size:	Boring Total Depth: 21 ft
Logged By: KW	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.968 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			moist	FILL		SILT, some ash, cinders, concrete and fill debris, (7.5YR 3/4) dark brown, firm, moist, no odor, no staining.	GAR-PDI-A`6B-1.5-2.0
				NR		No Recovery	GAR-PDI-A`6B-3.5-4.0
5-10	5	0.0	saturated	FILL		SILT, some ash and cinders, (5YR 2.5/1) black, soft, saturated, no odor, no staining, water at 5.0 feet.	GAR-PDI-A`6B-5.0-5.5
			saturated	ML		SILT, trace fine sand, (5YR 6/3) light reddish brown, firm, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6B-5.5-6.0
							GAR-PDI-A`6B-7.5-8.0
							GAR-PDI-A`6B-9.5-10.0
11-14	4	0.0	saturated	SM		fine to medium silty SAND, trace fine to medium gravel, (5YR 4/3) reddish brown, very dense, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6B-11.5-12.0
			saturated	ML		SILT, little fine sand, trace fine gravel, (5YR 4/4) reddish brown, stiff, saturated, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6B-13.5-14.0
				NR		No Recovery	
15-20	5	0.0	wet	SM		fine to medium silty SAND, some fine to coarse gravel, (5YR 3/2) dark reddish brown, very dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`6B-15.5-16.0
							GAR-PDI-A`6B-17.5-18.0
							GAR-PDI-A`6B-19.5-20.0
20-21	1	0.0					GAR-PDI-A`6B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610966.756
Date Started Drilling: 1/29/2017 1:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683855.766
Date Finished Drilling: 1/29/2017 2:30:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 4.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.468 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	4.5		moist	FILL		fine to medium SAND, little fine to medium gravel, (7.5YR 4/2) brown, loose, moist, no odor, no staining.	GAR-PDI-A`7B-0.5-1.0	
2			moist to wet	FILL		SILT, little fine sand and fill debris, (7.5YR 2.5/2) very dark brown, medium stiff, moist to wet, no odor, no staining, water at 4.5 feet.	GAR-PDI-A`7B-2.0-2.5	
3								
4								
5				NR		NO RECOVERY		
6	5	0.0	wet	FILL		SILT, little fine sand, (7.5YR 5/1) gray, medium stiff, wet, no odor, no staining.	GAR-PDI-A`7B-6.0-6.5	
7							GAR-PDI-A`7B-6.5-7.0	
8			wet	SM		fine SAND, little silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`7B-7.0-7.5	
9								
10	4.5	0.0	wet	SM		fine SAND, some medium to coarse gravel, trace silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`7B-10.0-10.5	
11								
12								
13								
14							GAR-PDI-A`7B-14.0-14.5	
15				NR		NO RECOVERY		
16	5	0.0	wet	SP		fine to coarse SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
17								
18								GAR-PDI-A`7B-18.0-18.5
19								
20	1	0.0					GAR-PDI-A`7B-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610770.426
Date Started Drilling: 11/10/2016 8:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683450.248
Date Finished Drilling: 11/10/2016 9:40:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.818 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
0		0.0		CONCRETE		Concrete sidewalk		
1	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.		
2								
3								
4								
5								
6	5	0.0	moist	FILL		fine to medium SAND, little fill debris, trace silt and wood, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	GAR-PDI-A`8A-6.0-6.5	
7								
8								
9			moist	SM		fine silty SAND, little organics, (7.5YR 3/3) dark brown, medium dense, moist, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A`8A-8.0-8.5	
10	5	0.0	wet	SM		fine silty SAND, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`8A-10.0-10.5	
11								
12								
13					wet	SW		fine to coarse SAND, some fine to coarse gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.
14								
15	5	0.0						
16								
17								
18								
19								
20	1	0.0					GAR-PDI-A`8A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:02














Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610979.949
Date Started Drilling: 2/19/2017 11:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683876.395
Date Finished Drilling: 2/19/2017 12:15:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.565 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID			
		0.0		ASPHALT		ASPHALT				
1	3.5		dry to moist	FILL		fine to coarse SAND, little fine to coarse gravel, (7.5YR 4/2) brown, loose, dry to moist, no odor, no staining.	GAR-PDI-A`8B-0.5-1.0			
2				FILL			fine to medium sandy SILT, little fine to medium gravel and fill debris, (7.5YR 3/2) dark brown, medium stiff, moist, no odor, no staining.	GAR-PDI-A`8B-1.0-1.5		
3										
4						NR		NO RECOVERY	GAR-PDI-A`8B-3.0-3.5	
5	4.5	0.0	moist to wet	FILL		fine to medium sandy SILT, little fill debris and seashells (7.5YR 3/2) dark brown, medium stiff, moist to wet, no odor, no staining, water at 6.0 feet.	GAR-PDI-A`8B-5.0-5.5			
6										
7			wet	SM		fine SAND, little silt, trace fine gravel, (5Y 5/2) olive gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`8B-7.0-7.5			
8			wet	SM			fine SAND, little silt, trace coarse gravel, (5YR 6/3) light reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`8B-9.0-9.5		
9										
10				NR		NO RECOVERY				
11	4	0.0	wet	SM		fine SAND, little silt, trace coarse gravel, (5YR 6/3) light reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`8B-11.0-11.5			
12				SP			fine to medium SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`8B-13.0-13.5		
13										
14				NR		NO RECOVERY				
15	5	0.0	wet	SP		fine to medium silty SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`8B-15.0-15.5			
16										
17										
18										
19										
20	1	0.0					GAR-PDI-A`8B-20.0-20.5			
21										

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610754.846
Date Started Drilling: 11/10/2016 9:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683423.274
Date Finished Drilling: 11/10/2016 10:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.072 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	
			dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry, no odor, no staining.	
2-5	5	0.0					
							
							
6-9	3.5	0.0	wet	FILL		fine to medium silty SAND, little fine to medium gravel, trace fill debris, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining, water at 6.0 feet.	
				NR		NO RECOVERY	
10-13	5	0.0	moist	FILL		fine sandy SILT, little organics, trace fill debris, (7.5YR 3/3) dark brown, soft, moist, no odor, no staining.	GAR-PDI-A`9A-10.0-10.5
			wet	SM		fine silty SAND, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9A-10.5-11.0
							GAR-PDI-A`9A-12.0-12.5
			wet	SW		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9A-14.0-14.5
15-18	5	0.0	wet	SP		fine to medium SAND, little fine gravel, (7.5YR 3/3) dark brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9A-16.0-16.5
			wet	SW		fine to coarse SAND, some fine to coarse gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9A-18.0-18.5
20	1	0.0					GAR-PDI-A`9A-20.0-20.5
21							

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Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611009.357
Date Started Drilling: 2/12/2017 1:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683904.177
Date Finished Drilling: 2/12/2017 2:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 3.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.717 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	3.5	0.0		CONCRETE		Concrete sidewalk	
			dry to moist	FILL		fine to medium SAND, some fine to coarse gravel, little silt, (7.5YR 3/2) dark brown, medium dense, dry to moist, no odor, no staining.	
			moist	FILL		fine to coarse SAND, some fine to coarse gravel, (7.5YR 5/4) brown, medium dense, moist, no odor, no staining.	
			wet	FILL		fine to coarse silty SAND, little coarse gravel, (7.5YR 2.5/3) very dark brown, medium dense, wet, no odor, no staining, water at 3.0 feet.	
				NR		NO RECOVERY	
5-9	3.5	0.0	wet	FILL		SILT, some fine to medium sand, little fine to coarse gravel, (7.5YR 2.5/2) very dark brown, medium stiff, wet, no odor, no staining.	GAR-PDI-A`9B-6.0-6.5
			wet	SM		SILT, little seashells, trace fine sand, (7.5YR 3/2) dark brown, medium stiff, wet, slight organic odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9B-6.5-7.0
				NR		NO RECOVERY	GAR-PDI-A`9B-8.0-8.5
10-15	4.5	0.0	wet	SP		fine to coarse SAND, little fine to coarse gravel, (7.5YR 5/4) brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9B-10.0-10.5
			wet	SP		fine to medium SAND, little medium to coarse gravel, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9B-12.0-12.5
				NR		NO RECOVERY	GAR-PDI-A`9B-14.0-14.5
16-19	5	0.0	wet	SP		fine SAND, little coarse gravel, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9B-16.0-16.5
			wet	SP		fine to coarse SAND, some fine to coarse gravel, (5YR 3/2) dark reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9B-18.0-18.5
			wet	SM		fine SAND, little fine to coarse gravel, trace silt, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`9B-18.0-18.5
20-21	1	0.0					GAR-PDI-A`9B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610744.567
Date Started Drilling: 11/10/2016 10:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683395.283
Date Finished Drilling: 11/10/2016 11:15:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.288 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	
			dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry, no odor, no staining.	
2-5	5	0.0					
			moist	FILL		fine SAND, little silt, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining, water at 6.0 feet.	
			moist	FILL		fine to medium SAND, little organics, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	
6-10	5	0.0					GAR-PDI-A`10A-9.5-10.0
			moist	SM		fine sandy SILT, little organics, (7.5YR 3/3) dark brown, firm, moist, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A`10A-10.0-10.5
			wet	SM		fine silty SAND, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
11-15	5	0.0					GAR-PDI-A`10A-12.0-12.5
			wet	SW		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`10A-14.0-14.5
16-20	5	0.0					GAR-PDI-A`10A-16.0-16.5
17-21	1	0.0					GAR-PDI-A`10A-18.0-18.5
			wet	SP		fine to medium SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`10A-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610729.203
Date Started Drilling: 11/10/2016 11:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683370.564
Date Finished Drilling: 11/10/2016 11:50:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.482 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
1	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.			
2			dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.			
3	3.5	0.0							
4									
5									
6			wet	FILL				fine to medium silty SAND, trace fill debris, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining.	GAR-PDI-A`11A-7.5-8.0
7	5	0.0							
8			moist	SP			fine to medium SAND, little organics, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A`11A-8.0-8.5	
9				NR			NO RECOVERY		
10	5	0.0	wet	SM		fine silty SAND, little organics, trace fine gravel, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A`11A-10.0-10.5		
11			moist	SW			fine to medium SAND, some fine to medium gravel, trace silt, (7.5YR 4/3) brown, dense, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`11A-12.0-12.5	
12	5	0.0							
13									
14									
15	5	0.0	wet	SM		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`11A-16.0-16.5		
16									
17	1	0.0							
18									
19			wet	SP			fine to medium SAND, little silt and fine to medium gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`11A-18.0-18.5	
20									
21									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610714.524
Date Started Drilling: 11/9/2016 9:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683344.057
Date Finished Drilling: 11/9/2016 10:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 3.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.159 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-3	3	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	
			dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 3.0 feet.	
				NR		NO RECOVERY	
5-9	3.5	0.0	wet	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, wet, no odor, no staining.	GAR-PDI-A`12A-5.0-5.5
			wet	FILL		fine to medium SAND, some fine to medium gravel, little brick, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. fine silty SAND, (7.5YR 3/3) dark brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`12A-6.0-6.5
			wet	SM			GAR-PDI-A`12A-6.5-7.0
				NR		NO RECOVERY	GAR-PDI-A`12A-8.0-8.5
10-14	5	0.0	wet	SP		fine to medium silty SAND, some fine gravel, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`12A-10.0-10.5
			wet	SP			GAR-PDI-A`12A-12.0-12.5
			wet	SM		fine SAND, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`12A-12.0-12.5
			wet	SP			GAR-PDI-A`12A-14.0-14.5
15-20	5	0.0	wet	SP		fine to medium SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense to dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`12A-16.0-16.5
							GAR-PDI-A`12A-18.0-18.5
							GAR-PDI-A`12A-20.0-20.5
20-21	1	0.0					

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

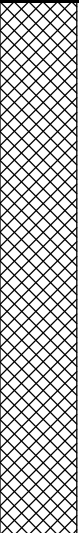


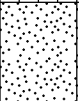
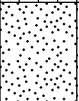

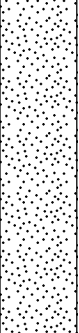

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610704.17
Date Started Drilling: 11/9/2016 10:35:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683323.773
Date Finished Drilling: 11/9/2016 11:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 3.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.049 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1-3	3.5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/3) brown, dry, no odor, no staining.		
			dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, water at 3.5 feet.		
				NR		NO RECOVERY		
5-10	4.5	0.0	wet	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, wet, no odor, no staining.	GAR-PDI-A`13A-5.5-6.0	
			wet	FILL				
			wet	SM		fine to medium SAND, little silt and ash, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	GAR-PDI-A`13A-6.0-6.5	
			wet	SM		fine silty SAND, (7.5YR 3/3) dark brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
				NR		NO RECOVERY		
11-20	5	0.0	wet	SP		fine to medium SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense to dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A`13A-12.0-12.5	
20-21	1	0.0					GAR-PDI-A`13A-14.5-15.0	
							GAR-PDI-A`13A-16.5-17.0	
							GAR-PDI-A`13A-17.0-17.5	
							GAR-PDI-A`13A-17.5-18.0	
							GAR-PDI-A`13A-18.5-19.0	
							GAR-PDI-A`13A-19.5-20.0	
							GAR-PDI-A`13A-20.0-20.5	

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610903.388
Date Started Drilling: 11/21/2016 12:10:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683651.358
Date Finished Drilling: 11/21/2016 1:40:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.519 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.	
5-8	5	0.0					
8-9			moist	FILL		fine silty SAND, little ash, trace brick, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. SILT, (7.5YR 3/2) dark brown, soft, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A0-8.0-8.5
9-10			moist	ML			
10-13	5	0.0					
13-14			wet	SP		fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
14-15			wet	SP		fine to medium SAND, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
15-20	5	0.0					
20-21	1	0.0					GAR-PDI-A0-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610888.266
Date Started Drilling: 11/17/2016 8:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683625.194
Date Finished Drilling: 11/17/2016 9:15:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.923 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry	FILL		TRAP ROCK	
2				FILL			
3							
4							
5							
6	5	0.0	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to moist, no odor, no staining, water at 5.0 feet.	
7				SM			
8							
9	5	0.0	moist	SP		SILT, some to little fine sand, little fine gravel, (7.5YR 4/3) brown, soft, moist, no odor, no staining.	GAR-PDI-A1A-7.0-7.5
10				SP			
11							
12							
13	5	0.0	wet	SP		Organic SILT, 90% organic silt, 10% organic fibers, (7.5YR 4/2) brown, soft, moist to wet, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A1A-7.5-8.0
14				SP			
15							
16	5	0.0	wet	SP		fine to medium SAND, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
17				SP			
18							
19	5	0.0	wet	SP		fine to coarse SAND, some fine to coarse gravel, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
20				SP			
21	1	0.0					GAR-PDI-A1A-17.0-17.5
							GAR-PDI-A1A-17.5-18.0
							GAR-PDI-A1A-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610917.444
Date Started Drilling: 11/22/2016 7:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683678.148
Date Finished Drilling: 11/22/2016 9:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.994 ft NAVD88

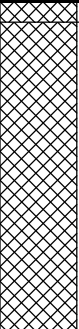


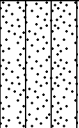

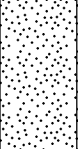
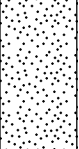
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry	FILL FILL		TRAP ROCK DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.	
2							
3							
4							
5							
6	5	0.0	wet	FILL		fine to medium silty SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	GAR-PDI-A1B-7.5-8.0
7							
8							
9	5	0.0	moist	ML		SILT, (7.5YR 3/3) dark brown, soft, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A1B-8.0-8.5
10							
11							
12							
13							
14	5	0.0	wet	SM		fine silty SAND, little fine gravel, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A1B-12.0-12.5
15							
16							
17	5	0.0	wet	SP		fine to coarse SAND, some fine to coarse gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A1B-14.0-14.5
18							
19							
20							
21							
20	1	0.0					GAR-PDI-A1B-20.0-20.5

