Remedial Action Report – Carteret Avenue (AOC CAR-1A) Soil Garfield Avenue Group PPG, Jersey City, New Jersey

Appendix G

Draft Notice in Lieu of Deed Notice

Return Address:
Dorothy Laguzza, Esq.,
K&L Gates LLP
One Newark Center, Tenth Floor
Newark, NJ 07102-5285

NOTICE IN LIEU OF DEED NOTICE

THIS DOCUMENT SHALL BE DISTRIBUTED TO THE ENTITIES IDENTIFIED IN ACCORDANCE WITH N.J.A.C. 7:26C-7.2(b)2.

Prepared by: [Signature]			
[Signature]			
[Print name b	elow signature]		
	n Lieu of Deed Notice	 day of	,, by the City

1. THE PROPERTY. The City of Jersey City is the owner in fee simple of certain real property designated as Carteret Avenue. This Notice in Lieu of Deed Notice is for the portion of Carteret Avenue between Garfield Avenue and Pacific Avenue on the tax map of the City of Jersey City, Hudson County (the "Property"). The New Jersey Department of Environmental Protection ("NJDEP") Program Interest Number ("Preferred ID") for the contaminated site, part of which includes the Property, is G000005480. The Property is more particularly described in Exhibit A, which is attached hereto and made a part hereof.

2. REMEDIATION.

- i. NJDEP has approved this Notice in Lieu of Deed Notice as an institutional control for the Property, which is part of the remediation of the Property. The Property is subject to a Partial Consent Judgment Concerning PPG Sites entered into by NJDEP, the Owner and PPG and approved by the Superior Court of New Jersey on June 26, 2009 (Superior Court of New Jersey, Chancery Division-Hudson County, Docket No. C-77-05 ("Consent Judgment")). Pursuant to the Consent Judgment, PPG has responsibility for remediation of all hazardous substances having emanated from Hudson County Chromate (HCC) Site 114 in accordance with the Consent Judgment.
- ii. N.J.A.C. 7:26C-7 requires the Owner, among other persons, to obtain a soil remedial action permit for the soil remedial action at the Property. That permit will contain the monitoring, maintenance and biennial certification requirements that apply to the Property.
- 3. SOIL CONTAMINATION. PPG is responsible for remediation of the Property to address Chromate Chemical Production Waste ("CCPW"). PPG has remediated contaminated soil at the Property, such that soil contamination remains at certain areas of the Property that contains contaminants in concentrations that do not allow for the unrestricted use of the Property. Such soil contamination is described, including the type, concentration, and specific location of such

contamination, and the existing engineering controls on the site are described, in Exhibit B, which is attached hereto and made a part hereof. As a result, there is a statutory requirement for this Notice in Lieu of Deed Notice and engineering controls in accordance with N.J.S.A. 58:10B-13. Attainment of the NJDEP soil criterion of 20 milligrams per kilogram ("mg/kg") for hexavalent chromium remaining in soil within Restricted Areas A-1 and A-2 following remedial excavation was achieved using compliance averaging. Since attainment was achieved through the use of compliance averaging for non-residential use, a notice in lieu of deed notice must be established, in accordance with N.J.S.A 58:10B-13 to prevent residential use in the future.

- 4. CONSIDERATION. In accordance with the remedial action for the site that includes the Property, and in consideration of the terms and conditions of that remedial action, and other good and valuable consideration, the Owner has agreed to subject the Property to certain statutory and regulatory requirements that impose restrictions upon the use of the Property, to restrict certain uses of the Property, and to provide notice to subsequent owners, lessors, lessees and operators of the Property of the restrictions and the monitoring, maintenance, and biennial certification requirements outlined in this Notice in Lieu of Deed Notice and required by law, as set forth herein.
- 5A. RESTRICTED AREAS. Due to the presence of soil contamination remaining that does not allow for unrestricted use and due to the use of compliance averaging that does not allow for unrestricted use, the Owner has agreed, as part of the remedial action for the Property, to restrict the use of certain parts of the Property (the "Restricted Areas"); a narrative description of these restrictions is provided in Exhibit C, which is attached hereto and made a part hereof. The Owner has also agreed to maintain a list of these restrictions for referral by government officials and other interested parties. This list of restrictions is available for review at the Jersey City Division of Engineering, Traffic, and Transportation office or the Jersey City Municipal Utilities Authority ("JCMUA") office.
- 5B. RESTRICTED LAND USES. The following statutory land use restrictions apply to the Restricted Areas:
 - i. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(10), prohibits the conversion of a contaminated site, remediated to non-residential soil remediation standards that require the maintenance of engineering or institutional controls, to a child care facility, or public, private, or charter school without the Department's prior written approval, unless a presumptive remedy is implemented; and
 - ii. The Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12.g(12), prohibits the conversion of a landfill, with gas venting systems and or leachate collection systems, to a single family residence or a child care facility.
- 5C. ENGINEERING CONTROLS. Due to the presence of soil contamination that does not allow for unrestricted use, the Owner has also agreed, as part of the remedial action for the Property, to the placement of certain engineering controls on the Property; a narrative description of these engineering controls is provided in Exhibit C.

5D. UTILITY COORDINATION MANUAL. A Utility Coordination Manual has been prepared for use by the owner, lessee, and/or operators for the protection of workers who may be potentially exposed to chromium-impacted soils or groundwater in conjunction with utility or other ground intrusive work on the Property; the Utility Coordination Manual identifies health and safety requirements for the protection of personnel and contractors who may perform ground intrusive activities (e.g., digging, drilling, excavation) that may disturb existing engineering controls and informs workers of potential hazards associated with chromium-impacted media. Owner shall make the Utility Coordination Manual available to operators, tenants, contractors, and/or utility workers intending to conduct invasive work within the Restricted Areas to prevent unauthorized disturbance of engineering controls and potential exposure to contaminants. The Jersey City Division of Engineering, Traffic, and Transportation, JCMUA and/or PPG will make the Utility Coordination Manual available to owners/operators, tenants, contractors, and/or utility workers in the event that the JCMUA and/or PPG are notified of invasive work by owners/operators, tenants, contractors and/or utility workers. The PPG Utility Coordination Manual that addresses the identification, notification, and coordination of work between PPG and the JCMUA related to the utilities located within the restricted area is attached to this Notice in Lieu of Deed Notice.

6A. CHANGE IN OWNERSHIP AND REZONING.

- i. The Owner and the subsequent owners, lessors, and lessees, shall cause all leases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring all holders thereof to take the Property subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Notice in Lieu of Deed Notice. Nothing contained in this Paragraph shall be construed as limiting any obligation of any person to provide any notice required by any law, regulation, or order of any governmental authority.
- ii. The Owner and the subsequent owners shall provide written notice to NJDEP on a form provided by NJDEP and available at www.nj.gov/srp/forms within 30 calendar days after the effective date of any conveyance, grant, gift, or other transfer, in whole or in part, of the Owner's or subsequent owner's interest in the Restricted Area.
- iii. The Owner and the subsequent owners shall provide written notice to the Department, on a form available from the Department at www.nj.gov/srp/forms, within thirty (30) calendar days after the owner's petition for or filing of any document initiating a rezoning of the Property to residential.
- 6B. SUCCESSORS AND ASSIGNS. This Notice in Lieu of Deed Notice shall be binding upon Owner and upon Owner's successors and assigns, and subsequent owners, lessors, lessees and operators while each is an owner, lessor, lessee, or operator of the Property.

7A. ALTERATIONS, IMPROVEMENTS, AND DISTURBANCES.

- i. The Owner, specifically, the Jersey City Division of Engineering, Traffic, and Transportation, and all subsequent owners, lessors, and lessees shall notify any person, including, without limitation, tenants, employees of tenants, and contractors, intending to conduct invasive work or excavate within the Restricted Areas, of the nature and location of contamination in the Restricted Areas, and, of the precautions necessary to minimize potential human exposure to contaminants.
- ii. Except as provided in Paragraph 7B, below, no person shall make, or allow to be made, any alteration, improvement, or disturbance in, to, or about the Property which disturbs any engineering control at the Property without first retaining a licensed site remediation professional. Nothing herein shall constitute a waiver of the obligation of any person to comply with all applicable laws and regulations including, without limitation, the applicable rules of the Occupational Safety and Health Administration.
- iii. A soil remedial action permit modification is required for any permanent alteration, improvement, or disturbance and the owner, lessor, lessee or operator shall submit the following within 30 days after the occurrence of the permanent alteration, improvement, or disturbance:
 - (A) A Remedial Action Workplan or Linear Construction Project notification and Final Report Form, whichever is applicable;
 - (B) A Remedial Action Report and Termination of a Notice in Lieu of Deed Notice Form; and
 - (C) A revised recorded Notice in Lieu of Deed Notice with revised Exhibits, and Remedial Action Permit Modification or Remedial Action Permit Termination form and Remedial Action Report.
- iv. No owner, lessor, lessee or operator shall be required to obtain a Remedial Action Permit Modification for any temporary alteration, improvement, or disturbance, provided that the site is restored to the condition described in the Exhibits to this Notice in Lieu of Deed Notice, and the owner, lessee, or operator complies with the following:
 - (A) Restores any disturbance of an engineering control to pre-disturbance conditions within 60 calendar days after the initiation of the alteration, improvement or disturbance;
 - (B) Ensures that all applicable worker health and safety laws and regulations are followed during the alteration, improvement, or disturbance, and during the restoration;
 - (C) Ensures that human exposure to contamination in excess of the remediation standards does not occur; and

- (D) Describes, in the next biennial certification, the nature of the temporary alteration, improvement, or disturbance, the dates and duration of the temporary alteration, improvement, or disturbance, the name of key individuals and their affiliations conducting the temporary alteration, improvement, or disturbance, and the notice the Owner gave to those persons prior to the disturbance.
- 7B. EMERGENCIES. In the event of an emergency that presents, or may present, an unacceptable risk to the public health and safety, or to the environment, or an immediate environmental concern, see N.J.S.A. 58:10C-2, any person may temporarily breach an engineering control provided that that person complies with each of the following:
 - i. Immediately notifies NJDEP of the emergency, by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337;
 - ii. Hires a Licensed Site Remediation Professional (unless the Restricted Areas includes an unregulated heating oil tank) to respond to the emergency;
 - iii. Limits both the actual disturbance and the time needed for the disturbance to the minimum reasonably necessary to adequately respond to the emergency;
 - iv. Implements all measures necessary to limit actual or potential, present or future risk of exposure to humans or the environment to the contamination;
 - v. Notifies NJDEP when the emergency or immediate environmental concern has ended by calling the DEP Hotline at 1-877-WARNDEP or 1-877-927-6337; and
 - vi. Restores the engineering control to the pre-emergency conditions as soon as possible; and
 - vii. Submits to NJDEP within 60 calendar days after completion of the restoration of the engineering control, a report including: (a) the nature and likely cause of the emergency; (b) the measures that have been taken to mitigate the effects of the emergency on human health and the environment; (c) the measures completed or implemented to restore the engineering control; and (d) any changes to the engineering control or site operation and maintenance plan to prevent reoccurrence of such conditions in the future.

8. TERMINATION OF NOTICE IN LIEU OF DEED NOTICE.

- i. This Notice in Lieu of Deed Notice may be terminated only upon recording a NJDEP-approved Termination of a Notice in Lieu of Deed Notice, available at N.J.A.C. 7:26C Appendix C, with the Affected Parties as identified in N.J.A.C. 7:26C-7.2(b)2, expressly terminating this Notice in Lieu of Deed Notice.
- ii. Within 30 calendar days after recording a NJDEP-approved Termination of a Notice in Lieu of Deed Notice, the owner of the property should apply to NJDEP for termination of the soil remedial action permit pursuant to N.J.A.C. 7:26C-7.

9. ACCESS. The Owner, and the subsequent owners, lessors, lessees, and operators agree to allow NJDEP, its agents and representatives access to the Property to inspect and evaluate the continued protectiveness of the remedial action that includes this Notice in Lieu of Deed Notice and to conduct additional remediation to ensure the protection of the public health and safety and of the environment if the subsequent owners, lessors, lessees, and operators, during their ownership, tenancy, or operation, and the Owner fail to conduct such remediation pursuant to this Notice in Lieu of Deed Notice as required by law. The Owner, and the subsequent owners, lessors, and lessees, shall also cause all leases, subleases, grants, and other written transfers of an interest in the Restricted Areas to contain a provision expressly requiring that all holders thereof provide such access to NJDEP.

10. ENFORCEMENT OF VIOLATIONS.

- i. This Notice in Lieu of Deed Notice itself is not intended to create any interest in real estate in favor of NJDEP, nor to create a lien against the Property, but merely is intended to provide notice of certain conditions and restrictions on the Property and to reflect the regulatory and statutory obligations imposed as a conditional remedial action for this site.
- ii. The restrictions provided herein may be enforceable solely by NJDEP against any person who violates this Notice in Lieu of Deed Notice. To enforce violations of this Notice in Lieu of Deed Notice, NJDEP may initiate one or more enforcement actions pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C, and require additional remediation and assess damages pursuant to N.J.S.A. 58:10-23.11, and N.J.S.A. 58:10C.
- 11. SEVERABILITY. If any court of competent jurisdiction determines that any provision of this Notice in Lieu of Deed Notice requires modification, such provision shall be deemed to have been modified automatically to conform to such requirements. If a court of competent jurisdiction determines that any provision of this Notice in Lieu of Deed Notice is invalid or unenforceable and the provision is of such a nature that it cannot be modified, the provision shall be deemed deleted from this instrument as though the provision had never been included herein. In either case, the remaining provisions of this Notice in Lieu of Deed Notice shall remain in full force and effect.

12A. EXHIBIT A. Exhibit A includes the following maps of the Property and the vicinity:

- i. Exhibit A-1: Vicinity Map A map that identifies by name the roads, and other important geographical features in the vicinity of the Property (for example, USGS Quad map, Hagstrom County Maps);
- ii. Exhibit A-2: Metes and Bounds Description A tax map of lots and blocks as wells as metes and bounds description of the restricted area within the Property, including references to tax lot and block numbers for the properties adjacent to the Property and distances from nearby intersections;

- iii. Exhibit A-3: Property Map A scaled map of the Property, scaled at one inch to 200 feet or less, and if more than one map is submitted, the maps shall be presented as overlays, keyed to a base map; and the Property Map shall include diagrams of major surface topographical features such as buildings, roads, and parking lots.
- 12B. EXHIBIT B. Exhibit B includes the following descriptions of the Restricted Areas:
- i. Exhibit B-1: Restricted Area Map A separate map for each restricted area that includes:
 - (A) As-built diagrams of each engineering control, including caps, fences, slurry walls, (and, if any) ground water monitoring wells, extent of the ground water classification exception area, pumping and treatment systems that may be required as part of a ground water engineering control in addition to the Notice in Lieu of Deed Notice;
 - (B) As-built diagrams of any buildings, roads, parking lots and other structures that function as engineering controls; and
 - (C) Designation of all soil and all upland sediment sample locations within the restricted areas that exceed any soil standard that are keyed into one of the tables described in the following paragraph.
- ii. Exhibit B-2: Restricted Area Data Table A separate table for each restricted area that includes either (A) or (B) through (F):
 - (A) Only for historic fill extending over the entire site or a portion of the site and for which analytical data are limited or do not exist, a narrative that states that historic fill is present at the site, a description of the fill material (e.g., ash, cinders, brick, dredge material), and a statement that such material may include, but is not limited to, contaminants such as PAHs and metals;
 - (B) Sample location designation from the Restricted Area map (Exhibit B-1);
 - (C) Sample elevation based upon mean sea level;
 - (D) Name and chemical abstract service registry number of each contaminant with a concentration that exceeds the unrestricted use standard;
 - (E) The restricted and unrestricted use standards for each contaminant in the table; and
 - (F) The remaining concentration of each contaminant at each sample location at each elevation.
- 12C. EXHIBIT C. Exhibit C includes narrative descriptions of the institutional controls and engineering controls as follows:

- i. Exhibit C-1: Notice in Lieu of Deed Notice as Institutional Control: Exhibit C-1 includes a narrative description of the restriction and obligations of this Notice in Lieu of Deed Notice that are in addition to those described above, as follows:
 - (A) Description and estimated size in square feet of the Restricted Areas as described above;
 - (B) Description of the restrictions on the Property by operation of this Notice in Lieu of Deed Notice; and
 - (C) The objective of the restrictions.
 - ii. Exhibit C-2: Restricted Area B Engineering Control –High-Density Polyethylene ("HDPE") Liner: Exhibit C-2 includes a narrative description of the HDPE Liner Engineering Control as follows:
 - (A) Description of the engineering control;
 - (B) The objective of the engineering control; and
 - (C) How the engineering control is intended to function.

13. SIGNATURES. IN With date first written above.	VITNESS WHEREOF, Owner has executed this Deed Notice as of
ATTEST:	City of Jersey City
	By
[Print name and title]	[Signature]
STATE OF New Jersey SS.: COUNTY OF Hudson	
I certify that on came before me, and this per	_, 20,, Business Administrator personally son acknowledged under oath, to my satisfaction, that:
(a) this person is the busi document;	iness administrator of the City of Jersey City, the City named in this
(b) this document was signauthorized;	gned and delivered by the City as its voluntary act and was duly
(c) this person signed this	s proof to attest to the truth of these facts.
[Signature]	
Print name and title of attest	ing witness]
Signed and sworn before me	on, 20
	, Notary Public
[Print name and title]	

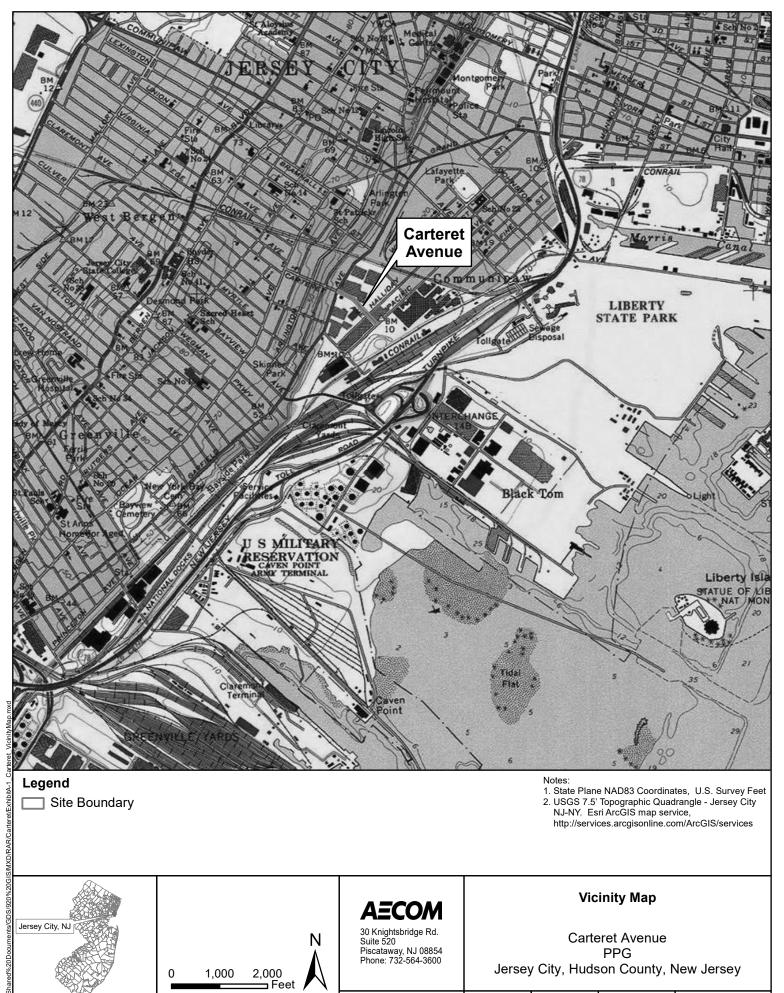
EXHIBIT A

Maps of the Property and Vicinity

Exhibit A-1: Vicinity Map

Exhibit A-2: Metes and Bounds Description

Exhibit A-3: Property Map



Project No.: 60580814 Scale: 1:24,000 Date: 2/24/2021 Sheet: 1 of 1 **EXHIBIT A-1**



Facilities Mapping Specialists Environmental Site Mapping Transportation and Right-of-Way Surveys Expert Witness Services
Aerial Base Mapping
Certified Drone Pilots
Hydrographic-Bathymetric Surveys

ON A PORTION OF CARTERET AVENUE IN JERSEY CITY, HUDSON COUNTY, NEW JERSEY

BEGINNING at a point at the intersection of the northeasterly sideline of Carteret Avenue, a 60 feet wide right of way, with the southeasterly sideline of Garfield Avenue, a 60 feet wide right of way, said beginning point having a NAD83 New Jersey State Plane Coordinate of North: 683310.2 East: 610698.9 (US Survey Feet, measured December 2005); and runs thence

- 1. Along the southwesterly line of Lot 18 Block 21501, South 63 degrees 11 minutes 52 seconds East 380.09 feet to a point; thence
- 2. Still along said Lot 18 Block 21501, South 30 degrees 29 minutes 07 seconds East 34.76 feet to a point; thence
- 3. Still along said Lot 18 Block 21501, continuing along the southwesterly line of Lot 17 Block 21501, across the right of way of Halladay Street and continuing along the southwesterly lines of Lot 12 and Lot 11 Block 21502, South 43 degrees 17 minutes 07 seconds East 622.30 feet to the southerly corner of Lot 11 Block 21502, said point being the intersection of the northeasterly sideline of Carteret Avenue, a 60 feet wide right of way, with the northwesterly sideline of Pacific Avenue, an 80 feet wide right of way; thence
- 4. Across the right of way of Carteret Avenue, South 46 degrees 42 minutes 53 seconds West 60.00 feet to the easterly corner of Lot 2 Block 21509, said point being the intersection of the southwesterly sideline of Carteret Avenue, a 60 feet wide right of way, with the northwesterly sideline of Pacific Avenue, an 80 feet wide right of way; thence
- Along the northeasterly lines of Lot 2 and Lot 1 Block 21509, continuing across the right of way of Halladay Street and continuing along the northeasterly lines of Lot 3 and Lot 2 Block 21510, North 43 degrees 17 minutes 07 seconds West 666.92 feet to a point; thence
- Still along said northeasterly line of Lot 2 Block 21510 and continuing along the northeasterly line of Lot 1 Block 21510, North 63 degrees 11 minutes 52 seconds West 345.45 feet to the northerly corner of Lot 1 Block 21510, said point being the

intersection of the southwesterly sideline of Carteret Avenue, a 60 feet wide right of way, with the southeasterly sideline of Garfield Avenue, a 60 feet wide right of way; thence

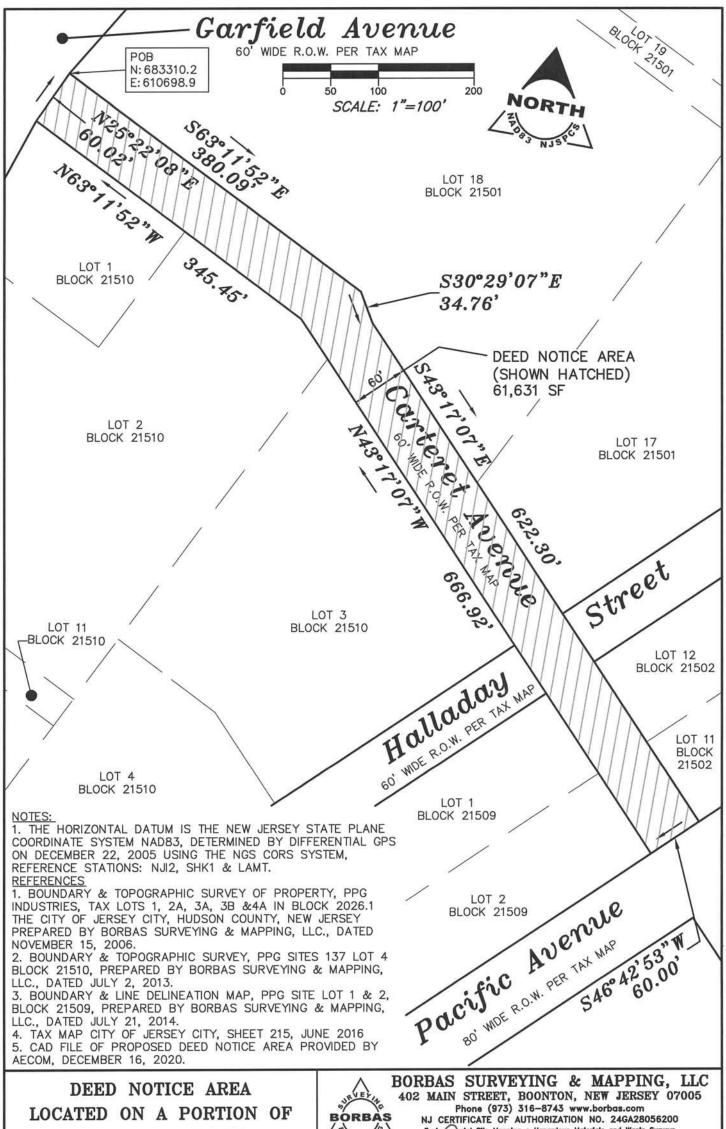
7. Across the right of way of Carteret Avenue, North 25 degrees 22 minutes 08 seconds East 60.02 feet to the point and place of BEGINNING.

Containing 61,631 square feet of land.

The basis of bearings for this description is the New Jersey State Plane Coordinate System (NAD83).

This description was prepared in accordance with a plan entitled, "DEED NOTICE AREA LOCATED ON A PORTION OF CARTERET AVENUE JERSEY CITY, HUDSON COUNTY NEW JERSEY", prepared by Borbas Surveying and Mapping, dated February 24, 2021.

John D/Beattie, PLS NJ 246504331900 February 24, 2021



CARTERET AVENUE JERSEY CITY, HUDSON COUNTY

NEW JERSEY

JOB NO.: 051201 SCALE: 1"=100 PROJECT NAME: 051201 FIELD BOOK: N/A DRAWING NO.: 051201_2021-02-24_CARTERET_DN_REVISED

402 MAIN STREET, BOONTON, NEW JERSEY 07005

Phone (973) 316-8743 www.borbas.com

NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28056200

Environmental Site Mapping o Hazardous Materials and Waste Surveys

Aerial Control and GPS Surveys o Topographic and Existing Condition Surveys
iote Sensing and GIS o Hydrographic/Bathymetric Surveys o ALTA/NSPS Certified Surveys of Materials and Right of Way Surveys o Deformation and Structure Monitoring Surveys



NJ PROFESSIONAL LAND SURVEYOR 24GS04331900

Date: FEBRUARY 24, 2021

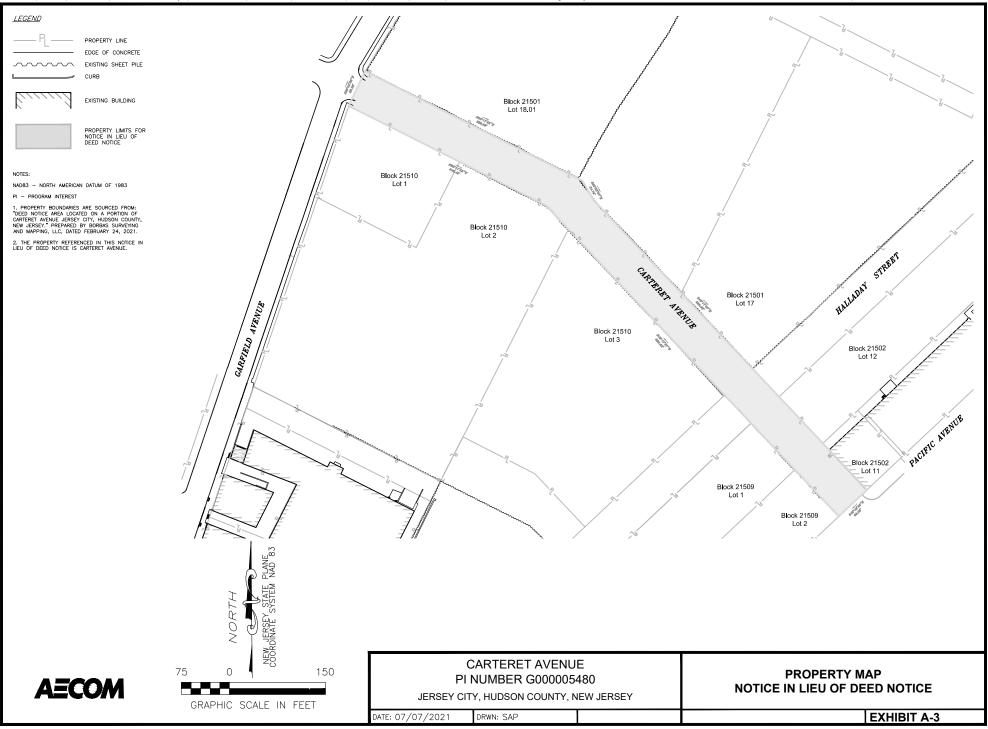


EXHIBIT B

Description of Restricted Area

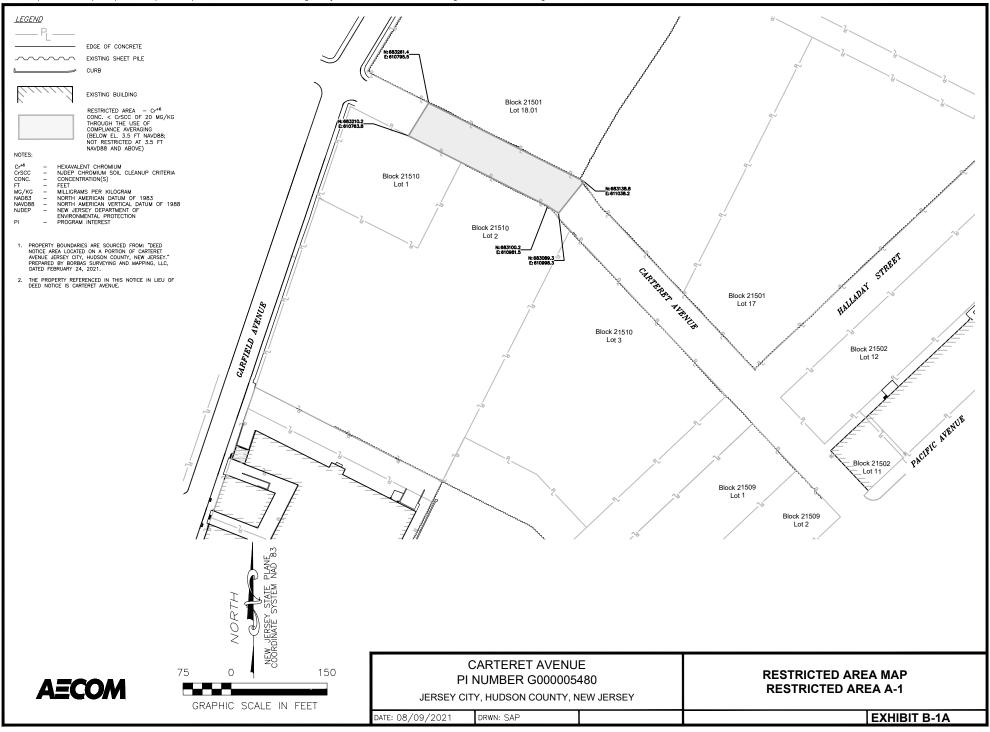
Exhibit B-1A: Restricted Area Map – Restricted Area A-1

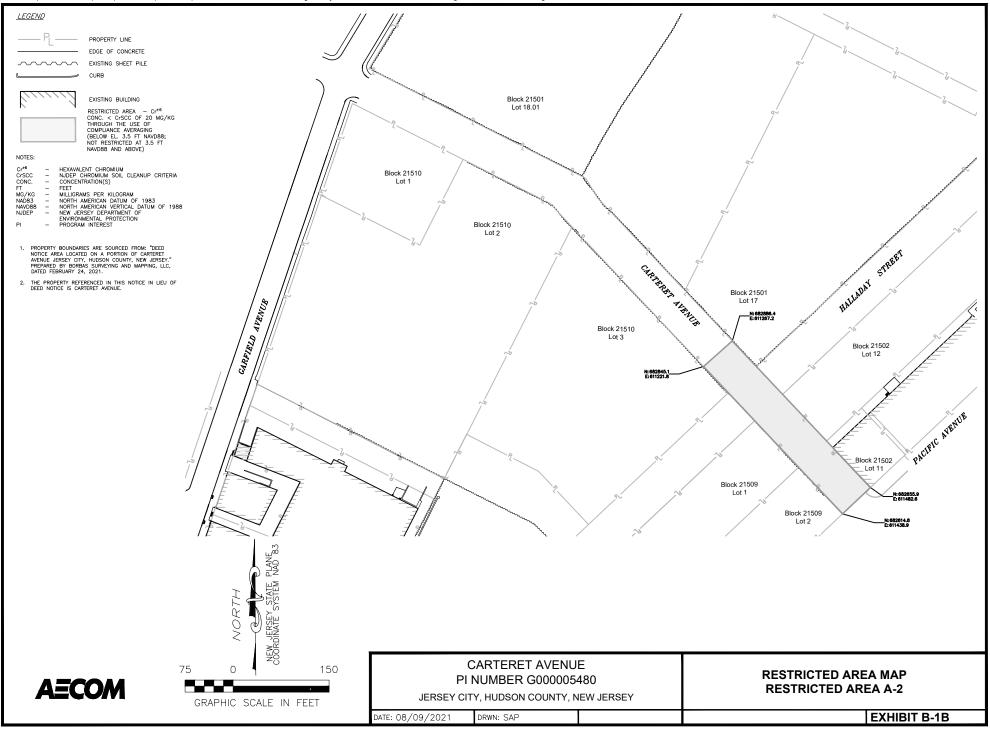
Exhibit B-1B: Restricted Area Map – Restricted Area A-2

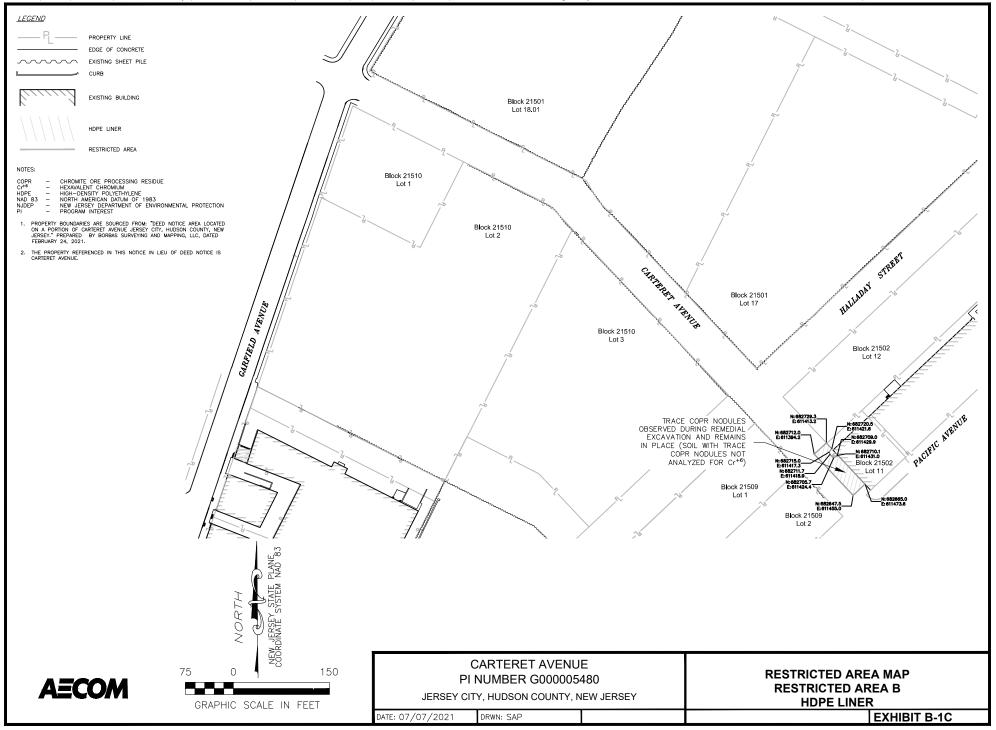
Exhibit B-1C: Restricted Area Map – Restricted Area B – HDPE Liner

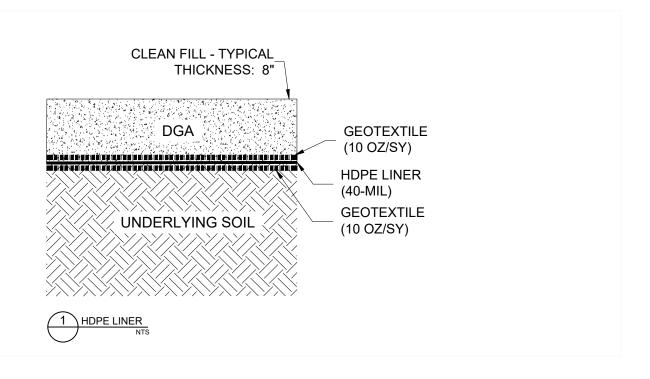
Exhibit B-1D: Engineering Control – As-Built Typical Section – Restricted Area B – HDPE

Liner









NOTES:

1. THE HDPE LINER SERVES AS AN ENGINEERING CONTROL. THE ADDITIONAL COMPONENTS SHOWN HERE WERE INSTALLED FOR RESTORATION PURPOSES.

DGA DENSE-GRADED AGGREGATE HDPE HIGH-DENSITY POLYETHYLENE MIL ONE THOUSANDTH OF AN INCH

NTS NOT TO SCALE ΟZ **OUNCES**

PROGRAM INTEREST ы SY SQUARE YARD



CARTERET AVENUE PI NUMBER G000005480 JERSEY CITY, HUDSON COUNTY, NEW JERSEY

ENGINEERING CONTROL AS-BUILT TYPICAL SECTION RESTRICTED AREA B HDPE LINER

DATE: 07/07/2021

DRWN: SAP

EXHIBIT B-1D

EXHIBIT C

Narrative descriptions of the institutional controls and engineering controls

Exhibit C-1: Notice in Lieu of Deed Notice as Institutional Control

Exhibit C-2: Narrative Description of the Restricted Area B Engineering Control: HDPE Liner

EXHIBIT C

Narrative descriptions of the institutional and engineering controls

Exhibit C-1: Notice in Lieu of Deed Notice as Institutional Control

(A) Description and estimated size of the Restricted Areas:

The Notice in Lieu of Deed Notice is for soil (Soil Restricted Area A, including Soil Restricted Area A-1 and Soil Restricted Area A-2, and Soil Restricted Area B), located within the right-of-way of Carteret Avenue in Jersey City, New Jersey, as depicted on **Exhibits B-1A** and **B-1C**.

In Restricted Area A-1, the contaminant of concern is hexavalent chromium (Cr⁺⁶) at concentrations less than the Chromium Soil Clean Up Criterion (CrSCC) attained through the use of compliance averaging. The estimated size of the Soil Restricted Area A-1 is 16,106 ft² (0.37 acres) and includes the area below elevation (El.) 3.5 feet (ft) in the North American Vertical Datum of 1988 (NAVD88). The area within the horizontal limits of Restricted Area A-1 from El. 3.5 ft NAVD88 and above is not restricted and, therefore, is not included within Restricted Area A-1

In Restricted Area A-2, the contaminant of concern is Cr⁺⁶ at concentrations less than the Chromium Soil Clean Up Criterion (CrSCC) attained through the use of compliance averaging. The estimated size of the Soil Restricted Area A-2 is 18,944 ft² (0.43 acres) and includes the area below elevation (El.) 3.5 ft NAVD88. The area within the horizontal limits of Restricted Area A-2 at El. 3.5 ft NAVD88 and above is not restricted and, therefore, is not included within Restricted Area A-2.

In Restricted Area B, the contaminant of concern is trace visible Chromate Chemical Production Waste (CCPW), specifically trace chromite ore processing residue (COPR) nodules, which are a potential source of Cr^{+6} . The estimated size of the Soil Restricted Area B is 2,161 ft² (0.05 acres).

(B) Descriptions of the restrictions on the Property by operation of this Notice in Lieu of Deed Notice:

The restrictions included in this Notice in Lieu of Deed Notice minimize exposure to the contaminants of concern identified in **Exhibit C-1(A)**, which include trace visible CCPW and Cr⁺⁶ at concentrations less than the CrSCC attained through the use of compliance averaging in the Soil Restricted Areas of Carteret Avenue. Exposure to humans and the potential impact to the environment are reduced through 1) the use of this Notice in Lieu of Deed Notice for trace visible CCPW and Cr⁺⁶ at concentrations less than the CrSCC attained through the use of compliance averaging, and 2) implementation of engineering controls for trace visible CCPW.

(C) Objective of the restrictions:

The objective of the restrictions in this Notice in Lieu of Deed Notice is to permit continued use of the Property while reducing the exposure of humans to, and the potential impact to the environment from trace visible CCPW and Cr⁺⁶ at concentrations less than the CrSCC attained through the use of compliance averaging.

Exhibit C-2: Narrative Description of the Restricted Area B Engineering Control: HDPE Liner

(A) Description of the engineering control:

Following excavation of soil within a portion of Restricted Area B, the soil was graded and compacted. A 40-mil high-density polyethylene (HDPE) liner was sandwiched between layers of geotextile (10 ounces per square yard) and was placed on top of the prepared surface as an engineering control. Dense-graded aggregate (DGA) backfill material was then placed on top of the HDPE liner and compacted to final backfill subgrade at a thickness of 8 inches. The HDPE liner, but not the DGA backfill material, serves as an engineering control for the portion of Restricted Area B where the HDPE liner is present. The horizontal extent of the HDPE Liner Engineering Control is depicted on **Exhibit B-1C**. An as-built typical section of the HDPE Liner Engineering Control is shown on **Exhibit B-1D**.

(B) The objective of the engineering control:

The objective of the HDPE Liner Engineering Control is to protect human health and the environment by restricting access and eliminating exposure to underlying soil that contains visible CCPW.

(C) How the engineering control is intended to function:

The HDPE Liner Engineering Control is intended to function as a physical barrier that prevents direct contact with and incidental exposure to the underlying soil that contains visible CCPW.

Remedial Action Report – Carteret Avenue (AOC CAR-1A) Soil Garfield Avenue Group PPG, Jersey City, New Jersey

Appendix H

Boring Logs

Boring logs for the remaining sample locations in Carteret 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" or "SW" in the Location ID.

ENICD	AFCOL	Client: PPG Industries		BORII	NG ID:
ENSR	AECOM	Site: Site 114	114-MW22B		
Start Da	ite:	Project: Site Investigation		Page: 1 of 5	
11/15/20	006	Coordinates: X-610693.8 Y-68325	5.1	Depth of Bori	ng: 35.00
End Dat	e:	Elevation: 12.6		Geologist: M	
11/21/20		Drill Subcontractor: ADI		Driller:	
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
0	^_^				I
	××××××××××××××××××××××××××××××××××××××	NCRETE: CONCRETE			
		L: Dark Reddish Brown (5YR 3/2) SILT, some fine nd, little Clay, Fill material (brick, tile, rock), dry. No or.			
	NF	t: No Sample	0.0 ppm		
2—					
	××× fine	L: Reddish Brown (5YR 4/4) SILT, little Clay and e Sand, Fill Material (rounded and angular rocks, tile gments, slag), ~1% COPR, moist. No odor.	0.0 ppm		
4—	NF	: No Sample			
4—		L: Black Cinders, Ash, Slag and Rock fragments, ster shell, trace Red (10R 4/6) Clay, moist. No odor.			
	NF	: No Recovery			
-		.L: Black and Very Dark Gray Brown (10YR 3/2) ndy SILT, glass, dry. No odor.	2.3 ppm	114-MW22BA (5.0-5.5)	Cr+6, TAL Metals
		.L: Light Olive Brown (2.5Y 5/6) SILT, medium nse, dry. No odor.			

NR: No Recovery

ENSR AECO				NG ID: 4-MW22B		
0	Unto:					
Start Date:	Project: Site Investigation		Page: 2 of 5			
11/15/2006	Coordinates: X-610693.8 Y-683255.	.1	Depth of Bor Geologist: I	ring: 35.00 M. Merdinger		
End Date:		Elevation: 12.6				
11/21/2006	Drill Subcontractor: ADI		Driller:	_		
Debty (41) rithology	Description	PID	Sample ID	Sample Parameters		
× × × × × × × × × × × × × × × × × × ×	FILL: Reddish Gray (10YR 5/1) silty SAND, coarse fill Sand, Fill material (slag, concrete), wet. No odor. FILL: Dark Grayish Brown (10YR 4/2) SILT, little Clay,	0.3 ppm				
8+ \	race Gray rounded medium Gravel, wet. No odor.					
	FILL: Very Dark Gray (7.5YR 3/1) SILT, some coarse Sand, wet. No odor.	0.0 ppm				
	FILL: Dark Brown (7.5YR 3/2) SILT, trace to little Clay lown gradient, oyster shell, moist, loose. No odor.		114-MW22BB (9.5-10.0)	MS/MSD, Cr+6, TAL Me		
$\times \times \times 1$	FILL: Dark Brown (7.5YR 3/2) SILT, little Sand, trace to ttle Clay down gradient, oyster shell, moist, loose. No odor.	0.0 ppm				
× × × × × × × × × × × × × × × × × × ×	JND: Olive (5Y 4/3) SAND, little Silt, moist. No odor.					
	JND: Olive Brown (2.5 Y 4/3) silty CLAY, trace fine Gravel, wet. No odor.	0.0 ppm	114-MW22BC (13.0-14.0) 114-MW22BCD (13.0-14.0)	Cr+6, TAL Metals Cr+6, TAL Metals		

(13.0-14.0)

<u>NOTES:</u> Coordinates are provided in New Jersey State Plane NAD 1983 Feet.

ENSR AECOM	Client: PPG Industries			NG ID:		
ENSK AECON	Site: Site 114	11	114-MW22B			
Start Date:	Project: Site Investigation	Page: 3 of 5				
11/15/2006	Coordinates: X-610693.8 Y-683255	Depth of Bor	Depth of Boring: 35.00			
End Date:	Elevation: 12.6	Geologist: I	Geologist: M. Merdinger			
11/21/2006	Drill Subcontractor: ADI		Driller:	Driller:		
Depth (ft) Lithology	Description	PID	Sample ID	Sample Parameters		
\times \times		ı		I		
$\begin{array}{c} \times \times \times \\ \times \times \end{array}$						
× × UN	ND: Reddish Brown (5YR 4/4) very fine SAND, some	1				

16—	× × × × × × × × × × × × × × × × × × ×	UND: Reddish Brown (5YR 4/4) very fine SAND, some Silt, Shale. UND: Dark Reddish Brown (2.5YR 3/4) fine to medium SAND, trace Silt, wet. No odor. UND: Dark Reddish Brown (2.5YR 3/4) amd Yellow mottled silty SAND, some fine to medium Gravel, wet. No odor.	0.0 ppm		
18 —	× × × × × × × × × × × × × × × × × × ×	NR: No Recovery UND: Very Dark Gray (Gley N3/0) CLAY, medium stiff, moist. UND: Dusky Red (10R 3/4) silty SAND, some fine to coarse Gravel, Lime Green-stained CLAY interbedded, moist. No odor.	0.0 ppm	114-MW22BD (14.5-18.0)	Cr+6, TAL Metals
20 —	× × × × × × × × × × × × × × × × × × ×	UND: Olive Brown (2.5 Y 4/3) silty CLAY, moist. No odor. UND: Dusky Red (10R 3/2) CLAY, some Gravel, moist. No odor. UND: Reddish Brown (5YR 4/3) SILT, little angular fine Gravel, moist. No odor. NR: No Recovery UND: Olive Brown (2.5Y 4/3) silty CLAY, interbedded	0.0 ppm 0.0 ppm		

ENCD AFCONA	Client: PPG Industries	BORIN				
ENSR AECOM	Site: Site 114		114-MW22B			
Start Date:	Project: Site Investigation		Page: 4 of 5			
11/15/2006	Coordinates: X-610693.8 Y-683255.	1				
End Date:	Elevation: 12.6		Geologist: M			
11/21/2006	Drill Subcontractor: ADI		Driller:			
Depth (ft) Lithology	Description	PID	Sample ID	Sample Parameters		
××× Red	Idish Brown SILT at 22.2 feet, little rounded fine to dium Gravel, moist. No odor.					
	ND: Strong Brown (7.5YR 5/8) SAND, trace Silt, st. No odor. (Native)		114-MW22BE (22.5-23.0)	Cr+6, TAL Metals		
med med	T: Reddish Brown (5YR 4/4) SILT and fine to dium angular and rounded GRAVEL, trace Clay, No odor.	0.0 ppm				
24 — NR:	No Recovery					
med med	T: Reddish Brown (5YR 4/4) SILT and fine to dium angular and rounded GRAVEL, trace Clay, No odor.	0.2 ppm	114-MW22BF	Cr+6, TAL Metals		
	AY: Reddish Brown (5YR 4/4) CLAY, little Silt, st, medium stiff. No odor.		(25.5-26.0)			
	ND: Reddish Brown (5YR 4/4) coarse SAND, some Gravel and Silt, wet. No odor.					
SIL	T: Reddish Brown (5YR 4/4) SILT, moist. No odor.					
NR:	No Recovery	0.3 ppm				
	ND: Reddish Brown (5YR 4/4) coarse SAND, some Gravel and Silt, moist. No odor.					
28 + SIL	T: Reddish Brown (5YR 4/4) SILT, moist. No odor.					

ENSR AECOM	Client: PPG Industries Site: Site 114		ING ID: 4-MW22B			
Start Date:	Project: Site Investigation		Page: 5 of 5			
11/15/2006	Coordinates: X-610693.8 Y-683255	: 1	_	oring: 35.00		
End Date:	Elevation: 12.6	·· I		M. Merdinger		
11/21/2006	Drill Subcontractor: ADI		Driller:			
				, o .ors		
Depth (ft) Lithology	Description	PID	Sample ID	Sample Parameters		
NE NE	R: No Recovery					
SII	LT: Reddish Brown (5YR 4/4) SILT, little Clay, trace e Gravel, moist. No odor.	0.0 ppm	114-MW22BG (29.0-29.5)	MS/MSD, Cr+6, TAL Metals		
30 — NF	R: No Recovery	_				
32 — Sil	RAVEL: Reddish Brown (5YR 4/4) GRAVEL, little t, wet. No odor.	0.2 ppm				
	LT AND GRAVEL: Reddish Brown (5YR 4/4) SILT d GRAVEL, trace Clay, wet. No odor.					
34 —	R: No Recovery					
	LTSTONE: Gray Rock, angular, trace Silt and coarse and, wet. No odor.					

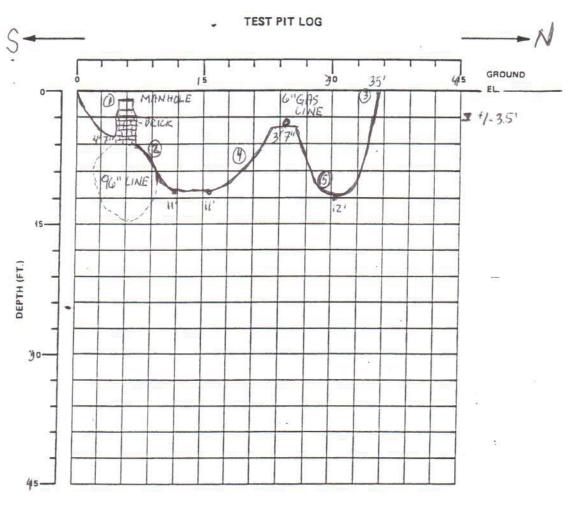
NULL: End of boring at 35 feet.

FIGURE 1. TEST PIT LOG

JOB NO. (CO 158739.0408)
PROJECT PC 5 ITE 114
DATE 10/31-11/11/11

LOCATION CARTERET AVE NEAR GARFIELD LOGGED BY PAPAGIAN/KANTOR

Metcalf & Eddy, Inc.



NOTES: MANHOLE W/ PRESSULE RELIEFUALVE C/L 6'5" FROM SOUTH WALL TOP OF 96" LINE 5'B" BGS. 6" ACTIVE GASLINE 10'S OF NORTHWALL 3' 7" AGS NO. DEPTH

SAMPLES () 114-TP-15 12-19" 70/30

() 114-TP-N 84-89"

() 114-TP-N 4-60"

() 114-TP-N 90-96"

() 114-TP-N 126-132"

SAMPLES COLLECTED AT SUSPECTED "CLEAN" ZONES

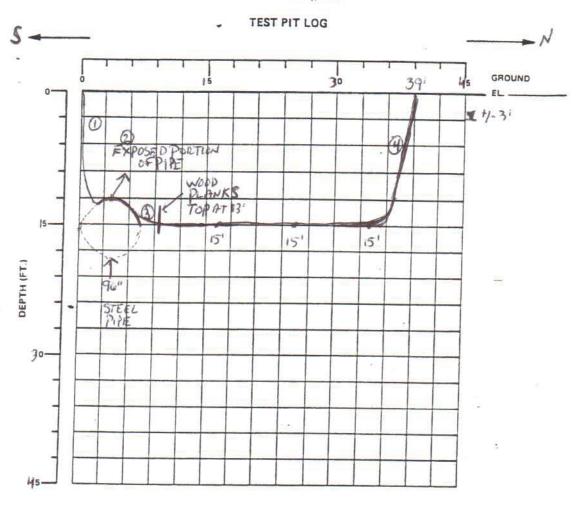
		PROJECT DESCRIPTION PROJECT LOCATION CONTEST AVE. SE	ILY FILE	TEST PIT No. 1		
	Rita Papagian	DICAVATION EQUIPMENT CONTRACTOR Entact OPERATOR STEVIE MAKE TAKENCH MODELS CAPACITY REACH	GROU TIME	NO ELEV. STARTED COMPLETE	10-31-11 08	300 D
DEPTH		OIL DESCRIPTION	The second secon	CAV.	BOULDER COUNT CITY, CLASS	REMARK No.
-0	9-411-Asptalt	- csand of cgrover	M			
-1'-		Fown f-c Sand W/grave1	M			
_ 2'	25"-31"-	Ash + concrete				
- 3' -	wood debe	Brown t-C sand a grave, br				
- 4'	36"-68" wood, cem	- Dkgrey m-c Sand + grave unt, Ash debris	1, Brick	(36'-42")		
- 5'		Aug.				
— 6' —	60-96"-	Brown sitt	1	M		2
7'				_		
- 8'	96-132" -	Brown sitt w/ little ckey				
— 9' —		V.	1			-
-10'						
-11'-	BoH - 11.9	•		_		-
-12'	11/TP 1NL(2): G	round surface elevation = 1	1 7 ft NAV/D8	2		-
—13 [*] —	` ′	round surface elevation = 1				
-14'-	` ′	round surface elevation = 1				
REMARKS:	1	round surface elevation = 1.			ncover the	_ 96" lin
TEST F		LEGEND: PROPORTIONS	F-FINE	MATIONS	EXCAVATION E	ON EFFOI EASY MODERATE
1	6"	RANCE LETTER EFICATION DESIGNATION -18" A LITTLE (LL.) 10- 2-36" B SONE (SO) 20-	C-COARSE F/M-FINE F/C-FINE	TO MEDIUM	GROUND	DIFFICULT
VOLUME=	ORTH		SO) 20-35% V-VERY READING (HRS.) 35-50% BNBROWN (HRS.) YEL-YELLOW NO Ground			G.W undwater

FIGURE 1. TEST PIT LOG

JOB NO. 60158739.0408 PROJECT PPG - STTE 114 DATE 10/25 - 10/27/11

TP-2 CAR LOCATION CARTERET AVE. WEST OF CANALL LOGGED BY KANTOR / PAPASIAN

Metcalf & Eddy, Inc.



DEPTH SAMPLES: 114-TP2-5 NOT VISUALLY LONFIRMED 160-174" DUE tO WATER/SLOUGHING OF SIDEWALLS MTERBEDDED ASH AND DEDRIS Samples Collected From Suspected AND BROWN tO BRODISH BROWN SILT AND F-CSAND "CLEAN" ZONES WITHIN TEST PIT Gray to brown SILT WITH 29 PRBRIS from 90-120 FEET.

	DESCRIPTION	PROJECT N PRO SITE IN CONTESTED AVE. SOFTEE	TEST PIT No.		
n =	ta Papagian EXCAVATIO	N EQUIPMENT	CROUND ELEV.	10185/11 @ G	1825 <u></u>
DEPTH	SOIL DESCRIPT	TON	EXCAV. EFFORT	BOULDER COUNT GTY, CLASS	REMARK No.
-0-	6-4" ASPHALL 1-7" Grave 1 7-12" m-c It brown SAND, few	1.95.101	2 М		
1'-	12"-18"-Grey ish white Ash, Por	celain Debris, 61055	D(12-18")		
2'	brick debris	sand w cement b	ML18-40")		
_ 3' _	40-45" ASh				
- 4	48-62" - Redd ish brown SI	ELT W/ f-in graves	D (40-48")		
- 5' -	62-68"- Greyish white A	sh n sand of Blackfs	and E		
7' —	72-96" - REDAISH Brown 53		E		
8'					
9'	96-108" - Gray SILT W/ little coment debris		4 34		
—10'—	blocks and wood debris	of m-c sand, ceme	E		
11'	- To	18.1			-
12'	BOH - 12.0°				-
—13'—	114TP2-N (3): Ground surfa	ce elevation = 12	2.7 ft NAVD88	-	
-14'	114TP2-S (1): Ground surfa 114TP2-S (2): Ground surfa		1		
REMARKS: 12' EVE ES WESTER FLOWS STARBLING	countered a zipe but couldn't y into test zit. We were unable	- Eastern a wester	In walls had s	Keop up wood	ghing. A the the
TEST PI	BOULDER COUNT SIZE RANCE LETTER CLASSFICATION DESIGNATION	ROPORTIONS USED TRACE (TR.) 0-10%	F-FINE N-MEDIUM C-COARSE F/M-PINE TO MEDIUM F/C-FINE TO COARSE V-VFRY EEASY MMODERA DDIFFICUI GROUNDWATER ELAPSED TIME TO		EASY MODERATE DIFFICULT
VOLUME=	6°-18° A 18°-36° B 36° and Larger C	SOME (SO) 20-35% AND 35-50%			G.W.



PPG - PPG_LOGS.GDT - 4/24/13 13:27

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: 132-P3A-H15A

Dogg, 1

	732.564.32	200 office	telephone					Page: 1		
	t Name: F					Drilling Company: SGS North America				
	t Number:					Drilling Method: Geoprobe		SPNAD83) x: 610896.125		
				1:45:00 PM		Rig Type:	· · · · · · · · · · · · · · · · · · ·	PNAD83) y: 683151.125		
		illing:	4/12/2013	3 10:00:00 AI		Core Size: 3 in	Boring Total Depth			
	d By: MI	- Cit	- 400 114	ΓΛ]	Project Manager: Chris Martell	Depth to Water: N			
Physic	al Location	n: Site	e 132 - H1	5A			Surface Elevation:	12.7 TI NAVD88 ote bgs = below ground surface)		
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID		
		0.0		ASPHALT		ASPHALT				
 1	2	0.0	slightly moist	FILL		fine to medium SAND, some fine grave fragments, (10YR 5/6) yellowish brown loose, slightly moist, no odor, no staini	, non plastic,			
h		0.0	slightly moist	FILL		fine SAND, little cinders, coal, (7.5YR	3/1) very dark			
2 	2	0.0	slightly moist	FILL		gray, non plastic, loose, slightly moist, staining. fine SAND, little cinders, coal, (7.5YR gray, non plastic, loose, slightly moist,	3/1) very dark			
Γ. –		5.5	dry	FILL		staining. fine SAND, little medium gravel, trace	tar-like material	_		
4 5	1.2	0.0	moist	FILL		\((7.5YR 2.5/1)\) black, non plastic, loose, odor, no staining. fine to medium SAND, with fine gravel,	dry slight tar little brick, (7.5YR			
 6 		0.0	slightly moist	NR FILL		2.5/3) very dark brown, non plastic, loc no staining. NO RECOVERY SILT, little fine sand, trace fine gravel,	(7.5YR 4/3) brown,			
7 8	1.3	0.0	slightly	FILL NR		non plastic, soft, slightly moist, no odo fine to coarse GRAVEL, with ash, little dark gray, non plastic, loose, slightly m staining.	brick, (7.5YR 4/1)			
- 9	1	0.0	slightly moist	FILL NR		NO RECOVERY ASH, with wood fragments, some cera (7.5YR 5/1) gray, medium plasticity, lo		_		
				INIX		\no odor, no staining. NO RECOVERY				
—10— — —11—	0.9	0.0	slightly moist	FILL NR		ASH, with wood fragments, some cera (7.5YR 5/1) gray, medium plasticity, lo no odor, no staining.	mics,fill material, ose, slightly moist,	132-P3A-H15A-10.0-10.5		
 12		0.0	slightly	FILL		NO RECOVERY ASH, with wood fragments, some cera	mics fill material	132-P3A-H15A-12.0-12.5		
 13 	0.6		moist	NR		(7.5YR 5/1) gray, medium plasticity, lo no odor, no staining. NO RECOVERY				
—14— — —		0.0	slightly moist	FILL PT		fine silty SAND, little fine to coarse gra (5YR 4/4) reddish brown, medium plas		132-P3A-H15A-14.1-14.6 132-P3A-H15A-14.6-15.1		
15 16	2	2.0	dry	FI	<u> </u>	Slightly moist, no odor, no staining. PEAT (degraded vegetated material), 8	vn, non plastic,	132-P3A-H15A-14.6-15.1X		
Committee		mate ::	no mode to	phtoin bast		Consistent with MM.	DDD or COMA account is	ny internal of this basins		
Comme	nts: 1) 3 atte	mpts we	ere made to	obtain best reco	overy 2) M	M/UND confirmed to be 1 ft thick 3) No CCPW (CC	PR or GGM) present in ar	ny interval of this boring.		



Boring ID: 132-P3A-I15A

Road, Piscataway, NJ 08854 Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610922.875 Date Started Drilling: 4/4/2013 8:30:00 AM Coordinates (NJSPNAD83) y: 683137.6875 Rig Type: Date Finished Drilling: 4/4/2013 11:54:00 AM Core Size: 3 in Boring Total Depth: 17 ft Depth to Water: NA Logged By: EW Project Manager: Chris Martell Surface Elevation: 12.6 ft NAVD88 Physical Location: Site 132 - I15A Depth Recovery PID Moisture Graphic Sample Range **USCS** Surface Cover and Thickness: (ft/ft) (ppm) Content Log ID (ft bgs) 0.0 **ASPHALT ASPHALT** dry fine to medium SAND, with fine to medium gravel, some 0.0 FILL 1.6 to brick, (7.5YR 5/6) strong brown, non plastic, loose, dry to 0.0 FILL moist moist, no odor, no staining. dry fine to medium SAND, trace silt and brick fragments, NR to (7.5YR 3/1) very dark gray, non plastic, loose, dry to 0.0 FILL moist moist, no odor, no staining, with fill material and glass dry fragments 2 0.0 NO RECOVERY to **FILL** moist fine silty SAND, with fine gravel, little brick and asphalt moist fragments, (7.5YR 3/2) dark brown, non plastic, soft, dry 0.0 FILL to moist, no odor, no staining moist medium SAND, trace silt, (7.5YR 3/4) dark brown, non 0.0 **FILL** wet 1.4 plastic, soft, moist, no odor, no staining fine to medium SAND, little silt with wood fragments, NR (7.5YR 3/1) very dark gray, non plastic, soft to loose, moist, no odor, no staining, and some fine gravel. 0.0 FILL wet fine to medium SAND, little COPR and fine gravel, (5YR FILL 0.0 moist 4/3) reddish brown, non plastic, loose, wet, no odor, no 1.5 moist FILL 0.0 staining. NO RECOVERY NR fine to medium SAND, little COPR and fine gravel, (5YR 0.0 saturated **FILL** 4/3) reddish brown, non plastic, loose, wet, no odor, no staining. 2 fine to medium SAND, little ash and fine gravel, (7.5YR 0.0 FILL wet 4/1) dark gray, non plastic, loose, moist, no odor, no 0.0 FILL wet fine to medium silty SAND, some fine gravel and wood 0.0 132-P3A-I15A-10.0-10.5 **FILL** wet fragments, (7.5YR 2.5/3) very dark brown, non plastic, soft, moist, no odor, no staining. 1 NO RECOVERY NR fine to medium silty SAND, with fine gravel, (7.5YR 4/2) brown, non plastic, soft to loose, saturated, no odor, no 132-P3A-I15A-12.0-12.5 0.0 **FILL** wet staining. medium SAND, some silt, trace fine gravel, (7.5YR 5/1) 0.7 NR gray, non plastic, soft, wet, no odor, no staining 13 fine to medium SAND, little silt and fine gravel, (7.5YR 3/4) dark brown, non plastic, soft, wet, no odor, no staining. 0.0 **FILL** 132-P3A-I15A-14.0-14.5 moist fine to medium SAND, and ash with fine to medium gravel, (7.5YR 6/1) gray, non plastic, loose, wet, no odor, 2 0.0 FILL moist no staining 132-P3A-I15A-15.2-15.7 NO RECOVERY 132-P3A-I15A-15.2-15.7X 0.4 moist OL fine to coarse SAND, with fine to coarse gravel and ash, -16 11/ 132-P3A-I15A-15.7-16.2 PT 1.4 moist (7.5YR 5/1) gray, non plastic, loose, wet, no odor, no 1 1, 11, staining NO RECOVERY medium to coarse SAND, with fine to medium gravel, little ash, (7.5YR 4/1) dark gray, non plastic, loose, moist, no odor, no staining. SILT, with roots, some wood fragments, (7.5YR 2.5/3) very dark brown, non plastic, soft, moist, no odor, no staining, disturbed native material. UNDorg SILT, with organics, (7.5YR 2.5/3) very dark brown, non plastic, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg. PEAT (degraded vegetated material), with 80% organic fibers and 20% organic silt, (7.5YR 2.5/3) very dark brown, non plastic, stiff, moist, moderate organic odor. no staining. Soils consistent with MM.

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 internval of this boring.