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Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610873.824
Date Started Drilling: 11/17/2016 9:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683599.743
Date Finished Drilling: 11/17/2016 9:50:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 12.065 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	FILL FILL		TRAP ROCK DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.	
6-8	3.5	0.0	wet	FILL		fine to medium SAND, little brick, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	GAR-PDI-A2A-7.5-8.0
8-9			wet	SP		fine to medium SAND, little to trace organics, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A2A-8.0-8.5
9-10				NR		NO RECOVERY	
10-12	2	0.0	wet	SM		fine silty SAND, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
12-15				NR		NO RECOVERY	
15-16		0.0	wet	SM		fine silty SAND, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
16-17	5		wet	SP		fine to medium SAND, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A2A-16.0-16.5
17-18							GAR-PDI-A2A-18.0-18.5
18-19			wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	
19-20	1	0.0					GAR-PDI-A2A-20.0-20.5
20-21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610932.132
Date Started Drilling: 11/22/2016 9:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683705.148
Date Finished Drilling: 11/22/2016 11:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.793 ft NAVD88

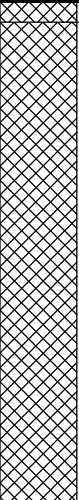


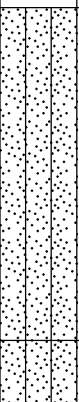


Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry	FILL		TRAP ROCK	
2				FILL			
3		5.5	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.	
4							
5							
6	5.5	wet	SM		fine to medium SAND, little silt and brick, trace coal, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.		
7							
8	5	5.5	wet	SP		fine silty SAND, (2.5Y 4/2) dark grayish brown, medium dense, wet, strong organic odor, no staining. Soils consistent with UNDno.	
9							
10							
11	5	0.0	wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
12							
13	5	0.0	wet	SP		fine to medium SAND, some fine gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
14							
15	1	0.0	wet	SP		fine to coarse SAND, some fine to coarse gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	
16							
17							
18							
19							
20							
21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

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Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610858.194
Date Started Drilling: 11/17/2016 10:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683573.297
Date Finished Drilling: 11/17/2016 11:40:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.990 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	FILL FILL		TRAP ROCK DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.	
6-9	4	0.0					
8			wet	FILL		fine to medium SAND, little silt, trace fine gravel, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	GAR-PDI-A3A-7.5-8.0
8.5			wet	SM		fine sandy SILT, trace organics, (7.5YR 4/3) brown, soft, wet, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A3A-8.0-8.5
9				NR		NO RECOVERY	
10-15	5	0.0	wet	SM		fine SAND, little silt, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A3A-10.0-10.5 GAR-PDI-A3A-11.0-11.5
15-16		0.0	wet	SM		fine silty SAND, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A3A-15.0-15.5
16-17			wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A3A-16.0-16.5
18-19							GAR-PDI-A3A-18.0-18.5
20	1	0.0					GAR-PDI-A3A-20.0-20.5
21							

Notes:

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610946.617
Date Started Drilling: 11/22/2016 10:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683730.138
Date Finished Drilling: 11/22/2016 12:20:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.856 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID			
1	5	0.0	dry	FILL		TRAP ROCK				
2				FILL						
3										
4										
5										
6	5	0.0	moist	FILL		CINDERS, little ash, (5YR 2.5/1) black, loose, moist, no odor, no staining.	GAR-PDI-A3B-7.0-7.5			
7										
8				wet			FILL	fine to medium SAND, some cinders, (10YR 3/2) very dark grayish brown, medium dense, wet, no odor, no staining.	GAR-PDI-A3B-7.5-8.0	
9				wet			FILL		fine silty SAND, little fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with MM.	GAR-PDI-A3B-8.0-8.5
10				moist			ML			GAR-PDI-A3B-8.5-9.0
11	5	0.0	wet	SM		SILT, (7.5YR 2.5/3) very dark brown, soft, moist, no odor, no staining. Soils consistent with UNDno.				
12										
13				wet				SP	fine to coarse SAND, some fine to coarse gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
14										
15										
16	5	0.0								
17										
18										
19										
20								1	0.0	
21										

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

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Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610962.057
Date Started Drilling: 11/28/2016 9:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683755.566
Date Finished Drilling: 11/28/2016 10:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 6.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.140 ft NAVD88

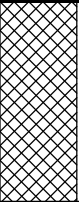
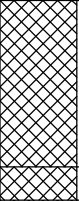

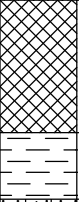




Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID			
1	4	0.0	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.				
2										
3										
4							NR	NO RECOVERY		
5	5	0.0	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, moist to wet, no odor, no staining, water at 6.5 feet.				
6										
7										
8							wet	FILL	fine to medium silty SAND, little fill debris, (5YR 2.5/1) black, medium dense, wet, no odor, no staining.	GAR-PDI-A4B-8.0-8.5
9							wet	OL		organic SILT, 95% organic silt, 5% organic fibers, (5YR 2.5/1) black, soft, wet, slight organic odor, no staining. Soils consistent with UNDorg.
10										
11	5	0.0	moist	ML		SILT, trace fine sand and fine to medium gravel, (5YR 6/3) light reddish brown, firm, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A4B-11.0-11.5			
12										
13										
14										
15										
16	5	0.0	moist	GW		fine to coarse GRAVEL, some fine to coarse sand, (5YR 3/2) dark reddish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A4B-14.0-14.5			
17										
18										
19										
20	1	0.0	moist	SW		fine to coarse SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A4B-16.0-16.5			
21										
21										

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:02

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610977.806
Date Started Drilling: 11/28/2016 10:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683781.507
Date Finished Drilling: 11/28/2016 11:40:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 7.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.004 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1	3	0.0	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/2) brown, medium dense, moist no odor no staining		
2								
3								
4				NR		NO RECOVERY		
5	5	0.0	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, moist, no odor, no staining.		
6								
7								
8			wet	FILL		fine to medium silty SAND, trace fill debris, (5YR 2.5/1) black, medium dense, wet, no odor, no staining, water at 7.5 feet.		
9	wet	FILL		SILT, trace fill debris, (7.5YR 2.5/3) very dark brown, firm, wet, no odor, no staining.				
10								
11	4	0.0	wet	OL		organic SILT, 95% organic silt, 5% organic fibers, (5YR 2.5/1) black, soft, wet, slight organic odor, no staining. Soils consistent with UNDorg.		
12			wet	SM		fine to medium SAND, little silt, (5YR 2.5/1) black, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
13			wet	SW		fine to coarse SAND, trace fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
14						NR		NO RECOVERY
15								
16	5	0.0	wet	SW		fine to medium SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
17								
18								
19							GAR-PDI-A5B-18.0-18.5	
20	1	0.0					GAR-PDI-A5B-20.0-20.5	
21								

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610991.939
Date Started Drilling: 11/29/2016 8:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683808.813
Date Finished Drilling: 11/29/2016 9:10:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.139 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	3.5	0.0		CONCRETE		Concrete sidewalk	
			moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
				NR		NO RECOVERY	
5-8	5	0.0	moist	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, moist, no odor, no staining.	
			wet	FILL		ASH, little cinders, (5YR 6/1) gray, loose, wet, no odor, no staining, water at 6.0 feet.	
			moist	FILL		SILT, little fill debris, trace ash, (7.5YR 3/2) dark brown, soft, moist, no odor, no staining.	GAR-PDI-A6B-7.5-8.0
			wet	ML		SILT, little fine sand, trace fine to coarse gravel, (5YR 6/3) light reddish brown, stiff, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A6B-8.0-8.5
10-14	5	0.0					GAR-PDI-A6B-10.0-10.5
							GAR-PDI-A6B-12.0-12.5
			wet	SM		fine to medium silty SAND, trace fine to coarse gravel, (5YR 5/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A6B-14.0-14.5
15-19	5	0.0	wet	SM		fine to coarse silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A6B-16.0-16.5
							GAR-PDI-A6B-18.0-18.5
20-21	1	0.0					GAR-PDI-A6B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611026.355
Date Started Drilling: 11/21/2016 9:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683856.04
Date Finished Drilling: 11/21/2016 10:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.333 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
0 - 1	5	0.0	dry	CONCRETE		Concrete sidewalk	
1 - 5			FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/3) brown, medium dense, dry to wet, no odor, no staining, water at 6.0 feet.		
5 - 7	5	0.0	moist	FILL		fine to medium SAND, little fill debris and fine to medium gravel, trace ash, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	GAR-PDI-A8B-8.0-8.5
7 - 10			FILL		fine to medium SAND, trace ash, (7.5YR 3/3) dark brown, medium dense, moist, no odor, no staining.	GAR-PDI-A8B-10.0-10.5	
10 - 13	5	0.0	wet	SW		fine to coarse SAND, some fine to medium gravel, trace silt, (5YR 6/3) light reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A8B-12.0-12.5 GAR-PDI-A8B-12.5-13.0
13 - 15			SW			GAR-PDI-A8B-14.0-14.5	
15 - 18	5	0.0					GAR-PDI-A8B-16.0-16.5
18 - 20							
20 - 21	1	0.0	wet	SW		fine to coarse SAND, some fine to coarse gravel, (5YR 3/3) dark reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A8B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS_A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611038.039
Date Started Drilling: 2/12/2017 9:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683884.987
Date Finished Drilling: 2/12/2017 10:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.114 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID				
		0.0		ASPHALT		Asphalt and gravel sub-base.					
1	4		dry to moist	FILL		fine to medium SAND, little coarse gravel, (7.5YR 2.5/2) very dark brown, loose, dry to moist, no odor, no staining.	GAR-PDI-A9B-0.5-1.0				
2								GAR-PDI-A9B-1.5-2.0			
3				CONCRETE		Concrete debris, green staining.					
4			moist	FILL		fine to medium SAND, little silt and fine to coarse gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining. NO RECOVERY	GAR-PDI-A9B-3.5-4.0				
5		NR									
6	5	0.0	wet	FILL		fine to coarse SAND, some coarse gravel, little silt, trace fill debris and seashells, (7.5YR 3/2) dark brown, medium dense, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-A9B-5.5-6.0				
7										GAR-PDI-A9B-7.5-8.0	
8											GAR-PDI-A9B-9.5-10.0
10											
11	4.5	0.0	wet	FILL		fine to coarse SAND, little fine to coarse gravel, (5YR 4/2) dark reddish gray, medium dense, wet, no odor, no staining.	GAR-PDI-A9B-11.0-11.5				
12					SP			fine to coarse SAND, some coarse gravel, little cobbles, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A9B-11.5-12.0		
13								GAR-PDI-A9B-13.5-14.0			
14											
15	5	0.0	wet	OL		SILT, (7.5YR 2.5/2) very dark brown, medium stiff, wet, moderate organic odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A9B-15.5-16.0				
16					SM			fine sandy SILT, little fine to coarse gravel, (7.5YR 3/2) dark brown, stiff, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A9B-17.5-18.0		
17											
18											
19	1	0.0	wet	SP		fine to coarse SAND, little coarse gravel, trace silt, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A9B-19.5-20.0				
20										GAR-PDI-A9B-20.0-20.5	
21											

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611036.252
Date Started Drilling: 2/19/2017 9:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683924.239
Date Finished Drilling: 2/19/2017 10:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.845 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	3.5		moist	FILL		fine to coarse SAND, little fine to coarse gravel, (5Y 5/2) olive gray, loose, moist, no odor, no staining.	GAR-PDI-A10B-0.5-1.0	
2			moist	FILL			fine sandy SILT, little coarse gravel and wood, (7.5YR 3/2) dark brown, medium stiff, moist, no odor, no staining.	GAR-PDI-A10B-1.0-1.5
3			moist	FILL		fine to medium silty SAND, some fill debris, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.		
4				NR			NO RECOVERY	GAR-PDI-A10B-3.0-3.5
5	4.5	0.0	moist	FILL		fine to coarse SAND, little ash, (7.5YR 4/1) dark gray, loose, moist, no odor, no staining.	GAR-PDI-A10B-5.0-5.5	
6			wet	FILL			fine to medium sandy SILT, little coarse gravel, (7.5YR 3/2) dark brown, medium stiff, wet, no odor, no staining, water at 5.5 feet.	
7								GAR-PDI-A10B-7.0-7.5
8			wet	ML		SILT, trace fine sand and fine to medium gravel, (7.5YR 2.5/2) very dark brown, medium stiff, wet, no odor, no staining. Soils consistent with UNDno.		GAR-PDI-A10B-8.0-8.5
9				NR			NO RECOVERY	
10	4.5	0.0	wet	ML		SILT, trace fine sand, (7.5YR 2.5/2) very dark brown, medium stiff, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A10B-10.0-10.5	
11			wet	ML			SILT, trace fine sand, (10Y 5/2) grayish olive, medium stiff, wet, no odor, green staining. Soils consistent with UNDno.	GAR-PDI-A10B-12.0-12.5
12								
13			wet	SP		fine to coarse SAND, little fine to coarse gravel, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		GAR-PDI-A10B-14.0-14.5
14		NR			NO RECOVERY			
15	5	0.0	wet	SP		fine to coarse SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A10B-16.0-16.5	
16								
17			wet	SP		fine to coarse SAND, some medium to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A10B-18.0-18.5	
18								
19								
20	1	0.0					GAR-PDI-A10B-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611057.994
Date Started Drilling: 2/12/2017 10:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683942.359
Date Finished Drilling: 2/12/2017 11:50:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.982 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE		Concrete sidewalk	
1	4.5		dry	FILL		fine to coarse SAND, little fine to coarse gravel, (7.5YR 4/1) dark gray, loose, dry to moist, no odor, no staining.	GAR-PDI-A11B-0.5-1.0
2			moist	FILL			
3			moist	FILL		fine to medium SAND, little silt, trace coarse gravel, (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining. fine silty SAND, little coarse gravel, (7.5YR 2.5/2) very dark brown, medium dense, moist, no odor, no staining.	GAR-PDI-A11B-2.0-2.5
4							
5				NR		NO RECOVERY	GAR-PDI-A11B-4.0-4.5
6	3.5	0.0	wet	FILL		fine to coarse SAND, some fine to coarse gravel, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-A11B-5.5-6.0
7			wet	OL			
8							
9						NR	
10	4.5	0.0	wet	OL		SILT, trace fine sand and organics, (7.5YR 4/2) brown, medium stiff, wet, no odor, no staining. Soils consistent with UNDorg.	GAR-PDI-A11B-10.0-10.5
11			wet	ML			
12			wet	SP		fine to medium SAND, some fine to coarse gravel, (7.5YR 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A11B-12.0-12.5
13			wet	SP			
14						NR	
15							
16	5	0.0	wet	SM		SILT, some fine to coarse gravel, (7.5YR 4/1) dark gray, soft, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-A11B-16.0-16.5
17			wet	SP			
18							
19							
20	1	0.0					GAR-PDI-A11B-20.0-20.5
21							

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610856.369
Date Started Drilling: 1/15/2017 12:25:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683675.046
Date Finished Drilling: 1/15/2017 1:35:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 4.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.552 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	5		dry to moist moist to wet	FILL		fine to medium silty SAND, little fill debris, (5YR 2.5/1) black, medium dense, dry to moist, no odor, no staining. SILT, little fine to medium sand, trace fill debris, (7.5YR 4/2) brown, firm, moist to wet, no odor, no staining, water at 4.5 feet.	GAR-PDI-B'0-0.5-1.0	
2				FILL			GAR-PDI-B'0-2.5-3.0	
3								
4								
5	5	0.0					GAR-PDI-B'0-4.5-5.0	
6								
7								
8								
9	5		wet	SM		fine to coarse silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B'0-7.5-8.0	
10								
11								
12								
13	5	0.0					GAR-PDI-B'0-8.0-8.5	
14								
15								
16								
17	5						GAR-PDI-B'0-10.0-10.5	
18								
19								
20								
21	1	0.0					GAR-PDI-B'0-12.0-12.5	
							GAR-PDI-B'0-14.0-14.5	
							GAR-PDI-B'0-16.0-16.5	
							GAR-PDI-B'0-18.0-18.5	
							GAR-PDI-B'0-20.0-20.5	

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610840.04
Date Started Drilling: 1/15/2017 11:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683650.307
Date Finished Drilling: 1/15/2017 12:20:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.393 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	5		dry	FILL		fine to medium silty SAND, little fill debris, trace coal, (7.5YR 3/3) dark brown, medium dense, dry to moist, no odor, no staining.	GAR-PDI-B`1A-0.5-1.0	
2								
3			moist to wet	FILL		SILT, little fine sand, trace fill debris, (5YR 2.5/1) black, soft, moist to wet, no odor, no staining, water at 4.0 feet.	GAR-PDI-B`1A-2.5-3.0	
4							GAR-PDI-B`1A-4.5-5.0	
5	5	0.0	wet	FILL		SILT, trace fine sand and fill debris, (5Y 2.5/1) black, soft, wet, no odor, no staining.		
6								GAR-PDI-B`1A-6.5-7.0
7								GAR-PDI-B`1A-7.5-8.0
8			wet	SW		fine to medium SAND, little silt, (5YR 4/3) reddish brown, loose, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`1A-8.0-8.5	
9								
10	5	0.0	wet	SM		fine to coarse silty SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`1A-10.0-10.5	
11								
12								GAR-PDI-B`1A-12.0-12.5
13								
14							GAR-PDI-B`1A-14.0-14.5	
15	5	0.0						
16								GAR-PDI-B`1A-16.0-16.5
17								
18							GAR-PDI-B`1A-18.0-18.5	
19								
20	1	0.0					GAR-PDI-B`1A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610876.645
Date Started Drilling: 1/15/2017 1:40:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683707.462
Date Finished Drilling: 1/15/2017 2:35:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.528 ft NAVD88

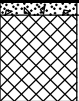
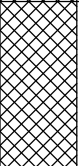
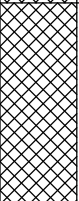
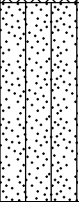

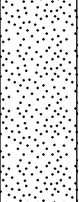
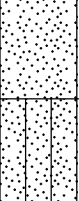

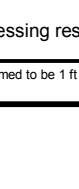
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	4.5	0.0	dry to moist	FILL		fine to medium SAND, trace ash, (5YR 2.5/1) black, medium dense, dry to moist, no odor, no staining.		
2			moist	FILL			fine to medium silty SAND, trace fine gravel, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.	
3								
4			moist to wet	FILL			SILT, trace fill debris, (5YR 2.5/1) black, soft, moist to wet, no odor, no staining, water at 4.0 feet.	
5				NR		NO RECOVERY		
6	5	0.0	wet	FILL		SILT, trace fill debris, (5YR 2.5/1) black, soft, wet, no odor, no staining.	GAR-PDI-B`1B-5.0-5.5	
7			wet	ML			SILT, trace fine sand, (5YR 6/3) light reddish brown, firm, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`1B-5.5-6.0
8			wet	SM			fine to coarse silty SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`1B-8.0-8.5
9								
10	5	0.0					GAR-PDI-B`1B-10.0-10.5	
11								
12								GAR-PDI-B`1B-12.0-12.5
13								
14								GAR-PDI-B`1B-14.0-14.5
15	5	0.0						
16							GAR-PDI-B`1B-16.0-16.5	
17								
18						GAR-PDI-B`1B-18.0-18.5		
19								
20	1	0.0					GAR-PDI-B`1B-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610825.372
Date Started Drilling: 12/11/2016 11:35:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683625.87
Date Finished Drilling: 12/11/2016 12:35:00 PM	Core Size: 3.0 in	Boring Total Depth: 20 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.319 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	slightly moist	CONCRETE FILL		Concrete sidewalk	
			moist	FILL		fine to medium SAND, little ash and fine to medium gravel, (5YR 4/4) reddish brown, medium dense, slightly moist, no odor, no staining.	
			moist	FILL		fine silty SAND, little brick, trace ash and coal, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	
5-10	5	0.0	moist	FILL		SILT, little concrete debris, trace fine gravel, ash and coal, (7.5YR 4/3) brown, soft, moist to wet, no odor, no staining, water at 5.0 feet.	
			wet	SM		fine to medium silty SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`2A-6.0-6.5 GAR-PDI-B`2A-6.5-7.0 GAR-PDI-B`2A-7.0-7.5 GAR-PDI-B`2A-8.0-8.5
			wet	ML		SILT, (7.5YR 4/3) brown, soft, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`2A-10.0-10.5
10-15	5	0.0	wet	SM		fine to medium silty SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDorg.	
			wet	SP		fine to coarse SAND, some fine to medium gravel, trace silt, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`2A-13.0-13.5
			wet	SM		fine silty SAND, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`2A-15.0-15.5 GAR-PDI-B`2A-18.0-18.5
15-20	5	0.0					

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610886.772
Date Started Drilling: 1/22/2017 9:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683724.811
Date Finished Drilling: 1/22/2017 10:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.890 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	5	0.0	moist	FILL		fine to coarse SAND, some cinders, (5Y 2.5/2) black, medium dense, moist, no odor, no staining.	GAR-PDI-B`2B-0.5-1.0	
2			moist	FILL			fine to medium SAND, little silt, trace ash, (5YR 4/4) reddish brown, medium dense, moist, no odor, no staining.	GAR-PDI-B`2B-2.5-3.0
3			slightly moist	FILL			fine to medium sandy SILT, little ash, (7.5YR 3/3) dark brown, firm, slightly moist, no odor, no staining.	GAR-PDI-B`2B-4.0-4.5
4								
5			wet	ML			fine sandy SILT, (2.5Y 5/1) gray, soft, wet, no odor, no staining, water at 5.0 feet. Soils consistent with UNDno.	GAR-PDI-B`2B-4.5-5.0
6	5	0.0	wet	SM		fine to medium silty SAND, little fine to medium gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`2B-6.5-7.0	
7								
8								
9	5	0.0	moist to wet	SM		fine to coarse silty SAND, some to little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`2B-8.5-9.0	
10							GAR-PDI-B`2B-10.5-11.0	
11							GAR-PDI-B`2B-12.5-13.0	
12							GAR-PDI-B`2B-14.5-15.0	
13	5	0.0					GAR-PDI-B`2B-16.5-17.0	
14							GAR-PDI-B`2B-18.5-19.0	
15							GAR-PDI-B`2B-20.0-20.5	
16	1	0.0						
17								
18								
19								
20								
21								

Notes:
bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610814.856
Date Started Drilling: 12/11/2016 1:15:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683606.098
Date Finished Drilling: 12/11/2016 2:30:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.352 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	5	0.0	dry	FILL		fine to medium SAND, some ash, little fine gravel, (2.5Y 4/2) dark grayish brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`3A-0.5-1.0	
2			dry	FILL			GAR-PDI-B`3A-2.0-2.5	
3								
4			moist	FILL			SILT, little brick, trace coal, (7.5YR 4/3) brown, soft, moist to wet, no odor, no staining, water at 5.0 ft bgs.	
5	5	0.0						
6								
7			wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3A-7.0-7.5	
8								
9	5	0.0						
10								
11			wet	GW		fine to coarse GRAVEL, some fine to medium sand, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3A-12.0-12.5	
12								
13								
14								
15	5	0.0						
16			wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3A-16.0-16.5	
17								
18								
19								
20	1	0.0					GAR-PDI-B`3A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610902.605
Date Started Drilling: 1/22/2017 10:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683754.158
Date Finished Drilling: 1/22/2017 11:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.451 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	4.5		dry	FILL		fine to coarse SAND, some fine to medium gravel, little coal, (2.5Y 5/2) grayish brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`3B-0.5-1.0	
2			dry	FILL		fine to coarse SAND, some concrete debris, trace brick, (2.5Y 5/2) grayish brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`3B-2.0-2.5	
3			moist	FILL		fine to medium sandy SILT, little ash, (7.5YR 2.5/3) very dark brown, soft, moist, no odor, no staining.	GAR-PDI-B`3B-4.0-4.5	
4								
5						NR		NO RECOVERY
6	5	0.0	moist	FILL		fine to medium sandy SILT, little ash, (7.5YR 2.5/3) very dark brown, soft, moist, no odor, no staining.	GAR-PDI-B`3B-5.0-5.5	
7			wet	ML		fine sandy SILT, (7.5YR 6/3) light brown, soft, wet, no odor, no staining, water at 5.5 feet. Soils consistent with UNDno.	GAR-PDI-B`3B-5.5-6.0	
8			wet	SM		fine to medium silty SAND, little fine to medium gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3B-6.0-6.5	
9								
10			wet	SP		fine to coarse SAND, some fine to medium gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3B-8.0-8.5	
11	5	0.0	wet	SP		fine to medium SAND, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3B-10.0-10.5	
12			wet	SM		fine to medium silty SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3B-12.0-12.5	
13								
14								
15								
16	5	0.0					GAR-PDI-B`3B-14.0-14.5	
17								
18								GAR-PDI-B`3B-16.0-16.5
19	1	0.0	slightly moist	SP		fine to medium SAND, little silt, trace fine to medium gravel, (5YR 4/4) reddish brown, dense, slightly moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`3B-18.0-18.5	
20								GAR-PDI-B`3B-20.0-20.5
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610814.81
Date Started Drilling: 1/8/2017 9:35:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683557.229
Date Finished Drilling: 1/8/2017 10:25:00 AM	Core Size: 3.0 in	Boring Total Depth: 8 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 6.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.082 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4 5	5	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			dry	FILL		SILT, little fine to medium sand and fill debris, trace coal and wood, (7.5YR 4/2) brown, firm, dry to moist, no odor, no staining.	GAR-PDI-B`4A-3.0-3.5
6 7 8	3	0.0		FILL		SILT, little fine to medium sand, ash and cinders, (7.5YR 3/4) dark brown, soft, moist to wet no odor no staining, water at 6.5 feet, refusal at 8.0 feet.	GAR-PDI-B`4A-5.0-5.5
			moist	FILL			GAR-PDI-B`4A-7.0-7.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610794.453
Date Started Drilling: 2/5/2017 10:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683571.349
Date Finished Drilling: 2/5/2017 11:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.298 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4.5	0.0		CONCRETE		Concrete sidewalk	
			dry	FILL		fine to medium SAND, some brick and fill debris, (7.5YR 2.5/2) very dark brown, loose, dry to moist, no odor, no staining. fine to medium silty SAND, little brick, (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining. fine to medium SAND, (7.5YR 6/3) light brown, loose, moist, no odor, no staining. fine to medium silty SAND, little fine gravel, (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining. SILT, little fine sand, trace brick and fill debris, (7.5YR 3/2) dark brown, medium stiff, moist, no odor, no staining.	
			moist	FILL			
			moist	FILL			
			moist	FILL			
			moist	FILL			
5				NR		NO RECOVERY	
6-9	4.5	0.0	wet	FILL		fine to medium silty SAND, some ash, little fine to coarse gravel, (7.5YR 4/1) dark gray, loose, wet, no odor, no staining, water at 5.0 feet.	
			wet	FILL		fine to medium silty SAND, little fine to coarse gravel, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`4AR-8.0-8.5
			wet	SM		fine to medium SAND, some fine to coarse gravel, little silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`4AR-8.5-9.0
				NR		NO RECOVERY	GAR-PDI-B`4AR-9.0-9.5
11-13	5	0.0	wet	SP		fine to medium SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`4AR-11.0-11.5
			wet	SP		fine to medium SAND, some fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`4AR-13.0-13.5
15-17	5	0.0					GAR-PDI-B`4AR-15.0-15.5
			wet	SP		fine to medium SAND, little fine to medium gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`4AR-17.0-17.5
							GAR-PDI-B`4AR-19.0-19.5
20-21	1	0.0					GAR-PDI-B`4AR-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610918.538
Date Started Drilling: 1/29/2017 9:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683779.746
Date Finished Drilling: 1/29/2017 10:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.768 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
0		0.0		CONCRETE		Concrete sidewalk			
1	4.5		dry	FILL		fine to medium SAND, little fine gravel, (7.5YR 4/2) brown, loose, dry, no odor, no staining.	GAR-PDI-B`4B-1.0-1.5		
2			dry to moist	FILL				fine to medium SAND, little fine to medium gravel and silt, (7.5YR 4/2) brown, medium dense, dry to moist, no odor, no staining.	
3			moist	FILL				SILT, little fine sand, trace seashells, (7.5YR 2.5/2) very dark brown, medium stiff, moist, no odor, no staining.	
4			moist	FILL				SILT, trace fine sand, (7.5YR 4/2) brown, soft, moist, no odor, no staining.	
5				NR				NO RECOVERY	
6	5	0.0	moist	FILL		SILT, little fine sand and gravel, (7.5YR 4/2) brown, medium stiff, moist, no odor, no staining.	GAR-PDI-B`4B-5.0-5.5		
7			moist	SP				fine SAND, some silt, (7.5YR 6/3) light brown, medium dense, moist to wet, no odor, no staining, water at 6.0 feet. Soils consistent with UNDno.	GAR-PDI-B`4B-5.5-6.0
8			wet	SP				fine gravelly SAND, trace silt, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`4B-7.0-7.5
9							GAR-PDI-B`4B-9.0-9.5		
10	4	0.0					GAR-PDI-B`4B-11.0-11.5		
11									
12									
13									
14				NR		NO RECOVERY			
15	5	0.0	wet	SP		fine to medium SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`4B-15.0-15.5		
16									GAR-PDI-B`4B-17.0-17.5
17									GAR-PDI-B`4B-19.0-19.5
18									GAR-PDI-B`4B-20.0-20.5
19									
20	1	0.0							
21									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610800.544
Date Started Drilling: 11/6/2016 8:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683534.266
Date Finished Drilling: 11/6/2016 9:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 7 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 7.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.014 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	4	0.0		ASPHALT		ASPHALT	
				CONCRETE		Concrete slab	
			dry	FILL		fine to medium SAND, some fine gravel, (5YR 4/4) reddish brown, dense, dry, no odor, no staining. fine to medium SAND, some ash, (7.5YR 4/1) dark gray, medium dense, moist, no odor, no staining.	GAR-PDI-B`5A-1.5-2.0
			moist	FILL			GAR-PDI-B`5A-3.5-4.0
5-4				NR		NO RECOVERY	
5-7	2	0.0	wet	FILL		fine silty SAND, little ash, (7.5YR 3/3) dark brown, medium dense, wet, no odor, no staining, water at 5.0 feet, refusal at 7.0 feet.	GAR-PDI-B`5A-5.0-5.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610780.537
Date Started Drilling: 2/5/2017 11:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683547.703
Date Finished Drilling: 2/5/2017 12:25:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.466 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
		0.0		CONCRETE		Concrete sidewalk			
1	5		dry to moist	FILL		fine to medium SAND, little fine to coarse gravel, trace silt, (7.5YR 3/2) dark brown, medium dense, dry to moist, no odor, no staining.			
2			moist	FILL					
3			moist	FILL					
4			moist	FILL					
5		0.0	moist to wet	FILL		SILT, trace fine sand and fill debris, (5YR 4/1) dark gray, soft, moist to wet, no odor, no staining, water at 6.0 feet.			
6	5		wet	SM		SILT, some fine gravel, little fine sand, (7.5YR 6/3) light brown, medium stiff, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5AR-8.0-8.5		
9									GAR-PDI-B`5AR-8.5-9.0
10				0.0	wet	SP		fine to medium SAND, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5AR-10.0-10.5
11	4.5		wet	SP		fine SAND, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5AR-12.0-12.5		
12									
13									
14			wet	SP		fine to coarse SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5AR-14.0-14.5		
15			wet	NR		NO RECOVERY			
16	5	0.0	wet	SP		fine to coarse SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5AR-16.0-16.5		
17									
18									
19			wet	SP		fine to medium SAND, some fine to coarse gravel, little cobbles, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5AR-18.0-18.5		
20	1	0.0					GAR-PDI-B`5AR-20.0-20.5		
21									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610933.475
Date Started Drilling: 1/22/2017 12:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683802.483
Date Finished Drilling: 1/22/2017 1:30:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.847 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-2	2.5	0.0		CONCRETE		Concrete sidewalk	
			dry	FILL		fine to coarse SAND, little concrete debris, (2.5Y 5/2) grayish brown, medium dense, dry, no odor, no staining.	
			moist	FILL			
3-4				NR		NO RECOVERY	
5-7	5	0.0	wet	FILL		SILT, trace ash and cobbles, (2.5Y 5/2) grayish brown, soft, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-B`5B-6.0-6.5
			wet	SM		fine to medium silty SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5B-6.5-7.0
10-14	5	0.0					GAR-PDI-B`5B-8.0-8.5
							GAR-PDI-B`5B-10.0-10.5
							GAR-PDI-B`5B-14.0-14.5
16-18	5	0.0	moist	SP		fine to coarse SAND, some fine to coarse gravel, little silt, (5YR 4/3) reddish brown, dense, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`5B-16.0-16.5
							GAR-PDI-B`5B-18.0-18.5
20-21	1	0.0					GAR-PDI-B`5B-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610785.222
Date Started Drilling: 11/6/2016 9:35:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683508.949
Date Finished Drilling: 11/6/2016 10:15:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.305 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
0 - 1	5	0.0		ASPHALT		ASPHALT		
1 - 2				CONCRETE		Concrete slab		
2 - 3			dry	FILL		fine to medium SAND, some fine gravel, trace brick, (5YR 4/4) reddish brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`6A-1.5-2.0	
3 - 4			dry	FILL		fine to medium SAND, some ash, little silt, (7.5YR 3/3) dark brown, medium dense, dry to moist, no odor, no staining.	GAR-PDI-B`6A-3.5-4.0	
4 - 5			wet	FILL		ASH, (5Y 5/1) gray, loose, wet, no odor, no staining, water at 4.0 feet.		
5 - 6	5	0.0	moist	FILL		fine to medium SAND, some ash, little fine gravel, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	GAR-PDI-B`6A-5.5-6.0	
6 - 7			wet	FILL				GAR-PDI-B`6A-7.5-8.0
7 - 8								
8 - 9								
9 - 10								
10 - 11	5	0.0					GAR-PDI-B`6A-9.5-10.0	
11 - 12								
12 - 13								
13 - 14								
14 - 15			wet	SP				fine to coarse SAND, some fine to medium gravel, trace silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.
15 - 16	5	0.0					GAR-PDI-B`6A-15.0-15.5	
16 - 17								
17 - 18								
18 - 19								
19 - 20			wet	SP				fine to medium SAND, little fine gravel and silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.
20 - 21	1	0.0					GAR-PDI-B`6A-20.0-20.5	