Boring ID: 133-P3C-Z20AR

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS Project Number: 60240739 Coordinates (NJSPNAD83) x: 611312.962 Drilling Method: Geoprobe

Date Started Drilling: 11/25/2014 10:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682776.76 **Date Finished Drilling:** 11/25/2014 11:00:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft

Depth to Water: NA Surface Elevation:	11 0 # NAV/D00
	ote bgs = below ground surface)
nickness:	Sample ID
le medium gravel, vn, loose, dry, no odor,	_
nts, trace debris, trace	133-P3C-Z20AR-4.5-5
wn, loose, slightly	
sh, trace roots, (7.5YR tly moist, no odor, no	133-P3C-Z20AR-6.5-7
	133-P3C-Z20AR-8.5-9
oal, trace fine to loose, dry to slightly	133-P3C-Z20AR-10.5-1
	133-P3C-Z20AR-12.5-1
.5YR 4/3) brown,	-
al), 50% organic silt, own, medium stiff, or, no staining. Soils	133-P3C-Z20AR-16.3-1 133-P3C-Z20AR-16.8-1
t, 10% organic fibers, , slightly moist, no with UNDorg.	-
or (GGM present in any interval

ENCD AT	COM	Client: PPG Industries			NG ID:							
ENSR A	ECOM	Site: Site 135		1 3	35-B19							
Start Date:		Project: Site Investigation	Page: 1 o	Page: 1 of 3								
12/13/2006		Coordinates: X-611417.0 Y-682651.9 Depth of Boring: 32.00										
End Date:		Elevation: 9.9 ft NAVD88			: P. Kelly, M. Merdinger							
1/2/2007		Subcontractor: EB/TPI	1	Driller: H	eath Kneller							
Depth (ft) Litho	71037	Description	PID	Sample ID	Sample Parameters							
ı ⁰ _												
	ASF	PHALT: ASPHALT										
- × ×	× FILI	L: Gray fine COBBLES.										
2		L: Brown coarse SAND, some Silt and Clay, little Gravel.	0.0 ppm	135-B19A (1.3-1.8)	Cr+6, TAL Metals							
\ \frac{2}{\cdot \cdot \	×	L: Grey fine COBBLES	1.4 ppm	135-B19B (2.1-2.6)	Cr+6, TAL Metals							
×		L: Gray-Brown ASH, some fine Gravel, little woody anics. Heavy petroleum odor.										
×	××FILI	L: Red Brick pieces		135-B19C (3.3-3.8)	Cr+6, TAL Metals							
4— × ×	× frag	L: Black-Gray ASH, some fine Gravel, little brick ments.	0.0 ppm									
×	× Fill	L: Dark Grayish Brown, (2.5Y 4/2) SILT and ASH, materials (shells, clinkers, wood particles), wet, se. No odor.	0.0 ppm	135-B19D	Cr+6, TAL Metals							
×	× × \		/	(5.1-5.6)								
6- × ×		L: Black and Dark Grayish Brown (2.5Y 4/2) SILTY AY, trace coarse Sand and Topsoil, moist, firm.	0.0 ppm									
	NR:	No Recovery										
8- ××		L: Dark Grayish Brown (10YR 4/2) SAND CLAY,	0.0 ppm									
×		L: Black medium SANDY SILT, Fill material, little	0.0 ppm	135-B19E	Cr+6, TAL Metals							
10 - ×	× FILI	L: Dark Yellowish Brown (10YR 4/4) SANDY SILT, the Clay, moist, semi-firm. No odor.	0.1 ppm	(9.4-9.9)	OITO, TAL IVIETAIS							
	\	No Recovery										

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

ENCD AFCOL	Client: PPG Industries	BORIN	IG ID:		
ENSR AECOM	Site: Site 135		13	85-B19	
Start Date:	Project: Site Investigation		Page: 2 of	3	
12/13/2006	Coordinates: X-611417.0 Y-68265				
End Date:	Elevation: 9.9 ft NAVD88		· · · · · · · · · · · · · · · · · · ·	P. Kelly, M. Merdinger	
1/2/2007	Drill Subcontractor: EB/TPI		Driller: He	ath Kneller	
اد اده			0	10 105	
Depth (ft) Lithology	Description	PID SS	imple ID	Sample Parameters	
× × tra × × × × × ×	LL: Dark Yellowish Brown (10YR 4/4) SANDY SILT, ace Clay and fine semi-rounded Gravel, wet, loose. EAT: PEAT, organics, moist, firm. Sulfur odor. R: No Recovery		35-B19F 3.2-13.7)	MS/MSD, Cr+6, TAL Metals	
	EAT: Dark Gray (Gley N4/0) organic CLAY, some ganics, moist, firm. Sulfur odor.	34.8 ppm			
18 +		13	35-B19G 7.2-18.2) 5-B19GD 7.2-18.2)	Cr+6, TAL Metals	
	LT AND CLAY: Black and Dusky Red (2.5YR 3/2) ganic SILTY CLAY, trace organics, moist, semi-firm. ulfur odor.	164.0 ppm			
1 1 1	R: No Recovery	_ ppm			
□□□□□ or	LT AND CLAY: Black and Dusky Red (2.5YR 3/2) ganic SILTY CLAY, trace organics, moist, semi-firm. ulfur odor.		35-B19H 0.2-20.7)	Cr+6, TAL Metals	
	LTY SAND: Gray (5Y 5/1) very fine SILTY SAND, ace Clay, moist, semi-firm (native). Slight sulfur odor.	2.1 ppm			

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

ENCD AFC	Client: PPG Industries			NG ID:		
ENSR AECO	Site: Site 135		1 3	35-B19		
Start Date:	Project: Site Investigation		Page: 3 of 3			
12/13/2006	Coordinates: X-611417.0 Y-68265	1.9	<u> </u>	Boring: 32.00		
End Date:	Elevation: 9.9 ft NAVD88			P. Kelly, M. Merdinger		
1/2/2007	Drill Subcontractor: EB/TPI	1	Driller: H	eath Kneller		
Depth (ft) Lithology	Description	PID	Sample ID	eath Kneller Sample Parameters		
22 +	CLAYEY SAND: Gray (5Y 6/1) medium to coarse SAND, some to little Clay, trace fine semi-rounded Gravel, moist, firm. Slight naptha odor.	6.6 ppm				
_	NR: No Recovery	0.0 ppm				
24 —	SAND: Dark Gray (10YR 4/1) fine to coarse SAND, trace fine to medium rounded Pebbles, wet, loose to	0.0 ppm	135-B19I (24.2-24.7)	Cr+6, TAL Metals		
	semi-firm. No odor.	0.0 ppm				
26 +		0.0 ppm				
-		0.0 ppm				
28 +	NR: No Recovery					
	SAND: Reddish Gray (5YR 5/2) very fine to medium SAND, wet, semi-firm. No odor.	0.0 ppm	135-B19J (28.2-28.7)	Cr+6, TAL Metals		
	SAND: Reddish Brown (5YR 5/4) very fine SAND, little to trace Silt, wet, semi-firm. No odor.	0.0 ppm				
30 +		0.0 ppm				
	NR: No Recovery					
32	NULL: End of Boring at 28 ft.					

 $\underline{\textbf{NOTES:}} \quad \text{Coordinates are provided in New Jersey State Plane NAD 1983 Feet.}$

ENICD	AECOM	Client: PPG Industries		BORIN				
ENSR	AECON	Site: Site 143		143	3-B5			
Start Da		Project: Site Investigation		Page: 1 of 3				
1/9/200		Coordinates: X-610774.0 Y-68320	8.0	Depth of Boring: 24.00				
End Da		Elevation: 12.9		Geologist: P				
1/11/20		Drill Subcontractor: Eichelberger/Terra Pro			Kneller			
Depth (ft)	Lithology	Description	PID (bbw)	Sample ID	Sample Sample			
0	× × × FIL × × × and	SPHALT: Asphalt L: Black (5YR 2.5/1) fine SAND, some fine Gravel d Silt, little brick fragments and coarse Gravel, no						
-	× × × × × × × × × × ×	or	0.0 ppm	143-B5A (1.0-1.5)	Cr+6, TAL Metals			
2—	××× fine	L: Dark Brown (7.5YR 2.5/1) coarse SAND, some e Gravel, and little fine gravel sized COPR (10%), ce brick fragments, no odor	0.0 ppm	143-B5B (2.0-2.5)	Cr+6, TAL Metals			
-		L: White (7.5YR 8/1) SILT/CLAY, some black ining, no odor	0.0 ppm	143-B5C (2.9-3.4)	Cr+6, TAL Metals			
4—	× ^ × ^ coa	LL: Brown (7.5YR 4/3) CLAY, some silt, little fine to arse Gravel and medium gravel sized Slag, black DYR 2/1), no odor	0.0 ppm	143-B5D (3.5-4.1)	Cr+6, TAL Metals			
	FIL	L: Cobbles						
-	×××	R: No Sample						
6—		LL: Red-Brown (2.5YR 3/4) SILT/CLAY, some fine avel, trace glass pieces, no odor	0.1 ppm					
-	~			143-B5E (6.5-7.0)	Cr+6, TAL Metals			
	NF	R: No Recovery						
8+	Y Y		_					

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

ENCD	A ECON	Client: PPG Industries		BORIN	
ENSR	AECOM	Site: Site 143		143	8-B5
Start Da	te:	Project: Site Investigation		Page: 2 of 3	
1/9/2007	,	Coordinates: X-610774.0 Y-683208	3.0	Depth of Borir	ng: 24.00
End Date	e:	Elevation: 12.9		Geologist: P.	Kelly
1/11/200		Drill Subcontractor: Eichelberger/Terra Pro	PID (ppm)	ted Driller: Heath	Kneller
Depth (ft)	Lithology	Description	Sample ID	Kneller Sample Parameters	
		LL: Red-Brown (2.5YR 3/4) SILT/CLAY, some fine avel, trace glass pieces, no odor			
_		LL: Dark Brown (7.5YR 2.5/2) SILT, some fine avel, little woody organics, no odor	0.7 ppm	143-B5F (8.8-9.5)	Cr+6, TAL Metals
	^×^× FI	LL: White (5Y 8/1) SILT/CLAY, very soft, some	1	143-B5G (9.5-9.9)	Cr+6, TAL Metals
10 —		own (5YR 2.5/1) Silt and fine Sand, no odor	/	143-B5H(9.9-10.6)	Cr+6, TAL Metals
		LL: Red-Black (2.5YR 2.5/1) coarse SAND, some t, little fine Gravel, trace glass fragments, no odor		143-B5HD(9.9-10.6)	Cr+6, TAL Metals
_	NI	R: No Recovery			
12 —		LL: Red-Black (2.5YR 2.5/1) coarse SAND, some t, little fine Gravel, trace glass fragments, no odor	_		
	× × FI	LL: Dark Gray (N31 gley) SILT/Ash, some fine avel little debris, no odor	0.7 ppm	143-B5I (12.6-13.1)	Cr+6, TAL Metals
		EAT: Meadow Mat, dark Brown (2.5YR 2.5/2) CLAY, th Organics, no odor	ο.τ ρριτι	143-B5J (13.1-13.9)	Cr+6, TAL Metals
14 —			0.6 ppm		
			- 0.4 ppm		
	NI	R: No Recovery			
16 —	::±:± SI	LT AND CLAY: Green Gray (5BG 5/1) with little Dark			

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

ENSR AECOM	Client: PPG Industries		BORIN	
LINON ALCOHO	Site: Site 143		143	8-B5
Start Date:	Project: Site Investigation		Page: 3 of 3	
1/9/2007	Coordinates: X-610774.0 Y-683208.	0	Depth of Borir	ng: 24.00
End Date:	Elevation: 12.9		Geologist: P.	Kelly
1/11/2007	Drill Subcontractor: Eichelberger/Terra Prob	e Incorporated	Driller: Heath	Kneller
Debty (4) Tithology	Description	PID (ppm)	Sample ID	Sample Sample
	(5YR 4/6) CLAY/SILT, little fine Sand, trace Dark d (2.5YR 3/6) medium Gravel from 18.1' to 19.1', no	0.4 ppm	143-B5K (17.1-17.9)	Cr+6, TAL Metals
20 — NR	t: No Recovery	0.0 ppm		
=:±:± SIL ±:±: Rd	T AND CLAY: Green Gray (5BG 5/1) with little Dark (5YR 4/6) CLAY/SILT, little fine Sand, trace Dark d (2.5YR 3/6) medium Gravel, no odor			
	ND: Reddish Brown (2.5YR 4/6) coarse SAND, ne fine to coarse Gravel, no odor	0.4 ppm		
NR	: No Recovery			
24 — NU	ILL: End of Boring			

 $\underline{\textbf{NOTES:}} \hspace{0.2in} \textbf{Coordinates are provided in New Jersey State Plane NAD 1983 Feet.}$



Boring ID: 143-P3A-A`15A

Page: 1

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

 Date Finished Drilling:
 4/8/2013 2:59:00 PM
 Rig Type: Coordinates (NJSPNAD83) y: 683259 Boring Total Depth: 21 ft Core Size: 3 in

Surface Elevation: 12.4 ft NAVDER Surface Elevation: 12.4 ft NAVDER Surface Elevation: 12.4 ft NAVDER Surface Cover and Thickness:	Date Finished Dr	IIIIng: _	4/8/2013 2	2:59:00	J PIVI		Size: 3 in	Boring Total Depth: 2	111
Covery PID Moisture GA Content Class USCS Graphic Surface Cover and Thickness: Sal Surface Cover and Thickness (7.5 YR 3/2) dark brown, on plastic, on plastic, on staining. In sal Surface Cover and Thickness (7.5 YR 3/2) dark brown, non plastic, on staining. Sal Surface Cover All Surface Cover (7.5 YR 3/2) dark brown, non plastic, soft, moist, no odor, no staining. Sal Surface Cover and Thickness (7.5 YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining. Sal Surface Cover (7.5 YR 3/2) dark brown, non plastic, soft, moist, no odor, no staining. Sal Surface Cover (7.5 YR 3/2) and staining. Sal Surface Cover (7.5 YR 3/2) and staining. Sal Surface Cover (7.5 YR 3/2) and staining. Sal Surface Cover (7.5 YR 3/2) dark brown, non	Logged By: MI					Proje	ect Manager: Chris Martell		
Covery PID Content Class USCS Graphic Content Class USCS Graphic Content Class USCS Surface Cover and Thickness: Sa Surface (My, no odor, no staining fire to medium SAND, Surface (My, no odor, no staining, surface cover and Thickness: Sa Surface Cover (My, no odor, no staining, surface Cover and Thickness: Sa Surface Cover (My, no odor, no staining, surface Cover and Thickness: Sa Surface Cover (My, no odor, no staining, surface Cover and Thickness: Sa Surface Cover and Thickness: Sa Surface Cover and Thickness: Sa Surface Cover and Thickness:	Physical Locatio	n: Site	143 - A'1	5A					
1								(Note by	gs = below ground surface)
0.0 dry 3 FILL fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine sand, (7 5YR 3/2) dark fine to medium GRAVEL, little fine sand, (7 5YR 3/2) dark fine to medium GRAVEL, little fine sand, (7 5YR 3/2) dark 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, 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, 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, fine sand, little cinders, coal, (7.5YR 3/3) dark gray, non plastic loose, moist no odor no staining NO RECOVERY 0.0	Depth Range (ft bgs)				USCS		Surface Cover and Th	ickness:	Sample ID
0.0 dry 3 FILL fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine gravel, (7 5YR 3/2) dark fine to medium SAND, little fine sand, (7 5YR 3/2) dark fine to medium GRAVEL, little fine sand, (7 5YR 3/2) dark fine to medium GRAVEL, little fine sand, (7 5YR 3/2) dark 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, 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, 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, fine sand, little cinders, coal, (7.5YR 3/3) dark gray, non plastic loose, moist no odor no staining NO RECOVERY 0.0	1	0.0		1 C	ONCRET	E 4 4 P 4	CONCRETE		
2 0.0 dry 3 FILL prown, non plastic, loose, dry, no odor, no staining, 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 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. 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. 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. fine sand, trace roots, (7.5YR 3/1) dark gray, non plastic, loose, dry, no odor, no staining. fine SAND, with ash, little cinders, coal, (7.5YR 3/3) dark brown, non plastic, soft, moist no odor no staining no RECOVERY 2 0.0 moist 6 FILL sill, soder. Sill, sill	'	0.0	dry					vel (7.5YR 3/2) dark	
fine to medium SAND, little fine gravel, (7.5YR 3/2) dark brown, non plastic, loose, dry, no odor, no staining, fine to medium SAND, little fine sand, (7.5YR 3/2) dark brown, non plastic, loose, dry, no odor, no staining, 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, 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, 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, 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, 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, fine to medium SAND, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/3) dark brown, non plastic loose, moist no odor no staining no dark brown, non plastic, soft, moist, no odor, no staining. 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.	-1-		-			\bowtie			_
2 0.0 dry 6 Fill. fine to medium SAND, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/1) eyr dark gray, non plastic, loose, dry, no odor, no staining. 1 0.0 moist 6 Fill. fine to medium SAND, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/1) eyr dark gray, non plastic, loose, dry, no odor, no staining. fine SAND, with ash, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/1) eyr dark gray, non plastic, loose, dry, no odor, no staining. fine SAND, with ash, little cinders, coal, (7.5YR 4/1) dark gray, non plastic loose, moist no odor no staining. fine SAND, with ash, little cinders, coal, (7.5YR 4/1) dark gray, non plastic loose, moist no odor no staining. NO RECOVERY SILT, some cinders, coal, fine sand little ash, (7.5YR 3/3) dark brown, non plastic soft, moist no odor no staining. NO RECOVERY			diy	3	1166		fine to medium SAND, little fine gra	vel, (7.5YR 3/2) dark	
2 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, fine to medium SAND, little fine to coarse gravel, trace cinders, ash, (7.5YR 3/1) very dark gray, non plastic, ash, (7.5YR 3/1) very dark gray, non plastic loose, ash, no odor, no staining. 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 NO RECOVERY 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. 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. 1.8 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. 1.3 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. 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. 0.0 slightly moist 3 FILL fine to medium SAND, some fine to coarse gravel, trace cobbles, (5YR 4/6) red (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor. 0.0 slightly moist 0 SM fine to medium gravel, trace sit, (2.5YR 4/8) red, non plastic, dense, slightly moist, no odor, no staining. Soils consistent with UNDno. 143-P3A-A'		0.0	dry	3	FILL				
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. fine SAND, with ash, little cinders, coal, (7.5YR 4/1) dark gray, non plastic loose, moist no odor no staining NO RECOVERY	-3	0.0	dry	6	FILL		cinders, ash, (7.5YR 3/1) very dark		
1 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. 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. 0.0 moist 3 FILL SILT, ittle fine sand, trace roots, (7.5YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining. 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. 0.0 slightly 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. 1.8 NR	-4	0.0	dry	6	FILL		fine to medium SAND, little fine to		
9.0 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 NO RECOVERY 9.0 moist 3 FILL SILT, little fine sand, trace roots, (7.5YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining. 9.0 moist 3 FILL SILT, little fine sand, trace roots, (7.5YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining. 9.0 moist 3 FILL SILT, little fine sand, trace roots, (7.5YR 3/3) dark brown, non plastic, soft, moist, no odor, no staining. 9.0 slightly 3 FILL slightly fine to medium SAND, some fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor. 1.8 no No RECOVERY 1.8 no No RECOVERY 1.9 slightly moist slightly fine to medium SAND, some fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor. 1.9 no Slightly moist slightly fine to medium SAND, some fine to coarse gravel, trace cobbles, (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor. 1.9 no RECOVERY 1.9 lightly moist slightly 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. 1.9 lightly moist slightly 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. 1.1 lightly moist slightly fine slightly moist, no odor, no staining, Soils consistent with UNDno. 1.1 lightly moist slightly fine slightly moist, no odor, no staining, Soils consistent with UNDno. 1.1 lightly moist slightly moist, no odor, no staining, Soils consistent with UNDno. 1.1 lightly moist slightly moist, no odor, no staining, Soils consistent with UNDno.	-5-	0.0	moist	6	FILL		loose, dry, no odor, no staining.	_	
0.8 NR	6 — 1			6	NR		gray, non plastic loose, moist no oc		
0.8 NR	7 —	0.0	moiet	6	FILL		SILT some cinders coal fine sand	little ash (7 5VP 3/3)	-
2 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. 2 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. 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. 5 FILL slightly moist, no odor. 6 FILL slightly moist, no odor. 7 FILL slightly moist, no odor. 8 FILL slightly moist, no odor. 9 FILL slightly moist, no odor, no staining. Soils consistent with UNDno. 9 FILL slightly moist, no odor, no staining. Soils consistent with UNDno. 143-P3A-A' slightly moist, no odor, no staining. Soils consistent with UNDno. 143-P3A-A' slightly moist, no odor, no staining. Soils consistent with UNDno. 143-P3A-A' slightly moist, no odor, no staining. Soils consistent with UNDno. 143-P3A-A' slightly moist, no odor, no staining. Soils consistent with UNDno.	0.8		moist				dark brown, non plastic soft, moist		
brown, non plastic, soft, moist, no odor, no staining. 2				1411	1413		NO REGOVERY		
brown, non plastic, soft, moist, no odor, no staining. 0.0	_	0.0	moist	ω	FILL				
brown, non plastic, soft, moist, no odor, no staining. 0.0	-11	0.0	moist	3	FILL		SILT little fine sand trace roots (7	5VR 3/3) dark	
1.8		0.0	moist	3	FILL				
1.8	. –	0.0	slightly	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. NO RECOVERY 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. NO RECOVERY NR N	13 18		moist slightly				cobbles, (5YR 4/3) reddish brown, slightly moist, no odor.	non plastic, hard,	_
1.3 1.3 1.3 1.4 1.5 1.5 1.6 1.7 1.7 1.8 1.8 1.8 1.8 1.9 1.9 1.9 1.9							cobbles, (5YR 4/3) reddish brown, slightly moist, no odor.		
1.3 Solution Sand Sand	 15	0.0	slightly						1
2 0.0 slightly moist 10 SM fine SAND, with medium gravel, trace silt, (2.5YR 4/8) red, non plastic, dense, 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`	1.3			ა ა	FILL		cobbles, fill material, (2.5YR 4/6) re-	d (5YR 4/3) reddish	
2 moist cobbles, fill material, (2.5YR 4/6) red (5YR 4/3) reddish brown, non plastic, hard, slightly moist, no odor. 143-P3A-A`							NO RECOVERY		
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. 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`		0.0		3	FILL		cobbles, fill material, (2.5YR 4/6) re-	d (5YR 4/3) reddish	143-P3A-A`15A-17.5-
1.5 SM slightly moist 10 SM staining. Soils consistent with UNDno. 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`	_	0.0		10	SM		fine SAND, with medium gravel, tra red, non plastic, dense, slightly mo	ce silt, (2.5YR 4/8) st, no odor, no	143-P3A-A`15A-18.0- 143-P3A-A`15A-18.0-1
1.5 moist fine SAND, with medium gravel, trace slit, (2.5 YR 4/8) red, non plastic, dense, slightly moist, no odor, no staining. Soils consistent with UNDno. 143-P3A-A`	-19 -	0.0	slightly	10	SM		staining. Soils consistent with UND	no.	143-P3A-A`15A-18.5-
	1.5						red, non plastic, dense, slightly mo	st, no odor, no	143-P3A-A`15A-20.0-:
	21			NR	NR	radiophia.		-	. 10 1 5/1/1 15/1-20.0-2
	1.5			moist slightly	moist slightly moist 10	moist slightly 10 SM moist	moist slightly noist SM	moist red, non plastic, dense, slightly moist staining. Soils consistent with UND fine SAND, with medium gravel, tra red, non plastic, dense, slightly moist staining. Soils consistent with UND	moist slightly moist 10 SM staining. Soils consistent with UNDno. 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.
							ND confirmed to be 1 ft thick 3) No CCPW (CO		

A=COM

Project Number: 60240739

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Date Started Drilling: 4/1/2014 9:20:00 AM

Boring ID: 143-P3A-A`15AR2

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Drilling Method:GeoprobeCoordinates (NJSPNAD83) x:610689.8125Rig Type:Coordinates (NJSPNAD83) y:683255.1875

Date Finished Drilling: 4/1/2014 10:10:00 AM Core Size: 2 in Boring Total Depth: 20 ft

Logged By: MI

Project Manager: Chris Martell

Depth to Water: NA

	By: MI					Proje	ect Manager: Chris Martell	Depth to Water: NA	0.6.111.1700
Physica	I Location	ı: Site	143 - A'15	AR2				Surface Elevation: 12	.6 ft NAVD88 gs = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content		USCS	Graphic Log	Surface Cover and Th		Sample
		0.0	11 1 11	1 0	ONCRET		CONCRETE		
-1 -2	3.2	0.0	slightly moist	3	FILL		fine to medium SAND, some fine to 0 4/2) weak red, loose, slightly moist, n		
	0.2	0.0	slightly moist	3	FILL		fine to medium SAND, with cinders, s (7.5YR 2.5/1) black, loose to dense,		
_ -4			moiot	NR	NR		no staining. NO RECOVERY	oligitaly moiot, no odor,	
-5 		0.0	dry	3	FILL	****	fine to medium SAND, little cinders, (7 5YR 2 5/1) black	_
_		0.0	to	3	FILL		loose to dense, dry to slightly moist, r	no odor, no staining.	
-6— - -7—	3.5	0.0	slight moist slightly moist slightly	3	FILL		fine to medium silty SAND, trace ash brown, loose to dense, slightly moist, fine silty SAND, and ash, little fine gr (7.5YR 5/1) gray, loose, slightly mois	no odor, no staining. / avel, trace ceramics,	143-P3A-A`15A-R2-7.0-
-8		0.0	moist	3	FILL		SILT, some fine sand, trace cinders,	roots (7 5VP 3/4) dark	
-9- <u>-</u>		0.0	moist to wet	NR	NR	XXXXX	brown, non plastic, soft, moist to wet NO RECOVERY		-
-10 -11		0.0	moist to wet	3	FILL		SILT, some fine sand, trace cinders, brown, non plastic, soft, moist to wet		_
-12 	5	0.0	moist to	10	SP-SM		UNDno fine to medium SAND, trace yellowish brown, loose to dense, moi	st to wet, no odor, no	143-P3A-A`15A-R2-11.0 143-P3A-A`15A-R2-11.5
 -13 		0.0	wet	10	SP-SM		staining. Soils consistent with UNDno UNDno fine to medium SAND, some		1
- -14 -		0.0	to wet	10	3F-3IVI		little silt, (5YR 5/2) reddish gray, loos wet, no odor, no staining. Soils consi	e to dense, moist to	
-15 -16 		0.0	moist to wet	10	SP-SM		UNDno fine to coarse SAND, with fin trace silt, (2.5YR 5/6) red, loose, moi staining. Soils consistent with UNDno	st to wet, no odor, no	-
_ -17 -	4	0.0	slightly moist	10	SP-SM		UNDno fine to coarse SAND, with fin (2.5YR 4/6) red, loose to hard, slightl staining. Soils consistent with UNDno	y moist, no odor, no	143-P3A-A`15A-R2-16.5 143-P3A-A`15A-R2-17.0 143-P3A-A`15A-R2-17.5
-18- -									143-P3A-A`15A-R2-18.0 143-P3A-A`15A-R2-18.5
-19 				NR	NR		NO RECOVERY		140-1 3/4/13/4/12-10.5
-20									
ommen	ts: 1) 3 atte	mnts we	re made to	obtain !	hest recove	rv 2) LIND	/MM confirmed to be 1 ft thick 3) No COPR o	r GGM present in any interva	of this boring



Boring ID: 143-P3A-A15A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610708.5625 Date Started Drilling: 4/5/2013 9:00:00 AM Rig Type: **Coordinates (NJSPNAD83) y:** 683245.625

Date Finished Drilling: 4/5/2013 10:40:00 AM Core Size: 3 in Boring Total Depth: 21 ft

Logged Physica	al Location	· Site	143 - A15	Δ		, .	ect Manager: Chris Martell	Depth to Water: NA Surface Elevation: 12.	8 ft ΝΔ\/D88
Hyoroc	ai Location	i. Oito	140 /(10	, <u> </u>			,		s = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content		USCS	Graphic Log	Surface Cover and Th	ickness:	Sample ID
	1	0.0	dry	3	ASPHAL ⁻ FILL		ASPHALT fine to medium SAND, some mediu		
- 1 - 	2	0.0	slightly moist	3	FILL		 2.5/3) very dark brown, non plastic, no staining. fine to medium SAND, some medium 	/	
-2- <u>-</u>		0.0	slightly moist	3	FILL		reddish brown, non plastic, loose, s odor, no staining fine to medium SAND, some mediu	slightly moist, no	
-3 <i>-</i> -		0.0	slightly moist	3	FILL		reddish brown, non plastic, loose, s	slightly moist, no	
-4- <u>-</u>	2	0.0	slightly moist	3	FILL		fine to medium SAND, some medium reddish brown, non plastic, loose, sodor, no staining.	um gravel, (5YR 4/4) slightly moist, no	
-5— —		0.0	slightly moist	6	FILL		fine to medium SAND, some medium reddish brown, non plastic, loose, s		143-P3A-A15A-5.0-5
-6- <u>-</u>	1.4			NR	NR		\odor, no staining. fine SAND, trace fine gravel, trace (2.5/1) black, non plastic, loose, slig	coal, cinders, (7.5YR / htly moist, no odor, /	
- 7 —		0.0	moiat	3		XXXXX	\no staining. \NO RECOVERY		143-P3A-A15A-7.0-7
_ 8	1.7	0.0	moist slightly	6	FILL		SILT, little fine sand, (7.5YR 5/6) st plastic, soft, moist, no odor, no stai	ning.	143-P3A-A15A-7.0-7.
_ 9			moist	NR	NR		ASH, some fine sand, some wood cinders, brick, non plastic, loose, sl		
_ _10	1.5	0.0	moist	3	FILL		NO RECOVERY fine silty SAND, little medium grave (7.5YR 3/2) dark brown, non plastic odor, no staining.		143-P3A-A15A-9.0-9.
-11				NR	NR		NO RECOVERY		
-12 	2	0.0	moist	3	FILL		fine silty SAND, little fine gravel, tra dark brown, non plastic, soft, moist		143-P3A-A15A-11.0-1
-13 - -14	2	0.0	moist	3	FILL		fine silty SAND, trace fine gravel, (7 brown, non plastic, soft, moist, no c		143-P3A-A15A-13.0-1
_ 15		0.0	slightly moist	3	FILL		fine SAND, some silt, (10YR 5/2) g plastic, dense, slightly moist, no od	or, no staining.	440 000 4454 45 0 4
_ -16 	2	0.0		3	FILL		fine to medium SAND, little fine gra		143-P3A-A15A-15.0-1
-17		0.0	slightly moist	3	FILL		fine SAND, little silt, (10YR 5/2) graplastic, loose, slightly moist, no odd		
-18	2	0.0	slightly moist	3	FILL		fine to medium SAND, little fine to silt, (2.5YR 4/1) dark reddish gray, slightly moist, no odor, no staining.		143-P3A-A15A-17.0-1
_		0.0							143-P3A-A15A-18.0-18
-19		0.0	slightly moist slightly	10 10	SM SM		fine to medium SAND, little fine to resilt, (2.5YR 4/6) red, non plastic, loodor, no staining. Soils consistent v	ose, slightly moist, no 🦯	143-P3A-A15A-18.5-19
-20 -21	2		moist				fine to medium SAND, little fine to r silt, (2.5YR 4/6) red, non plastic, loo odor, no staining. Soils consistent v	medium gravel, trace ose, slightly moist, no	143-P3A-A15A-20.0-20



PPG LOGS.GDT - 4/10/13 06:53

Road, Piscataway, NJ 08854

Boring ID: 143-P3A-B15A

Page: 1 Drilling Company: SGS North America Project Name: PPG Garfield Ave Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610735.3125 Date Started Drilling: 4/5/2013 11:10:00 AM Coordinates (NJSPNAD83) y: 683232.125 Rig Type: Date Finished Drilling: 4/5/2013 2:20:00 PM Core Size: 3 in Boring Total Depth: 17 ft Depth to Water: NA Logged By: MI Project Manager: Chris Martell Surface Elevation: 12.8 ft NAVD88 Physical Location: Site 143 - B15A (Note bas = below ground surface) Depth Recovery PID Moisture GA Graphic Sample Range **USCS** Surface Cover and Thickness: (ft/ft) (ppm) Content Class Log ID (ft bgs) 0.0 2 ASPHAL^{*} ASPHALT 1 dry fine silty SAND, little medium gravel, trace ash, cinders, 6 0.0 FILL coal, (7.5YR 2.5/2) very dark brown, non plastic, loose, 0.0 3 **FILL** slightly dry, no odor, no staining. moist fine SAND, some fine to coarse gravel, trace wood 2 fragments, (5YR 4/4) reddish brown, non plastic, loose, 0.0 3 FILL slightly slightly moist, no odor, no staining. moist fine SAND, some fine to coarse gravel, trace wood fragments, (5YR 4/4) reddish brown, non plastic, loose, 0.0 dry 6 **FILL** slightly moist, no odor, no staining. 2 fine silty SAND, some medium gravel, some coal, 0.0 3 FILL cinders, (7.5YR 3/1) very dark gray, non plastic, loose, dry dry, no odor, no staining. fine silty SAND, some medium gravel, some coal, 143-P3A-B15A-5.0-5.5 0.0 moist 3 **FILL** cinders, (7.5YR 3/1) very dark gray, non plastic, loose, dry, no odor, no staining. 1.5 fine to medium SAND, little fine to medium gravel, trace 0.0 moist 6 FILL silt, clay, (5YR 4/3) reddish brown, moist, no odor, no staining $\overline{\mathsf{NR}}$ NR 0.0 fine SAND, little fine to medium gravel, trace coal, 143-P3A-B15A-7.0-7.5 moist 6 **FILL** cinders, (5YR 4/3) reddish brown (7.5YR 2.5/1) black, 0.0 slightly 3 FILL 17 moist, no odor, no staining. moist NO RECOVERY fine SAND, little fine to medium gravel, trace coal, NR NR cinders, (5YR 4/3) reddish brown (7.5YR 2.5/1) black, 9 0.0 143-P3A-B15A-9.0-9.5 moist FILL moist, no odor, no staining. 6 fine SAND, little silt, trace wood fragments, (10YR 5/2) 0.6 10 grayish brown, non plastic, hard, slightly moist, no odor, no staining. NO RECOVERY 0.0 fine silty SAND, with ash trace ceramics, cinders, (10YR 143-P3A-B15A-11.0-11.5 moist 3 **FILL** 4/1) dark gray, non plastic loose, moist no odor no 2 0.0 **FILL** moist 3 fine silty SAND, with ash, little wood fragments, trace ceramics, cinders, (10YR 4/1) dark gray, non plastic, 0.0 moist 3 **FILL** loose, moist, no odor, no staining. 0.0 143-P3A-B15A-13.0-13.5 moist 3 **FILL** fine SAND, little silt, (7.5YR 3/2) dark brown, non plastic, 143-P3A-B15A-13.5-14.0 0.0 moist 9 OL loose, moist, no odor, no staining. 2 10 МН SILT, little fine sand, trace roots, (7.5YR 3/2) dark 0.0 moist brown, non plastic, soft, moist, no odor, no staining. SILT, little fine sand, trace roots, (7.5YR 3/2) dark 0.0 10 SM brown, non plastic, soft, moist, no odor, no staining moist UNDorg SILT, 90% organic silt, 10% organic fibers, 2 (7.5YR 2.5/1) black, low plasticity, soft, moist, moderate 16 organic odor, no staining. Soils consistent with UNDorg. UNDno SILT, some roots, (10YR 5/4) yellowish brown, 17 low plasticity, soft, moist, no odor, no staining. Soils consistent with UNDno. fine silty SAND, trace roots, trace fine to coarse gravel, (10YR 4/2) dark grayish brown, non plastic, loose, moist, no odor, no staining. Soils consistent with UNDno.