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610950.257
Date Started Drilling: 1/29/2017 12:20:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683830.971
Date Finished Drilling: 1/29/2017 1:20:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 3.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.325 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0		CONCRETE		Concrete sidewalk	
2			moist	FILL		fine to medium SAND, some fine gravel, (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining.	GAR-PDI-B`6B-1.0-1.5
3			wet	FILL		fine SAND, little silt, trace seashells, (7.5YR 3/2) dark brown, medium dense, wet, no odor, no staining, water at 3.0 feet.	GAR-PDI-B`6B-3.0-3.5
4	5	0.0					
5			wet	FILL		SILT, little fine sand, trace fine gravel, (7.5YR 6/3) light brown, soft, wet, no odor, no staining.	GAR-PDI-B`6B-5.0-5.5
6			wet	FILL		fine to medium SAND, little silt, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`6B-7.0-7.5
7				CONCRETE		Concrete slab	
8	4	0.0					
9			wet	FILL		fine to medium SAND, little silt and fine to medium gravel, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`6B-9.0-9.5 GAR-PDI-B`6B-9.5-10.0
10			wet	SP		fine to medium SAND, little fine to medium gravel, trace cobbles, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`6B-10.0-10.5 GAR-PDI-B`6B-11.0-11.5
11	5	0.0					
12							
13							
14				NR		NO RECOVERY	
15	1	0.0					
16			wet	SP		fine to medium SAND, little fine to coarse gravel, (5YR 5/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`6B-15.0-15.5 GAR-PDI-B`6B-17.0-17.5
17							
18							
19							
20							
21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610769.589
Date Started Drilling: 11/6/2016 10:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683483.33
Date Finished Drilling: 11/6/2016 11:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.472 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
0	5	0.0		ASPHALT		ASPHALT		
1				CONCRETE		Concrete slab		
2			dry	FILL		fine to medium SAND, some fine gravel, trace brick and coal, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`7A-1.5-2.0	
3			moist	FILL		fine to medium SAND, (2.5Y 5/2) grayish brown, medium dense, moist, no odor, no staining.	GAR-PDI-B`7A-3.5-4.0	
4			dry	FILL		fine to medium SAND, some ash, little coal, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.		
5	wet	FILL		ASH, (5Y 5/1) gray, loose, wet, no odor, no staining, water at 4.0 feet.				
6	5	0.0	dry	FILL		fine to medium SAND, some ash, little coal, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`7A-5.5-6.0	
7			wet	FILL		fine silty SAND, little concrete debris, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`7A-7.5-8.0	
8			wet	FILL		fine silty SAND, trace ash, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining.		
9	5	0.0					GAR-PDI-B`7A-9.5-10.0	
10								GAR-PDI-B`7A-11.5-12.0
11								GAR-PDI-B`7A-12.0-12.5
12			wet	SP		fine to coarse SAND, some fine to medium gravel, trace silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`7A-12.5-13.0	
13								GAR-PDI-B`7A-13.5-14.0
14	5	0.0					GAR-PDI-B`7A-15.5-16.0	
15			wet	SM		fine to medium silty SAND, some fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`7A-17.5-18.0	
16								GAR-PDI-B`7A-19.5-20.0
17	1	0.0					GAR-PDI-B`7A-20.0-20.5	
18								
19								
20								
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610751.853
Date Started Drilling: 11/6/2016 11:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683456.963
Date Finished Drilling: 11/6/2016 12:30:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.620 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1	5	0.0		ASPHALT		ASPHALT		
				CONCRETE		Concrete slab		
2			dry	FILL		fine to medium SAND, some fine gravel, little coal, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`8A-1.5-2.0	
3			dry	FILL		fine to medium SAND, little fine gravel, trace brick, (5YR 4/4) reddish brown, medium dense, dry, no odor, no staining.		
4			dry	FILL		ASH, some fine to medium sand, (2.5Y 5/2) grayish brown, medium dense, dry to moist, no odor, no staining.	GAR-PDI-B`8A-3.5-4.0 GAR-PDI-B`8A-4.5-5.0	
5	4	0.0	moist	FILL		fine to medium SAND, some fill debris, (7.5YR 3/3) dark brown, medium dense, moist, no odor, no staining.		
6			wet	FILL		fine silty SAND, little wood, trace brick, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining, water at 6.0 feet.	GAR-PDI-B`8A-6.5-7.0	
7								
8								
9				NR		NO RECOVERY	GAR-PDI-B`8A-8.5-9.0	
10	5	0.0	wet	FILL		fine silty SAND, some wood, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`8A-10.5-11.0	
11			wet	FILL		fine silty SAND, little fine gravel, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`8A-12.0-12.5	
12								
13			wet	SP		fine to medium SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`8A-12.5-13.0	
14								
15	5	0.0	wet	SP		fine to coarse SAND, some fine to medium gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`8A-14.5-15.0	
16								
17								
18								
19								
20	1	0.0					GAR-PDI-B`8A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610737.491
Date Started Drilling: 11/20/2016 8:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683432.179
Date Finished Drilling: 11/20/2016 9:40:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.808 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
0 - 1	5	0.0		ASPHALT		ASPHALT	
1 - 2				FILL		fine to medium SAND, little SILT and coarse gravel, trace shell fragments and metal, (5YR 3/2) dark reddish brown, medium dense, moist, no odor, no staining.	GAR-PDI-B'9A-1.0-1.5
2 - 3			moist	FILL		ASH, (10YR 5/1) gray, loose, moist, no odor, no staining.	GAR-PDI-B'9A-3.0-3.5
3 - 4			moist	FILL		fine to medium SAND, little coarse gravel, (5YR 3/2) dark reddish brown, medium dense, moist, no odor, no staining.	GAR-PDI-B'9A-5.0-5.5
4 - 5	5	0.0	moist	FILL		fine silty SAND, little wood, trace fine gravel, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining, water at 5.5 feet.	GAR-PDI-B'9A-5.0-5.5
5 - 6							GAR-PDI-B'9A-7.0-7.5
6 - 7							GAR-PDI-B'9A-7.5-8.0
7 - 8			wet	SM		fine SAND, trace silt and fine gravel, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B'9A-8.0-8.5
8 - 9	5	0.0					GAR-PDI-B'9A-10.0-10.5
9 - 10							
10 - 11			wet	SP		fine SAND, trace coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B'9A-12.0-12.5
11 - 12							GAR-PDI-B'9A-14.0-14.5
12 - 13	5	0.0					GAR-PDI-B'9A-16.0-16.5
13 - 14							
14 - 15			wet	SP		fine to coarse SAND, some coarse gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B'9A-18.0-18.5
15 - 16							GAR-PDI-B'9A-20.0-20.5
16 - 17	1	0.0					
17 - 18							
18 - 19							
19 - 20							
20 - 21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610721.578
Date Started Drilling: 11/20/2016 10:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683406.246
Date Finished Drilling: 11/20/2016 11:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.990 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		ASPHALT		ASPHALT		
1	4.5		dry	FILL		fine to medium SAND, little fine to coarse gravel, (7.5YR 3/2) dark brown, loose, dry to moist, no odor, no staining.	GAR-PDI-B`10A-0.5-1.0	
2			moist	FILL		ASH, little fine to medium sand, trace coal, (7.5YR 6/1) gray, medium dense, moist, no odor, no staining.	GAR-PDI-B`10A-2.0-2.5	
3								
4			moist	FILL		fine to coarse SAND, some silt, little coarse gravel, (5YR 3/2) dark reddish brown, loose, moist, no odor, no staining.	GAR-PDI-B`10A-4.0-4.5	
5	5	0.0		NR		NO RECOVERY		
5			wet	FILL		fine silty SAND, little coarse gravel, trace wood, (7.5YR 3/2) dark brown, loose, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-B`10A-6.0-6.5	
6								
7								
8								GAR-PDI-B`10A-8.0-8.5
9								GAR-PDI-B`10A-8.5-9.0
9			wet	SP		fine SAND, little coarse gravel, trace silt, (7.5YR 6/3) light brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`10A-9.0-9.5	
10						GAR-PDI-B`10A-10.0-10.5		
11	5	0.0						
12			wet	SP		fine SAND, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`10A-12.0-12.5	
13								
14							GAR-PDI-B`10A-14.0-14.5	
15								
15		0.0				fine to coarse SAND, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
16	5						GAR-PDI-B`10A-16.0-16.5	
17								
18								GAR-PDI-B`10A-18.0-18.5
19								
20	1	0.0					GAR-PDI-B`10A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610711.285
Date Started Drilling: 11/20/2016 12:50:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683376.211
Date Finished Drilling: 11/20/2016 1:50:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 5.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.051 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
		0.0		ASPHALT		ASPHALT			
1	5		dry	FILL		fine to medium SAND, some to little ash, trace brick and fine gravel, (7.5YR 4/3) brown, medium dense, dry to moist, no odor, no staining.	GAR-PDI-B`11A-0.5-1.0		
2							GAR-PDI-B`11A-2.0-2.5		
3							GAR-PDI-B`11A-4.0-4.5		
4									
5	5	0.0	wet	FILL		fine to medium silty SAND, little fine to medium gravel, trace ash and wood, (2.5Y 5/2) grayish brown, medium dense, wet, no odor no staining, water at 5.5 feet.	GAR-PDI-B`11A-6.0-6.5		
6							GAR-PDI-B`11A-8.0-8.5		
7									
8									
9									
10	5	0.0	wet	FILL		fine to coarse SAND, little fine to medium gravel, trace wood, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`11A-10.0-10.5		
11			wet	SW				fine to coarse SAND, little fine to coarse gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`11A-10.5-11.0
12									GAR-PDI-B`11A-12.0-12.5
13									GAR-PDI-B`11A-14.0-14.5
14									
15	5	0.0					GAR-PDI-B`11A-16.0-16.5		
16									
17									
18	1	0.0					GAR-PDI-B`11A-18.0-18.5		
19							wet	SP	fine to medium SAND, little silt, trace fine to medium gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.
20									
21									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610692.098
Date Started Drilling: 11/13/2016 12:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683357.124
Date Finished Drilling: 11/13/2016 12:30:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.335 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
0 - 1	5	0.0		ASPHALT		ASPHALT	
1 - 5			dry	FILL		fine to medium SAND, little fill debris, trace ash and coal, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	
5 - 6	3.5	0.0	wet	FILL		fine to medium silty SAND, little fine gravel, trace wood, (2.5Y 5/2) grayish brown, medium dense, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-B`12A-6.5-7.0
6 - 8			wet	SP		fine to medium SAND, some fine to medium gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`12A-7.0-7.5
8 - 10				NR		NO RECOVERY	
10 - 15	5	0.0	wet	SP		fine to coarse SAND, some fine to coarse gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	
15 - 18							
18 - 20	1	0.0					GAR-PDI-B`12A-20.0-20.5
20 - 21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610693.955
Date Started Drilling: 2/19/2017 12:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683356.242
Date Finished Drilling: 2/19/2017 1:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 6.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.383 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-4	0.5	0.0		ASPHALT		ASPHALT	
				NR		NO RECOVERY	
5-9	2	0.0	moist	FILL		fine to medium SAND, little silt and fine to coarse gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining.	
			moist to wet	SP		fine to medium SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining, water at 6.5 feet. Soils consistent with UNDno.	
				NR		NO RECOVERY	
10-14	4.5	0.0	wet	SP		fine to medium SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`12AR-10.0-10.5
				NR		NO RECOVERY	GAR-PDI-B`12AR-14.0-14.5
15							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610673.722
Date Started Drilling: 11/13/2016 11:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683327.209
Date Finished Drilling: 11/13/2016 11:30:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.563 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		ASPHALT		ASPHALT		
1	5		dry	FILL		fine to medium SAND, trace coal and ash, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.		
2								
3								
4								
5								
6	5	0.0	wet	FILL		fine silty SAND, little fill debris, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-B`13A-6.0-6.5	
7			wet	SP			GAR-PDI-B`13A-6.5-7.0	
8								GAR-PDI-B`13A-8.0-8.5
9								
10	5	0.0	wet	SM		fine to medium silty SAND, some fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`13A-10.0-10.5	
11								GAR-PDI-B`13A-12.0-12.5
12								
13	5		wet	SP		fine to coarse SAND, some fine to medium gravel, little silt, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`13A-14.0-14.5	
14								
15	5	0.0	wet	SP		fine to coarse silty SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`13A-16.0-16.5	
16								
17	5		wet	SP		fine to coarse SAND, some fine to medium gravel, trace silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`13A-18.0-18.5	
18								
19								
20	1	0.0					GAR-PDI-B`13A-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:02

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610672.235
Date Started Drilling: 11/13/2016 10:05:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683295.754
Date Finished Drilling: 11/13/2016 11:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.415 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		ASPHALT		ASPHALT	
1				CONCRETE		Concrete slab, no odor, no staining.	
2	4.5		dry	FILL		fine to medium SAND, some fine to medium gravel, little brick, (7.5YR 6/3) light brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`14A-1.0-1.5
3							GAR-PDI-B`14A-2.0-2.5
4		dry	FILL		fine to medium SAND, little fine to medium gravel and silt, trace brick, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`14A-4.0-4.5	
5				NR		NO RECOVERY	
6	5	0.0	wet	FILL		fine to medium silty SAND, some fine to medium gravel, little brick, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining, water at 5.0 feet.	GAR-PDI-B`14A-6.0-6.5
7							GAR-PDI-B`14A-8.0-8.5
8							
9							
10		0.0	wet	FILL		fine to medium silty SAND, some fine to medium gravel, trace fill debris, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining.	GAR-PDI-B`14A-9.5-10.0
11	5		wet	SM		fine to medium silty SAND, some fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`14A-10.0-10.5
12			wet	SP		fine to medium SAND, some fine gravel, little silt, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`14A-12.0-12.5
13							
14							GAR-PDI-B`14A-14.0-14.5
15	5	0.0	wet	SP		fine to coarse SAND, some fine to medium gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`14A-16.0-16.5
16							
17							
18							GAR-PDI-B`14A-18.0-18.5
19	1	0.0	wet	SP		fine to coarse SAND, some fine to coarse gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`14A-20.0-20.5
20							
21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 610649.004
Date Started Drilling: 11/13/2016 9:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683266.306
Date Finished Drilling: 11/13/2016 10:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: ES	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.643 ft NAVD88


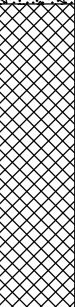



Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1	5	0.0		ASPHALT		ASPHALT		
				CONCRETE		Concrete slab, no odor, no staining.		
2	5	0.0	dry	FILL		fine to medium SAND, little brick and coarse gravel, (5YR 4/4) reddish brown, medium dense, dry, no odor, no staining.	GAR-PDI-B`15A-1.0-1.5	
3							GAR-PDI-B`15A-2.0-2.5	
4								GAR-PDI-B`15A-4.0-4.5
5	5	0.0	wet	FILL		fine to medium silty SAND, some fine gravel, little fill debris, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining, water at 5.0 feet.		
6							GAR-PDI-B`15A-6.0-6.5	
7								GAR-PDI-B`15A-8.0-8.5
8								GAR-PDI-B`15A-9.5-10.0
9	5	0.0	wet	SM		fine to medium silty SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B`15A-10.0-10.5	
10							GAR-PDI-B`15A-12.0-12.5	
11								GAR-PDI-B`15A-14.0-14.5
12	5	0.0	wet	SP		fine to coarse SAND, some fine to medium gravel, trace silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
13							GAR-PDI-B`15A-16.0-16.5	
14	5	0.0						
15								GAR-PDI-B`15A-18.0-18.5
16								GAR-PDI-B`15A-20.0-20.5
17	1	0.0	wet	GW		fine to coarse sandy GRAVEL, (5Y 5/1) gray, medium dense, wet, no odor, no staining. Soils consistent with UNDno.		
18								
19								
20								
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611056.216
Date Started Drilling: 11/21/2016 10:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683879.935
Date Finished Drilling: 11/21/2016 11:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 10 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.595 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1 2 3 4 5	5	0.0		CONCRETE		Concrete sidewalk	
			dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/2) grayish brown, medium dense, dry to moist, no odor, no staining.	
6 7 8 9 10	3.5	0.0	wet	FILL		fine to medium SAND, some fine to medium gravel, (5YR 2.5/2) dark reddish brown, medium dense, wet, no odor, no staining, water at 6.0 feet.	GAR-PDI-B9B-6.0-6.5
			wet	FILL			
			moist	FILL		fine to medium SAND, trace ash, (5YR 4/4) reddish brown, medium dense, moist, no odor, no staining.	GAR-PDI-B9B-8.0-8.5
				NR		NO RECOVERY, Refusal at 8.5 feet.	

Notes:

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611076.525
Date Started Drilling: 12/2/2016 8:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683895.019
Date Finished Drilling: 12/8/2016 1:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.595 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.		
2								
3								
4								
5								
6	4	0.0				fine to coarse SAND, some brick, little cinders, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. CINDERS, some coarse gravel, (5YR 2.5/1) black, loose, wet, no odor, no staining.		
7			wet	FILL				GAR-PDI-B10B-7.5-8.0
8			wet	FILL				
9			moist	SP				GAR-PDI-B10B-8.0-8.5
10	5	0.0		NR		NO RECOVERY, refusal at 9.0 feet.		
11			wet	SP				GAR-PDI-B10B-10.0-10.5
12								GAR-PDI-B10B-12.0-12.5
13								
14			wet	SM				GAR-PDI-B10B-14.0-14.5
15	5	0.0	moist	ML		Organic SILT, 90% organic silt, 10% organic fibers, (7.5YR 2.5/3) very dark brown, soft, wet, strong organic odor, no staining. Soils consistent with UNDorg.		
16			wet	SM				GAR-PDI-B10B-16.0-16.5
17								
18	5	0.0		SP		SILT, some fine to medium sand, little fine gravel, (2.5YR 4/2) weak red, soft, moist, no odor, no staining. Soils consistent with UNDno.		
19			wet					GAR-PDI-B10B-18.0-18.5
20	1	0.0				fine silty SAND, little fine to medium gravel, (7.5YR 4/3) brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-B10B-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: Groundwater 10-15 ft bgs has green staining

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611100.253
Date Started Drilling: 11/30/2016	Rig Type:	Coordinates (NJSPNAD83) y: 683913.901
Date Finished Drilling: 11/30/2016	Core Size: 3.0 in	Boring Total Depth: 15 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 3.5
Physical Location: Actual - GA PDI		Surface Elevation: 11.944 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
1	5	0.0		ASPHALT		ASPHALT			
2			moist	FILL		fine to coarse silty SAND, some fill debris, (5YR 2.5/1) black, medium dense, moist, no odor, no staining.			
3			moist	FILL		ASH, some cinders and fill debris, trace wood, (5YR 6/1) gray, medium dense, moist to wet, no odor, no staining, water at 3.5 feet.			
4	5	0.0							
5									
6									GAR-PDI-B11B-6.0-6.5
7			wet	FILL		SILT, little fill debris, (7.5YR 3/2) dark brown, firm, wet, no odor, no staining.			GAR-PDI-B11B-8.0-8.5
8									
9				FILL		Concrete debris, no odor, green staining.			
10	5	0.0	wet	FILL		CINDERS, some ash, little fine to medium gravel, (5YR 2.5/1) black, loose, wet, no odor, no staining.		GAR-PDI-B11B-10.0-10.5	
11									
12			wet	FILL		ASH, trace fill debris, (5YR 2.5/1) black, medium dense, wet, no odor, no staining.			GAR-PDI-B11B-12.0-12.5
13									
14			moist	ML		SILT, (7.5YR 3/2) dark brown, stiff, moist, no odor, no staining. Soils consistent with UNDno.		GAR-PDI-B11B-13.5-14.0	
15			wet	OL		organic SILT, 95% organic silt, 5% organic fibers, (5YR 2.5/1) black, firm, wet, moderate organic odor, no staining, sampler refusal at 15.0 feet. Soils consistent with UNDorg.		GAR-PDI-B11B-14.5-15.0	

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610748.272
Date Started Drilling: 1/8/2017 11:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683497.664
Date Finished Drilling: 1/8/2017 12:45:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 7.5
Physical Location: Actual - GA PDI		Surface Elevation: 10.744 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID		
		0.0		CONCRETE		Concrete sidewalk			
1	5	0.0	dry to moist	FILL		fine to medium SAND, trace fill debris, (7.5YR 2.5/1) black, medium dense, dry to moist, no odor, no staining.	GAR-PDI-C`7A-0.5-1.0		
2			moist	FILL			fine to medium silty SAND, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining.		
3									GAR-PDI-C`7A-2.5-3.0
4			moist	FILL			SILT, trace fill debris, (7.5YR 2.5/1) black, firm, moist, no odor, no staining.	GAR-PDI-C`7A-4.5-5.0	
5	5	0.0							
6							GAR-PDI-C`7A-6.0-6.5		
7			moist to wet	ML		SILT, little fine to medium sand, (5YR 6/3) light reddish brown, soft, moist to wet, no odor, no staining, water at 7.5 feet. Soils consistent with UNDno.	GAR-PDI-C`7A-6.5-7.0		
8									
9	5	0.0					GAR-PDI-C`7A-8.5-9.0		
10			wet	SW		fine to coarse SAND, little fine to medium gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`7A-10.5-11.0		
11									
12									
13	5	0.0					GAR-PDI-C`7A-12.5-13.0		
14									
15									
16									
17	5	0.0	wet	SM		fine to medium silty SAND, little fine to coarse gravel, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`7A-14.5-15.0		
18									
19									
20									
20	1	0.0					GAR-PDI-C`7A-20.0-20.5		
21									

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610730.532
Date Started Drilling: 1/8/2017 1:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683468.738
Date Finished Drilling: 1/8/2017 2:50:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 7.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.874 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	4.5		dry to moist	FILL		SILT, little fine to medium sand and fill debris, (7.5YR 2.5/1) black, firm, dry to moist, no odor, no staining.	GAR-PDI-C`8A-0.5-1.0	
2			moist	ML		SILT, trace fine sand, (5YR 6/3) light reddish brown, stiff, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`8A-1.5-2.0	
3								GAR-PDI-C`8A-2.0-2.5
4							GAR-PDI-C`8A-4.0-4.5	
5				NR		NO RECOVERY		
6	5	0.0	moist	ML		SILT, little fine to medium sand, (5YR 6/3) light reddish brown, firm, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`8A-6.0-6.5	
7			moist to wet	SM		fine to medium silty SAND, (5YR 6/3) light reddish brown, medium dense, moist to wet, no odor, no staining, water at 7.0 feet. Soils consistent with UNDno.	GAR-PDI-C`8A-8.0-8.5	
8								GAR-PDI-C`8A-10.0-10.5
9							GAR-PDI-C`8A-12.0-12.5	
10							GAR-PDI-C`8A-14.0-14.5	
11	5	0.0						
12								GAR-PDI-C`8A-16.0-16.5
13								GAR-PDI-C`8A-18.0-18.5
14							GAR-PDI-C`8A-20.0-20.5	
15	5	0.0						
16								
17								
18	1	0.0						
19								
20								
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610715.218
Date Started Drilling: 12/4/2016 2:30:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683444.096
Date Finished Drilling: 12/4/2016	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 10.732 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
0 - 1	4.5	0.0		CONCRETE		Concrete sidewalk		
1 - 2			moist	FILL		SILT, some ash, cinders and fill debris, (5YR 4/3) reddish brown, firm, moist, no odor, no staining.	GAR-PDI-C`9A-1.0-1.5	
2 - 3			moist	ML		fine sandy SILT, (5YR 4/3) reddish brown, soft, moist to wet, no odor, no staining, water at 4.0 feet. Soils consistent with UNDno.	GAR-PDI-C`9A-2.0-2.5	
3 - 4								GAR-PDI-C`9A-2.5-3.0
4 - 5						NR		NO RECOVERY
5 - 6	5	0.0	wet	ML		fine to medium sandy SILT, trace fine to medium gravel, (7.5YR 4/2) brown, firm, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`9A-6.0-6.5	
6 - 8			wet	GW		fine to coarse GRAVEL, little fine to coarse sand, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`9A-8.0-8.5	
8 - 10			wet	SM		fine to coarse silty SAND, little fine to coarse gravel, (5YR 4/4) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`9A-10.0-10.5	
10 - 11	5	0.0					GAR-PDI-C`9A-12.0-12.5	
11 - 12								GAR-PDI-C`9A-14.0-14.5
12 - 13								GAR-PDI-C`9A-16.0-16.5
13 - 14								GAR-PDI-C`9A-18.0-18.5
14 - 15	5	0.0					GAR-PDI-C`9A-20.0-20.5	
15 - 16								
16 - 17	1	0.0						
17 - 18								
18 - 19								
19 - 20								
20 - 21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610698.579
Date Started Drilling: 12/4/2016 1:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683415.997
Date Finished Drilling: 12/4/2016 2:20:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.090 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
		0.0		CONCRETE		Concrete sidewalk		
1	4.5		moist	FILL		ASH, little cinders, (5YR 2.5/1) black, medium dense, moist, no odor, no staining. SILT, trace cinders and fine sand, (5YR 4/3) reddish brown, soft, moist, no odor, no staining.	GAR-PDI-C`10A-0.5-1.0	
2			moist	FILL			GAR-PDI-C`10A-2.0-2.5	
3							GAR-PDI-C`10A-3.0-3.5	
4			moist	ML			SILT, little fine to medium sand, (5YR 4/3) reddish brown, soft, moist to wet, no odor, no staining, water at 4.0 feet. Soils consistent with UNDno.	GAR-PDI-C`10A-3.5-4.0 GAR-PDI-C`10A-4.0-4.5
5				NR		NO RECOVERY		
6	5	0.0	wet	ML		SILT, little fine to medium sand, (5YR 4/3) reddish brown, firm, wet, no odor, no staining. Soils consistent with UNDno. fine to coarse silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`10A-6.0-6.5	
7								
8								GAR-PDI-C`10A-8.0-8.5
9								
10	5	0.0					GAR-PDI-C`10A-10.0-10.5	
11								
12								GAR-PDI-C`10A-12.0-12.5
13								
14			wet	SW		fine to medium SAND, trace fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`10A-14.0-14.5	
15								
16							GAR-PDI-C`10A-16.0-16.5	
17								
18	5	0.0					GAR-PDI-C`10A-18.0-18.5	
19								
20								GAR-PDI-C`10A-20.0-20.5
21	1	0.0						

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610668.07
Date Started Drilling: 12/4/2016 11:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683366.607
Date Finished Drilling: 12/4/2016 12:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.647 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0		CONCRETE		Concrete sidewalk	
			moist	FILL		fine to coarse SAND, some cinders, (5YR 2.5/1) black, medium dense, moist, no odor, no staining.	GAR-PDI-C`12A-0.3-0.8
			moist	FILL		fine to medium SAND, little silt and brick, (5YR 4/4) reddish brown, medium dense, moist, no odor, no staining.	
			wet	FILL		ASH, (2.5Y 5/1) gray, loose, wet, no odor, no staining.	GAR-PDI-C`12A-2.0-2.5
3-5	5	0.0	moist	SM		fine to medium silty SAND, (7.5YR 4/3) brown, medium dense, moist to wet, no odor, no staining, water at 4.0 feet. Soils consistent with UNDno.	GAR-PDI-C`12A-2.5-3.0
							GAR-PDI-C`12A-4.0-4.5
							GAR-PDI-C`12A-6.0-6.5
7-8	5	0.0	wet	SP		fine to coarse SAND, some fine to medium gravel, little silt, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`12A-8.0-8.5
							GAR-PDI-C`12A-10.0-10.5
11-15	5	0.0					GAR-PDI-C`12A-12.0-12.5
							GAR-PDI-C`12A-14.0-14.5
							GAR-PDI-C`12A-16.0-16.5
							GAR-PDI-C`12A-18.0-18.5
19-20	1	0.0	wet	SW		fine to coarse SAND, some coarse gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`12A-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 610652.855
Date Started Drilling: 11/20/2016 2:00:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683340.155
Date Finished Drilling: 11/20/2016 3:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: TI	Project Manager: Scott Mikaelian	Depth to Water: 6.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.696 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	4.5	0.0	moist	CONCRETE FILL		Concrete sidewalk	GAR-PDI-C`13A-0.3-0.8
			moist	FILL		fine silty SAND, little coarse gravel, (7.5YR 3/2) dark brown, medium dense, moist, no odor, no staining.	
			moist	FILL		ASH, (2.5Y 5/1) gray, loose, moist, no odor, no staining.	
			moist	FILL		fine silty SAND, trace brick, (7.5YR 6/3) light brown, medium dense, moist, no odor, no staining.	GAR-PDI-C`13A-2.0-2.5
				NR		NO RECOVERY	
6-10	5	0.0	moist	FILL		fine silty SAND, little coarse gravel, (7.5YR 6/3) light brown, medium dense, moist to wet, no odor, no staining, water at 6.0 feet.	GAR-PDI-C`13A-6.0-6.5
							GAR-PDI-C`13A-6.5-7.0
			wet	SM		fine silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`13A-7.0-7.5
							GAR-PDI-C`13A-8.0-8.5
11-15	5	0.0					GAR-PDI-C`13A-10.0-10.5
							GAR-PDI-C`13A-12.0-12.5
			wet	SM		fine to medium silty SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`13A-14.0-14.5
16-20	5	0.0	wet	SP		fine to medium SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C`13A-16.0-16.5
							GAR-PDI-C`13A-18.0-18.5
20-21	1	0.0					GAR-PDI-C`13A-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611107.27
Date Started Drilling: 12/2/2016 10:25:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683924.662
Date Finished Drilling: 12/8/2016 11:05:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Eric Stone	Project Manager: Scott Mikaelian	Depth to Water: 5.0
Physical Location: Actual - GA PDI		Surface Elevation: 11.987 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (2.5Y 5/1) gray, medium dense, dry to wet, no odor, no staining, water at 5.0 feet.	
6-10	5	0.0	moist	FILL		fine to medium SAND, some ash, little cinders, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	
7-8			wet	FILL		fine to medium SAND, some cinders, little coarse gravel, (5YR 3/3) dark reddish brown, medium dense, wet, no odor, no staining.	
8-9			moist	FILL		fine to medium SAND, little cinders, (7.5YR 4/3) brown, medium dense, moist, no odor, no staining.	GAR-PDI-C11B-9.0-9.5
9-10			wet	SP		fine to coarse SAND, some fine to medium gravel, (5YR 3/3) dark reddish brown, dense, wet, no odor, green staining, green colored groundwater. Soils consistent with UNDno.	
11-14	5	0.0	moist	SP		fine to medium SAND, little fine to medium gravel, (7.5YR 4/3) brown, medium dense, moist, no odor no staining. Soils consistent with UNDno.	
14-15			moist	SC		SILT, little fine sand and clay, trace organics, (7.5YR 3/3) dark brown, stiff, moist, no odor, no staining, sampler lodged in boring at 15 feet. Soils consistent with UNDorg.	
15-16			wet	SP		fine to medium SAND, little silt, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining, green colored groundwater. Soils consistent with UNDno.	GAR-PDI-C11B-16.0-16.5
16-17			wet	ML		SILT, (7.5YR 4/3) brown, soft, wet, no odor, no staining. Soils consistent with UNDno.	
17-18	5		wet	SM		fine to medium silty SAND, little fine to medium gravel, (5YR 4/4) reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C11B-18.0-18.5
18-20							
20-21	5	0.0	dry	SP		fine to medium SAND, little fine to medium gravel, (2.5YR 4/2) weak red, dense, dry, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C11B-20.0-20.5
21							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 4 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

PPG - 2012-09 RA PPG LOGS - A.GDT - 4/7/17 12:03

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611130.197
Date Started Drilling: 2/15/2017	Rig Type:	Coordinates (NJSPNAD83) y: 683937.53
Date Finished Drilling: 2/15/2017	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: E. Acs	Project Manager: Scott Mikaelian	Depth to Water: 7.5
Physical Location: Actual - GA PDI		Surface Elevation: 12.292 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1	5	0.0	dry	FILL		DGA, fine to coarse SAND, some fine to medium gravel, (7.5YR 4/3) brown, medium dense, dry, no odor, no staining.	
2							
3							
4							
5							
6	5	0.0	moist	FILL		fine SAND, trace fine to medium gravel, (7.5YR 2.5/1) black, medium dense, moist, no odor, no staining.	GAR-PDI-C12B-6.5-7.0
7			moist to wet	FILL		fine to medium SAND, little silt, trace brick, (7.5YR 4/2) brown, dense, moist to wet, no odor, no staining, water at 7.5 feet.	GAR-PDI-C12B-8.5-9.0
8			moist	SP		fine SAND, trace fine to medium gravel, (7.5YR 6/3) light brown, dense, moist, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C12B-9.0-9.5
9	5	0.0	moist	OL		Organic SILT, 95% organic silt, 5% organic fibers, (7.5YR 2.5/1) black, soft, moist, moderate organic odor, no staining. Soils consistent with UNDorg.	
10							
11							
12							
13	5	0.0	moist	SP		fine SAND, trace fine to medium gravel, (5YR 4/3) reddish brown, medium dense, moist, no odor, no staining. Soils consistent with UNDno.	
14							
15							
16	1	0.0					
17							
18							
19							
20							
21							

PPG - 2012-08 RA PPG LOGS - A.GDT - 4/19/17 12:05

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) No CCPW (COPR or GGM) present in any interval of this boring 3) MM/UND confirmed to be 1 ft thick.