Boring ID: 143-P3A-C15A

 Project Name:
 PPG Garfield Ave
 Drilling Company:
 SGS North America

 Project Number:
 60240739
 Drilling Method:
 Soft Dig/Geoprobe
 Coordinates (NJSPNAD83) x:
 610762.125

 Date Started Drilling:
 4/10/2013 10:15:00 AM
 Rig Type:
 Coordinates (NJSPNAD83) y:
 683218.625

 Date Finished Drilling:
 4/10/2013 2:25:00 PM
 Core Size: 3 in
 Boring Total Depth:
 15 ft

Date Fi	nished Dri	lling:	4/10/2013	2:25:0	00 PM		Size: 3 in	Boring Total Depth: 1	5 ft
	l By: MI					Proje	ect Manager: Chris Martell	Depth to Water: NA	
Physica	al Location	ı: Site	143 - C15	iΑ				Surface Elevation: 12.	
								(Note bo	s = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content			Graphic Log	Surface Cover and Thi	ckness:	Sample ID
	0.2	0.0	alun i	2	ASPHALT	XXXXX	ASPHALT	_	
F -	0.8	0.0	dry to	6	FILL		medium SAND, with fine to coarse		
<u></u> 1−−		0.0	sl.	3	FILL		cinders, (7.5YR 2.5/1) black, non place	astic, loose, dry to /	-
F -	. 1		moist				\slightly moist. fine SAND, little gravel, trace brick,	(7.5YR 3/2) dark	
2		0.0	dry	<u> </u>	F		brown, non plastic, loose, dry, no or		
⊢ –	1	0.0	slightly moist	6	FILL		fine to medium SAND, some fine gr	avel, trace cinders,	
<u> </u>							ash, coal, (7.5YR 2.5/1) black, non	plastic, loose,	
L -	1	0.0	slightly	6	FILL		slightly moist, no odor, no staining fine to medium SAND, some fine gr	avel trace cinders	
L_1_			moist				ash, coal, (7.5YR 2.5/1) black, non		
	1	0.0	slightly	6	FILL	$\times\!\!\times\!\!\times\!\!\times$	slightly moist, no odor, no staining.		
	'		moist				fine to medium SAND, some fine gr		
-5-		0.0	moist	3	FILL		ash, coal, (7.5YR 2.5/1) black, non slightly moist, no odor, no staining.	plastic, loose,	143-P3A-C15A-5.0-5.5
h -	4.0					$\otimes \otimes \otimes$	SILT, some fine to medium sand, lit	tle fine to coarse	
6-	1.3	0.0	slightly	3	FILL		gravel, (5YR 4/3) reddish brown, no		-
F -			moist	NR	NR		\no odor, no staining.	/	
		0.0	moist	3	FILL		fine to medium SAND, trace fine to (7.5YR 4/1) dark gray, non plastic, I		143-P3A-C15A-7.0-7.5
<u> </u>		0.0	IIIOISt	٦	I ILL	\bowtie	no odor, no staining.	oooc, oligitary molot,	14010/070/07.07.0
<u></u> -8−	2						NO RECOVERY		
⊢ –		0.0	slightly	3	FILL		SILT, some fine sand, little fine to m		
<u> </u>			moist				\(10YR 4/2) dark grayish brown, non \(\sim \no \) odor. no staining.	plastic, soft, moist,	
L		0.0		6	FILL		fine to medium SAND, some wood	fragments,trace fine	143-P3A-C15A-9.0-9.5
10	1.3						to coarse gravel, (7.5YR 2.5/1) blac		
10-							slightly moist, no odor, no staining.	doro coal brief	-
Γ –				NR	NR		fine silty SAND, with ash, some cinc trace wood fragments, (7.5YR 4/1)		
11		0.0	moist	3	FILL		\plastic, loose.		143-P3A-C15A-11.0-11.5
F	2						NO RECOVERY		
 12							SILT, little fine sand, fine to coarse (10YR 3/6) dark yellowish brown, no		
F -	-	0.0	moist	3	FILL	$\times\!\!\times\!\!\times$	moist, no odor, no staining.	/_ pidotio, sort,	143-P3A-C15A-12.3-12.8
		0.0	moist	9	OL		fine to medium SAND, and ash, little		143-P3A-C15A-12.8-13.3
F -	_	0.0	moist	9	OL		\\\\3/1) very dark gray (10YR 4/2) dark \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		
 14	2	2.1	dnı	7	PT	\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	UNDorg SILT, 90% organic silt, 10%		-
<u> </u>			dry	′	Г	<u> </u>	\((7.5YR 2.5/1) black, low plasticity, s	oft, moist, slight	
15							organic odor, no staining. Soils cons		
							UNDorg SILT, 90% organic silt, 10% (7.5YR 2.5/1) black, low plasticity so		
							organic odor, no staining. Soils cons	sistent with UNDorg.	
							PEAT (degraded vegetated materia	I), 80% organic	
							fibers, 20% organic silt, (7.5YR 3/3) plastic, stiff, dry, strong organic odo		
							with MM.	i. Suiis curisisterit	
							With William		
<u>n</u>									
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3									
7									
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PPG - PPG_LOGS.GDT - 4/26/13 10:19



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

Road, Piscataway, NJ 08854

Boring ID: 143-P3A-E15A

Page: 1 Project Name: PPG Garfield Ave **Drilling Company:** SGS North America Project Number: 60240739 Drilling Method: Soft Dig/Geoprobe Coordinates (NJSPNAD83) x: 610815.8125 Date Started Drilling: 4/9/2013 9:15:00 AM Coordinates (NJSPNAD83) y: 683191.625 Rig Type: Date Finished Drilling: 4/9/2013 11:45:00 AM Core Size: 3 in Boring Total Depth: 17 ft Depth to Water: NA Logged By: MI Project Manager: Chris Martell Surface Elevation: 12.6 ft NAVD88 Physical Location: Site 143 - E15A (Note bas = below ground surface) Depth Recovery PID GΑ Moisture Graphic Sample Range **USCS** Surface Cover and Thickness: (ft/ft) (ppm) Content Class Log ID (ft bgs) 0.0 dry 6 FILL medium SAND, some coal, cinders, (7.5YR 3/1) very 1 dark gray, non plastic, loose, dry, no odor, no staining. 0.0 **FILL** medium SAND, some coal, cinders, (7.5YR 3/1) very drv 6 dark gray, non plastic, loose, dry, no odor, no staining. 2 0.0 6 FILL medium to coarse SAND, some coal, cinders, (7.5YR dry 3/1) very dark gray, non plastic, loose, dry, no odor, no 0.0 6 **FILL** dry fine to medium SAND, some coal, cinders, little wood fragments, (7.5YR 3/1) very dark gray, non plastic, 2 loose, dry, no odor, no staining. 0.0 3 FILL dry fine to medium SAND, some fine to coarse gravel, little wood fragments, (7.5YR 3/1) very dark gray, non plastic, loose, dry, no odor, no staining. 143-P3A-E15A-5.0-5.5 0.0 saturated **FILL** fine silty SAND, little fine to coarse gravel, trace coal, 6 FILL 0.0 moist (7.5YR 3/3) dark brown, non plastic, soft, saturated, no 12 saturated 6 FILL 0.0 òdor, no stáining. NR NR fine SAND, little fine to coarse gravel, little coal, (7.5YR 2.5/1) black, non plastic, loose, moist, no odor, no 0.0 saturated 6 **FILL** fine silty SAND, little fine to coarse gravel, trace coal. (7.5YR 3/3) dark brown, non plastic, soft, saturated, no 0.0 slightly 3 FILL odor, no staining. moist NR NR NO RECOVERY 0.0 fine silty SAND, some fine to coarse gravel, little coal, 143-P3A-E15A-9.0-9.5 6 **FILL** moist (7.5YR 2.5/2) very dark brown, non plastic, soft, saturated, no odor, no staining.
medium SAND, little fine to medium gravel, little brick, 1.3 10 NR NR (5YR 3/2) dark reddish brown, non plastic, loose, slightly moist, no odor, no staining 0.0 143-P3A-E15A-11.0-11.5 moist 6 FILL NO RECOVERY fine to medium SAND, some ash, little 2 0.0 moist 3 **FILL** coal,cinders,brick,wood fragments, (7.5YR 3/1) very dark gray, non plastic, loose, moist, no odor, no staining. fine to medium SAND, little fine gravel, trace coal, cinders, (7.5YR 3/1) very dark gray, non plastic, loose, 0.0 143-P3A-E15A-13.0-13.5 moist 3 **FILL** 2 moist, no odor, no staining. 0.0 143-P3A-E15A-14.1-14.6 3 FILL fine SAND, some wood fragments, little silt, (7.5YR 3/4) moist dark brown, non plastic, loose to hard, moist, no odor, 143-P3A-E15A-14.6-15.1 0.0 moist 9 OL no staining. PΤ 1.3 dry fine SAND, some fine to medium gravel, little silt, brick 1.3 to 11/2 /1 silt, (7.5YR 3/4) dark brown, non plastic, loose to hard, 2 sl. 16 moist, no odor, no staining. 11/11/ moist SILT, little fine sand, trace roots, (7.5YR 2.5/3) very dark dry 11, brown, low plasticity, soft, moist, no odor, no staining. UNDorg SILT, 90% organic silt, 10% organic fibers, 17 to sl. (7.5YR 2.5/1) black, low plasticity, soft, moist, slight moist organic odor, no staining. Soils consistent with UNDorg. PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 3/2) dark brown, non plastic stiff, dry to slightly moist, strong organic odor, no staining. Soils consistent with MM. PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 3/2) dark brown, non plastic, stiff, dry to slightly moist, strong organic odor, no staining. Soils consistent with MM.



Boring ID: 143-P3A-F15A

 Project Name:
 PPG Garfield Ave
 Drilling Company:
 SGS North America

 Project Number:
 60240739
 Drilling Method:
 Soft Dig/Geoprobe
 Coordinates (NJSPNAD83) x:
 610842.5

 Date Started Drilling:
 4/9/2013 9:00:00 AM
 Rig Type:
 Coordinates (NJSPNAD83) y:
 683178.125

 Date Finished Drilling:
 4/11/2013 10:25:00 AM
 Core Size: 3 in
 Boring Total Depth:
 13 ft

Date Fi	nished Dri	lling:	4/11/2013	10:25	:00 AM		Size: 3 in	Boring Total Depth: 1	3 ft
	d By: MI					Proj	ect Manager: Chris Martell	Depth to Water: NA	
Physic	al Location	n: Site	143 - F15	iA				Surface Elevation: 12	
								(Note b	gs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content			Graphic Log	Surface Cover and Th	ickness:	Sample ID
	1	0.0	dry	3	FILL		fine to medium SAND, with medium fragments, little fill material, (7.5YR plastic, loose, dry, no odor, no stair	3/2) dark brown, non	
F , -	1	0.0	slightly moist	3	FILL		medium SAND, with ash and fine g material, (7.5YR 4/1) dark gray, nor	ravel, trace fill	
- 3	2	0.0	dry	6	FILL		slightly moist, no odor, no staining. fine silty SAND, with medium to coacinders, brick, (7.5YR 3/1) very darl loose, dry, no odor, no staining.		
- 4 -	1	0.0	dry	6	FILL		fine silty SAND, with medium to coacinders, brick, (7.5YR 3/1) very dark		
<u></u>		0.0	moist	6	FILL		loose, dry, no odor, no staining. fine silty SAND, with ash, little cinde	ers. coal. brick.	143-P3A-F15A-5.0-5.5
] 1	0.0	moist	6	FILL		(10YR 4/2) dark grayish brown, non		
- 6 - 	•			NR	NR		loose, moist, no odor, no staining. fine SAND, little fine to coarse grav brick, coal, (7.5YR 3/2) dark brown,	el, little ash, cinders, non plastic, loose.	
F7-		0.0	moist	6	FILL		moist, no odor, no staining. NO RECOVERY		143-P3A-F15A-7.0-7.5
8-	2	0.0	moist	6	FILL		ASH, some cinders, coal, brick, little gravel, (7.5YR 3/1) very dark gray, moist, no odor, no staining.	non plastic, loose,	
9 10	2	0.0	moist	6	FILL		SILT, little fine to coarse gravel, tradark yellowish brown, non plastic, sono staining. SILT, little fine to medium gravel, lit (10YR 4/2) dark grayish brown, non	oft, moist, no odor, tle coal and cinders,	143-P3A-F15A-9.0-9.5
11		0.0	moist	3	FILL		no odor, no staining. SILT, some fine to medium sand, li	tle roots, fine to	143-P3A-F15A-11.0-11.5
 12 -13	2	1.9		7	PT	\(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\fra	coarse gravel, (10YR 6/2) light brow plastic, soft, moist, no odor, no stail PEAT (degraded vegetated materia fibers, 25% organic silt, (7.5YR 3/2 plastic, stiff. Soils consistent with M	nish gray, non ning. I), 75% oragnic dark brown, non	143-P3A-F15A-11.5-12.0

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



Boring ID: 143-P3A-G15A

Project Name: PPG Garfield Ave Drilling Company: SGS North America
Project Number: 60240739 Drilling Method: Soft Dig/Geoprobe Coordinates (NJSPNAD83) x: 610869.3125
Date Started Drilling: 4/9/2013 2:00:00 PM Rig Type: Coordinates (NJSPNAD83) y: 683164.625
Date Finished Drilling: 4/10/2013 8:30:00 AM Core Size: 3 in Boring Total Depth: 14 ft
Logged By: MI Project Manager: Chris Martell Depth to Water: NA
Physical Location: Site 143 - G15A
Surface Elevation: 11.8 ft NAVD88

		iiiiig.	47 1072010	0.30.00 AIV		Due to at Management Olemia Mantall	Dorning Total Deptil.	
	d By: MI					Project Manager: Chris Martell	Depth to Water: NA	
Physic	al Location	n: Site	e 143 - G1	5A			Surface Elevation:	
-					1	I	(No	te bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
	. 1	0.0		FILL		fine SAND, trace silt with fill material, a 3/2) dark brown, non plastic, loose.	nd brick, (7.5YR	
- 1 -	. 1	0.0	dry to	FILL		fine to medium silty SAND, with mediur material, brick, (7.5YR 3/3) dark brown,		
	1	0.0	moist wet to	FILL		loose, dry to moist. coarse SAND, little silt, little fine to med (7.5YR 3/2) dark brown, non plastic, loo		
3	. 1	0.0	moist wet to	FILL		coarse SAND, little silt, little fine to med (7.5YR 3/2) dark brown, non plastic, lod		
4	. 1	0.0	moist	FILL		fine SAND, with silt and medium gravel brown, non plastic, loose.	, (7.5YR 3/2) dark	
5 6	1.3	0.0	moist	FILL		ASH, some ceramics, little coal, brick a (7.5YR 4/1) dark gray, non plastic, loos no staining.		143-P3A-G15A-5.0-5.5
<u> </u>	-			NR	XXXXX	NO RECOVERY		
7- 8-	1.6	0.0	moist	FILL		ASH, some fine gravel, little coal, brick fragments, (7.5YR 4/1) dark gray, non proist, no odor, no staining.		143-P3A-G15A-7.0-7.5
				NR	<u></u>	NO RECOVERY		
9- 10-	1.4	0.0	moist	FILL		fine silty SAND, some ash, little fine to (7.5YR 4/1) dark gray, non plastic, loos no staining.		143-P3A-G15A-9.0-9.5
-	_			NR		NO RECOVERY		
11		0.0	moist	FILL		SILT, some fine to coarse gravel, little a dark reddish gray, non plastic, loose, m		143-P3A-G15A-11.0-11.5
12-	2	1.4	moist dry	FILL		staining. fine silty SAND, little fine to coarse gravereddish brown, non plastic, loose, mois		143-P3A-G15A-12.0-12.5 143-P3A-G15A-12.0-12.5X
—13— ——14—	. 1	1.6		PT	<u> </u>	PFAT (degraded vegetated material) 8	n, non plastic, ng. Soils 0% organic fibers, n, non plastic,	143-P3A-G15A-12.5-13.0

AECOM

A.GDT - 9/17/20

LOGS

2012-09 RA PPG

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: A4MW4V

Page: 1 Project Name: PPG Garfield Ave **Drilling Company:** Ameridrill Project Number: 60580814 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610800 Date Started Drilling: 10/3/2005 Coordinates (NJSPNAD83) y: 683259 Rig Type: Date Finished Drilling: 10/3/2005 Core Size: 2 inches Boring Total Depth: 44 ft Depth to Water: Logged By: Richard Firely Project Manager: Surface Elevation: 12.5 ft NAVD88 Physical Location: as drilled Depth Recovery PID Moisture Graphic Sample Range **USCS** Surface Cover and Thickness: (ft/ft) ΙD (ppm) Content Log (ft bgs) FILL Not Logged 4.8 Very dark gray (10YR 3/1) silt and fine sand, trace saturated FILL saturated NULL organics, trace gravel FILL End of Boring saturated Yellowish brown (10YR 5/6) silt and gravel, loose Dark brown (7.5YR 3/2) silt, little fine sand and medium FILL to coarse gravel, loose NR No recovery 2.8 saturated FILL Black (7.5YR 2.5/1) gravel, little fine sand and silt, loose Black (7.5YR 2.5/1) fine sand and silt, trace gravel, loose **FILL** saturated **FILL** Strong brown (7.5YR 3/2) fine sand and silt, trace gravel, 114-A4MW4VB10-10.5 loose FILL $\overline{\mathsf{Wood}}$ NR No recovery Black (7.5YR 2.5/1) fine to coarse sand and gravel, loose Dark brown (7.5YR 3/3) fine sand and silt, slight cohesive saturated FILL 2.2 moist FILL Gray (7.5YR 6/1) gravel, loose Dark brown (7.5YR 3/3) silt, little fine sand and clay, 13 saturated **FILL** FILL moist slight cohesive NR No recovery 16 114-A4MW4-VC-16-16.5 PEAT 71 71 Black (7.5YR 2.5/1) peat moist SILT Dark gray (7.5YR 4/1) fine sand and silt, little clay, trace saturated organics, slight cohesive 2.2 Gray (7.5YR 5/1) clay, some silt, trace organics, moist CLAY A4MW-4VD 18 cohesive NR No recovery UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat MGP - manufactured gas plant COPR - chromite ore processing residue CCPW - chromate chemical production waste GGM - green grey mud

A.GDT - 9/17/20 15:19

LOGS

2012-09 RA PPG

Boring ID: A4MW4V

Page: 2 Project Name: PPG Garfield Ave Drilling Company: Ameridrill Project Number: 60580814 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610800 Date Started Drilling: 10/3/2005 Coordinates (NJSPNAD83) y: 683259 Rig Type: Date Finished Drilling: 10/3/2005 Core Size: 2 inches Boring Total Depth: 44 ft Logged By: Richard Firely Project Manager: Depth to Water: Surface Elevation: 12.5 ft NAVD88 Physical Location: as drilled Depth Recovery PID Moisture Graphic Sample USCS Range Surface Cover and Thickness: (ft/ft) Content ΙD (ppm) Log (ft bgs) Gray (7.5YR 5/1) silt and clay, trace strong brown color moist SILT (7.5YR 4/6), cohesive -21 saturated SAND Dark reddish brown (2.5YR 3/4) fine to medium sand, A4MW-4VE little silt and medium to coarse gravel, loose -22 NR No recovery 3 -23 -24 SAND Dark reddish brown (2.5YR 3/4) fine sand, loose saturated -25 -26 NR No recovery -27 3.3 -28 saturated SAND Dark reddish brown (2.5YR 3/4) fine sand, loose -29 NR No recovery -30 -31 -32 SAND saturated Dark reddish brown (2.5YR 3/4) fine sand, little silt, slight 1.6 cohesive 33 NR No recovery -34 35 36 114-A4MW4VG-36-36.5 SILT Dark reddish brown to weak red (2.5YR 3/4 to 2.5YR 4/2) moist silt and clay, cohesive -372 114-A4MW4-VH-37.4-37 -38 NR No recovery -39 UNDno - non-organic undisturbed native deposits bgs - below surface grade MM - meadow mat COPR - chromite ore processing residue MGP - manufactured gas plant CCPW - chromate chemical production waste GGM - green grey mud UNDorg - organic undisturbed native deposits

		4
A	ECON	7

Boring ID: A4MW4V

Project Name:					Drilling Company: Ameridrill					
Project Number					Drilling Method: Geoprobe		NJSPNAD83) x: 610800			
Date Started Dri					Rig Type:		JSPNAD83) y: 683259			
Date Finished D	rilling:	10/3/2005	<u> </u>		Core Size: 2 inches	Boring Total De	epth: 44 ft			
ogged By: Ric	chard Fi	rely			Project Manager:	Depth to Water				
Physical Location	n: as	drilled					ion: 12.5 ft NAVD88			
Depth Range ft bgs)		Moisture	USCS	Graphi Log	Surface Cover an		Sample ID			
-41— -41— -42— 2.5			SILT		Dark reddish brown to weak red silt and clay, cohesive	d (2.5YR 3/4 to 2.5YR 4/2				
-43 43			NR		No recovery		A4MW-4VJ			
44			NULL		End of Boring					
otes: gs - below surface M - meadow mat	grade	COPR - chro	omite ore prod n grey mud	essing res	idue UNDno - non-organic undisturbed UNDorg - organic undisturbed nati	native deposits MGP -	manufactured gas plant - chromate chemical production was			

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: B4S**

Project Number: 60580814 Date Started Drilling: 12/2/2003 Date Finished Drilling: 12/2/2003						rilling Method: Hollow Stem Auger ig Type:	Coordinates (NJSPN	Coordinates (NJSPNAD83) x: 610816.41 Coordinates (NJSPNAD83) y: 683245.47		
						ore Size: 4.25 inches	Boring Total Depth:	_20 ft		
	I By: D. S		ın		P	roject Manager:	Depth to Water:	40.45.111.7000		
Physica	al Location	n:			1 1		Surface Elevation:	12.4 ft NAVD88		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID		
				ASPHALT		Asphalt				
- 1 - 1 			dry	FILL		Very dark gray (7.5YR 3/1) coarse to fir gravel, little silt. Fill-coal ash, clinker, n	netal	B4\$(0.5-1)		
-3	5		wet	FILL		Dark reddish brown (2.5YR 3/3) SILT, s fine sand, little gravel. Fill-coal ash, clir COPR	nker, cinder, 50%			
-5-			wet	FILL		Brown (7.5YR 5/4) SILT, some clay, littl Fill-soda ash, plastic, shells	le fine sand.			
								B4S(5.5-6)		
-6- -7- 	5		wet	FILL		Very dark gray (10YR 3/1) SILT, some gravel. Fill-brick, clinker, cinder	fine sand, little			
-8-			wet	FILL		Weak red (2.5YR 4/2) medium to fine S	SAND, some silt.			
 -9 						Fill-root, lime ash, soda ash-like	·	B4S(9.5-10)		
_10			wet	FILL		Weak red (10R 4/4) fine SAND, some g Fill-brick, wood, lignite, root, cinder	gravel, little silt.			
-12 - -13	5		wet to saturated	FILL		Dark reddish brown (2.5YR 3/4) fine SA little gravel. Fill-brick, cinder, lignite	ND, some silt,	B4S(13.5-14)		
_14								D43(13.3-14)		
-15 -15			dry	PEAT	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Very dark grayish brown (10YR 3/2) PE some silt	AT(meadow mat),			
_16								B4S(15.5-16)		
16 17	3			NR		No Recovery				
-18 -19 			wet	SAND		Weak red (10R 4/3) coarse to fine SAN little silt, till, native	D, some gravel,			
	ow surface g adow mat		COPR - chro GGM - greer	omite ore proce	essing resid	lue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native deposit		l factured gas plant omate chemical production was		

ENICD A ECON	Client: PPG		_	NG ID:
ENSR AECON	Site: PPG - Jersey City, NJ		C	3
Start Date:	Project: Site Investigation		Page: 1 d	of 2
8/27/2003	Coordinates: X-611046.58 Y-683115	5.86	Depth of	Boring: 16.00
End Date:	Elevation: 12.5 ft NAVD88		Geologis	
8/27/2003	Drill Subcontractor: S&S		Driller:	
Depth (ft) Lithology	Description	PID	Sample ID	Sample Parameters
0_		1 1		
A	SPHALT		C3	TAL Metals, Cr+6
F	ILL: COPR, yellow (staining), concrete		(0.5-1.0)	TAL Metals, CI+0
		0.0 ppm		
			C3 (1.5-2.0)	TAL Metals, Cr+6
2+		0.0 ppm	(1.5-2.0)	
		0.0 ppm		
4+		0.0 ppm		
F	ILL: COKE/SLAG, brick, wood	0.0 pp		
		0.0 ppm	C3 (5.0-5.5)	TAL Metals, SVOCs, PCBs, VOCs, Cyanide
			(6.6 6.6)	. 226, 1 2 36, 6 34
6+		0.0 ppm		
		0.0 ppiii		
70,70		-		
1 F	ILL: Gray silt (green staining), fine, some fine sand	0.0 ppm		
8 2 2 2 2				
F	ILL: COKE/SLAG	0.0 ppm		
	ILL: Gray silt, (yellow staining), fine, some fine sand	0.0 ppm		
	ice. Gray siit, (yellow stairing), line, some line sand			
10 +				
		0.0 ppm		
		0.0 ppm	C3	TAL Metals, Cr+6
		''	(11.0-11.5)	

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

ENCD AFCOM	Client: PPG		BORII	NG ID:
ENSR AECOM	Site: PPG - Jersey City, NJ	C	3	
Start Date:	Project: Site Investigation		Page: 2 o	f 2
8/27/2003	Coordinates: X-611046.58 Y-683115	Depth of E	Boring: 16.00	
End Date:	Elevation: 12.6 ft NAVD88	Geologist	:	
8/27/2003	Drill Subcontractor: S&S		Driller:	
Depth (ft) Lithology	Description	PID	Sample ID	Sample Parameters
12 FIL	L: Dark brown and black silt, fine, trace fine sand, oble, brick	0.0 ppm		
		0.0 ppm		
PE PE	AT: Brown, organic material (meadow mat)	0.0 ppm		
		0.0 ppm	C3 (15.0-15.5)	TAL Metals, Cr+6, SVOCs, PCBs, VOCs, Cyanide
1 16 [⊥] NU	LL: End of Boring at 16 ft.			

Boring ID: CAR-PDI-AA19A

	t Number: tarted Dril			8:30:00 AM			Coordinates (NJSPN Coordinates (NJSPN	
				9:30:00 AM			Boring Total Depth:	
	d By: ES	yı	3 J. EU 10	2.00.00 / HVI			Depth to Water: NA	
	al Locatio	n: Act	ual - CAR I	PDI			Surface Elevation: 1	
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	SS:	Sample ID
		0.0		ASPHALT		Asphalt and gravel sub-base		
-1 -2	4.5		dry	FILL		ASH, some coal, trace glass, (7.5YR 4/1) of dry, no odor, no staining.	dark gray, loose,	CAR-PDI-AA19A-0.5-1.0 CAR-PDI-AA19A-2.0-2.5
-3 -4			dry	FILL		fine to medium SAND, little to trace ash, tra (7.5YR 6/3) light brown, medium dense, dr staining.		CAR-PDI-AA19A-4.0-4.5
_	1			NR	1	NO RECOVERY		
-5		0.0	wet	FILL		fine silty SAND, little fine gravel, trace ash,		
_	1		wet	FILL		reddish brown, medium dense, wet, no odc		
-6- -						\water at 5.0 feet. ASH, some silt and fine sand, trace wood, black, medium dense, wet, no odor, no stai	ining.	CAR-PDI-AA19A-6.0-6.5
-8	3.5		wet	FILL		fine silty SAND, fine little gravel, (5YR 4/4) medium dense, wet, no odor, no staining.	reddish brown,	CAR-PDI-AA19A-8.0-8.5
_				ND		NO DECOVEDY		OAIX-1 DI-AA13A-0.0-0.0
-9— —				NR		NO RECOVERY		
10		0.0	wet	FILL	XXXXX	fine silty SAND, little organics, trace fine gr		CAR-PDI-AA19A-10.0-10.
-11 -12 -13	. 5	S.IS	wet	T ILL		reddish brown, medium dense, wet, no odc		CAR-PDI-AA19A-12.0-12.9
_						X		
14								CAR-PDI-AA19A-14.0-14.
_						×	-	CAR-PDLAA10A 14 7 15 1
-15 -16		0.0	wet dry	FILL PT	<u> </u>	medium dense, wet, no odor, no staining. PEAT (degraded vegetated material), 75%	organic fibers,	CAR-PDI-AA19A-14.7-15.2 CAR-PDI-AA19A-15.2-15.1
_			dry	OL		25% organic silt, (5YR 3/3) dark reddish brodor, no staining. Soils consistent with MM		
-17 - -18	5					Organic SILT, 75% organic silt, 25% organ 4/3) brown, medium stiff, dry, no odor, no s consistent with UNDorg.	ic fibers, (7.5YR	
10]				[-			
-19	1				H	+		
20			moist	SM		fine to medium silty SAND, (5Y 5/1) gray, r moist, no odor, no staining. Soils consisten		
otes: as - bel	low surface	grade	COPR - chr	romite ore procen grey mud	essing re	esidue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native deposit	oosits MGP - manu	factured gas plant

A.GDT - 10/14/16 09:

2012-09 RA PPG LOGS

732.564.3200 office telephone

Boring ID: CAR-PDI-AA20A

Page: 1

30 Knightsbridge Road, Piscataway, NJ 08854

Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611330.21 Project Number: 60240739 Drilling Method: direct push Date Started Drilling: 6/9/2016 11:05:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682753.43 Date Finished Drilling: 6/9/2016 12:00:00 PM Core Size: 3.0 in Boring Total Depth: 20 ft Project Manager: Scott Mikaelian Depth to Water: NA Logged By: ES Physical Location: Actual - CAR PDI Surface Elevation: 10.7 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 136 **ASPHALT** Asphalt CONCRETE Concrete CAR-PDI-AA20A-1.0-1.5 dry fine to medium SAND, (7.5YR 6/3) light brown, medium FILL dense, dry, no odor, no staining. CAR-PDI-AA20A-2.0-2.5 4.5 dry **FILL** ASH, (5Y 5/1) gray, loose, dry, slight petroleum odor, no staining. CAR-PDI-AA20A-4.0-4.5 NR NO RECOVERY fine to medium SAND, some ash, (5Y 5/1) gray, medium 0.0 wet FILL dense, wet, no odor, no staining. CAR-PDI-AA20A-6.0-6.5 FILL SILT, (5Y 5/1) gray, soft, wet, slight petroleum odor and wet 3.5 staining. CAR-PDI-AA20A-8.0-8.5 NO RECOVERY NR CAR-PDI-AA20A-10 0-10 5 0.0 FILL fine to medium silty SAND, some fine gravel, (5YR 4/3) wet reddish brown, medium dense, wet, no odor, no staining. 12 CAR-PDI-AA20A-12.0-12.5 4.5 13 CAR-PDI-AA20A-14.0-14.5 NR NO RECOVERY CAR-PDI-AA20A-15.0-15.5 0.0 FILL fine to medium silty SAND, trace fine gravel, (5YR 4/3) wet reddish brown, medium dense, wet, no odor, no staining. CAR-PDI-AA20A-15 5-16 0 PT dry PEAT (degraded vegetated material), 80% organic fibers, 16 1/ 1/ V 20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, moderate organic odor, no staining. Soils consistent with 11, 11, 1/ 1/1/ 1 5 1/ 1/ V <u>\\ \\ \\ \\ \\</u> 19 OL Organic SILT, 80% organic SILT, 20% organic fibers, moist (7.5YR 4/2) brown, soft, moist, no odor, no staining. Soils consistent with UNDorg COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits bgs - below surface grade MM - meadow mat MGP - manufactured gas plant CCPW - chromate chemical production waste

Boring ID: CAR-PDI-BB20A

Project Name	DDC C	orfiold Avo			Drilling Company: SGS North America		Page:
Project Name: Project Numb					Drilling Method: direct push	Coordinates (N ISD	NAD83) x: 611363.12
Date Started [8·15·00 AM		Rig Type:		IAD83) y: 682749.54
Date Started L					Core Size: 3.0 in	Boring Total Depth:	
Logged By:		0/10/201	0 0.00.00 7 411		Project Manager: Scott Mikaelian	Depth to Water: NA	
Physical Loca	tion: Ac	tual - CAR	PDI		110jour managori Gook Windonan	Surface Elevation:	
Depth Range	ery PID	Moisture	USCS	Graphi Log	c Surface Cover and Thic		Sample ID
(ft bgs)	0.0		ASPHALT	9	Asphalt and gravel sub-base		
	0.0		AOLITALI		Aspiralit and graver sub-base		
. ' 🚽			CONCRETE		Concrete		_
_2 4		dry	FILL		fine to medium SAND, little ash, trace brown, medium dense, dry, no odor, no		
-3		dry	FILL		ASH, little coal, (5Y 4/1) dark gray, loostaining.	se, dry, no odor, no	
-			NR		NO RECOVERY		
-5 -6- -7- - 5	3.2	moist to wet	FILL		ASH, little wood, trace coal, (5Y 5/1) gr wet, slight petroleum odor, no staining,	ray, loose, moist to water at 6.0 feet.	
-8- -9- -10							
-12 -12 -13	307	wet	FILL		fine silty SAND, trace fine gravel, (5YF medium dense, wet, strong petroleum sheen.		CAR-PDI-BB20A-10.0-10.5
_ _14			NR		NO RECOVERY		
lotes:		0000			neidus LINDas ann ann an 1941 ann an	denseite MOD	
/IM - meadow m	at	GGM - gree	en grey mud		esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native de	e deposits MGP - man posits CCPW - ch	ufactured gas plant romate chemical production wa
omments: 1) 3 attemp	ts were made to	obtain best reco	very 2) No CCPW (CO	PR or GGM) present in any interval of this boring.		

30 Knightsbridge Road, Piscataway, NJ 08854

Boring ID: CAR-PDI-CC20A

Page: 1

732.564.3200 office telephone

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: direct push Coordinates (NJSPNAD83) x: 611393.78 Date Started Drilling: 6/10/2016 9:10:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682735.13 Boring Total Depth: 15 ft Date Finished Drilling: 6/10/2016 9:45:00 AM Core Size: 3.0 in Depth to Water: NA Logged By: ES Project Manager: Scott Mikaelian Physical Location: Actual - CAR PDI Surface Elevation: 10.1 ft NAVD88

Physic	ai Locatio	n: Act	uai - CAR	יוטו		Surface Elevation:	10.1 IL NAVD00
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 2 3	3.5		dry	FILL		fine to medium SAND, some fine gravel, (7.5YR 4/2) brown, medium dense, dry, no odor, no staining.	
 4				NR	XXXXX	NO RECOVERY	
5 6		12.2	moist to wet	FILL		fine to coarse SAND, some fine to medium gravel, (5Y 5/1) gray, moist to wet, slight petroleum odor and staining, water at 6.0 feet.	
7 8	3		wet	FILL		fine silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	
 9 				NR		NO RECOVERY	
10 		1.4	wet	FILL		fine silty SAND, little fine gravel, (5YR 4/3) reddish brown, medium dense, wet, no odor, no staining.	CAR-PDI-CC20A-10.0-10.5 CAR-PDI-CC20A-12.0-12.5
_	5		dry	PT	${2}$	PEAT (degraded vegetated material), 80% organic fibers,	CAR-PDI-CC20A-12.5-13.0
13 14			moist	OL		20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, slight petroleum odor, no staining. Soils consistent with MM. Organic SILT, 80% organic silt, 20% organic fibers, (7.5YR 4/2) brown, soft, moist, slight organic odor, no staining. Soils consistent with UNDorg.	CAR-PDI-CC20A-13.0-13.5
 15				NR		NO RECOVERY	
15							

PPG - 2012-09 RA PPG_LOGS_A.GDT - 9/20/16 16:54

bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

Boring ID: CAR-PDI-CC21A

	Number: arted Drill			0:30:00 AM		Drilling Method: direct push Rig Type:	Coordinates (NJSPN Coordinates (NJSPN																						
				11:30:00 AM		Core Size: 3.0 in	Boring Total Depth:																						
	By: ES					Project Manager: Scott Mikaelian	Depth to Water: NA																						
Physica	al Locatio	n: Act	ual - CAR I	PDI		+	Surface Elevation: 1	0.7 ft NAVD88																					
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickn	ness:	Sample ID																					
-		0.0		ASPHALT		Asphalt and gravel sub-base																							
-1			moist	FILL		fine to medium SAND, little wood, trace a medium dense, moist, no odor, no stainin																							
-3 -	4.5		moist	FILL		fine to medium SAND, (7.5YR 6/3) light be dense, moist, no odor, no staining.	orown, medium	CAR-PDI-CC21A-2.0-2.5																					
-4			moist	FILL		ASH, trace metal, (5Y 4/1) dark gray, loos	se, moist, no odor,	CAR-PDI-CC21A-4.0-4.5																					
\dashv				NR	*xxxx	no staining.																							
-5 -6 -		0.0	wet	FILL		NO RECOVERY ASH, some fine to medium sand, trace w loose, wet, no odor, no staining, water at	ood, (5Y 5/1) gray, 5.0 feet.																						
-7— - -8—	3.5		wet	FILL		fine to medium silty SAND, some gravel, 4/3) reddish brown, medium dense, wet, staining.		CAR-PDI-CC21A-8.0-8.5																					
-9-				NR	××××	NO RECOVERY																							
-10 - -11		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	wet	FILL		fine to medium silty SAND, some fine graredish brown, dense, wet, no odor, no st		
					<u> </u>			CAR-PDI-CC21A-11.0-11.5 CAR-PDI-CC21A-11.5-12.0																					
-12	4														_									dry	PT	<u> </u>	20% organic silt, (5YR 3/3) dark reddish l	brown, stiff, dry, sistent with MM.	CAR-FDI-CC21A-11.5-12.0
-13 -																					moist	OL		Organic SILT, 80% organic SILT, 20% or 5/1) gray, soft, moist, no odor, no staining with UNDorg.					
-14 - -15				NR		NO RECOVERY																							
	ow surface adow mat		COPR - chr GGM - gree		essing re	esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo	eposits MGP - manu	factured gas plant omate chemical production wa																					

Boring ID: CAR-PDI-DD20A

Project						Drilling Company: SGS North America	_	
	Number:					Drilling Method: direct push		NAD83) x: 611415.46
				9:40:00 AM		Rig Type:	Coordinates (NJSPI	NAD83) y: 682721.33
		illing:	6/13/2016	6 10:40:00 AN		Core Size: 3.0 in	Boring Total Depth:	
	IBy: ES					Project Manager: Scott Mikaelian	Depth to Water: N	
Physic	al Locatio	n: Act	ual - CAR I	PDI		+	Surface Elevation:	10.7 ft NAVD88
Depth	_		, , ,					
Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thi	ckness:	Sample ID
		23.0	dry	ASPHALT		Asphalt and gravel sub-base.		
\exists			dry	FILL	XXXX	fine to medium SAND, little ash, trace	wood (5Y 2 5/1)	-
-1			u, y	1 122	\bowtie	black, dense, dry, slight solvent odor,	no staining.	
					\bowtie	\$,, , , ,	3	
-2-					\bowtie	8		
-	5				\bowtie	8		
					\bowtie	8		
-3-					\bowtie	8		
\dashv					\bowtie	X		
-4					\bowtie	X		045 551 55004 40 45
					\bigotimes	Ä		CAR-PDI-DD20A-4.0-4.5
آ ہ						×		
-5-		3.0	wet	FILL		ASH, some fine to medium sand, (5Y	5/1) gray, medium	1
\dashv				_	\bowtie	dense, wet, slight solvent odor, no sta	ining, water at 5.0 feet.	
-6-					\bowtie	<u> </u>		CAR-PDI-DD20A-6.0-6.5
\perp						X		OAIN-F DI-DDZUA-0.0-0.5
_7			wet	FILL		SILT, (5Y 5/1) gray, soft, wet, no odor	-	
'	3.5		wet	FILL		fine silty SAND, some fine gravel, (5Y		
٦	5.5					medium dense, wet, no odor, no stain	ing.	
-8-						8		CAR-PDI-DD20A-8.0-8.5
4				NID	XXXXX	NO DECOVEDY		-
-9				NR		NO RECOVERY		
, T								
-10		5.0	wet	FILL		fine to medium silty SAND, little fine g	ravel, trace wood.	CAR-PDI-DD20A-10.0-10.5
\dashv					\bowtie	(5YR 4/4) reddish brown, medium der	nse, wet, slight solvent	
-11					\bowtie	odor and black staining.		
4					\bowtie	Ä		
-12					\bowtie	Ä		OAD DD/ STORY
·	4.5				\bigotimes	Ä		CAR-PDI-DD20A-12.0-12.5
					\bowtie	Ä		CAR-PDI-DD20A-12.5-13.0
-13			dry	PT	<u> </u>	i LAT (degraded vegetated material),	80% organic fibers.	CAR-PDI-DD20A-13.0-13.5
\dashv					1/ 1/1/	20% organic silt, (5YR 3/3) dark reddi	sh brown, stiff, dry,	
-14					11, 11	slight organic odor, no staining Soils o		
_					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			4
-15				NR		NO RECOVERY		
13								
l otes: as - bel	ow surface	arade	COPR - chr	omite ore proc	essina r	esidue UNDno - non-organic undisturbed nativ	e deposits MGP - man	nufactured gas plant
الحالات در MI mo	adow mat	graue	GGM - gree	en grey mud	coomy I	UNDorg - organic undisturbed native de	enosits CCPW - ch	nromate chemical production wa
IVI - IIIC	adow IIIat		OOIN GICC	in gic y iliaa		ONDOIG - Organic undisturbed native di	opoolio ool 11 ol	iromate enemical production w

Boring ID: CAR-PDI-DD21A

	Name: F					Drilling Company: SGS North America	0	IA DOO) 044404 07
	Number:					Drilling Method: direct push	-	NAD83) x: 611401.67
				10:45:00 AM	_	Rig Type:		IAD83) y: 682689.25
		illing:	6/13/2016	3 11:45:00 AM	1	Core Size: 3.0 in	Boring Total Depth:	
	By: ES			DD1		Project Manager: Scott Mikaelian	Depth to Water: NA	
nysica	u Locatio	n: Act	ual - CAR	וטו	i		Surface Elevation:	10./ π NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thick	kness:	Sample ID
-		0.0		ASPHALT		Asphalt and gravel sub-base.		
-1-				CONCRETE		Concrete		
-2 - -3	4.5		dry	FILL		fine to coarse SAND, little fine to mediur (7.5YR 2.5/1) black, medium dense, dry staining.		CAR-PDI-DD21A-1.5-2.0
-4-			moist	FILL		fine silty SAND, little coal, trace ash, (7. medium dense, moist, no odor, no staini		CAR-PDI-DD21A-3.5-4.0
\dashv				NR	\sim	NO RECOVERY		1
-5-		10.0	moist	FILL		ASH, some fine gravel, little fine to medi	ium sand (5YR	+
		. 5.0	to wet			2.5/1) black, loose, moist to wet, slight N staining, water at 6.0 feet.	MGP-like odor, no	CAR-PDI-DD21A-5.5-6.0
-6 - -7	5		wet	FILL		fine to medium silty SAND, some fine gr wood, (5YR 2.5/1) black, medium dense MGP-like odor, product staining.	ravel, little ash, trace e, wet, strong	
-8 -9	J							CAR-PDI-DD21A-7.5-8.0 CAR-PDI-DD21A-9.5-10.0
-10 - -11		8.0	wet	FILL		SILT, little organics, (7.5YR 4/3) brown, MGP-like odor, product staining.	soft, wet, strong	
-12	5							CAR-PDI-DD21A-11.5-12.0
-13	-		wet	FILL		fine silty SAND, little fine gravel, (5YR 4 medium dense, wet, slight MGP-like odd		
7					\bowtie			CAR-PDI-DD21A-13.5-14.0
-14 - -15			dry	PT	<u> </u>	1 E. I. (dogradod vogotatod material), od	brown, stiff, dry, no	CAR-PDI-DD21A-14.0-14.5
	ow surface			romite ore proce	essing r	esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native dep	deposits MGP - manu	ufactured gas plant romate chemical production wa
avi - IIICo	1) 3 attempts we		odivi - gret	argrey illuu		UNDOIG - OIGANIC UNUISIUNEU NAUVE GED	uana UUFVV - CHI	omate unemidal production Wa

A E C O M

Boring ID: CAR-PDI-EE20A

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Direct PUSH Coordinates (NJSPNAD83) x: 611431.85 Date Started Drilling: 6/14/2016 7:50:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682699.37 Date Finished Drilling: 6/14/2016 8:55:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: HBB Project Manager: Scott Mikaelian Physical Location: Actual - CAR PDI Surface Elevation: 10.7 ft NAVD88 Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range ΙĎ (ft/ft) (ppm) Content Log (ft bgs) 19.0 **ASPHALT** Asphalt and gravel sub-base CAR-PDI-EE20A-0.3-0.8 fine GRAVEL, some medium to coarse sand, trace ash and dry FILL to fill debris, (7.5YR 4/2) brown, medium dense, dry to moist, moist no odor, no staining. CAR-PDI-EE20A-2.0-2.5 4.5 CAR-PDI-EE20A-4.0-4.5 FILL moist fine silty SAND, trace fine gravel, (7.5YR 4/2) brown, medium dense, moist, no odor, no staining, slight NR gasoline-like odor, no staining. 60.5 wet **FILL** NO RECOVERY medium to coarse SAND, little silt, trace fine gravel, cinders and fill debris, (5YR 2.5/1) black, medium dense, moderate CAR-PDI-EE20A-6.0-6.5 gasoline-like odor, no staining, water at 5.0 feet. 3.5 CAR-PDI-EE20A-8.0-8.5 **FILL** fine to medium sandy SILT, (7.5YR 4/2) brown, soft, saturated saturated, no staining, slight gasoline-like odor, no staining. NR NO RECOVERY CAR-PDI-FF20A-10 0-10 5 0.2 FILL fine to medium sandy SILT, trace fine gravel and organics, saturated (7.5YR 4/2) brown, medium dense, saturated, no odor, no 12 CAR-PDI-EE20A-12.0-12.5 4.5 13 CAR-PDI-EE20A-14.0-14.5 NO RECOVERY NR CAR-PDI-EE20A-15.0-15.5 0.0 FILL SILT, trace coal, (7.5YR 4/2) brown, medium stiff, wet, slight wet organic odor, no staining. CAR-PDI-FF20A-15 5-16 0 PT dry PEAT (degraded vegetated material), 90% organic fibers, 16 1/ 1/1/ V 10% organic silt, (5YR 3/3) dark reddish brown, stiff, dry, moderate organic odor, no staining. Soils consistent with 11, 11, 1/ 1/1/ 1 Organic SILT, 90% organic silt, 10% organic fibers, (5Y 5/1) moist OL gray, stiff, moist, slight organic odor, no staining. Soils consistent with UNDno. 19 NO RECOVERY NR 20

Notes

A.GDT - 9/20/16

2012-09 RA PPG LOGS

bgs - below surface grade COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits MM - meadow mat GGM - green grey mud UNDorg - organic undisturbed native deposits

MGP - manufactured gas plant CCPW - chromate chemical production waste

Boring ID: CAR-PDI-EE21A

Page: 1

Project	Name: F	PPG Ga	rfield Ave		Dr	illing Company: SGS	North America		r ugo. 1
	Number:					illing Method: _direct p	oush		IAD83) x: 611430.42
				1:30:00 AM		g Type:		Coordinates (NJSPN	
		illing:	6/7/2016	12:30:00 PM		ore Size: 3.0 in		Boring Total Depth:	
	IBy: ES	•		DD1	Pr	oject Manager: Scott	Mikaelian	Depth to Water: NA	10.4 # NAV/D00
Physic	al Locatio	n: Act	ual - CAR	PDI				Surface Elevation: 1	0.4 π ΝΑΥΔ88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surfac	ce Cover and Thickn	ess:	Sample ID
		0.0		ASPHALT		ASPHALT and gravel	sub-base.		
-1 -2 	3		dry	FILL		fine to medium SANE 6/3) light reddish browstaining.			
-3 -4 4				NR	*****	NO RECOVERY			
-5- -6- 		11.7	wet	FILL		fine to coarse SAND, reddish brown, mediu product staining, wate	ım dense, wet, slight		
-7	3		wet	FILL		SILT, (5Y 2.5/1) black product staining.	k, soft, wet, slight pe	troleum odor,	
-8 - -9				NR		NO RECOVERY			
-10 -		0.0	wet	FILL		fine silty SAND, some medium dense, wet, r		/3) reddish brown,	CAR-PDI-EE21A-10.5-11.0
-11 -12 -13	3.5		dry	PT	77 77 77 77 77 77 77 77	PEAT (degraded vege 20% organic silt, (5YI moderate organic odd MM.	R 3/2) dark reddish b	prown, stiff, dry,	CAR-PDI-EE21A-11.0-11.5
-14 				NR		NO RECOVERY			
15									
M - me	adow mat		GGM - gree	en grey mud		due UNDno - non-organio UNDorg - organic un	disturbed native depos	sits CCPW - chr	l ufactured gas plant omate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 9/20/16 16:55

Boring ID: CAR-PDI-EE22A

	t Name: F t Number:		rfield Ave			Drilling Company: SGS North America Drilling Method: direct push	PNAD83) x: 611421.8			
				10:25:00 AM		Rig Type:	1	Coordinates (NJSPNAD83) y: 682655.8		
				3 11:15:00 AM		Core Size: 3.0 in	Boring Total Depth:			
.oggec	d By: ES					Project Manager: Scott Mikaelian	Depth to Water: NA			
	al Locatio	n: Act	ual - CAR I	PDI			Surface Elevation: 9	.8 ft NAVD88		
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thickn	ness:	Sample ID		
_		0.5		ASPHALT		Asphalt and gravel sub-base.				
-1— _				CONCRETE		Concrete				
-2	4.5		dry	FILL		fine to medium SAND, little fine gravel, (7 medium dense, dry, no odor, no staining.	7.5YR 4/3) brown,			
-3 - -4			dry to moist	FILL		ASH, (5Y 5/1) gray, loose, dry to moist, n	o odor, no staining.			
				NR		NO RECOVERY				
-5 		0.3	moist	FILL		ASH, (5Y 4/1) dark gray, loose, moist, no	odor, no staining.			
-6- - -					moist	FILL		SILT, (7.5YR 3/3) dark brown, soft, moist staining.	t no odor, no	
-7	1 ,				wet	FILL		fine to medium silty SAND, trace fine gra	vel, (5YR 4/3)	CAR-PDI-EE22A-7.0-7.5
-8 -9	2			NR	XXXX	reddish brown, medium dense, wet, no or water at 7.0 feet. NO RECOVERY	dor, no staining,			
-10 - -11		0.0	wet	FILL		fine to medium silty SAND, little fine grav reddish brown, medium dense, wet, no od		CAR-PDI-EE22A-11.0-11.5		
-12 	5							CAR-PDI-EE22A-12.7-13.2		
-13	_							CAR-PDI-EE22A-12.7-13.2		
_ -14 			dry	PT	<u> </u>	20% organic silt, (5YR 3/3) dark reddish	brown, stiff, dry, no			
15					<u> </u>					
<u>1M - me</u>	eadow mat		GGM - gree	n grey mud		esidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo ft thick 3) No CCPW (COPR or GGM) present in any interval of this boring	sits CCPW - chr	factured gas plant omate chemical production wa		

Boring ID: CAR-PDI-FF21A

Project	Number:	<u>60240</u>)73 <u>9 </u>					PNAD83) x: 611459.7				
				0:20:00 AM		Rig Type: Coordinates (NJ		SPNAD83) y: 682658.75				
				11:20:00 AM			Boring Total Depth:					
	By: ES					Project Manager: Scott Mikaelian						
		n: Act	ual - CAR [PDI			Depth to Water: NA Surface Elevation: 9	.8 ft NAVD88				
Depth Range	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thicknet	SS:	Sample ID				
t bgs)	, ,	0.0		ASPHALT		ASPHALT and gravel sub-base.						
-				7.01.117.12.1		, tor the tand graver out bacc.						
-1— - -2—	4.5		dry to moist	FILL		fine to medium SAND, little coal fragments, wood, (7.5YR 3/2) dark brown, medium der no odor, no staining.		CAR-PDI-FF21A-0.7-1.2				
-3 - -4								CAR-PDI-FF21A-4.0-4.5				
_				NR	\sim	NO RECOVERY						
-5		6.7	dry	FILL		fine to medium Gravel, (5Y 5/1) gray, medio odor, no staining.	um dense, dry, no					
-6 -7 -	3.5						wet to saturated	FILL		fine silty SAND, some fine to medium grave reddish brown, medium dense, wet to satur petroleum odor, product staining, water at 6	rated, slight	CAR-PDI-FF21A-6.0-6.5
-8-					\bowtie	8		CAR-PDI-FF21A-8.0-8.5				
-9- -				NR		NO RECOVERY						
-10		0.0		FILL.	XXXX	fine eith CAND come fine are all (EVD 4/2)\	CAR-PDI-FF21A-10.0-10.5				
-11 -12		0.0	wet	FILL		fine silty SAND, some fine gravel, (5YR 4/3 medium dense, wet, no odor, no staining, li		5.11.5.11.2.11.10.0.00				
-12	4							CAR-PDI-FF21A-12.0-12.5				
-13					\bowtie			CAR-PDI-FF21A-13.0-13.5				
-			dry	PT	<u> </u>	PEAT (degraded vegetated material), 80%	organic fibers	CAR-PDI-FF21A-13.5-14.0				
-14 			_		NR	20% organic silt (5VP 4/3) roddish brow	n, medium stiff, dry, /					
-15 - -16		0.0	dry	PT	<u> </u>	20% organic silt, (5YR 3/2) dark reddish br	own, stiff, dry,					
-17 -1	3					moist	OL		Organic SILT, 80% organic SILT, 20% orga (7.5YR 4/2) brown, soft, moist, no odor, no consistent with UNDorg.			
-18 				NR		NO RECOVERY						
-19 -												
-20						1						
	low surface		COPR - chr GGM - gree		essing r	esidue UNDno - non-organic undisturbed native dep UNDorg - organic undisturbed native deposit	posits MGP - manu	factured gas plant omate chemical production w				

A E C O M

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: CAR-PDI-GG21A

	Name: F					Drilling Company: SGS North America										
	Number:							(NJSPNAD83) x: 611484.23								
			6/7/2016 9:			Core Size: 3.0 in Boring Total Depti		PNAD83) y: 682649.09								
		illing:	6/7/2016 1	10:15:00 AM												
	d By: ES					Project Manager: Scott Mikaelian	Depth to Water: N									
hysic	al Locatio	n: Act	ual - CAR F	וסי	1		Surface Elevation:	9.1 ft NAVD88								
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thic	kness:	Sample ID								
-1 -2		0.0	dry to moist	FILL		fine to medium SAND, little ash, little to trace wood and ceramics, (7.5YR 3/3) dense, dry to moist, no odor, no stainin	dark brown, medium	CAR-PDI-GG21A-0.0-0.5								
-3 -4	4.5	4.5				CAR-PDI-GG21A-4.0-4.5										
				NR		NO RECOVERY		7								
-5 -6 -7	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	moist to wet	FILL		fine silty SAND, little fine gravel, trace a brown, medium dense, moist to wet, no water at 6.0 feet bgs.	ash, (7.5YR 4/2) o odor, no staining,	CAR-PDI-GG21A-6.0-6.5
-8 -9				NR		NO RECOVERY		CAR-PDI-GG21A-8.0-8.5								
-10 -11 -		0.0	wet	FILL		fine silty SAND, trace fine to medium g reddish brown, medium dense, wet, no		CAR-PDI-GG21A-10.0-10.5								
-12 -	5							CAR-PDI-GG21A-12.0-12.5								
-13								CAR-PDI-GG21A-13.0-13.5								
-14 -14			dry	PT	<u> </u>	20% organic silt, (5YR 3/2) dark reddis	h brown, stiff, dry,	CAR-PDI-GG21A-13.5-14.0								
- 15																
<u>1M - me</u>	eadow mat		GGM - greei	n grey mud		esidue UNDno - non-organic undisturbed native UNDorg - organic undisturbed native de ft thick 3) No CCPW (COPR or GGM) present in any interval of this bo	posits CCPW - ch	nufactured gas plant nromate chemical production wa								

Boring ID: CAR-PDI-GG22A

roject			3/9/2016 9:	JU-UU VV4		Drilling Method: direct push Coordinates (NJSF Rig Type: Coordinates (NJSF)		AD83) y: 682631.79													
			6/9/2016 9.0			Core Size: 3.0 in Boring Total Dep															
	By: ES	iiiiig.	0/3/2010 3	7.30.00 AIVI			Depth to Water: NA														
		n: Act	ual - CAR F	PDI			Surface Elevation: 9														
		7.00																			
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thicknes	SS:	Sample ID													
_		0.0		ASPHALT		Asphalt and gravel sub-base.															
-1 -2 -3	4				dry	FILL		fine to medium SAND, little fine gravel and ash, (5YR 4/3) reddish brown, medium den no staining	concrete, trace ise, dry, no odor,	CAR-PDI-GG22A-1.0-1.5											
\dashv			dn/	FILL		ASH (2 EV E/2) grouigh brown Jacob dry	no odor no														
-4			dry		\bowtie	ASH, (2.5Y 5/2) grayish brown, loose, dry, i	110 0001, 110														
4				NR		NO RECOVERY															
-5 - -6- -		0.0	dry	FILL		ASH, some fine to medium sand, little coal, black, loose, dry, no odor, no staining.	,	CAR-PDI-GG22A-5.0-5.5													
-7 - -8 -	4.5															moist to wet	FILL		fine to medium silty SAND, some fine grave 4/1) dark gray, medium dense, moist to wet staining, water at 7.0 feet.	el, little ash, (5YR t, no odor, no	CAR-PDI-GG22A-7.0-7.5
								CAR-PDI-GG22A-9.0-9.5													
-10						NR		NO RECOVERY													
-10 -11		0.0	wet	FILL		fine to medium silty SAND, some fine grave reddish brown, medium dense, wet, no odo		CAR-PDI-GG22A-11.0-11.5													
-12 -13	3.5							CAR-PDI-GG22A-13.0-13.5													
-14				NR		NO RECOVERY															
-15 -16 -			wet	FILL		fine to medium silty SAND, some fine gravel, (black, medium dense, wet, slight MGP like odd staining.	el, (5Y 2.5/1) odor and black	CAR-PDI-GG22A-15.0-15.8													
-17 - -18	5							CAR-PDI-GG22A-17.0-17.5													
-19			saturated	FILL		fine to coarse Gravel, (5Y 2.5/1) black, loos moderate MGP-like odor, product soaked.	se, saturated,	CAR-PDI-GG22A-19.0-19.5													
- 20 -	1	5.0	saturated	FILL		fine to coarse Gravel, (5Y 2.5/1) black, loos moderate MGP-like odor, product soaked.	se, saturated,	CAR-PDI-GG22A-20.0-20.5													
-21 -				NR		NO RECOVERY															
otes: gs - bel lM - me	ow surface	grade	COPR - chro	omite ore proc	essing r	esidue UNDno - non-organic undisturbed native dep	osits MGP - manut	actured gas plant													

Boring ID: CAR-PDI-GG22A

Page: 2

Project Name: PPG Garfield Ave Project Number: 60240739						Orilling Company: SGS North America	raye. 2		
						Drilling Method: direct push	Coordinates (NJSPNAD83) x: 611470.04		
				:00:00 AM		Rig Type:		AD83) y: 682631.79	
			6/9/2016	9:30:00 AM		Core Size: 3.0 in	Boring Total Depth:	25 ft	
	d By: ES		tual CAD	DDI		Project Manager: Scott Mikaelian	Depth to Water: NA	\	
	al Locatio	n: Act	uai - CAR	PDI					
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID	
23									
Notes: bgs - be	low surface	grade	COPR - chr	romite ore proce	essing re	sidue UNDno - non-organic undisturbed native duNDorg - organic undisturbed native depo	eposits MGP - mani	ufactured gas plant omate chemical production waste	

PPG - 2012-09 RA PPG_LOGS_A.GDT - 9/20/16 16:55

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

Boring ID: CAR-PDI-GG23A

ect Number:		17.59		I)r	IIIIna Metnoa: airect bush	Coordinates (N.ISP)	Coordinates (NJSPNAD83) x: 611448.17		
Started Dril			:15:00 AM		illing Method: direct push g Type:		Coordinates (NJSPNAD83) x: 611448.17 Coordinates (NJSPNAD83) y: 682604.15		
Finished Dr					Core Size: 3.0 in Boring Total Dept				
ged By: HBE		0/14/2010	10.10.0074		oject Manager: Scott Mikaelian	Depth to Water: NA			
ical Locatio		ual - CAR F	PDI	, , , ,					
h D	DID								
Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and T	Thickness:	Sample ID		
	0.0	moist	FILL		fine to medium SAND, little fine to n		CAR-PDI-GG23A-0.0-0.5		
		moist	FILL		4/3) brown, medium dense, moist, r fine to medium SAND, trace fine gra 4/2) brown, medium dense, moist, r	avel and brick, (7.5YR			
4.5		moist	FILL		ASH, trace cinders and fill debris, (5 dense, moist, no odor, no staining.	5Y 5/1) gray, medium	CAR-PDI-GG23A-2.0-2.5		
		moist	FILL		SILT, little fine sand, (7.5YR 4/3) br	own, medium dense,	CAR-PDI-GG23A-4.0-4.5		
_	0.0	wet	NR FILL		NO RECOVERY SILT, trace fine sand, (7.5YR 4/2) b no staining, water at 6.0 feet.	rown, soft, wet, no odor,	_		
					staining, water at 0.0 feet.		CAR-PDI-GG23A-6.0-6.5		
_							CAR-PDI-GG23A-8.0-8.5		
			NR		NO RECOVERY				
	0.0	saturated	FILL		fine sandy SILT, little fine gravel, (7.	.5YR 4/2) brown,	CAR-PDI-GG23A-10.0-10.		
		dry	PT	77 77 77 77 77 77 77 77	medium dense, saturated, no odor, PEAT (degraded vegetated material 10% organic silt, (5YR 3/2) dark rec moderate organic odor, no staining. MM.	no staining.), 90% organic fibers, Idish brown, stiff, dry,	CAR-PDI-GG23A-10.5-11.0		
			NR		NO RECOVERY				

PPG - 2012-09 RA PPG_LOGS_A.GDT - 9/20/16 16:55

Boring ID: CAR-PDI-X19A

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611268.1 Project Number: 60240739 Drilling Method: direct push Date Started Drilling: 6/15/2016 8:25:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682823.83 Date Finished Drilling: 6/15/2016 9:30:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Logged By: ES Project Manager: Scott Mikaelian Depth to Water: NA Physical Location: Actual - HSN PDI Surface Elevation: 11.8 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 0.0 **FILL** Asphalt and gravel sub-base. FILL GGM (100%), (5Y 5/1) gray, soft, moist, no odor, green moist staining. 5 FILL CINDERS, some ash, (5Y 2.5/1) black, dense, dry, no odor, drv no staining. **FILL** GGM (100%), (5Y 5/1) gray, soft, moist, no odor, green moist staining. FILL moist fine to coarse SAND, some medium gravel, trace coal, (5Y 5/1) gray, medium dense, moist, no odor, green staining. 0.0 wet FILL fine to medium gravel, little fine to medium sand, (2.5Y 4/1) dark gray, medium dense, wet, no odor, no staining, water at 5.0 feet FILL wet GGM (100%), (5Y 5/1) gray, soft, wet, no odor, green staining. 5 CAR-PDI-X19A-10 0-10 5 60.0 FILL wet fine to medium GRAVEL, trace wood, (5Y 2.5/1) black, medium dense, wet, strong MGP-like odor and staining. FILL SILT, little fine gravel, (5YR 4/4) reddish brown, soft, wet, wet 12 strong MGP-like odor, product soaked. CAR-PDI-X19A-12.0-12.5 4.5 13 CAR-PDI-X19A-14.0-14.5 NO RECOVERY NR 60.0 FILL SILT, little fine gravel, (7.5YR 4/3) brown, soft, wet, strong wet MGP-like odor, product soaked. 16 CAR-PDI-X19A-16.0-16.5 wet **FILL** fine silty SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, wet, moderate MGP-like odor, product staining.

2012-09 RA PPG LOGS

5

bgs - below surface grade MM - meadow mat

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

moist

PT

1/ 1/1/ V

11, 11, 1/ 1/1/ 1

COPR - chromite ore processing residue UNDno - non-organic undisturbed native deposits GGM - green grey mud UNDorg - organic undisturbed native deposits

PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (5YR 3/3) dark reddish brown, stiff, moist,

slight MGP-like odor, no staining. Soils consistent with MM.