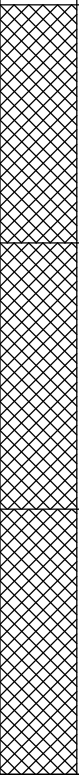
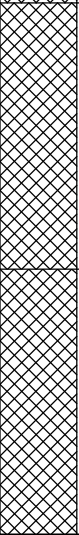
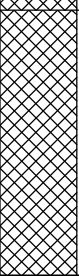
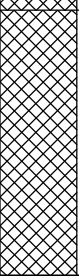
Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Direct Push	Coordinates (NJSPNAD83) x: 611148.399
Date Started Drilling: 10/30/2016 9:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683986.489
Date Finished Drilling: 10/30/2016 10:20:00 AM	Core Size: 3.0 in	Boring Total Depth: 21 ft
Logged By: Kyle Willis	Project Manager: Scott Mikaelian	Depth to Water: 4.0
Physical Location: Actual- GA PDI		Surface Elevation: 12.539 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
0		0.0		ASPHALT		ASPHALT		
1	4.5			CONCRETE		Concrete slab		
2			moist	FILL		fine to medium silty SAND, little fill debris, trace ash and coal, (7.5YR 2.5/2) very dark brown, dense, moist, no odor, no staining.	GAR-PDI-C14B-2.0-2.5	
3								
4			wet	FILL		fine SAND, little cinders and ash, (7.5YR 3/2) dark brown, medium dense, wet, no odor, no staining, water at 4.0 feet	GAR-PDI-C14B-4.0-4.5	
5						NR	NO RECOVERY	
6	3.5	0.0	wet	FILL		fine to medium silty SAND, little fill debris, (7.5YR 4/2) brown, medium dense, wet, no odor, no staining.		
7			wet	FILL		CINDERS, some ash, (5YR 6/1) gray, loose, wet, no odor, no staining.	GAR-PDI-C14B-6.0-6.5	
8			wet	FILL		fine to coarse silty SAND, little fill debris, (5YR 3/2) dark reddish brown, medium dense, wet, no odor, no staining.		
9						NR	NO RECOVERY	GAR-PDI-C14B-8.0-8.5
10	4.5	0.0	wet	FILL		SILT, some shells, (5YR 2.5/1) black, loose, wet, no odor, no staining.	GAR-PDI-C14B-10.0-10.5	
11							GAR-PDI-C14B-10.5-11.0	
12			wet	ML		SILT, some fine sand, (5YR 6/3) light reddish brown, firm, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C14B-11.0-11.5	
13							GAR-PDI-C14B-12.0-12.5	
14			wet	SW		fine to coarse SAND, trace fine to coarse gravel, (5YR 3/4) dark reddish brown, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C14B-14.0-14.5	
15	5	0.0	wet	SW		NO RECOVERY		
16						fine to coarse SAND, little fine to coarse gravel, (5YR 4/3) reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C14B-16.0-16.5	
17								
18			wet	GW		fine to coarse GRAVEL, trace fine sand, (5YR 6/3) light reddish brown, dense, wet, no odor, no staining. Soils consistent with UNDno.	GAR-PDI-C14B-18.0-18.5	
20	1	0.0					GAR-PDI-C14B-20.0-20.5	
21								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: Advanced Drilling Inc.	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610777.75
Date Started Drilling: 3/14/2004	Rig Type:	Coordinates (NJSPNAD83) y: 683466.4
Date Finished Drilling: 3/14/2004	Core Size: 1.25 inches	Boring Total Depth: 12 ft
Logged By: R. Feinberg	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location:		Surface Elevation: 10.2 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.3		CEMENT		Concrete (5")	
1			moist	FILL		Black and red (GLE Y1 2.5/N and 2.5YR 3/3) coarse to fine SAND, trace coarse to fine gravel, trace coal.	GB0.4-0.9
2						Gray (5YR 6/1) coarse to fine SAND, little crushed gravel, trace silt.	GB1.5-2
3						Reddish brown (5YR 4/4) SILT and CLAY, trace coarse to fine sand and gravel.	
4		0	wet to moist	FILL		Black and weak red (GLE Y1 2.5/N and 10R 4/2) mottled coarse to fine SAND and SILT, little coal/coal ash,	GB4-4.5
5		0				Brown (10YR 5/3) coarse to fine SAND and SILT, trace clay.	GB6.0-6.5-727916
6							
7							
8		0	wet	FILL		Brown, dark grayish brown and black (7.5YR 4/2, 10YR 5/4 and GLE Y1 2.5/N) SILT, some clay.	GB8.0-8.5-727917
9							
10							GB10.0-10.5-727918
11							
12						End of Boring	

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) Recovery data not available 2) No CCPW (COPR or GGM) present in any interval of this boring.

Client: PPG	BORING ID:	
Site: PPG - Jersey City, NJ	GC	
Start Date: 3/16/2004	Project: Site Investigation	Page: 1 of 2
End Date: 3/16/2004	Coordinates: X-610826.34 Y-683596.44	Depth of Boring: 12.00
	Elevation: 6.93	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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0	ASPHALT: Asphalt (6")				
	CEMENT: Concrete (6")				
	NR: Soft Dig to 48" bgs.				
2					
4	SILT: Dark yellowish brown (10YR 4/6) SILT	0.0 ppm	GC4.0	CR+6, As, TI	
6			GC6.0	CR+6, As, TI	
8	SILT: Strong brown (7.5YR 5/6) SILT, trace coarse to fine sand (17")/Dark yellowish brown and dark gray (10YR 4/4 and 7.5YR 4/1) crushed SHALE (6")/Strong brown (7.5YR 5/6) SILT, trace coarse to fine sand (8")	NA	GC8.0	CR+6, As, TI	
10			GC10.0	As, TI	
12					

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Client: PPG		BORING ID:			
Site: PPG - Jersey City, NJ		GC			
Start Date: 3/16/2004	Project: Site Investigation	Page: 2 of 2			
	Coordinates: X-610826.34 Y-683596.44	Depth of Boring: 12.00			
End Date: 3/16/2004	Elevation: 6.93	Geologist: R. Firely			
	Drill Subcontractor: ADI	Driller:			
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters

12

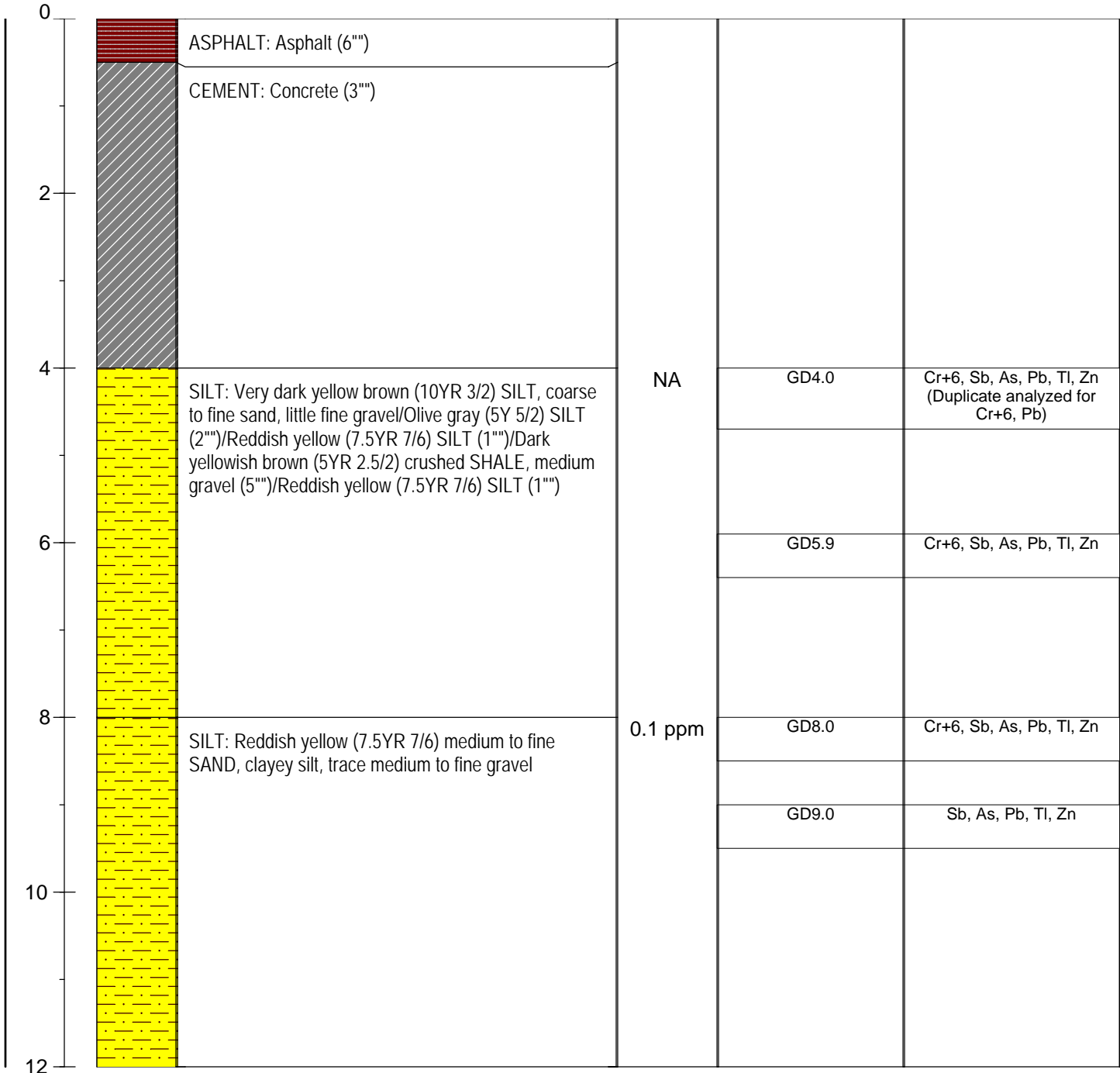
NULL: End of Boring at 12 ft.

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID:	
Site: PPG - Jersey City, NJ	GD	
Start Date: 3/16/2004	Project: Site Investigation	Page: 1 of 2
End Date: 3/16/2004	Coordinates: X-610901.24 Y-683725.55	Depth of Boring: 12.00
	Elevation: 11.39	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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Client: PPG		BORING ID:			
Site: PPG - Jersey City, NJ		GD			
Start Date: 3/16/2004	Project: Site Investigation	Page: 2 of 2			
	Coordinates: X-610901.24 Y-683725.55	Depth of Boring: 12.00			
End Date: 3/16/2004	Elevation: 11.39	Geologist: R. Firely			
	Drill Subcontractor: ADI	Driller:			
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters

12

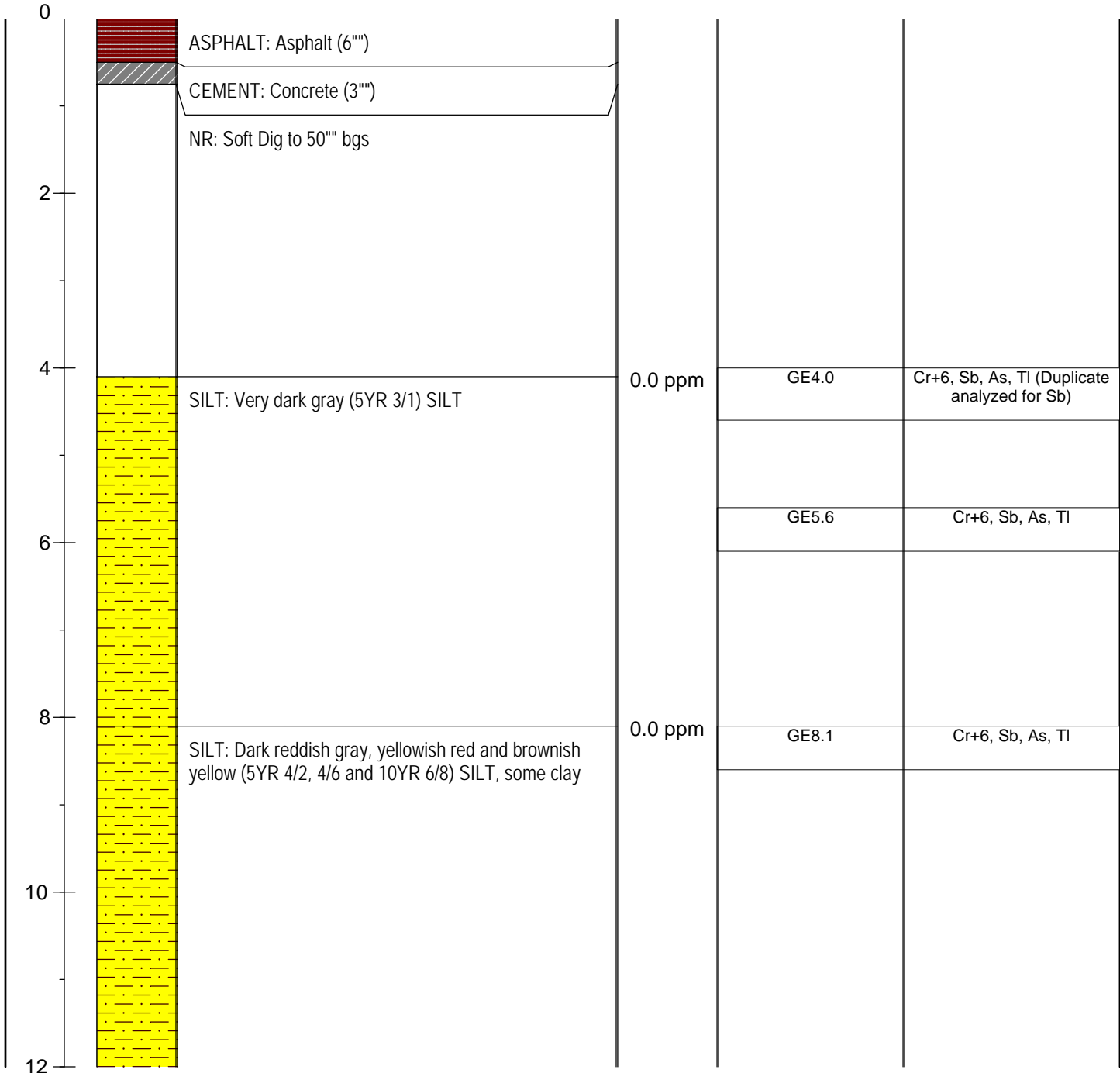
NULL: End of Boring at 12 ft.