MGP - manufactured gas plant CCPW - chromate chemical production waste

CAR-PDI-X19A-17.5-18.0

CAR-PDI-X19A-18.0-18.5

A.GDT - 10/14/16 10:

19

20

A E C O M

Boring ID: CAR-PDI-Y19A

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Coordinates (NJSPNAD83) x: 611302.26 Project Number: 60240739 Drilling Method: direct push Date Started Drilling: 6/15/2016 10:25:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682817.9 Date Finished Drilling: 6/15/2016 11:30:00 AM Core Size: 3.0 in Boring Total Depth: 20 ft Depth to Water: NA Logged By: ES Project Manager: Scott Mikaelian Physical Location: Actual - CAR PDI Surface Elevation: 11.6 ft NAVD88 Depth PID Recovery Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Content ΙĎ (ft/ft) (ppm) Log (ft bgs) 0.0 **ASPHALT** Asphalt and gravel sub-base dry **FILL** fine to coarse SAND, little medium gravel, (2.5Y 5/2) gravish brown, medium dense, dry, no odor, green staining. 5 moist FILL GGM (100%), (5Y 5/1) gray, soft, moist, no odor, green staining. **FILL** moist fine to coarse SAND, some medium gravel, (2.5Y 5/2) gravish brown, medium dense, moist, no odor, green GGM (70%), some ash, trace fill debris, (5Y 5/1) gray, soft, 0.0 wet **FILL** wet, no odor, green staining, water at 5.0 feet. FILL ASH, little GGM (30%), (5Y 5/1) gray, loose, wet, no odor, wet green staining. 5 10 FILL fine silty SAND, little fine gravel, (5YR 4/4) reddish brown, medium dense, moist, MGP-like odor, no staining. 12 13 NR NO RECOVERY 30 FILL fine silty SAND, some fine gravel, (5YR 4/4) reddish brown, medium dense, wet, strong MGP-like odor, product staining 16 5 CAR-PDI-Y19A-17.5-18.0

Notes bgs -

A.GDT - 9/20/16

bgs - below surface grade MM - meadow mat GGM - green grey mud

dry

moist

PT

OL

1/ 1/1/ 1

UNDorg.

UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits

PEAT (degraded vegetated material), 80% organic fibers,

20% organic silt, (5YR 3/3) dark reddish brown, stiff, dry,

slight MGP like odor, no staining. Soils consistent with MM.

Organic SILT, 80% organic silt, 20% organic fibers, (5Y 5/1) gray, soft, moist, no odor, no staining. Soils consistent with

MGP - manufactured gas plant CCPW - chromate chemical production waste

CAR-PDI-Y19A-18.0-18.5

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

PPG - GINT STD US LAB.GDT - 1/13/11 14:35 - "IUSPSW2VFP001/DATA_USPSW2VFP001/IENVIRONMENTIPISCATAWAYIPROJECTIPPG-NJCPROGRAMI9-WORKFILESIPROJECT MANAGER-CATALDOBIGA RI-SOIL INVESTIGATIONIFIELD WORKBORING LOGSIGINT L **AE**COM

Comments: No COPR/GGM identified at this location.

Boring ID: EF-17

	30 Knig	Intsbridge Roa	d. Piscat	taway. NJ 088	354				Bornigi	D. EF-17
	00111119	htsbridge Roa 732.564.3200	office te	lephone						Page: 1
		lame: PP					Company:			
3		lumber: 6 ted Drillin					<u>Method: A</u> e: Airknife	irknife/Geoprobe	Coordinates (NJSPNAD83) x: 611494.743 Coordinates (NJSPNAD83) y: 682560.847	
		shed Drilli				Core Siz		/ Geoprobe	Boring Total Depth: 25 ft	
		By: B. Da			ger			Robert Cataldo	Depth to Water: 4 ft	
		Location:							Surface Elevation: 9.7 ft NAVD88	
									(Note bgs = below ground s	urface)
OOL IIVE	Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content		USCS	Graphic Log	Surface Cover and Thickness:		Sample Number
2	1		0	dry	3	Fill		Dark Brown (7.5YR) fine to medium angu	3/2) fine to medium SAND and SILT, little larger Gravel, Organics, and Fill Material	EF-B17_0.5
	2		0					(glass, slag, brick), o	dry, loose. No odor.	EF-B17_2.0
	_3		0							EF-B17_2.5
	_4		0							EF-B17_4.0
	5		0.3	wet	3	Fill		Gravel, trace Fill (sla	SILT, some fine Sand, little fine to medium ag), wet, medium stiff. No odor.	
OSEC	6		0.7	wet	6	Fill		Cinders, Coal and A	R 4/3) to Black fine to medium SAND, some sh, trace Glass, medium dense, wet. No	EF-B17_6.0
5	7	2.1		moist	3	Fill		odor. Brown (7.5YR 4/2) S	SILT, little fine to medium Sand and Clay,	
	8	2.1				Fill		soft, moist. No odor No Recovery	·. /	
	9 -	-								
-61112	10		0.1							EF-B17_10.0
	11	-	0	moist	3	Fill		Same as above.		
	12	3.2	0							EF-B17_12.0
5	13	3.2		moist	7	PT		Dark Poddish Gray ((2.5YR 3/1) PEAT, Organics, medium stiff, /	EF-B17_12.0X
200	14	-		moist		PT		moist. Sulfur odor.	2.51K 5/1) FLAT, Organics, medium sun,	
2	15		124		-	011		No Recovery	ND 0/4) Oggazi a Oll TV OLAV, askasiya	
2	16	-	106	moist	7	ОН		stiff, moist. Sulfur of	YR 3/1) Organic SILTY CLAY, cohesive, dor.	EF-B17_17.0
5	17	2.1				011				
	18					ОН		No Recovery		
	19									
	20		49.2	moist	7	OH		Same as above.		
000	21	1	45.7			011		camo do abovo.		
1 2 4 4 5	22	5	165							EF-B17_22.5
5	23		10.8							
<u> </u>	24		0.4	moist	8	SC			e to medium SAND, little Clay, trace Silt, ium dense, moist. No odor.	
200	25				 			End of boring at 25 f	īt.	
10200	26							Ç i		
5	_ 27									
- 00.										
	29									
2	30	-								
	31	-								
3	32	_								
	33	_								
ואו	34									
וי	35									

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: EF-49

Page: 1

Droine	t Name: F	DDC So	il DI\A/D			Drilling Company: SGS North America		rage.
	t Number:					Drilling Method: Geoprobe	Coordinates (N ISDN	NAD83) x: 611399.447
	tarted Dril					Rig Type:		AD83) y: 682675.465
	inished Dr			<u> </u>		Core Size: 12 in	Boring Total Depth:	
	d By : E. A					Project Manager: Robert Cataldo	Depth to Water: NA	
Physic	al Locatio	n: Nar	rula Proper	ty	l	1	Surface Elevation:	10.2 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
			dry	ASPHALT		Black Asphalt		
1 1		0	dry	FILL		Black (10YR 2/1) fine to coarse SAND (40 some-little fine to medium Gravel, trace Fi cinders, glass, brick), loose. No odor.		EF-B49-0.5
	5	0			\bowtie	<u> </u>		
2			dry	FILL	\bowtie	Black TAR, sheet layer in boring.		1
 3		0	moist	FILL	\bowtie	Black (10YR 2/1) fine to coarse SAND (25		
4 		0	wet	FILL		fine to medium Gravel, little Fill Material (a brick), medium dense. No odor. Black (10YR 2/1) to Dark Gray (10YR 4/1 and Silt, trace fine Sand and Fill Material () ASH, CINDERS,	
—5— –		0	wet	FILL			/_	
—6— – –		0	moist	FILL		Black-stained fine to medium SAND and Coose. No odor. Black-stained SILT, little Clay, trace medium		
7 8	2		moist	VOID		 semi-cohesive, medium Stiff. No odor. No Recovery 		
9 10					*****			
 11 		0	wet	FILL		Black-stained CINDERS and SILT, interbe odor.	edded, loose. No	EF-B49-11.0
 12 	_	0	moist	FILL		Black-stained SILT , little Clay, trace organ	nice soft No odor	EF-B49-12.0
13 14 14	5	0	moist	FILL		Brown (7.5YR 4/3) very fine SAND, some coarse Sand and medium rounded Gravel odor.	-little Silt, trace	
 15				NII II I	\bowtie			
				NULL		End of boring at 15 ft.		
	low surface eadow mat		GGM - gree	omite ore procen grey mud	essing re	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		ufactured gas plant omate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 10/14/16 10:27

Comments: COPR/GGM identified from 0.4-3.5 ft bgs. No native material encountered.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: EF-99

Page: 1

Droised	t Name: F		ofield Ave			Duilling Company CCC North America		Page: 1
						Drilling Company: SGS North America	0	14 700) 044 440 400
Project	Number:	60240	0/39	2.05.00.414		Drilling Method: Soft Dig/Geoprobe		MAD83) x: 611413.128
Date S	tarted Dril	ling: S	9/4/2012 10	0:25:00 AM		Rig Type:		AD83) y: 682723.521
		illing:	9/4/2012	10:55:00 AM		Core Size: 2 in	Boring Total Depth:	
Logged						Project Manager: Chris Martell	Depth to Water: NA	
Physic	al Locatio	n:				1	Surface Elevation:	10.8 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log		ness:	Sample ID
				ASPHALT		ASPHALT		
		0.0	dry	FILL		ASH, and cinders little coal, (7.5YR 4/1) odor, Little slag.	dark gray, dry, no	EF-B099-0.5-1.0
—1— – –	3							
_		0.0	moist	FILL		silty SAND, little fine to medium gravel ar moist, no odor, angular, Slag, brick, coal,	nd fill material, glass.	
								EF-B099-2.5-3.0
Notes: bgs - be	low surface	grade	COPR - chr	omite ore proc	essing n	esidue UNDno - non-organic undisturbed native d	eposits MGP - manu	ıfactured gas plant
MM - me	eadow mat		GGM - gree	n grey mud		UNDorg - organic undisturbed native depo	sits CCPW - chr	omate chemical production waste

PPG - 2012-09 RA PPG_LOGS_A.GDT - 10/14/16 09:47

PPG - 2012-09 RA PPG LOGS A.GDT - 10/14/16 09:47

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone **Boring ID: EF-100**

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Soft Dig/Geoprobe Coordinates (NJSPNAD83) x: 611449.135 Date Started Drilling: 9/4/2012 11:20:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682687.466 Date Finished Drilling: 9/4/2012 11:20:00 AM Core Size: 2 in Boring Total Depth: 3 ft Logged By: Ben Daniels Project Manager: Chris Martell Depth to Water: NA Surface Elevation: 10.6 ft NAVD88 Physical Location: Depth Recovery PID Moisture Graphic Sample **USCS** Surface Cover and Thickness: Range Log (ft/ft) Content ΙĎ (ppm) (ft bgs) ASPHALT **ASPHALT** 0.0 moist FILL fine to coarse SAND, some silt little fine to medium gravel, (10YR 4/3) brown, moist, no odor, angular, Trace glass. FF-B100-0 5-1 0 3 0.0 moist **FILL** ASH, and cinders trace ceramics, moist, no odor, Trace coal and glass. EF-B100-2.5-3.0 bgs - below surface grade bgs - below surface grade GGM - green grey mud UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits UNDorg - organic undisturbed native deposits MGP - manufactured gas plant CCPW - chromate chemical production waste

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: EF-129

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Drilling Method: NA Project Number: 60240739 Coordinates (NISDNAD93) v. 611/92

Date Fini Logged E Physical	ished Dri By: B. D Location Recovery	illing: aniels	12/13/201	2 8:50:00 AM 12 9:00:00 AM	1 C	tig Type: Core Size: 6 in Project Manager: Chris Martell	Boring Total Depth: Depth to Water: NA	1 ft
Depth Range	By: B. D. Location Recovery	aniels n: Cor			F			
Depth Range	Location Recovery	n: Cor	ner of Carl	hanat Avia and		roject Manager: Chris Martell	Depth to Water: NA	1
Depth Range	Recovery		ner of Carl	Laura 4 A aural				
Range	Recovery (ft/ft)	DID		teret Ave and	Pacific A	ve	Surface Elevation:	8.9 ft NAVD88
		(ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
		0.0		ASPHALT		ASPHALT		1
	-	0.0	alan .		XXXXX	Dark brown (7.5YR 3/2) silty SAND, little f	Sin	-
I .	1	0.0	dry	FILL	\bowtie	angular Gravel, dry, no odor.	The to coarse	
- 1	.				\bowtie	angular Graver, dry, no odor.		EF-129-0.5-1.0
					\bowtie			
1					\bowtie			
.								
/M - meac	w surface of dow mat		COPR - chr GGM - gree	omite ore procen grey mud	essing re	idue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos	posits MGP - manu its CCPW - chr	ufactured gas plant romate chemical production wa

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: FF20A-PUB1

Page: 1 Project Name: PPG Garfield Ave **Drilling Company:** Project Number: 60580814 Coordinates (NJSPNAD83) x: 611457.79 Drilling Method: Hand Auger Date Started Drilling: 10/19/2018 Rig Type: Coordinates (NJSPNAD83) y: 682695.82 Date Finished Drilling: 10/19/2018 Core Size: 2 inches **Boring Total Depth:** 5 ft Depth to Water: NA Logged By: Tarique Islam Project Manager: Bill Spronz Surface Elevation: 13.4 ft NAVD88 **Physical Location:** Depth Recovery PID Moisture Graphic Sample USCS Range Surface Cover and Thickness: (ft/ft) (ppm) Content Log ID. (ft bgs) 0.0 FILL fine to coarse silty SAND, trace gravel, (7.5YR 4/2) 5 moist brown, moist, no odor, no staining FF20A-PUB1-3.3-3.8 FF20A-PUB1-4.3.4.8 NULL End of Boring bgs - below surface grade MM - meadow mat UNDno - non-organic undisturbed native deposits UNDorg - organic undisturbed native deposits MGP - manufactured gas plant CCPW - chromate chemical production waste COPR - chromite ore processing residue GGM - green grey mud

2012-09 RA PPG LOGS A.GDT - 9/17/20 15:19

AECOM 30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: HSD-PDI-BB19A

roject						Bullion Made also Discot Discot	A	AD00\ 0110=0
	Number:					Drilling Method: Direct Push	Coordinates (NJSPN	
				0:35:00 AM		Rig Type:	Coordinates (NJSPN/	
			6/3/2016	11:50:00 AM		Core Size:	Boring Total Depth:	
	d By: HB		uel LICE	DDI		Project Manager: Scott Mikaelian	Depth to Water: NA Surface Elevation: 1	ΙΟ Λ ff ΝΙΔ\/D89
	ai LOCATIO	ıı. ACT	ual - HSD	רטו			Juliace Elevation:	10.7 IL NAVDO0
Depth lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	C Surface Cover and Thick	ness:	Sample ID
		0.0	moist	ASPHALT	$\times\!\!\times\!\!\times$	Asphalt and gravel sub-base		HSD-PDI-BB19A-0.2-0.7
-1 - -2 -	4.5		moist ^k	FILL		ASH, some silt, trace fine gravel, coal 4/2) brown, medium dense, moist, no o		HSD-PDI-BB19A-2.0-2.5
-3			wet	FILL		fine SAND, trace silt, (5YR 4/3) reddisl	h brown medium	
-4			wet			dense, wet, no odor, no staining.	T brown, medium	HSD-PDI-BB19A-4.0-4.5
-5-				NR	L	NO RECOVERY		
5		0.0	wet	FILL	\bowtie	fine SAND, trace silt, (5YR 4/3) reddis	h brown, medium	
-6-			wet to	FILL		dense, wet, no odor, no staining. SILT, little fine gravel, trace fine sand (5Y 5/1) gray, medium dense, wet to s		HSD-PDI-BB19A-6.0-6.5
\dashv			saturated	FILL		6.0 feet.	aturateu, water at	
-7-			saturated	FILL		SILT, trace wood, (5Y 2.5/1) black, sof	ft, saturated, no	
-8-	4		wet	TILL .		\odor, no staining. fine SAND, little silt, (5YR 4/3) reddish dense, wet, no odor, no staining.	brown, medium	HSD-PDI-BB19A-8.0-8.5
			moist	FILL		Disturbed Organic SILT, 90% organic	silt, 10% organic	
9-				NR		fibers, (7.5YŘ 4/2) brown, medium der organic odor, no staining. NO RECOVERY	nse, moist, slight	
10	4.5	0.0	moist	FILL		fine SAND, trace silt, fine gravel and w reddish brown, medium dense, moist, staining.		HSD-PDI-BB19A-10.0-10.5
-13								UOD DDL DD 404 40 5 44 0
-14					<u> </u>			HSD-PDI-BB19A-13.5-14.0
			dry		2.7. 7.7	PEAT (degraded vegetated material), 20% organic silt, (5YR 3/3) dark reddis	80% organic fibers,	HSD-PDI-BB19A-14.0-14.5
-15				NR	L	stiff dry moderate organic odor no st		
-16 -17	0.5	0.0	dry	PT		\tag{consistent with MM.} \text{NO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} \text{VO RECOVERY} \text{PEAT (degraded vegetated material), in the consistent with MM.} \text{VO RECOVERY} VO	80% organic fibers,	
_10	2.5			NR		NO RECOVERY		
18								
-19 -								
20						1		
	ow surface o		COPR - chro	mite ore proce	ssing res	sidue UNDno - non-organic undisturbed native de UNDorg - organic undisturbed native depos		factured gas plant mate chemical production wa

ENIOD		Client: PPG		BORII	NG ID:
ENSR	AECON	Site: PPG - Jersey City, NJ		M	W4A
Start Da	ite:	Project: Site Investigation		Page: 1 o	f 2
11/18/20	003	Coordinates: X-610811.29 Y-683249.	66		Boring: 18.00
End Dat	e:	Elevation: 12.8		Geologist	
11/18/20		Drill Subcontractor: ADI		Driller:	
Depth (ft)	Lithology	Description	PID	_{sample ID}	Sample Parameters
2-	F C C C C C C C C C C C C C C C C C C C	ILL: Black medium to fine SAND, some silt, little ravel, cinder, brick clinker, 30% COPR ILL: Black to dark reddish brown (5YR 2.5/2) medium fine SAND, some silt, cinder, clinker, shell, 20% OPR ILL: Dark yellowish brown (10YR 3/4) coarse to fine AND, some silt, trace gravel, clinker, brick, 50% OPR		MW-4A2.0	TAL Metals, Cr+6, TCLSVOCs, TCLVOCs, Cyanide, PCBs, Pesticides
6-		ILL: Reddish brown (2.5YR 4/3) coarse to fine SAND, ome gravel and silt, trace clay, brick, clinker, 30% OPR, cinder	0.0 ppm		
8-		ILL: Dark reddish brown (5YR 3/4) medium to fine AND, some silt, wood, brick, clinker, 10% COPR	0.0 ppm		
12		ILL: Reddish black (2.5YR 2.5-1) fine SAND, some lt, little clay and medium sand, wood, brick, cinder	0.0 ppm		

 $\underline{\textbf{NOTES:}} \hspace{0.2in} \textbf{Coordinates are provided in New Jersey State Plane NAD 1983 Feet.}$

ENCD AFCC	Client:	PPG				NG ID:
ENSR AECC		PPG - Jersey City, NJ		MW4A		
Start Date:	Project:	Site Investigation			Page: 2 o	f 2
11/18/2003	Coordinates	s: X-610811.29 Y-683249	.66		Depth of	Boring: 18.00
End Date:	Elevation:	12.8			Geologist	: D. Sherman
11/18/2003	Drill Subcor	ocontractor: ADI Driller:				
Depth (ft) Lithology		Description	PID	58	mpleID	Sample Parameters
12	cinder	ILT: Strong brown (7.5 YR 4/6) SILT, some fine sand,			0.0 ppm MW-4A12.0 TAL Me TCLSVOC Cyanide, PC	
16 — 44 44 44 44 44 44 44 44 44 44 44 44 4	mat)		0.0 ppm			
18	CLAY: Dark green silt	ish gray (GLEY2 4/1) CLAY, some				
	NULL: End of Bori	ng at 18 ft.				

FARE	Client: PPG		BORIN	IG ID:		
INTERNATIONAL	Site: PPG - Garfield, NJ		M	W4A		
Start Date:	Project: Site Investigation		Page: 1 of	2		
11/18/2003	Coordinates: X-610811.3 Y-683249	.7		Boring: 18.00		
End Date:	Elevation: 14.52		Geologist: D. Sherman			
11/18/2003	Drill Subcontractor: Advanced Drilling		Driller:	WAR-2-3-WILLIAM		
Depth (tt) Litholog	Description	PID	Sample ID	Sample Parameters		
. 0			***************************************			
	FILL: Black medium to fine SAND, some silt, little gravel, cinder, brick clinker, 30% COPR					
2—	FILL: Black to dark reddish brown (5YR 2.5/2) medium to fine SAND, some silt, cinder, clinker, shell, 20% COPR					
4-	FILL: Dark yellowish brown (10YR 3/4) coarse to fine SAND, some silt, trace gravel, clinker, brick, 50% COPR					
6+	FILL: Reddish brown (2.5YR 4/3) coarse to fine SAND, some gravel and silt, trace clay, brick, clinker, 30% COPR, cinder					
8—	FILL: Dark reddish brown (5YR 3/4) medium to fine SAND, some silt, wood, brick, clinker, 10% COPR					
10 —	FILL: Reddish black (2.5YR 2.5-1) fine SAND, some silt, little clay and medium sand, wood, brick, cinder					
12 -	FILL: Strong brown (7.5 YR 4/6) wood, root, clinker, cinder					
14	SILT: Strong brown (7.5 YR 4/6) SILT, some fine sand, native					
16 - 11 1	PEAT: Dark reddish brown (5YR 3/3) PEAT(meadow mat)			·		
18	CLAY: Dark greenish gray (GLEY2 4/1) CLAY, some silt					
	NULL: End of Boring					

ENSR AECON		Client: PPG			RING ID:	
ENSK	AECON	Site: PPG - Jersey City, NJ			MW4B	
Start D	ate:	Project: Site Investigation		Page:	1 of 4	
12/3/20	003	Coordinates: X-610816.71 Y-683246.	98	Depth of Boring: 40.00		
End Da	ate:	Elevation: 12.7		Geolog	gist: D. Sherman	
12/3/20		Drill Subcontractor: ADI		Driller:		
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters	
2—	FI DAD FI	LL: Black medium to fine SAND, some silt, little avel, cinder, brick clinker, 30% COPR LL: Black to dark reddish brown (5YR 2.5/2) medium fine SAND, some silt, cinder, clinker, shell, 20% OPR LL: Dark yellowish brown (10YR 3/4) coarse to fine AND, some silt, trace gravel, clinker, brick, 50% OPR	0.0 ppm	MW-4B2.0	TAL Metals, Cr+6, TCLSVOCs, TCLVOCs, Cyanide, PCBs, Pesticides	
6-	SC SC	LL: Reddish brown (2.5YR 4/3) coarse to fine SAND, ome gravel and silt, trace clay, brick, clinker, 30% OPR, cinder	0.0 ppm			
8+		LL: Dark reddish brown (5YR 3/4) medium to fine AND, some silt, wood, brick, clinker, 10% COPR	0.0 ppm			
10 —		LL: Reddish black (2.5YR 2.5-1) fine SAND, some t, little clay and medium sand, wood, brick, cinder	0.0 ppm			

ENSR AECOM	Client: PPG Site: PPG - Jersey City, NJ				NG ID: W4B
Start Date:	Project: Site Investigation		Page: 2 of 4		
12/3/2003	Coordinates: X-610816.71 Y-683246.9	98			Boring: 40.00
End Date:	Elevation: 12.7			Geologist	
12/3/2003	Drill Subcontractor: ADI			Driller:	
Debth (4) Lithology	Description	PID	58	mpleID	Sample Parameters
12 _ FIL _ Cinc	L: Strong brown (7.5 YR 4/6) Wood, root, clinker,	0.0 ppm [V-4B12.0	TAL Metals, Cr+6, TCLSVOCs, TCLVOCs, Cyanide, PCBs, Pesticides
nat	T: Strong brown (7.5 YR 4/6) SILT, some fine sand, ive AT: Dark reddish brown (5YR 3/3) PEAT(meadow	0.0 ppm			
ma		0.0 ppm			
16 —		1.8 ppm			
CL/silt	AY: Dark greenish gray (GLEY2 4/1) CLAY, some				
CL/	AY: Greenish gray (GLEY2 5/1) CLAY, some silt, e fine sand at 19.5"" bgs	0.0 ppm			
	AY: Dark greenish gray (GLEY1 4/1) CLAY, some native soft	0.0 ppm			

SAND: Red (2.5YR 5/8) coarse to fine SAND, some

0.0 ppm

TEMS PRESENT		Client: PPG		BORIN	IG ID:
ENSR	AECOM	Site: PPG - Jersey City, NJ		M	W4B
Start Da	te:	Project: Site Investigation		Page: 3 of	4
12/3/200)3	Coordinates: X-610816.71 Y-683246.	98	_	Boring: 40.00
End Dat	e:	Elevation: 12.7		Geologist:	
12/3/200)3	Drill Subcontractor: ADI		Driller:	
Depth (ft)	Lithology	Description	PID	imple ID	Sample Parameters
. 24					
	gra	avel	0.0 ppm		
26 —		ND: Red (2.5YR 4/6) coarse to fine SAND, little avel, till, fairly sorted			
_		ND: Red (2.5YR 4/8) coarse to fine SAND, trace avel 26'-27' bgs, trace fine sand, some silt 27'-28' s	0.0 ppm		
28 —		ND: Red (2.5YR 4/6) fine SAND, little medium sand, ft, well sorted	0.0 ppm		
30 +		ND: Red (2.5YR 4/6) fine SAND, little silt, soft, well ted	0.0 ppm M	W-4B30.0	TAL Metals, Cr+6, TCLSVOCs, TCLVOCs, Cyanide, PCBs, Pesticides
32 —		ND: Red (2.5YR 4/6) fine SAND, some silt, poorly aded, moderately well sorted	0.0 ppm		
34 +		ND: Red (2.5YR 4/6) fine SAND, some silt, fairly to orly graded, moderately well sorted	0.0 ppm		

ENSR AECOM	Client: PPG	BORING ID:
ENSK AECOM	Site: PPG - Jersey City, NJ	MW4B
Start Date:	Project: Site Investigation	Page: 4 of 4
12/3/2003	Coordinates: X-610816.71 Y-683246.98	Depth of Boring: 40.00
End Date:	Elevation: 12.7	Geologist: D. Sherman
12/3/2003	Drill Subcontractor: ADI	Driller:
Debty (41) Tithology	Description PID Se	mple ID Sample Parameters
	ND: Red (2.5YR 4/6) fine SAND and SILT, wet, y graded, moderately sorted	
	T: Red (2.5YR 4/6) fine SILT, some fine sand 0.0 ppm	
	T: Reddish gray (5YR 5/2) SILT, some clay, trace sand	
-	LL: End of Boring at 40 ft.	

ENSR AECOM		Client: PPG Industries		BORING ID: OSB/XOSB-10				
		Site: Site OSB	OSB					
Start Date: Project: Site Investigation				Page: 1 of 3				
7/20/200	06	Coordinates: X-610903.4 Y-683195			Depth of Borir	ng: 26.00		
End Date		Elevation: OSB-10 = 12.5; XOSB-10 = 12.	4 ft NA	VD88		Abdelaziz		
9/14/200		Drill Subcontractor: ADI			Driller:			
Depth (ft)	Lithology	Description	PID	Blows/6"	Sample ID	Sample Parameters		
	ASF	PHALT: Asphalt	N/A					
	××××××× CO	NCRETE: Concrete						
		L: Dark brown (7.5YR3/2) coarse to medium SAND, ne medium Gravel, trace Silt, dry. 80% COPR.	N/A	_	OSB-10A(1.0-1.5)	Cr+6, TAL Metals		
2-		NCRETE: Concrete stained with Cr6 water at 2.5 ft. : No Sample			OSB-10 was a G14A on 7/20	dvanced in Grid /2006 to 5.1'.		
4-	× × som	L: Black (7.5RN2.5) coarse medium GRAVEL, ne Cinders, Glass and Wood chips, little Silt, wet. 9% COPR.	N/A	_	OSB-10B(3.1-3.6)	Cr+6, TAL Metals		
	NR:	: No Sample	0.0 ppm	2 2				
-	× × very	L: Dark Brown (7.5YR 4/4) silty CLAY, some fine to y fine Sand, trace medium Gravel, wet. ~60% PR.	N/A	1 -	OSB-10C(4.6-5.1)	Cr+6, TAL Metals		
	NR	: No Recovery		2				
6-		L: Very dark brown (10YR3/3) coarse to fine ND, some to little Silt, trace Clay, wet.		4	XOSB-10 was 9/14/2006 from	advanced on 5.1' to 26' in Grid		
	× ×	: No Recovery		2	H14A as a step	o-out from OSB-10		
				5				
8+		L: Very dark brown (10YR3/3) coarse to fine ND, some to little Silt, trace Clay and fine Gravel,	0.0 ppm	1				

ENCD	AFCOM	Client: PPG Industries		BORING ID: OSB/XOSB-10		
ENSR	AECOM	Site: Site OSB	OSE			
Start Dat	te:	Project: Site Investigation	Page: 2 of 3			
7/20/200	6	Coordinates: X-610903.4 Y-68319	5		Depth of Borir	ng: 26.00
End Date		Elevation: OSB-10 = 12.5; XOSB-10 = 12	2.4 ft NA	VD8		Abdelaziz
9/14/200		Drill Subcontractor: ADI		1 =-	Driller:	
Depth (A)	Lithology	Descubtion	PID	Blows/6"	Sample ID	Sample Parameters
-	1-	2: No Recovery	_	1		
				1		
10 +		L: Black (10YR2/1) coarse to fine SAND, little to ce (+) fine Gravel and Silt, wet.	N/A	1	XOSB-10D(10.0-11.0)	MS/MSD, Cr+6, TAL Metals
-	$\begin{array}{cccc} \times & \times \\ \times & \times \\ \times & \times \end{array}$			1		
	$\begin{array}{ccc} \times & \times \\ \times & \times \\ \times & \times \end{array}$			1		
12 —	\times \times \times \times		N/A	2	XOSB-10E(12.0-12.9)	Cr+6, TAL Metals
	× × × FIL	L: Shells material		1	XOSB-10ED(12.0-12.9)	Cr+6, TAL Metals
	NF	2: No Recovery		5		
14 —			0.0	2	XOSB-10F(14.0-14.5)	Cr+6, TAL Metals
	PE JL PE	AT: PEAT, moist.	ppm	1		
	<u></u>			2		
				2		
16 —			0.0 ppm	3		
				2	V000 100 115 115 115 115 115 115 115 115	
	<u> </u>		2.5 ppm	3	XOSB-10G(17.0-17.5)	Cr+6, TAL Metals

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

XOSB location is offset from original OSB location due to presence of stormwater drain.

ENCD AFCOM	Client: PPG Industries				NG ID:
ENSR AECOM	Site: Site OSB	OSB/XOSB-10			
Start Date:	Project: Site Investigation			Page: 3 of 3	
7/20/2006	Coordinates: X-610903.4 Y-683195			Depth of Bori	ng: 26.00
End Date:	Elevation: OSB-10 = 12.5; XOSB-10 = 12.	4 ft NA	VD88	Geologist: M.	Abdelaziz
9/14/2006	Drill Subcontractor: ADI			Driller:	
Depth (ft) Lithology	Description	PID	Blows/6"	Sample ID	Sample Parameters
	2: No Recovery				
18 — SA	ND: Very dark greenish gray (Gley 1 3/1) medium fine SAND, little medium to fine Gravel, little to trace	N/A	7		
Sill	t, wet.		7		
0.7.0.7.4 coa	RAVEL AND SAND: Dark reddish brown (5YR3/2) arse to fine SAND and medium to fine GRAVEL, me to little Silt and Clay, wet.		6		
20 + 20 2 2	·	0.4	10		
		0.1 ppm	10		
			14		
			15		
22 + 27 - 27	NAVEL AND CAND Deducted by the CVD2(2)	N/A	10		
COS	RAVEL AND SAND: Dark reddish brown (5YR3/2) arse to fine SAND and fine GRAVEL, some to little it, little to trace Clay, wet.		14		
			14		
			11		
24 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		N/A	11		
			12		
			13		
			11		
1 26 1 NL	ILL: End of boring at 26 feet.				

ENICD	15001	Client: PPG Industries		BORIN	IG ID:
ENSR	AECO	Site: Site 133		0	SB-22
Start Da	te:	Project: Site Investigation		Page: 1 of	3
7/18/200	06	Coordinates: X-611312.6 Y-682776	6	Depth of B	Boring: 30.00
End Dat		Elevation: 10.9 ft NAVD88			M. Abdelaziz
7/25/200		Drill Subcontractor:		Driller:	ADI
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters
0		ASPHALT: Asphalt	N/A		
	×××	CONCRETE: Concrete			
	XX	FILL: Dusky red (2.5YR3/2) medium to fine SAND, come medium to fine Gravel, trace Silt, dry. 25% COPR.		OSB-22A(1.05-1.55)	MS/MSD, Cr+6, TAL Metals
2-	1	NR: Soft Dig - No Recovery			
4-	××	FILL: Light brownish gray (2.5Y6/2) fine SAND, some Slag and medium Gravel, little Clay and Silt, wet.	N/A	OSB-22B(4.0-4.5) OSB-22BD(4.0-4.5)	Cr+6, TAL Metals Cr+6, TAL Metals
-	× × \	NR: Soft Dig - No Recovery			
6+		FILL: Gray (7.5YRN6) CINDERS, some Glass and coarse to medium Sand, little Silt, wet.			
_	1	NR: No Recovery			
8—		FILL: Very dark gray (7.5YRN3) CINDERS, some Glass and coarse to medium Sand, little Silt, wet.	N/A		
10 —		FILL: Dark brown (7.5YR3/2) fine to very fine SAND, PEAT and SILT, moist to wet.			

ENIOD A FOO	Client: PPG Industries		BORII	NG ID:		
ENSR AECC	Site: Site 133		0	OSB-22		
Start Date:	Project: Site Investigation	Page: 2 o	Page: 2 of 3			
7/18/2006	Coordinates: X-611312.6 Y-682776	6		Boring: 30.00		
End Date:	Elevation: 10.9 ft NAVD88			M. Abdelaziz		
7/25/2006	Drill Subcontractor:		Driller:	ADI		
Depth (ft) Lithology	Description	PID	Sample ID	ADI Sample Parameters		
*	NR: No Recovery		OSB-22C(11.0-12.0)	MS/MSD, Cr+6, TAL Metals		
12 -	FILL: Very dark gray (7.5YRN3) CINDERS, some Glass and coarse to medium Sand, little Silt, wet.	N/A				
14 —	FILL: Dark reddish brown (5YR3/2) fine to very fine SAND, some Silt, trace coarse Sand, wet.					
16 —	PEAT: PEAT.	N/A	OSB-22D(16.8-17.3)	Cr+6, TAL Metals		
18 — — — — — — — — — — — — — — — — — — —	FLAI. PEAI.					
20	PEAT: Black (5YR2.5/1) PEAT, some fine to very fine Sand and Silt, moist.	N/A				

NSR AECOM	Client: PPG Industries			NG ID:
NSK AECUN	Site: Site 133		0	SB-22
Start Date:	Project: Site Investigation		Page: 3 d	of 3
7/18/2006	Coordinates: X-611312.6 Y-682776			Boring: 30.00
End Date:	Elevation: 10.9 ft NAVD88			t: M. Abdelaziz
7/25/2006	Drill Subcontractor:		Driller:	
Depth (ft) Lithology	Description	PID	Sample ID	ADI Sample Parameters
S/	AND: Gray (7.5RN5) fine to very fine SAND, some ilt, trace Clay, moist.			
24 - SA	R: No Recovery AND: Weak red (10R4/3) coarse to medium SAND, ome Silt and fine Sand, wet.	0.0		
26 —				
28-		0.0		
30	ULL: End of boring at 30 feet.			

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

ENSR AECOM		Client: PPG Industries		BORING ID:			
EINOR	AECOM	Site: Site OSB	OS	OSB/XOSB-9			
Start Date: Project: Site Investigation				Page: 1 of 3			
7/21/200	06	Coordinates: X-610809.6 Y-683242	.5	Depth of Bori	ng: 26.00		
End Dat		Elevation: OSB-9 = 12.9; XOSB-9 = 13.7 f	t NAVD88	Geologist: N	1. Abdelaziz		
9/20/200		Drill Subcontractor: ADI		Driller:			
Depth (ft)	Lithology	Description	PID	Sample ID	Sample Parameters		
, 0 _—			N/A		1		
	AS	PHALT: Asphalt	IN/A				
	××××× ×××××× ××××××	NCRETE: Concrete					
		L: Black (7.5YRN2) coarse to medium SAND, some dium to fine Gravel, trace to no Silt, dry.	N/A	OSB-9A(1.0-1.5)	Cr+6, TAL Metals, BNs, VOCs		
2—	NR	2: No Sample					
_	$\times \times \times$ SA	L: Dark reddish brown, (5YR3/2) coarse to medium ND, some medium to fine Gravel, little Silt, trace sy, dry. ~5% COPR.	N/A	OSB-9B(2.3-2.8)	Cr+6, TAL Metals, BNs, VOCs		
4—	× × × × × × × × × × × × × × × × × × ×						
6—		L: Very dark grayish brown (10YR3/2) medium to e SAND, some Silt, trace fine Gravel, wet.	0.0 ppm	XOSB-9C(5.0-6.3) XOSB-9CD(5.0-6.3)	MS/MSD, Cr+6, TAL Metals, BNs, VOCs Cr+6, TAL Metals, BNs, VOCs		
	NR	:: No Recovery					
8-	$\times \times \times$ me	L: Very dark grayish brown (10YR3/2) fine to dium SAND, some Silt, trace fine Gravel, trace sy(-), wet.	0.0 ppm	XOSB-9D(8.0-10.1)	Cr+6, TAL Metals, BNs, VOCs		

ENSR A	AECOM	Client: PPG Industries			BORING ID:	
EINSK A	AECOIVI	Site: Site OSB		OSB/XOSB-9		
Start Date:		Project: Site Investigation		Page: 2 of 3		
7/21/2006		Coordinates: X-610809.6 Y-683242.	5	Depth of Bori	ng: 26.00	
End Date:		Elevation: OSB-9 = 12.9; XOSB-9 = 13.7 ft	NAVD88	Geologist: M	I. Abdelaziz	
9/20/2006		Drill Subcontractor: ADI		Driller:		
Depth (ft) Lit	_{hology}	Description	PID	Sample ID	Sample Parameters	
10 — ×		L: Black (10YR2/1) coarse to medium SAND, some Gravel, little to trace Silt, trace Wood, wet.				
-	NR:	No Recovery				
12 —	××× FILL × fine ×××	L: Black (10YR2/1) coarse to medium SAND, some Gravel, little to trace Silt, trace Wood, wet.	0.0 ppm			
14 —	NR:	No Recovery				
16 —		AT: Peat, Some clay.	0.0 ppm	XOSB-9E(16.0-17.0)	Cr+6, TAL Metals, BNs, VOCs	

 $\underline{\hbox{\bf NOTES:}} \quad \hbox{Coordinates are provided in New Jersey State Plane NAD 1983 Feet}.$

ENSR AECOM	Client: PPG Industries			BORING ID:
LINSK ALCOM	Site: Site OSB			SB/XOSB-9
Start Date:	Project: Site Investigation		Page: 3 of 3	
7/21/2006	Coordinates: X-610809.6 Y-683242		Depth of Bori	ng: 26.00
End Date:	Elevation: OSB-9 = 12.9; XOSB-9 = 13.7	t NAVD88	Geologist: N	1. Abdelaziz
9/20/2006	Drill Subcontractor: ADI		Driller:	
Depth (ft) Lithology	Description	PID	Sample ID	Sample Parameters
Silt	ND: Gray (10YR5/1) fine to very fine SAND, some r, trace Clay, wet.			
	ND: Gray (10YR5/1) fine to very fine SAND, some , trace Clay, wet.	N/A		
	T AND CLAY: Gray (5YR5/1) clayey SILT, trace e Sand, moist.			
24 — — — — — — — — — — — — — — — — — — —		N/A	XOSB-9G(24.0-26.0)	Cr+6, TAL Metals, BNs, VOCs
26 SAI	ND: Yellowish red (5YR4/6) medium to fine SAND, me Silt, trace Clay, moist			
NU	LL: End of boring at 26 feet.			

ENCD	A F C O A	Client: PPG Industries			BORIN	
ENSR	AECOM	Site: Site 133			O;	SB/XOSB-13
Start Date	e:	Project: Site Investigation			Page: 1 of	3
7/20/2006	6	Coordinates: X-611056.3 Y-683090	.4		Depth of B	Boring: 28.00
End Date		Elevation: OSB-13 = 12.6; XOSB-13 = 12.	5 ft NAVD8	88		M. Abdelaziz
9/13/2006		Drill Subcontractor:			Driller:	ADI
Depth (th)	Lithology	Description	PID	59	mpleID	Sample Parameters
	AS	SPHALT: Asphalt	N/A			
	××× C	ONCRETE: Concrete				
	× × S	LL: Very dark brown (7.5 YR 3/3) coarse to medium AND, some coarse to fine Gravel, little Silt, dry. 50% OPR nodules.		OSB-	13A(1.0-1.5)	MS/MSD, Cr+6, TAL Metals
2+	×××	R: Soft Dig - No Recovery		OSB-	13B(2.0-2.5)	Cr+6, TAL Metals
		LL: Dusky red (7.5R3/4) some coarse Sand and fine ravel, little Silt, wet. 100% COPR nodules				
	NI	R: Soft Dig - No Recovery				
4-		LL: Very dark grayish brown (10YR3/2) SILTY AND, little Clay, wet.	0.0	XOSB	-13C(4.5-5.5)	MS/MSD, Cr+6, TAL Metals
	× × NI	R: No Recovery				
6-		LL: Very dark grayish brown (2.5YR3/2) coarse to be SAND, trace Silt, moist.	0.0			
-	× × fir	LL: Very dark grayish brown (2.5YR3/2) coarse to be SAND and medium to fine GRAVEL, little to trace lt, moist.		XOSB-	-13D(7.0-8.0)	Cr+6, TAL Metals
8-		LL: Olive (5Y 4/3) SILTY CLAY and coarse to fine AND, moist.	0.0	XOSB-	13DD(7.0-8.0)	Cr+6, TAL Metals
		LL: Yellowish brown (10YR5/6) SILTY CLAY ecoming black (10YR2/1) SILTY SAND, moist.	0.0			
	× × FI	LL: Olive (5Y5/6) SILTY SAND, trace Gravel, moist.				
		LL: Olive gray (5Y4/2) medium to fine SAND and LAYEY SILT, moist.				

ENCD AFCOM	Client: PPG Industries				BORING ID:		
ENSR AECOM	Site: Site 133			O:	SB/XOSB-13		
Start Date:	Project: Site Investigation			Page: 2 of	3		
7/20/2006	Coordinates: X-611056.3 Y-683090.			-	Boring: 28.00		
End Date:	Elevation: OSB-13 = 12.6; XOSB-13 = 12.5	ft NAVD8	88		M. Abdelaziz		
9/13/2006	Drill Subcontractor:				ADI		
Debty (41) Titlology	Description	PID	58	mpleID	ADI Sample Parameters		
10 -		0.0	XOSB-1	3E(10.0-10.5)	Cr+6, TAL Metals		
	LL: Dark gray (5Y4/1) Clayey SILT and coarse to fine ND, trace Gravel, moist.						
	R: No Recovery						
12+		5.6					
14 × × Cla	LL: Olive gray (5Y4/2) SILTY SAND, little to trace ay, wet.	0.0		3F(13.5-14.0) 3G(14.0-14.5)	Cr+6, TAL Metals Cr+6, TAL Metals		
PE	AT: PEAT.	0.0	X03B-1	36(14.0-14.3)	CITO, TAL Metals		
- 11							
16 +		0.0					
18 + + + + + + + + + + + + + + + + + + +		0.0					
			XOSB-1	3H(18.5-19.0)	Cr+6, TAL Metals		
NF	R: No Recovery						

ENICD	AECOM	Client: PPG Industries		BORING ID:			
ENSR	AECON	Site: Site 133	O:	SB/XOSB-13			
Start Da	te:	Project: Site Investigation	Project: Site Investigation				
7/20/200	06	Coordinates: X-611056.3 Y-683090	0.4	Depth of E	Boring: 28.00		
End Date		Elevation: OSB-13 = 12.6; XOSB-13 = 12	2.5 ft NAVD88		M. Abdelaziz		
9/13/200		Drill Subcontractor:		Driller:	ADI		
Depth (ft)	Lithology	Description	PID	Sample ID	ADI Sample Parameters		
20 —		LTY CLAY: Black (5Y 2.5/1) SILTY CLAY, trace eat.	0.0				
22 —			0.0				
24 —	CI tra	LTY CLAY: Black (2.5YR 2.5/1) SILTY CLAY and edium to fine SAND. LAYEY SAND: Black (2.5YR 2.5/1) CLAYEY SAND, ace Organics. LTY SAND: Very dark grayish brown (10YR 3/2) LTY SAND, little to trace Clay.	0.0				
26 —		AND: Dark reddish brown (5YR3/3) coarse to fine AND, trace Silt and fine Gravel.	0.0				
l ₂₈ ⊥	NI	ULL: End of boring at 28 feet.					

 $\underline{\textbf{NOTES:}} \hspace{0.2in} \textbf{Coordinates are provided in New Jersey State Plane NAD 1983 Feet.}$

ENSR	AECOM	Client: PPG Industries				BORING ID:			
EINSK	Site: Site OSB					OSB/XOSB-17			
Start Date	9:	Project: Site Investigation				Page: 1 of 3			
7/19/2006	6	Coordinates: X-611166.6 Y-682972		Depth of Boring: 28.00					
End Date:		Elevation: OSB-17 = 12.1; XOSB-17 = 11.	8 ft NA	VD8			Abdelaziz, R. Firely		
9/12/2006		Drill Subcontractor: ADI		1 = 1		Driller:			
Depth (#1)	Lithology	Description	Deactibition biD www.		۲	Sample ID	Sample Parameters		
0_	AS	PHALT: Asphalt	N/A						
×	×^×^×^× ×××××× ××××××	ONCRETE: Concrete			OS	B-17A(0.9-1.4)	MS/MSD, Cr+6, TAL Metals		
>	sor	L: Dark gray (7.5YRN4) coarse medium SAND, me medium to fine Gravel, little fine Sand and Silt, v. 40% COPR.							
2+	× × × NR	2: No Sample					dvanced on		
	sor	L: Dark gray (7.5YRN4) coarse to medium SAND, me medium to fine Gravel and Silt, little fine Sand d Clay, moist. 40% COPR.			7/1	9/2006 to 4	.7' in Grid S17A		
	NR	2: No Sample							
4+	×		0.0	1	0.00	D 47D/4 0 4 7			
		L: Dark gray (7.5YRN4) WOOD CHIPS, some ass pieces and Silt, little medium Sand, wet.	ppm	7	OSI	B-17B(4.2-4.7)	Cr+6, TAL Metals		
-	NR	2: No Sample		9			advanced on n 4.7' to 28' in		
6+				5	Gr		a step-out from		
>	× × SA	L: Very dark brown (10YR2/2) medium to fine ND and SILT, some Coal ash, little medium to fine avel, wet.	0.5 ppm	37 45	XOS	SB-17C(6.2-7.2)	MS/MSD, Cr+6, TAL Metals		
>	$\times \times $			100 /2"					
	NR	2: No Recovery		NA					
8+	\times \times \times and	L: Very dark brown (10YR2/2) coarse to fine SAND d medium to fine GRAVEL, wet. MGP like odor and pht sheen.	5.8 ppm	65 35		B-17D(8.2-9.2) B-17DD(8.2-9.2)	Cr+6, TAL Metals Cr+6, TAL Metals		
	\times \times \times \times			42		. ,			

ENCD	AECONA	Client: PPG Industries		BORING ID:				
ENSR	AECOM	Site: Site OSB	OSB	OSB/XOSB-17				
Start Dar 7/19/200 End Date	06	Project: Site Investigation Coordinates: X-611166.6 Y-682972 Elevation: OSB-17 = 12.1; XOSB-17 = 11	-611166.6 Y-682972			Page: 2 of 3 Depth of Boring: 28.00 Geologist: M. Abdelaziz, R. Firely		
9/12/200		Drill Subcontractor: ADI			Driller:			
Depth (ft)	Lithology	Description	PID	Blows/6"	Sample ID	Sample Parameters		
10 —		L: Very dark grayish brown (10YR3/2) fine SAND I SILT, trace Clay, wet.	8.5 ppm	21 15 16	XOSB-17E(10.2-10.7)	Cr+6, TAL Metals		
12 —	× × trac	L: Reddish brown (5YR4/4) fine SAND and SILT, ce Clay, wet. : No Recovery	1.5	10 10 12				
-	× × trac	L: Reddish brown (5YR4/4) fine SAND and SILT, ce Clay, wet. : No Recovery	ppm	10 8 4	XOSB-17F(12.2-12.7)	Cr+6, TAL Metals		
14 —	× × × FILI	L: Reddish brown (5YR4/4) fine SAND and SILT, see Clay, wet.	0.6 ppm	8 12 70	XOSB-17G(14.2-14.7)	Cr+6, TAL Metals		
16 —	PE/	AT: PEAT, moist. : No Recovery AT: PEAT, peat-like odor, moist.	10.0 ppm	5 3 4	XOSB-17H(16.0-16.5)	Cr+6, TAL Metals		
18 —			2.2 ppm	3 2 2				

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

XOSB location is offset from original OSB location due to presence of stormwater drain.

ENCD AECON	Client: PPG Industries		BORING ID:			
ENSR AECOM	Site: Site OSB			OSB	/XOSB-17	
Start Date:	Project: Site Investigation			Page: 3 of 3		
7/19/2006	Coordinates: X-611166.6 Y-682972			Depth of Boring	g: 28.00	
End Date:	Elevation: OSB-17 = 12.1; XOSB-17 = 11.	8 ft NA	VD88	Geologist: M. A	bdelaziz, R. Firely	
9/12/2006	Drill Subcontractor: ADI			Driller:		
Depth (#) Lithology	Description	PID	Blows/6"	Sample ID	Sample Parameters	
₩ei	T AND CLAY: Dark gray (10YR4/1)SILT and CLAY,		4			
			6			
20 + NR	: No Recovery	0.7	3			
SIL	T AND CLAY: Dark gray (10YR4/1)SILT and CLAY,	ppm	_			
	l.		5			
			8			
=:=:			11			
22 + NR	: No Recovery	51.4	10			
-:: coa	ND AND GRAVEL: Dark reddish brown (5YR3/3) arse to fine SAND and medium to fine GRAVEL, e coarse Gravel, wet. MGP like odor and sheen.	ppm	8			
-	ND AND SILT: Dark reddish brown (5YR3/3) fine		4			
	ND and SILT, wet. MGP like odor and sheen.		6			
24 — NR	: No Recovery	11.4	4			
	ND AND SILT: Dark reddish brown (5YR3/3) fine ND and SILT, wet. MGP like odor and sheen.	ppm	4			
-			4			
			4			
26 — — —		3.2 ppm	4	XOSB-17L(26.0-27.0)	Cr+6, TAL Metals	
		ррш	3	(OSB-17LD(26.0-27.0)	Cr+6, TAL Metals	
-			3			
20			4			
28 — NU	LL: End of boring at 28 feet.					

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

XOSB location is offset from original OSB location due to presence of stormwater drain.

FNCD	A E COM	Client: PPG Industries		BORING ID:			
ENSR	AECOM	Site: Site OSB	OSB	OSB/XOSB-19			
Start Da	te:	Project: Site Investigation					
7/18/200)6	Coordinates: X-611217.1 Y-682922.	8		Depth of Borin	g: 28.00	
End Date		Elevation: OSB-19 = 11.7; XOSB-19 = 11.	9 ft NA	VD88	Geologist: M. /	Abdelaziz	
9/11/200		Drill Subcontractor: ADI			Driller:		
Depth (ft)	Lithology	Description	PID	Blows/6"	Sample ID	Sample Parameters	
0_	ASI	PHALT: Asphalt	N/A				
		NCRETE: Concrete					
	Sar	L: Weak red (2.5YR4/2) medium SAND, some fine and and fine Gravel, little Silt, trace Clay, dry. 40%	N/A		OSB-19A(0.9-1.4)	Cr+6, TAL Metals	
2—	× × × FIL Sar	L: Dark red (7.5YR3/6) medium SAND, some fine and fine Gravel, little Silt, trace Clay, dry. 10% PR.					
	$^{\wedge} \times ^{\wedge} \times$ Sar	L: Dark red (7.5YR3/6) medium SAND, some fine and fine Gravel, little Silt, trace Clay, dry. 90% PR.					
4-	X X X X X X X X X X X X X X X X X X X		0.0 ppm	2 2			
		L: Pinkish gray (7.5YR7/2) fine to very fine SAND SILT, some very fine Gravel, moist.		2 2			
6—	$\begin{array}{cccc} \times & \times \\ \times & \times \\ \times & \times \end{array}$			2			
		FILL: Weak red (10R4/2) coarse to fine SAND, some Silt, trace fine Gravel, moist.		3			
	$\times \times $			3 2			
8-	XXX	L Manufacture (0 FMDNO) - " - 1 G	19.6	4			
	\times^{\times} GR	FILL: Very dark gray (2.5YRN3) medium to fine GRAVEL, some coarse to medium Sand, trace Silt and ine Sand, wet. Petroleum odor and sheen.	ppm	4			
	$\begin{array}{ccc} \times & \times \\ \times & \times \\ \times & \times \end{array}$		19.6	3 _	OSB-19D(9.2-9.7)	Cr+6, TAL Metals	
	××		ppm	2			

ENCD	AFCO	Client: PPG Industries		BORING ID:					
ENSR	AECO	Site: Site OSB			OSE	3/XOSB-19			
Start Dat	te:	Project: Site Investigation			Page: 2 of 3	Page: 2 of 3			
7/18/200	06	Coordinates: X-611217.1 Y-682922	2.8		Depth of Boria	ng: 28.00			
End Date		Elevation: OSB-19 = 11.7; XOSB-19 = 11	1.9 ft NA	VD8	8 Geologist: M.	Abdelaziz			
9/11/200		Drill Subcontractor: ADI			Driller:				
Depth (ft)	Lithology	Description	PID	Blows/6"	Sample ID	Sample Parameters			
10 +	××	NR: No Recovery	50.4	4					
_	$\times \times$	FILL: Very Dark Gray (2.5YR N3) silty CLAY, some ine Sand, trace medium Sand, wet. Petroleum odor and sheen.	50.4 ppm	5	OSB-19E(10.8-11.3)	MS/MSD, Cr+6, TAL Metals			
		NR: No Recovery		9					
12 —			1.4- 2.3	9					
-		FILL: PEAT (Uplifted - fill), wet. Petroleum odor and sheen.	ppm	10 10 8	OSB-19F(13.5-14.0)	Cr+6, TAL Metals			
	$\times \times $		ppm	0	OSB-19FD(13.5-14.0)	Cr+6, TAL Metals			
14 +		NR: No Recovery	0.0 ppm	8					
_				11					
				12					
16 —	$ ^{\wedge} \times ^{\wedge} \times $	FILL: Very Dark Gray (2.5YR N3) silty CLAY, some ine to very fine Sand, trace fine Gravel, wet.	5.6 ppm	7					
	× × × × × × × × × × × × × × × × × × ×	Petroleum odor and sheen.		8					
	× × × ×	FILL: Rotted WOOD. Petroleum odor and sheen.		9					
18—		PEAT: PEAT, dry.	5.3 ppm	3	XOSB-19H(18.0-18.5)	Cr+6, TAL Metals			
		CAND Con. /7 EVDE/AVE. Language C. CAND	_	3	XOSB-19HD(18.0-18.5)	Cr+6, TAL Metals			
		SAND: Gray (7.5YR5/1) fine to very fine SAND, some Silt, trace Clay, moist.		3					

NSD AECON	Client: PPG Industries				NG ID:		
ENSR AECOM	Site: Site OSB	OSB/XOSB-19					
Start Date:	Project: Site Investigation			Page: 3 of 3			
7/18/2006	Coordinates: X-611217.1 Y-682922.	Depth of Bori	ng: 28.00				
End Date:	Elevation: OSB-19 = 11.7; XOSB-19 = 11.9	9 ft NA	VD88	Geologist: M.	Abdelaziz		
9/11/2006	Drill Subcontractor: ADI			Driller:			
Debit (41) Lithology	Desc _{libtion}	Blows/6"		Sample ID	Sample Parameters		
			3				
	AYEY SAND: Gray (7.5YR5/1) clayey SILT, some e to very fine Sand, trace Peat, wet.	1.2 ppm	5				
	ND: Gray (7.5YR5/1) fine to very fine SAND, some , trace coarse Sand, moist.		10				
22	: No Recovery	2.2	11				
	• CANILL Gray (/ SYRS/1) tine to very tine SANILL some	ppm	10				
	ND: Dark brown (7.5YR3/2) coarse SAND, some e Gravel, little Silt, moist to dry.		13				
	ND: Dark reddish brown (5YR3/4) coarse to dium SAND, little Silt and fine Sand, wet.	3.3 ppm	10				
-			10				
			9				
	ND: Dark reddish brown (5YR3/4) fine to very fine	5.3 ppm	10				
- SA	ND, little Silt, trace coarse Sand, wet.	· ·	10				
			10				
28 —	LL: End of boring at 28 feet.		1 1		1		

ENICD AFCO	Client: PPG Industries	ient: PPG Industries			
ENSR AECO	Site: Site 133			0	SB/XOSB-21
Start Date:	Project: Site Investigation	Page: 1 of 3			
7/18/2006	Coordinates: X-611281 Y-682858.	2	oring: 30.00		
End Date:	Elevation: OSB-21 = 11.5; XOSB-21 = 11.	7 ft NAVD8	38		M. Abdelaziz
9/11/2006	Drill Subcontractor:			Driller:	ADI
Depth (th) Lithology	Description	PID	San	nple ID	Sample Parameters
0	ASPHALT: Asphalt	N/A			
×^ × ^ × × ×	CONCRETE: Concrete				
××	FILL: Dusky red (2.5YR3/2) coarse to fine SAND, some medium to fine Gravel, trace Silt, dry. 35% COPR.	/	OSB-21	A(1.15-1.65)	Cr+6, TAL Metals
2+	NR: Soft Dig - No Recovery				
× × × × ×	FILL: Reddish gray (5YR5/2) medium to fine SAND, some medium Gravel and Slag, little Silt, trace(-) Clay, wet.	/	OSB-2	1B(2.7-3.2)	Cr+6, TAL Metals
1 4+	NR: Soft Dig - No Recovery				
	FILL: Black (5YR2.5/1) SILTY SAND, some Glass, Cinders and Tiles, wet.	0.1			
× × × × × × × × × × ×	FILL: Gray (5YR5/1) coarse to medium SAND, some Silt, wet.				
	NR: No Recovery				
6—	FILL: Black (5YR2.5/1) SILTY SAND, some Glass, Cinders and Tiles, wet.	0.1			
- × × × × × × × × × × × × × × × × × × ×	FILL: Gray (5YR5/1) coarse to medium SAND, some Silt, wet.				
	FILL: Brown (7.5YR4/2) medium SAND, some Silt, little fine Gravel, trace Clay, moist.	0.4			
×××	NR: No Recovery				
× × × × × ×	FILL: Dark grayish brown (10YR4/2) coarse to medium SAND, some Silt, little fine to very fine Gravel, trace Clay, wet.				
10 - × ×	FILL: Dark grayish brown (10YR4/2) medium to fine SAND, some Silt and Clay, trace coarse Sand, wet.	12.8			
\ \times	NR: No Recovery	[1		

ENSR	AECO	Client:	PPG Industries				BORIN		
LINSK	ALCO	Site:						SB/XOSB-21	
Start Da	te:	Project:	Site Investigation	n	Page: 2 of 3				
7/18/200			ites:X-611281	Y-682858.		Boring: 30.00			
1	End Date: Elevation: OSB-21 = 11.5; XOSB-21 = 11.7 ft N					38		M. Abdelaziz	
9/11/200		Drill Sub	contractor:			1	Driller:	ADI	
Depth (ft)	Lithology		Description		PID	- S9/	mpleID	Sample Parameters	
	XX		dish gray (10R3/1) SILTY dium Sand and olive yello						
12 —		NR: No Recove	ery						
	× × × × × × × ×		dish gray (10R3/1) SILTY dium Sand and olive yello		49.3				
14 —	× ×	FILL: Very darl SAND, some S Petroleum odo	s brown (7.5YR2.5/2) fine ilt, trace fine Gravel and rand sheen.	e to very fine Clay, wet.	49.3	OSB-2	1C(13.3-13.8)	Cr+6, TAL Metals	
		PEAT: PEAT, \	vet. Petroleum odor and	sheen.					
		NR: No Recov	ery						
		PEAT: PEAT, v	vet. Petroleum odor and	sheen.	39.5				
16—		NR: No Recov	ery						
		PEAT: PEAT, v	vet. Petroleum odor and	sheen.	78.8				
18—	# # # # # # # # #				7.3				
20 —	# # # # # # # # # # # # # # # # # # #				6.2	XOSB-2	21E(20.0-21.0)	MS/MSD, Cr+6, TAL Metals	

ENCD	1,500)	Client:	PPG Industries					NG ID:
ENSR	AECO) [V]	Site:	Site 133				0	SB/XOSB-21
Start Da	ite:		Project:	Site Investigation				Page: 3 c	of 3
7/18/200	06				′-682858.2			Boring: 30.00	
End Dat				: OSB-21 = 11.5; XOSB	-21 = 11.7	ft NAVD88	3		:: M. Abdelaziz
9/11/200			Drill Subc					Driller:	ADI
Depth (ft)	Lithology			Description PID				mple ID	ADI Sample Parameters
			TY CLAY: G ery fine San	ray (gley16/1) SILTY CLAY, s d, wet.	some fine				
22 —		NR:	No Recover	ГУ		7.3			
			TY CLAY: G ery fine San	ray (gley16/1) SILTY CLAY, s d, wet.	some fine	7.5			
			ND: Gray (glotrace fine S	ey16/1) coarse to medium SA and, wet.	ND, some				
		NR:	No Recover	ry					
24 —				dish brown (2.5YR3/3) coarse and and Silt, trace fine Grave		0.4			
		NR:	No Recover	гу					
26 —				dish brown (2.5YR3/3) coarse and and Silt, trace fine Grave		1.4			
		NR:	No Recover	ту					
28 —				dish brown (2.5YR3/3) coarse and and Silt, trace fine Grave		6.2			
		NR:	No Recover	ту					
1 30 ⊥		NUI	LL: End of bo	oring at 30 feet.					

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

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-A`14A

rz.564.3200 office telephone Page: 1

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610701
Date Started Drilling: 3/10/2014 11:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683297
Date Finished Drilling: 3/10/2014 11:50:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: MI & FM	Project Manager: Chris Martell	Depth to Water: NA

Physical Location: A'14A- Carteret Ave. Surface Elevation: 11.3 ft NAVD88

Depth lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
-1 -2 -2	0			NR		Boring advanced directly to 5 ft bgs.	
-4		0.0	moist	FILL		fine to medium silty SAND, trace cinders, (7.5YR 4/6) strong brown, dense, moist, no odor, no staining.	
-7— -8— -9—	2			NR		NO RECOVERY	
10			moist	FILL		fine to medium silty SAND, trace cinders, (7.5YR 4/6) strong	P4-A`14A-9.5-10.0
-11		0.0	moist moist to wet	SM SP-SM		brown, dense, moist, no odor, no staining. UNDno SILT, with fine sand, trace coarse gravel, (10YR 5/8) yellowish brown, dense to soft, moist, no odor, no staining. Soils consistent with UNDno. UNDno fine to coarse SAND, with fine to coarse gravel, trace silt, (2.5YR 4/8) red, loose to hard, moist to wet, no	P4-A`14A-10.0-10.5
13 — - 14 — -	5					odor, no staining. Soils consistent with UNDno.	P4-A`14A-12.0-12.5
15		0.0	moist	SP-SM		UNDno fine to coarse SAND, with fine to coarse gravel,	
16— - 17—	5		to wet			trace silt, (2.5YR 4/8) red, loose to hard, moist to wet, no odor, no staining. Soils consistent with UNDno.	P4-A`14A-16.0-16.5
18 — — 19 —							P4-A`14A-18.0-18.5
20		0.0	moist to wet	SP-SM		UNDno fine to coarse SAND, with fine to coarse gravel, trace silt, (2.5YR 4/8) red, loose to hard, moist to wet, no odor, no staining. Soils consistent with UNDno.	P4-A`14A-20.0-20.5
22	5						



Boring ID: P4-A`14A

30 Kı	nightsbridge F 732.564.32			08854						Page: 2
Project	t Name: F	PPG Ga	arfield Ave			Drilling Company:	SGS North America			•
Project	t Number:	60240	0739			Drilling Method:	Geoprobe	Coordinates (NJSP)	NAD83) x: 610701	
Date S	tarted Dril	ling: 🔅	3/10/2014	11:20:00 AM		Rig Type: Coordinates (NJSPNA			AD83) y: 683297	
Date F	inished Dr	illing:	3/10/2014	4 11:50:00 AM	1	Core Size: 2 in Boring Total Depth: 25			25 ft	
Logge	d By: MI	& FM				Project Manager:	Chris Martell	Depth to Water: NA	١	
Physic	al Locatio	n: A`1	4A- Carter	et Ave.				Surface Elevation:	11.3 ft NAVD88	
								(Not	e bgs = below ground surface)	
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	С	Surface Cover and Thic	ckness:	Sample ID	
25										

PPG - PPG_LOGS.GDT - 4/15/14 17:43

AECOM

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Boring ID: P4-A14A

Page: 1

Project Name:PPG Garfield AveDrilling Company:SGS North AmericaProject Number:60240739Drilling Method:GeoprobeCoordinates (NJSPNAD83) x:610726Date Started Drilling:3/10/2014 12:00:00 PMRig Type:Coordinates (NJSPNAD83) y:683283Date Finished Drilling:3/10/2014 1:40:00 PMCore Size:2 inBoring Total Depth:25 ft

Logged By: MI & FM Project Manager: Chris Martell Depth to Water: NA

Physical Location: P14A- Carteret Ave. Surface Elevation: 11.9 ft NAVD88

epth ange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
3-7				NR		Boring advanced directly to 5 ft bgs.	
-1-							
-2-							
_	0						
-3-							
_							
4							
\dashv							
-5-		0.0	slightly	FILL		fine to medium SAND, some cinders, little fine gravel,	
\dashv			moist	1122		(7.5YR 2.5/1) black, loose, slightly moist, no odor, no	
6						staining.	P4-A14A-6.0-6.5
-7	5	0.0	moist	FILL		fine to medium silty SAND, little fine gravel, trace brick	
	Ü					fragments, cinders, (7.5YR 4/2) brown, dense, moist, no odor, no staining.	
-8-						odor, no staining.	P4-A14A-8.0-8.5
-9							
10		0.0					D4 4444 40 0 40 5
_		0.0	moist	FILL		SILT, some fine sand, trace roots, (7.5YR 3/4) dark brown, low plasticity, soft, moist, no odor, no staining.	P4-A14A-10.0-10.5
-11						ion placticity, cort, molet, no eder, no etailing.	P4-A14A-11.0-11.5
-	-	0.0	moist	OL		UNDorg SILT, 90% organic silt, 10% organic fibers, low	P4-A14A-11.5-12.0
12-	_	0.0	moist	OL		plasticity, soft to stiff, moist, slight organic odor, no staining.	P4-A14A-12.0-12.5
+	5					Soils consistent with UNDorg.	
-13		0.0	moist	SM		UNDno fine SAND, and silt trace organics, (10YR 5/4)	
14						yellowish brown, dense to soft, moist, no odor, no staining. Soils consistent with UNDno.	
-14						Soils consistent with ondrio.	P4-A14A-14.0-14.5
-15							
		0.0	moist	SM		UNDno fine to medium SAND, some silt, (5YR 5/8) yellowish red, loose to dense, moist, no odor, no staining.	
16		0.0				Soils consistent with UNDno.	D4 4444 40 0 40 E
4		0.0	moist	SP • Daview		UNDno fine to coarse SAND, with fine to coarse gravel, little silt, (2.5YR 4/8) red, loose to hard, moist, no odor, no	P4-A14A-16.0-16.5
17—				e-Review soil descri	ntion	staining. Soils consistent with UNDno.	
-	5			dicates tha	11-12-12-12-12		
18				SCS for thi	181.314.31.411	_	P4-A14A-18.0-18.5
				terval is SF	The Street Park		
19			"	ici vai is oi	-OIVI		
20							
20		0.0	moist	SP		UNDno fine to coarse SAND, with fine to coarse gravel, little	P4-A14A-20.0-20.5
21						silt, (2.5YR 4/8) red, loose to hard, moist, no odor, no staining. Soils consistent with UNDno.	
_,							
22							
4	5						
23-							