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID:	
Site: PPG - Jersey City, NJ	GE	
Start Date: 3/16/2004	Project: Site Investigation	Page: 1 of 3
End Date: 3/16/2004	Coordinates: X-610972.35 Y-683842.15	Depth of Boring: 27.00
	Elevation: 12.46	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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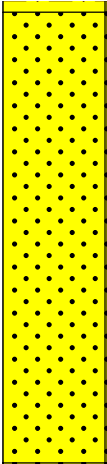
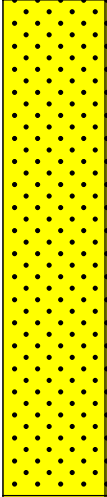
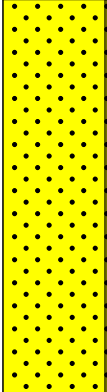


NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID: GE	
Site: PPG - Jersey City, NJ		
Start Date: 3/16/2004	Project: Site Investigation	Page: 2 of 3
	Coordinates: X-610972.35 Y-683842.15	Depth of Boring: 27.00
End Date: 3/16/2004	Elevation: 12.46	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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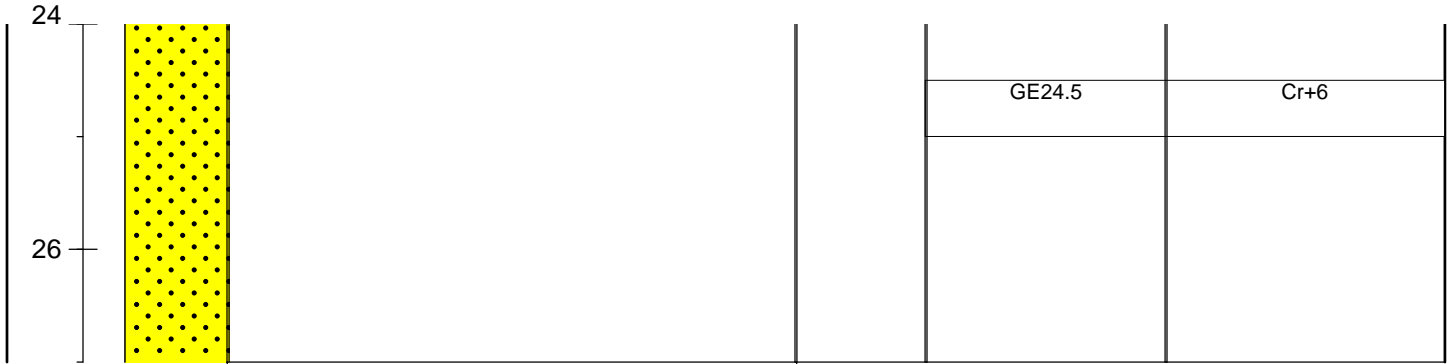
12		SAND: Yellowish red (5YR 4/6) coarse to fine SAND, little silt, little coarse to fine gravel (10"")/Yellowish red (5YR 4/6) SILT and fine SAND, trace fine gravel	0.0 ppm	GE12.1	Cr+6, Sb, As, Tl
14					
16				SAND: Reddish brown (2.5YR 4/4) coarse to fine SAND and CLAYEY SILT, trace coarse to fine gravel	0.0 ppm
18					
20		SAND: Reddish brown (2.5YR 4/4) coarse to fine SAND and CLAYEY SILT, trace coarse to fine gravel	0.0 ppm	GE20.5	Cr+6, Sb, As, Tl
22				GE21.0	Sb, As, Tl
24					

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Client: PPG		BORING ID: GE
Site: PPG - Jersey City, NJ		
Start Date: 3/16/2004	Project: Site Investigation	Page: 3 of 3
	Coordinates: X-610972.35 Y-683842.15	Depth of Boring: 27.00
End Date: 3/16/2004	Elevation: 12.46	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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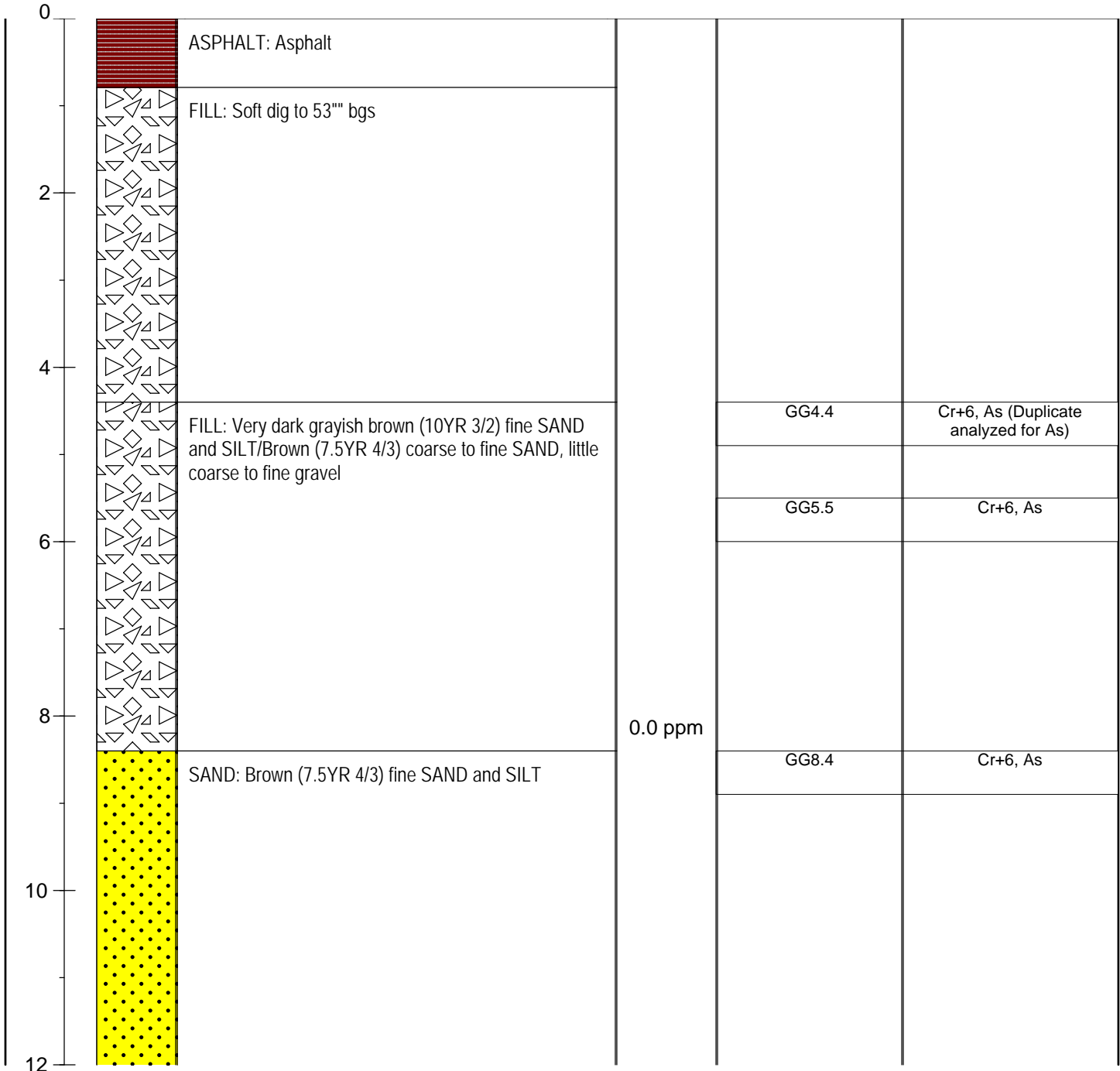
NULL: End of Boring at 27 ft.

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID: GG	
Site: PPG - Jersey City, NJ		
Start Date: 3/16/2004	Project: Site Investigation	Page: 1 of 2
	Coordinates: X-611104.59 Y-683959.43	Depth of Boring: 16.40
End Date: 3/16/2004	Elevation: 12.30	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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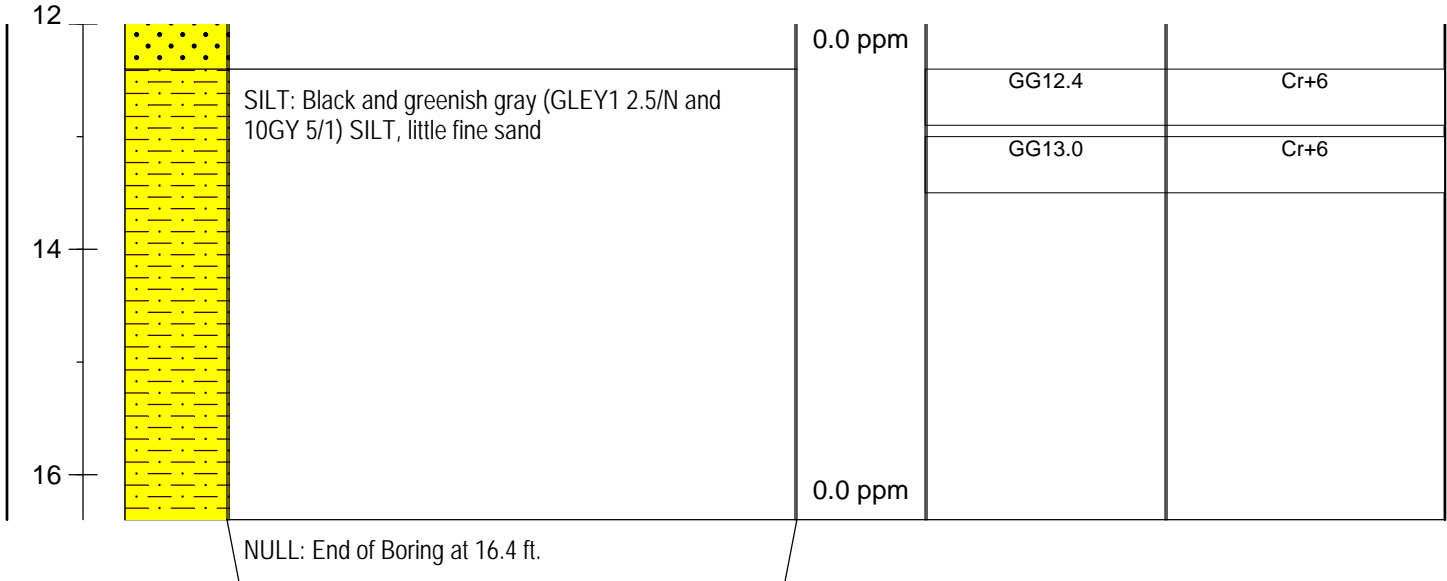


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Client: PPG	BORING ID: GG	
Start Date: 3/16/2004	Project: Site Investigation	Page: 2 of 2
	Coordinates: X-611104.59 Y-683959.43	Depth of Boring: 16.40
End Date: 3/16/2004	Elevation: 12.30	Geologist: R. Firely
	Drill Subcontractor: ADI	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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Client: PPG		BORING ID: MW2AV
Site: PPG - Jersey City, NJ		
Start Date: 10/6/2005	Project: Site Investigation	Page: 1 of 2
	Coordinates: X-610959.18 Y-683748.42	Depth of Boring: 23.00
End Date: 10/6/2005	Elevation: 13.00	Geologist: McCray, Scott
	Drill Subcontractor: Ameridrill	Driller:

Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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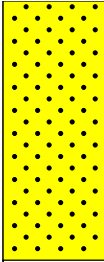
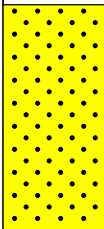
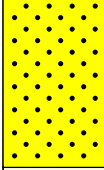
0		UNKNOWN: Not Logged (Obstruction at 2.0' which driller got past)			
2					
4					
6					
8					
10					
12					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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Client: PPG	BORING ID: MW2AV	
Site: PPG - Jersey City, NJ		
Start Date: 10/6/2005	Project: Site Investigation	Page: 2 of 2
	Coordinates: X-610959.18 Y-683748.42	Depth of Boring: 23.00
End Date: 10/6/2005	Elevation: 13.00	Geologist: McCray, Scott
	Drill Subcontractor: Ameridrill	Driller:

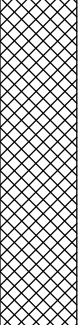
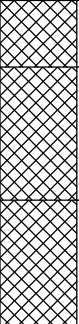


Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
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12		SAND: Dusky Red (10R 3/2) medium-fine SAND, some Silt, saturated	0.0 ppm	MW2AVA12	Cr+6, Sb
14		NR: No Recovery			
16		SAND: Dusky Red (10R 3/2) medium-fine SAND, some Silt, little coarse angular to subrounded Gravel, saturated	0.0 ppm	MW2AVB16	Cr+6, Sb
18		NR: No Recovery			
20		SAND: Dusky Red (10R 3/4) medium-fine SAND, some Silt, trace angular to subrounded Gravel, saturated	0.0 ppm	MW2AVC20	Cr+6, Sb
22		NR: No Recovery			
NULL: Refusal at 23' bgs.					

NOTES: Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

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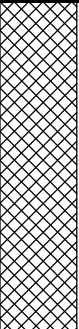

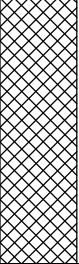
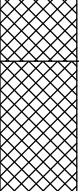

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610898.4
Date Started Drilling: 8/20/2014 9:41:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683663.7
Date Finished Drilling: 9/5/2014 10:58:00 AM	Core Size: 3 in	Boring Total Depth: 16 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 9.873 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1-5	5	0.0	dry	FILL		fine to coarse sandy DGA, (10YR 5/1) gray, non plastic, medium dense, dry, no odor.		
5-6	5	0.0	dry	FILL		fine to coarse sandy DGA, (10R 5/1) reddish gray, (10YR 5/1) gray, non plastic, medium dense, dry, no odor.		
6-7		0.0	moist	FILL		CLAY, some wood fragments, little silt, trace fine sand, (10YR 2/2) very dark brown, medium plasticity, medium stiff, moist, slight ammonia odor.	114-GA-A`0-6.0-6.5	
7-8		0.0	wet	FILL		SILT, some fine to coarse gravel, little fine to medium sand, trace cobbles, (10YR 4/2) dark grayish brown, non plastic, loose, wet.	114-GA-A`0-8.0-8.5	
8-10	5	0.0	wet	FILL		SILT, little fine to medium sand, little fine to coarse gravel, trace brick, (10YR 4/6) dark yellowish brown, non plastic, loose, wet, iron oxide staining.	114-GA-A`0-10.0-10.5	
10-11		0.0	wet to saturated	SW		fine to medium SAND, some fine to coarse gravel, little silt, trace cobbles, (2.5YR 4/3) reddish brown, non plastic, wet to saturated. Soils consistent with UNDno.	114-GA-A`0-10.5-11.0	
11-12								114-GA-A`0-12.0-12.5
12-14								114-GA-A`0-14.0-14.5
14-15	1	0.0	wet to saturated	SW		fine to medium SAND, some fine to coarse gravel, little silt, (2.5YR 4/3) reddish brown, non plastic, medium dense, wet to saturated. Soils consistent with UNDno. Refusal at 16.0 ft.	114-GA-A`0-16.0-16.5	
15-16								

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610877.9
Date Started Drilling: 8/20/2014 8:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683621.4
Date Finished Drilling: 8/22/2014 9:40:00 AM	Core Size: 3 in	Boring Total Depth: 20.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 9.289 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	FILL		fine to coarse sandy DGA, (10YR 5/1) gray, non plastic, medium dense, dry, no odor.	
5-6	5	0.0	dry to moist	FILL		fine to coarse sandy DGA, (10YR 5/1) gray, non plastic, medium dense, dry to moist, no odor.	
6-7		0.0	moist	FILL		fine to medium sandy SILT, trace gravel, trace cinders, trace clay, (10YR 3/1) very dark gray, low plasticity, soft, moist, no odor.	114-GA-A`1A-6.0-6.5
7-8	5	0.0		FILL		fine to medium sandy SILT, trace cinders, trace organics, (10YR 3/1) very dark gray, low plasticity, medium dense.	114-GA-A`1A-8.0-8.5
8-9							
9-10							
10-11	5	0.0	moist	FILL		fine to medium silty SAND, trace cinders, trace gravel, (10YR 5/1) gray, non plastic, dense, moist, no odor, iron oxide staining.	114-GA-A`1A-10.0-10.5
11-12							
12-13							
13-14							
14-15	5.5	0.0	moist	SW		fine to medium SAND, (2.5YR 4/4) reddish brown, non plastic, medium dense to dense, moist, no odor.	114-GA-A`1A-13.0-13.5
15-16							
16-17							
17-18							
18-19							
19-20						fine to medium SAND, (2.5YR 4/4) reddish brown, non plastic, medium dense, moist to wet, no odor.	114-GA-A`1A-14.0-14.5
							114-GA-A`1A-16.0-16.5
							114-GA-A`1A-18.0-18.5
							114-GA-A`1A-20.0-20.5

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Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610869.5
Date Started Drilling: 8/19/2014 10:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683608.3
Date Finished Drilling: 8/19/2014 11:40:00 AM	Core Size: 3 in	Boring Total Depth: 20.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 9.002 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	moist	FILL		DGA, (10YR 4/2) dark grayish brown, non plastic, very dense, moist.	
5-6		0.0	moist	FILL		DGA, (10YR 4/2) dark grayish brown, non plastic, dense to very dense, moist.	
6-10	5	0.0	moist	FILL		SILT, little clay, (10YR 4/2) dark grayish brown, low plasticity, medium soft, moist.	114-GA-A`2A-6.0-6.5
10-11		0.0	moist	PT		PEAT (degraded vegetated material), 80% organic silt, 20% organic fibers, (10YR 3/3) dark brown, low plasticity, moist. Soils consistent with MM.	114-GA-A`2A-8.0-8.5
11-12		0.0	wet	ML		PEAT (degraded vegetated material), 80% organic silt, 20% organic fibers, (10YR 4/2) dark grayish brown, low plasticity, medium stiff, moist, slight sulfur odor. Soils consistent with MM.	114-GA-A`2A-9.0-9.5
12-13	5	0.0	sl moist to moist	SW		SILT, little coarse gravel, trace fine gravel, (10YR 4/2) dark grayish brown, non plastic, loose, wet. Soils consistent with UNDno.	114-GA-A`2A-9.5-10.0
13-14		0.0	moist to moist	SW		fine silty SAND, some fine gravel, little coarse gravel, little coarse sand, (2.5YR 3/3) dark reddish brown, non plastic, very dense, slightly moist to moist. Soils consistent with UNDno.	114-GA-A`2A-10.5-11.0
14-15		0.0	moist to wet	SW		fine to medium SAND, little fine gravel, little coarse sand, trace coarse gravel. (10YR 6/6) brownish yellow, non plastic, dense, moist to wet. Soils consistent with UNDno.	114-GA-A`2A-12.5-13.0
15-17	5.5	0.0	sl moist to moist wet	SW		fine to medium silty SAND, some fine gravel, trace coarse sand, trace coarse gravel, (2.5YR 3/3) dark reddish brown, non plastic, dense to very dense, slightly moist to moist. Soils consistent with UNDno.	114-GA-A`2A-14.5-15.0
17-18						fine GRAVEL, and fine to medium sand, little silt, trace coarse gravel, (2.5YR 3/3) dark reddish brown, non plastic, very dense, wet. Soils consistent with UNDno.	114-GA-A`2A-16.5-17.0
18-19							114-GA-A`2A-18.5-19.0
19-20							114-GA-A`2A-19.5-20.0

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610849.09
Date Started Drilling: 8/19/2014 9:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683578.1
Date Finished Drilling: 8/19/2014 10:35:00 AM	Core Size: 3 in	Boring Total Depth: 18 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 8.673 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry to moist	FILL		DGA, (10YR 4/2) dark grayish brown, non plastic, loose, dry to moist, no odor.	
5-6	5	0.0	dry	FILL		DGA, (10YR 4/2) dark grayish brown, non plastic, loose, dry, no odor.	114-GA-A`3A-5.5-6.0
6-7		0.0	moist	FILL		fine SILT, (10YR 4/2) dark grayish brown, low plasticity, soft, moist, no odor.	114-GA-A`3A-6.5-7.0
7-8		0.0	moist	OL		fine organic SILT, and wood fragments, (10YR 4/2) dark grayish brown, non plastic, soft, moist, no odor.	114-GA-A`3A-7.0-7.5
8-9		0.0	moist	OL		fine organic SILT, (10YR 4/2) dark grayish brown, low plasticity, soft, moist, no odor. Soils consistent with UNDorg.	114-GA-A`3A-7.5-8.0
9-10		0.0	moist	SM		fine to medium silty SAND, (10YR 4/2) dark grayish brown, low plasticity, medium dense, moist, no odor.	114-GA-A`3A-9.5-10.0
10-14	5	0.0	moist to wet	SM		fine to medium silty SAND, (10YR 6/2) light brownish gray, low plasticity, medium dense, moist to wet, no odor, iron oxide staining. Soils consistent with UNDno.	114-GA-A`3A-11.5-12.0
14-15		0.0	dry	SP		medium to coarse SAND, trace cobbles, (5YR 3/3) dark reddish brown, non plastic, loose, dry, no odor. Soils consistent with UNDno.	114-GA-A`3A-13.5-14.0
15-18	3	0.0	moist	SP		medium to coarse SAND, little coarse gravel, (10R 5/1) reddish gray, non plastic, loose, moist, no odor. Refusal at 18 ft. Soils consistent with UNDno.	114-GA-A`3A-15.5-16.0
18							

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610843.6
Date Started Drilling: 8/19/2014 8:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683554.3
Date Finished Drilling: 8/19/2014 9:00:00 AM	Core Size: 3 in	Boring Total Depth: 20.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 8.506 ft NAVD88






Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5		moist to wet	FILL		DGA, (10YR 4/2) dark grayish brown, non plastic, moist to wet.	
5-6		0.0		FILL		DGA, (10YR 4/2) dark grayish brown, non plastic.	
6-7		0.0	wet	FILL		SILT, trace fine sand, (10YR 4/2) dark grayish brown, low plasticity, wet.	114-GA-A`4A-6.0-6.5
7-8	5	0.0	wet	FILL		SILT, trace fine sand, (10YR 4/2) dark grayish brown, low plasticity, medium stiff, wet.	114-GA-A`4A-8.0-8.5
10-11		0.0	moist to wet	FILL		fine to medium silty SAND, (10YR 4/2) dark grayish brown, non plastic, dense to medium dense, moist to wet, iron oxide staining.	114-GA-A`4A-10.0-10.5
11-12	5						114-GA-A`4A-12.0-12.5
12-13		0.0	wet	SP		medium SAND, little fine sand, (2.5YR 3/3) dark reddish brown, non plastic, dense, wet. Soils consistent with UNDno.	114-A`4A-12.5-13.0
13-14							114-GA-A`4A-14.0-14.5
15-16		0.0	saturated	GP		fine to coarse GRAVEL, (5YR 3/3) dark reddish brown, non plastic, medium dense, saturated. Soils consistent with UNDno.	114-GA-A`4A-16.0-16.5
16-17	5.5	0.0	wet	SP		fine to medium SAND, some fine gravel, little silt, trace cobbles, (2.5YR 3/3) dark reddish brown, non plastic, dense to very dense, wet, dark gray (10YR 4/1), sand film at 18 ft. Soils consistent with UNDno.	114-GA-A`4A-18.0-18.5
17-18							114-GA-A`4A-18.0-18.5
18-20							114-GA-A`4A-20.0-20.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

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Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610924.5
Date Started Drilling: 8/20/2014 11:06:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683702.3
Date Finished Drilling: 8/22/2014 11:06:00 AM	Core Size: 3 in	Boring Total Depth: 18.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 9.412 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID	
1-5	5	0.0	dry	FILL		fine to coarse sandy DGA, (10YR 5/1) gray, non plastic, medium dense, dry, no odor.		
5-6	5	0.0	dry to moist	FILL		fine to coarse sandy DGA, (10YR 5/1) gray, non plastic, medium dense, dry to moist, no odor.		
6-8		0.9	dry to moist	FILL		fine to medium sandy SILT, trace gravel with rock fragments, (10YR 3/2) very dark grayish brown, low plasticity, medium dense to dense, dry to moist, slight ammonia odor.	114-GA-A2B-6.0-6.5 114-GA-A2B-8.0-8.5	
10-11	5	5.7	moist	FILL		fine to coarse SAND, some gravel with rock fragments, (10YR 2/1) black, non plastic, medium dense, moist, strong ammonia odor.	114-GA-A2B-10.0-10.5	
11-12		0.4	moist	SM			fine to medium silty SAND, trace gravel with rock fragments, (2.5YR 4/6) red, low plasticity, medium dense, moist, no odor. Soils consistent with UNDno.	114-GA-A2B-11.5-12.0 114-GA-A2B-12.0-12.5
12-14							fine to medium silty SAND, trace gravel with rock fragments, (2.5YR 4/6) red, low plasticity, medium dense, moist, no odor. Soils consistent with UNDno.	114-GA-A2B-14.0-14.5
15-16	3.5	0.4	moist to wet	SP		fine to medium GRAVEL, trace silt, trace cobbles, (2.5YR 4/6) red, non plastic, medium dense, moist to wet, no odor. Refusal at 18.5 ft. Soils consistent with UNDno.	114-GA-A2B-16.0-16.5	
16-18								114-GA-A2B-18.0-18.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

PPG - 2012-08 RA PPG_LOGS_A_GDT - 6/13/17 11:43

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610942
Date Started Drilling: 8/21/2014 9:02:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683731
Date Finished Drilling: 8/21/2014 10:00:00 AM	Core Size: 3.0 in	Boring Total Depth: 19 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		

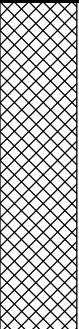

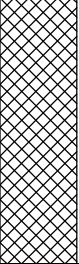


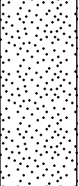
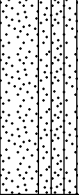
(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	3	FILL		sandy DGA, (10YR 4/1) dark gray, non plastic, medium dense, dry, no odor.	114-GA-A3B-0.0-0.5
5-6	5	0.0	dry	3	FILL		sandy DGA, (10YR 4/1) dark gray, non plastic, medium dense, dry, no odor.	
6-7		1.0	dry to moist	3	FILL		SILT, some fine to medium sand, trace ash, trace gravel, non plastic, medium dense, dry to moist, slight ammonia odor.	114-GA-A3B-6.0-6.5
7-8		0.0	moist	3	FILL		SILT, trace gravel, trace sand, (10YR 5/2) grayish brown, low plasticity, soft, moist, no odor.	114-GA-A3B-8.0-8.5
8-9		0.0	moist	8	SM		UNDno sandy SILT, trace gravel with rock fragments, (10YR 4/2) dark grayish brown, non plastic, medium dense, dry to moist, no odor, iron oxide staining. Soils consistent with UNDno.	114-GA-A3B-8.5-9.0
9-11	5	0.0	moist to wet	8	SM		UNDno sandy SILT, trace gravel with rock fragments, (10YR 4/2) dark grayish brown, non plastic, medium dense, moist to wet, no odor, no staining. Soils consistent with UNDno.	114-GA-A3B-10.5-11.0
11-12		0.0	moist to dry	10	SP		UNDno fine to coarse SAND, little gravel with rock fragments, trace silt, (10YR 4/6) dark yellowish brown, non plastic, medium dense, moist to dry, no odor. Soils consistent with UNDno.	114-GA-A3B-12.5-13.0
12-15								114-GA-A3B-14.5-15.0
15-17	4	0.0	moist to wet	10	SP		UNDno fine to coarse silty SAND, trace gravel with rock fragments, (2.5YR 4/6) red, non plastic, medium dense to dense, moist to wet, no odor, refusal at 19.0 ft. Soils consistent with UNDno.	114-GA-A3B-16.5-17.0
17-19								114-GA-A3B-18.5-19.0

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Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610978.5
Date Started Drilling: 8/21/2014 10:30:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683787.8
Date Finished Drilling: 8/21/2014 12:00:00 PM	Core Size: 3.0 in	Boring Total Depth: 18 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		Surface Elevation: 9.505 ft NAVD88

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	dry	FILL		DGA, (10YR 4/1) dark gray, non plastic, dense, dry, no odor.	114-GA-A5B-0.0-0.5
5-6	5	0.0	slightly moist	FILL		DGA, (10YR 4/1) dark gray, non plastic, dense to very dense, slightly moist.	114-GA-A5B-5.5-6.0
6-10		0.0	moist	FILL		SILT, little coarse sand, little ash, (10YR 3/1) very dark gray, low plasticity, stiff, moist.	114-GA-A5B-9.5-10.0
10-11	5	0.0	saturated	FILL		SILT, little ash, trace cobbles, (10YR 3/2) very dark grayish brown, low plasticity, very loose to medium dense, saturated.	114-GA-A5B-10.5-11.0
11-12		0.0	saturated	ML		UNDno SILT, some fine to coarse gravel, little coarse sand, (10YR 4/4) dark yellowish brown, non plastic, very loose to medium soft, saturated. Soils consistent with UNDno. UNDno SAND, some fine to coarse gravel, trace silt, trace cobbles, (2.5YR 4/3) reddish brown, non plastic, dense, wet. Soils consistent with UNDno.	114-GA-A5B-11.0-11.5
12-15		0.0	wet	SP			114-GA-A5B-13.0-13.5
15-16	3	0.0	wet	SP-SM		UNDno fine silty SAND, little fine gravel, trace cobbles, (10YR 4/3) brown, non plastic, very dense, wet. Soils consistent with UNDno.	114-GA-A5B-15.0-15.5
16-18							114-GA-A5B-17.0-17.5

Notes:
 bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MGP - manufactured gas plant
 MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits CCPW - chromate chemical production waste

Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611001
Date Started Drilling: 8/22/2014 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683829
Date Finished Drilling: 8/22/2014 10:35:00 AM	Core Size: 3.0 in	Boring Total Depth: 20.5 ft
Logged By: AG	Project Manager: Scott Mikaelian	Depth to Water: NA
Physical Location: GA Sidewalk		

(Note bgs = below ground surface)

Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	GA Class	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
1-5	5	0.0	slightly moist	3	FILL		DGA, (10YR 4/3) brown, non plastic, very dense, slightly moist.	
5-6	5	0.0	slightly moist	3	FILL		DGA, (10YR 4/3) brown, high plasticity, dense, slightly moist.	114-GA-A7B-5.5-6.0
6-6.5		0.0	slightly moist	3	FILL		fine silty SAND, trace ash, (10YR 4/2) dark grayish brown, non plastic, dense, slightly moist.	114-GA-A7B-6.0-6.5
6.5-8		0.0	slightly moist	8	SP-SM		fine silty SAND, little fine gravel, trace shells, (10YR 3/2) very dark grayish brown, non plastic, very dense, slightly moist, coarse gravel lense @ 8.0 ft. Soils consistent with UNDno.	114-GA-A7B-8.0-8.5
8-9		0.0	moist	9	ML		SILT, (10YR 5/4) yellowish brown, low plasticity, medium stiff, moist. Soils consistent with UNDno.	114-GA-A7B-8.0-8.5
9-10	5	0.0	saturated	9	ML		SILT, trace fine to coarse gravel, (10YR 5/4) yellowish brown, low plasticity, medium stiff, saturated. Soils consistent with UNDno.	114-GA-A7B-10.0-10.5
10-12		0.0	wet to saturated	10	SW		fine to coarse SAND, some fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, dense, wet to saturated. Soils consistent with UNDno.	114-GA-A7B-12.0-12.5
12-14								114-GA-A7B-14.0-14.5
14-15	5.5	0.0	moist to wet	10	SW-SM		fine to medium silty SAND, little fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, very dense, moist to wet. Soils consistent with UNDno.	114-GA-A7B-16.0-16.5
15-18		0.0	moist to wet	10	SW-SM		fine to medium silty SAND, little fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, very dense, moist to wet. Soils consistent with UNDno.	114-GA-A7B-18.0-18.5
18-20								114-GA-A7B-20.0-20.5

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Comments: 1) 3 attempts were made to obtain best recovery 2) UND/MM confirmed to be 1 ft thick 3) No COPR or GGM present in any interval of this boring.