30 Ki	LECO nightsbridge F	M Road, Piso	cataway, NJ 0	08854			В	oring ID: P4-A14A
	732.564.32	200 office	telephone					Page: 2
Project	t Name: F	PPG Ga	arfield Ave			Drilling Company: SGS North America		
Project	t Number:	60240	0739			Drilling Method: Geoprobe	Coordinates (NJSP)	NAD83) x: 610726
Date S	tarted Dril	ling: _	3/10/2014	12:00:00 PM		Rig Type:	Coordinates (NJSPN	AD83) y: 683283
Date F	inished Dr	illing:	3/10/2014	4 1:40:00 PM		Core Size: 2 in	Boring Total Depth:	25 ft
	d By: MI a					Project Manager: Chris Martell	Depth to Water: NA	
Physic	al Locatio	n: P1	4A- Cartere	et Ave.			Surface Elevation:	
							(Not	e bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thick	ness:	Sample ID
 - 25						4		

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Boring ID: P4-B14A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Project Number:60240739Drilling Method:GeoprobeCoordinates (NJSPNAD83) x:610753Date Started Drilling:3/11/2014 9:16:00 AMRig Type:Coordinates (NJSPNAD83) y:683270

 Date Finished Drilling:
 3/11/2014 10:00:00 AM
 Core Size:
 2.0 in
 Boring Total Depth:
 25 ft

 Logged By:
 MI & FM
 Project Manager:
 Chris Martell
 Depth to Water:
 NA

			A - Cartere				(Note bgs = below ground surface)
epth inge bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.	
1-							
2-	0						
3—							
4—							
_							
5		0.0	dry	FILL		fine to medium silty SAND, little coal, trace glass (7.5YR 3/2) dark brown, medium dense, dry, no	s fragments, odor, no
6		0.0	slightly moist	FILL		staining. fine to medium SAND, little coarse gravel, trace	glass P4-B14A-6.0-6.5
7—	5		moist			fragments, (5YR 4/3) reddish brown, medium de moist, no odor, no staining.	ense, slightly
8—							P4-B14A-8.0-8.5
9—							
0		0.0	moist	FILL		fine silty SAND, trace glass fragments, trace cer	ramics, P4-B14A-10.0-10.9
1-			to wet			(10YR 4/3) brown, soft to medium dense, moist odor, no staining.	to wet, no
2	5						P4-B14A-12.0-12.5
3—							P4-B14A-12.5-13.0
4—		0.0	moist	OL		80% organic silt, 20% organic fibers fine SILT, (very dark brown, medium plasticity, medium den no odor, no staining. Soils consistent with UNDo	se, moist,
5		0.0	moist	SM		fine to medium sandy SILT, (7.5YR 5/1) gray, m dense to dense, moist, no odor, no staining. Soil	edium P4-B14A-14.0-14.
+		0.0	moist to	SM		with UNDno. fine SAND, little silt, (7.5YR 5/1) gray, medium of to wet, no odor, no staining. Soils consistent with	
6 -			wet			,	P4-B14A-16.0-16.9
7—	5	0.0	dry	SM		fine to medium SAND, some fine to course grav	el, (2.5YR
8		0.0	,			7/3) light reddish brown, dense to very dense, dr no staining. Soils consistent with UNDno.	y, no odor, P4-B14A-18.0-18.
9—		0.0	dry	SM		fine to coarse SAND, some fine to course grave 4/3) reddish brown, medium dense to very dense odor, no staining. Soils consistent with UNDno.	
.0		0.0	dry	SM		fine to coarse SAND, fine to course gravel, (2.5' reddish brown, medium dense to very dense, dry	(R 4/3) P4-B14A-20.0-20.5
21—						no staining. Soils consistent with UNDno.	
22—	5						
23—							



Boring ID: P4-B14A

Drilling Company: SGS North America	
Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610753
Rig Type:	Coordinates (NJSPNAD83) y: 683270
Core Size: 2.0 in	Boring Total Depth: 25 ft
Project Manager: Chris Martell	Depth to Water: NA
	Surface Elevation: 12.4 ft NAVD88
	(Note bgs = below ground surface)
	Drilling Method: Geoprobe Rig Type: Core Size: 2.0 in

Logged	d By: MI	& FM			F	Project Manager:	Chris Martell	Depth to Water: NA	\
Physic	al Locatio	n: B14	4A - Carter	et Ave.				Surface Elevation:	12.4 ft NAVD88
	ı							(Not	e bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cover and Thickn	ess:	Sample ID
25						4			
Comme	nts: 1) 3 atte	empts w	ere made to	obtain best re	covery 2)	MM/UND confirmed	to be 1 ft thick 3) No COPR or	GGM encountered in any	interval of this boring.



Boring ID: P4-BB20A

Project Name: PPG Garfield Ave Drilling Company: SGS North America
Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611366.605

 Date Started Drilling:
 12/9/2014 9:30:00 AM
 Rig Type:
 Geoprobe
 Coordinates (NJSPNAD83) y:
 682752.926

 Date Finished Drilling:
 12/9/2014 11:00:00 AM
 Core Size:
 3.0 in
 Boring Total Depth:
 20 ft

	l By: SP al Location	n: Ca	rteret Aven	nue		Project Manager: Scott Mikaelian	Depth to Water: N/A Surface Elevation:	10.5 ft NAVD88
								e bgs = below ground surface)
epth ange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Ti	hickness:	Sample ID
		0.0		ASPHALT		ASPHALT.		
-1-								
_		0.0	moist	FILL		fine to medium SAND,trace gravel,	(10YR 5/1)	P4-BB20A-1.5-2.0
-2 -3	5	0.0	moist	FILL		gray,loose,moist,no odor,no stainir fine to medium SAND,some ash tra dark grayish brown,loose to mediu staining.	ng. ace gravel,(10YR 4/2)	P4-BB20A-2.0-2.5
-4								P4-BB20A-4.0-4.5
-6-		0.0	saturated	FILL		fine to coarse well-graded SAND,tr glass,trace silt,(10YR 5/1) gray,me dense,saturated,no odor,no stainin	dium	
-7 -8	5							P4-BB20A-6.0-6.5 P4-BB20A-8.0-8.5
-9 -10								P4-B620A-6.U-6.3
11		0.0		NR		NO RECOVERY.		
12— - 13— -	3	13.6	saturated	FILL		fine to medium silty SAND,trace as 3/1) very dark gray,low plasticity so dense,saturated,moderate petroleu	oft to medium	P4-BB20A-12.0-12.5
14								P4-BB20A-14.0-14.5
15		0.0	moist	FILL		fine to medium silty SAND,trace fir	ne gravel,(10YR 2/2)	P4-BB20A-15.0-15.5
-16 - -17	5	0.0	slightly moist	PT	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	medium dense,slightly moist,mode staining.Soils consistent with MM.	al),(60% organic silt, wn,low plasticity rate organic odor,no	P4-BB20A-15.5-16.0
-18 — - -19 —		0.0	slightly moist	OL		UNDorg SILT, (90% organic silt, 10 fibers),(10YR 4/1) dark gray,low pla dense,slightly moist,moderate orga Soils consistent with UNDorg.	asticity,medium	
-20								
						2) UND/MM confirmed to be 1 ft thick 3) No CO		

Boring ID: P4-C14A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610780 Date Started Drilling: 3/11/2014 9:20:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683256 Date Finished Drilling: 3/11/2014 10:05:00 AM Core Size: 2 in Boring Total Depth: 25 ft Logged By: MI & FM Project Manager: Chris Martell Depth to Water: NA

epth							
ange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.	
-1-							
. 1							
2-							
\dashv	0						
3-							
\dashv							
4							
5		0.0	moist	FILL		fine to medium silty SAND, some fine to medium gravel, little	
6-						fill material, (10YR 5/2) grayish brown, dense, moist, no odor, no staining.	
							P4-C14A-6.0-6.5
.7—							
-	4						
-8-						1	P4-C14A-8.0-8.5
-							
9				NR		NO RECOVERY	
10							
10		0.0	moist	FILL		fine silty SAND, trace ceramics, trace fill material, (7.5YR	P4-C14A-10.0-10.5
11—						4/2) brown, dense, moist, no odor, no staining.	
4							
12-	_					-	P4-C14A-12.0-12.5
\dashv	5						
13							
14							P4-C14A-13.5-14.0
' -		0.0	moist	OL		UNDorg SILT, 70% organic silt, 30% organic fibers, (7.5YR 2.5/3) very dark brown, low plasticity, soft to stiff, moist,	P4-C14A-14.0-14.5
15		0.0				moderate organic odor. Soils consistent with UNDorg.	
-		0.0	moist slightly	OL SM		UNDorg SILT, 70% organic silt, 30% organic fibers, (7.5YR 2.5/3) very dark brown, low plasticity, soft to stiff, moist,	
16		0.0	moist	SIVI		\moderate organic odor. Soils consistent with UNDorg.	P4-C14A-16.0-16.5
. +						UNDno fine SAND, little silt, (7.5YR 5/1) gray, dense, slightly moist, no odor, no staining. Soils consistent with	
17—	5					UNDno.	
18-	Ū						
							P4-C14A-18.0-18.5
19—		0.0		SM		LINDra fina to madium CAND agree fina to madium and al	
-		0.0	moist	SIVI		UNDno fine to medium SAND, some fine to medium gravel, (5YR 5/2) reddish gray, loose, moist, no odor, no staining.	
20		0.0	moist	SM		Soils consistent with UNDno. UNDno fine to coarse SAND, with fine to medium gravel,	P4-C14A-20.0-20.5
_				e-Review	of	(2.5YR 4/6) red, loose to hard, moist. Soils consistent with	
21—				e soil des	- 10 M (5 J/6)	UNDno.	
22				dicates th			
	5		u.	SCS for th	is interval		
23-			is	SP			
_							



Boring ID: P4-C14A

		rage. 2							
Project Name: PPG Garfield Ave	Drilling Company: SGS North America								
Project Number: 60240739	Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610780								
Date Started Drilling: 3/11/2014 9:20:00 AM	Rig Type: Coordinates (NJSPNAD83) y: 68325								
Date Finished Drilling: 3/11/2014 10:05:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft							
Logged By: MI & FM	Project Manager: Chris Martell	Depth to Water: NA							
Physical Location: C14A- Carteret Ave.	Surface Elevation: 12.6 ft NAVD88								
(Note bgs = below ground surface)									

riiysicai	Locatio	n: C12	1A- Cartere	et Ave.		Sui	rface Elevation:	e bgs = below ground surface)
Depth Range ft bgs)	decovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:		Sample ID
25								
omments	s: 1) 3 atte	empts we	ere made to	obtain best re	covery 2) MM/UNI	confirmed to be 1 ft thick 3) No COPR or GGM	/I encountered in any	interval of this boring.



Boring ID: P4-CC20A

Project Name: PPG Garfield Ave Drilling Company: SGS North America
Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611391.808
Date Started Drilling: 12/11/2014 9:15:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 682734.17
Date Finished Drilling: 12/11/2014 10:15:00 AM Core Size: 3.0 in Boring Total Depth: 10 ft
Logged By: SP Project Manager: Scott Mikaelian Depth to Water: N/A
Physical Location: Carteret Avenue

		illing:	12/11/201	14 10:15:00 <i>F</i>		Core Size: 3.0 in	Boring Total Depth:	
	d By: SP	0	-t t A		j.	Project Manager: Scott Mikaelian	Depth to Water: N//	
nysic	al Location	n: Cai	teret Aver	iue			Surface Elevation:	10.1 ft NAVD88 te bgs = below ground surface)
							ION)	S MS - DEION GLOUING SULIDGE)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thic	kness:	Sample ID
		0.0		ASPHALT		ASPHALT.		
-1 -1 -2		0.0	slightly moist	FILL		fine SAND,(10YR 5/8) yellowish brow dense,slightly moist,no odor,no stainii	n,loose to medium ng.	P4-CC20A-0.5-1.0 P4-CC20A-2.0-2.5
-3 -4	5	0.0	slightly moist	FILL		fine to coarse SAND,some ash,trace coal,(10YR 4/2) dark grayish brown,lo moist,no odor,no staining.	gravel,trace ose,slightly	P4-CC20A-4.0-4.5
_ -5								
_		0.0	slightly	FILL		fine to medium SAND,trace gravel,tra	ce ash,(2.5YR	
-6 -7	5	0.0	moist saturated	FILL		2.5/2) very dusky red,medium dense, odor,no staining. fine to medium SAND,some gravel,tra 2.5/2) very dusky red,loose,saturated, staining.	ice ash,(2.5YR	P4-CC20A-6.0-6.5
-8					\bowtie			
-9								P4-CC20A-8.0-8.5
						2) No COPR or GGM present in any interval of th		

LOGS.GDT

PPG

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Boring ID: P4-D14A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Coordinates (NJSPNAD83) x: 610807 Drilling Method: Geoprobe Date Started Drilling: 3/11/2014 11:11:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683242 Date Finished Drilling: 3/11/2014 12:00:00 PM Core Size: 2.0 in Boring Total Depth: 25 ft Logged By: MI & FM Project Manager: Chris Martell Depth to Water: NA

Surface Elevation: 12.6 ft NAVD88 Physical Location: D14A - Carteret Ave. e bas = below arou Depth PID Moisture Graphic Recovery Sample Range **USCS** Surface Cover and Thickness: (ft/ft) (ppm) Content Log ID (ft bgs) NR Boring advanced directly to 5 ft bgs. 0 0.0 dry **FILL** fine to medium SAND, trace gravel, (5YR 5/1) gray, loose to medium dense, dry, no odor, no staining. 0.0 P4-D14A-6.0-6.5 **FILL** fine to medium SAND, little silt, trace coarse gravel, (5YR dry 4/3) reddish brown, dense, dry, no odor, no staining. 5 0.0 P4-D14A-8.0-8.5 moist **FILL** fine to medium sandy SILT, some organic fibers, (7.5YR 2.5/3) very dark brown, soft, moist, no odor, no staining. 0.0 P4-D14A-10.0-10.5 **FILL** fine to medium SAND, with cinders and ash, (7.5R 2.5/1) reddish black, (7.5YR 2.5/3) very dark brown, medium dense, no odor, no staining. P4-D14A-12.0-12.5 5 0.0 FILL moist fine to medium SAND, trace silt, (5YR 4/3) reddish brown, -13 medium dense, moist, no odor, sheen. 14 P4-D14A-14.0-14.5 0.0 P4-D14A-14.5-15.0 **FILL** SILT, some fill material, (5YR 4/3) reddish brown, medium dry plasticity, medium dense, dry to moist, no odor, no staining. to P4-D14A-15.0-15.5 0.0 OL moist SILT 60% organic silt, 40% organic fibers, (7.5YR 6/1) gray, 0.0 PT medium plasticity, medium dense, dry to moist, no odor, dry -16 sheen. Soils consistent with UNDorg. 1/ 1/ P4-D14A-16.0-16.5 to (80% organic fibers, 20% organic silt) PEAT, (7.5YR 3/2) moist 11, 11, dark brown, medium plasticity, stiff, moist, strong organic moist 0.0 SM odor, no staining. Soils consistent with MM. moist 5 fine to medium silty SAND, (7.5YR 5/1) gray, medium dense -18 to stiff, moist, no odor, no staining. Soils consistent with P4-D14A-18.0-18.5 UNDno. 19 -20 0.0 P4-D14A-20.0-20.5 SM fine to medium silty SAND, (5YR 5/1) gray, medium dense, moist moist to wet, no odor, no staining. Soils consistent with - 4/15/14 UNDno. -21 wet 22 5 -23 fine to coarse SAND, with coarse gravel, (5YR 4/3) reddish

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



Boring ID: P4-D14A

	r ugo. Z
Drilling Company: SGS North America	_
Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610807
Rig Type:	Coordinates (NJSPNAD83) y: 683242
Core Size: 2.0 in	Boring Total Depth: 25 ft
Project Manager: Chris Martell	Depth to Water: NA
	Surface Elevation: 12.6 ft NAVD88
	Drilling Company: SGS North America Drilling Method: Geoprobe Rig Type: Core Size: 2.0 in Project Manager: Chris Martell

Logged	iby. IVII c	X 1 1V1				oject Manager: Chris Martell	Depth to Water: NA	
Physic	al Location	n: D14	4A - Cartere	et Ave.			Surface Elevation:	12.6 ft NAVD88
							(Not	e bgs = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and	Thickness:	Sample ID
						brown, hard, dry, no odor, sheen.	Soils consistent with	
						UNDno.		
25								
	ata. 1) 3 atto	mnts we	ere made to	obtain best re	covery 2) M	WUND confirmed to be 1 ft thick 3) No C	OPR or GGM encountered in any	interval of this boring

Boring ID: P4-E14A

Page: 1 Drilling Company: SGS North America

Project Name: PPG Garfield Ave Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610834 Date Started Drilling: 3/13/2014 9:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683228 Boring Total Depth: 25 ft Date Finished Drilling: 3/13/2014 9:40:00 AM Core Size: 2.0 in Depth to Water: NA Logged By: MI Project Manager: Chris Martell

			A- Cartere			Surface Elevation: 1 (Note	bgs = below ground surface)
Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.	
-1-							
' _							
-2-							
	0						
-3							
\dashv							
4							
\dashv							
-5-		0.0		FILL		fine to medium gravelly SAND, little silt, trace ash, (7.5YR	
\dashv		0.0	moist	FILL		4/3) brown, loose to hard, no odor, no staining.	
-6						fine to medium SAND, some fine to medium gravel, trace ash, cinders, brick, (7.5YR 4/3) brown, moist, no odor, no	P4-E14A-6.0-6.5
,						staining.	
	3.5						
-8							
							P4-E14A-8.0-8.5
-9				NR		NO RECOVERY	
4							
-10		0.0	moist	FILL		fine to medium SAND, some fine to medium gravel, trace	P4-E14A-10.0-10.5
\dashv		0.0	moisi	FILL		ash, cinders, brick, (7.5YR 4/3) brown, moist, no odor, no	1 4-114/4-10:0-10:0
-11						staining.	
-12	5						P4-E14A-12.0-12.5
-13							
13							
-14							
						-	P4-E14A-14.0-14.5
15		0.0		01		LINDOWS CILT 000/ pressie silt 400/ pressie fibere (7 EVD	P4-E14A-14.5-15.0 P4-E14A-15.0-15.5
4		0.0	moist slightly	OL PT	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	UNDorg SILT, 90% organic silt, 10% organic fibers, (7.5YR 2.5/1) black, low plasticity, soft, moist, no odor, no staining.	1 1- 614A-10.0-10.0
16			moist		1/ 1/1/ 1	Soils consistent with UNDorg. PEAT (degraded vegetated material), 80% organic fibers,	P4-E14A-16.0-16.5
_ +					<u> </u>	20% organic silt, (7.5YR 2.5/3) very dark brown, stiff, slightly	
17	5				1/ 1/1/ 1	moist, strong organic odor, no staining. Soils consistent with	
_10		0.0	moist	SM		MM. UNDno fine SAND, some silt, (7.5YR 6/1) gray, dense,	
18			I	soil descri	*10-15-4-24	moist, no odor, no staining. Soils consistent with UNDno.	P4-E14A-18.0-18.5
19				CS for inte	rval 20-2	1	
-	f	t bgs is	SP-SM				
20		0.0		CM		LINDras CILT come fine cond trace course gravel (7.5VD	P4-E14A-20.0-20.5
4		0.0	moist	SM		UNDno SILT, some fine sand, trace coarse gravel, (7.5YR 6/1) gray, stiff, moist, no odor, no staining. Soils consistent	F4-L14A-2U.U-2U.3
21		0.0	moist	SM		with UNDno.	
\dashv						UNDno fine SAND, little silt, (7.5YR 7/1) light gray, dense, moist, no odor, no staining. Soils consistent with UNDno.	
-22	5	0.0		SP-SM		UNDno fine to medium SAND, some fine to medium trace	
	J					silt, (5YR 5/2) reddish gray, loose to hard. Soils consistent with UNDno.	
-23							
\neg							



Boring ID: P4-E14A

		1 4901 2
Project Name: PPG Garfield Ave	Drilling Company: SGS North America	-
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610834
Date Started Drilling: 3/13/2014 9:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683228
Date Finished Drilling: 3/13/2014 9:40:00 AM	Core Size: 2.0 in	Boring Total Depth: 25 ft
Logged By: MI	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: E14A- Carteret Ave.		Surface Elevation: 12.5 ft NAVD88
		(Note bgs = below ground surface)

hvsica	By: MI	n: F14	A- Cartere	t Ave		oject Manager:		Depth to Water: N Surface Elevation:	12.5 ft NAVD88
пузісс	ai Locatio		rA- Odricio	i Avc.				(N	ote bgs = below ground surface)
Depth lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cover and T	hickness:	Sample ID
25									
23									
	nts: 1) 3 atte								



Boring ID: P4-EE21A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611433.137

Date Started Drilling: 12/10/2014 10:10:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 682678.79

 Date Finished Drilling:
 12/10/2014 11:30:00 AM
 Core Size:
 3.0 in
 Boring Total Depth:
 20 ft

 Logged By:
 SS
 Project Manager:
 Scott Mikaelian
 Depth to Water:
 N/A

i yolot	ai Loodtio		rteret Aver			- Ourlace Lie	vation: 10.4 ft NAVD88 (Note bgs = below ground surface)
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
_		0.0		ASPHALT		ASPHALT.	
1—		0.0	dry	FILL		fine to medium SAND,little fine gravel,little ash,trace debris,(7.5YR 2.5/2) very dark brown,loose,dry,no	P4-EE21A-1.0-1.5
3	5					odor,no staining.	P4-EE21A-2.0-2.5
4							P4-EE21A-4.0-4.5
5—		0.0	slightly moist	FILL		fine to medium SAND,little ash,trace brick,trace coal,(7.5YR 2.5/3) very dark brown,loose,slightly moi moist,no odor,no staining.	
, , _	5					g.	P4-EE21A-6.0-6.5
9		0.0	wet	FILL		fine silty SAND,little ash,little fine to medium gravel,(2.5/1) black,loose,wet to saturated,slight petroleum odor,sheen.	5YR P4-EE21A-8.0-8.5
0				NR		NO RECOVERY.	
1—		0.0	wet	FILL		medium GRAVEL, little fine sand, (7.5YR 2.5/1) black, loose, wet, strong petroleum odor, sheen.	P4-EE21A-11.0-11.5
2— 3—	4						P4-EE21A-12.0-12.5
4—		0.0	dry	FILL		fine SAND, little fine gravel, (10YR 5/2) grayish brown, loose, dry to slightly moist, slight petroleum odd staining.	
						5	P4-EE21A-14.0-14.5 P4-EE21A-14.5-15.0
5 - 6 -		0.0	slightly moist	PT		PEAT (degraded vegetated material),(50% organic s 50% organic fibers),(7.5YR 4/3) brown,medium stiff,slightly moist,moderate organic odor,no staining. Soils consistent with MM.	
7— 8—	5	0.0	slightly moist	OL		UNDorg SILT,(70% organic silt, 30% organic fibers),(10YR 4/2) dark grayish brown,low plasticity soft,slightly moist,slight organic odor,no staining. Soi consistent with UNDorg.	ls
9—							
20							
nmen	its: 1) Three	attemn	ts were mad	e 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

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-F14A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610860 Date Started Drilling: 3/13/2014 9:45:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683214 Date Finished Drilling: 3/13/2014 10:30:00 AM Core Size: 2.0 in Boring Total Depth: 25 ft Depth to Water: NA Logged By: MI Project Manager: Chris Martell Surface Elevation: 12.4 ft NAVD88 Physical Location: F14A- Carteret Ave.

Depth	Recovery	PID	Moisture	11000	Graphic	·	gs = below ground surface) Sample
ange bgs)	(ft/ft)	(ppm)	Content	USCS	Log	Surface Cover and Thickness:	ID
				NR		Boring advanced directly to 5 ft bgs.	
-1-							
. +							
2—	0						
3—							
-							
4-							
_							
5—		0.0	moist	FILL		fine to medium silty SAND, with fine to medium gravel, (7.5YR 4/3) brown, loose, moist, no odor, no staining.	
6		0.0	moist	FILL		fine silty SAND, trace coal, fine gravel, (7.5YR 2.5/1) black, dense, moist, no odor, no staining.	P4-F14A-6.0-6.5
7—	F	0.0	moist	FILL		fine to medium silty SAND, little fine gravel, trace brick	
	5		to			fragments, ash, (7.5YR 5/3) brown, moist to wet, no odor,	
8			wet			no staining.	P4-F14A-8.0-8.5
9—							
\dashv							
10		0.0	wet	FILL		fine silty SAND, trace fine gravel, (7.5YR 5/3) brown, loose	P4-F14A-10.0-10.5
11—			to saturated			to dense, wet to saturated, no odor, no staining.	
``							
12—	_					-	P4-F14A-12.0-12.5
	5	0.0	moist	FILL		SILT, little roots trace cinders, (7.5YR 2.5/2) very dark	
13—		0.0	wet	FILL		brown, non plastic, soft, moist, no odor, no staining. fine silty SAND, trace fine gravel, (7.5YR 5/3) brown, loose	
14		0.0	moist	FILL		to dense, wet, no odor, no staining. fine to medium SAND, little silt, little fine to medium gravel,	P4-F14A-14.0-14.5
-						(7.5YR 4/1) dark gray, loose, moist, no odor, no staining.	P4-F14A-14.5-15.0
15		0.0	moist	OL		UNDorg SILT, 90% organic silt, 10% organic fibers, (7.5YR	P4-F14A-15.0-15.5
16-		0.0	slightly	PT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2.5/2) very dark brown, low plasticity, soft, moist, moderate organic odor, no staining. Soils consistent with UNDorg.	
-		0.0	moist		1, 11, 1	PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 2.5/2) very dark brown, stiff, slightly	P4-F14A-16.0-16.5
17—	_	0.0	moist	SM		moist, strong organic odor. Soils consistent with MM.	
40	5					UNDno fine to medium SAND, some silt, (7.5YR 5/1) gray, dense, moist, no odor, no staining. Soils consistent with	
18—						UNDno.	P4-F14A-18.0-18.5
19-							
\dashv							
20		0.0	moist	SM		UNDno fine to medium SAND, some silt, (7.5YR 5/1) gray,	P4-F14A-20.0-20.5
21—						dense, moist, no odor, no staining. Soils consistent with UNDno.	
- '		0.0	slightly moist	SP		UNDno fine to medium SAND, with fine to medium gravel,	
22-	_		1110101			(2.5YR 4/8) red, loose to hard, slightly moist, no odor, no staining. Soils consistent with UNDno.	
_	5						
23—							
1							



Boring ID: P4-F14A

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	-
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610860
Date Started Drilling: 3/13/2014 9:45:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683214
Date Finished Drilling: 3/13/2014 10:30:00 AM	Core Size: 2.0 in	Boring Total Depth: 25 ft
Logged By: MI	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: F14A- Carteret Ave.		Surface Elevation: 12.4 ft NAVD88
-		All the best server and a street

Date F	inisnea Dr	illing:	3/13/2014	10:30:00 Ar	VI C	core Size: 2.0 in	Boring Total Depth:	25 II
Logge	d By: MI	F1	11 0	4 4	F	Project Manager: Chris Martell	Depth to Water: NA	10.4.6.NAV/D00
Physic	al Locatio	n: F14	+A- Cartere	et Ave.			Surface Elevation:	12.4 ft NAVD88 e bgs = below ground surface)
							(NOI	e bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickne	ess:	Sample ID
25								
?								
2								
5								
) -								
	nts: 1) 3 atte	empts w	ere made to	obtain best re	coverv 2)	MM/UND confirmed to be 1 ft thick 3) No COPR or	GGM encountered in any	interval of this boring.
:1	, , , ,	,			/ -			-



Boring ID: P4-FF22A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Project Number: 60240739 Drilling Method: Direct Push Coordinates (NJSPNAD83) x: 611444.244

Date Started Drilling: 12/10/2014 9:10:00 AM Rig Type: Geoprobe Coordinates (NJSPNAD83) y: 682640.07

Date Finished Drilling: 12/10/2014 10:00:00 AM Core Size: 3.0 in Boring Total Depth: 15 ft

Logged By: SP

Project Manager: Scott Mikaelian Depth to Water: N/A

		illing:	12/10/20	14 10:00:00 A		ore Size: 3.0 in	Boring Total Depth:	
	d By: SP				P	roject Manager: Scott Mikaelian	Depth to Water: N/	
Physic	al Locatio	n: <u>Ca</u>	rteret Aver	nue			Surface Elevation:	
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr		te bgs = below ground surface) Sample ID
		0.0		ASPHALT		ASPHALT.		
1_		0.0		CONCRETE	0 4 0 0	CONCRETE.		
		0.0	dry	FILL		ASH,trace gravel,trace ceramics,trace v	wood	P4-FF22A-1.5-2.0
2	1 _		,			fragments,(10YR 3/1) very dark gray,loc	ose,dry,no	P4-FF22A-2.0-2.5
 3 4	5					odor,no staining.	·	P4-FF22A-4.0-4.5
—5— – – —6—	-	6.5	moist	FILL		ASH,trace gravel,trace glass,trace cera fragments,(10YR 2/1) black,loose to me dense,moist,slight petroleum odor.	mics,trace wood edium	P4-FF22A-6.0-6.5
 7	5							F 4-1 1 22A-0.0-0.3
		8.1	saturated	FILL		fine to medium silty SAND,trace gravel,	trace glass,trace	
8 9 	-					wood fragments,trace ceramics,(10YR plasticity soft to medium dense,saturate petroleum odor,sheen.	2/1) black,low ed,slight	P4-FF22A-8.0-8.5
10 11 	-	0.0	saturated	FILL		fine to medium silty SAND,trace gravel, metal scraps,(10YR 4/4) dark yellowish plasticity soft,saturated,no odor,no stair	brown,low	P4-FF22A-10.0-10.5
—12— —13— 	5							P4-FF22A-12.0-12.5
14								P4-FF22A-13.5-14.0
- 1 4 15		0.0	slightly moist	PT	7 77 7	PEAT (degraded vegetated material),(6 40% organic fibers),(10YR 4/3) brown,I plasticity,medium dense,slightly moist,r	ow	P4-FF22A-14.0-14.5
						odor,no staining. Soils consistent with N	VIIVI.	
Camma	nte: 1) Thro	attemn	te were mad	e to obtain best	t recovery 2	2) UND/MM confirmed to be 1 ft thick 3) No COPR of	or GGM present in any inte	erval of this horing

3 - 2012-09 RA PPG_LOGS_A.GDT - 8/11/15 15:59

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-G14A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 610887 Date Started Drilling: 3/11/2014 1:09:00 PM Rig Type: Coordinates (NJSPNAD83) y: 683201 Date Finished Drilling: 3/11/2014 1:55:00 PM Core Size: 2 in Boring Total Depth: 25 ft Depth to Water: NA Logged By: MI & FM Project Manager: Chris Martell Physical Location: G14A- Carteret Ave. Surface Elevation: 12.4 ft NAVD88

Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.	
-1-							
4							
2-	0						
	0						
3-							
4							
\dashv							
5		0.0	moist	FILL		fine to medium SAND, (7.5YR 2.5/3) very dark brown,	
_						medium stiff, moist, no odor, no staining.	
-6-		0.0	dry	FILL		fine to medium silty SAND, (5YR 4/3) reddish brown, soft to	P4-G14A-6.0-6.5
-7—			to moist			medium dense, dry to moist, no odor, no staining.	
\dashv	5						
-8-						-	P4-G14A-8.0-8.5
_ +							
9-							
10							
_		0.0	wet	FILL		fine to medium silty SAND, little wood fragments, (10YR 5/2) grayish brown, loose, wet, no odor, no staining.	P4-G14A-10.0-10.5
11—						grayion brown, rocco, not, no cast, no crammig.	
_ +		0.0	wet	FILL		fine to medium silty SAND, with ash, little coarse gravel,	
12	5					(5YR 4/4) reddish brown, soft to medium dense, wet, no odor, no staining.	P4-G14A-12.0-12.5
13-		0.0	moist	FILL		fine to medium silty SAND, trace coarse gravel, (10YR 5/2)	
4						grayish brown, medium dense, moist, no odor, no staining.	
14							P4-G14A-14.0-14.5
45		0.0	dry	PT	<u> </u>	PEAT (degraded vegetated material), (7.5YR 3/2) dark	P4-G14A-14.5-15.0
15		0.0	dry	PT	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	brown, dense, dry. Soils consistent with MM. PEAT (degraded vegetated material), (7.5YR 3/2) dark	
16					V 71V 7	brown, very dense, dry, no odor, no staining. Soils consistent	5, 6, , , , , , , ,
-					<u> </u>	with MM.	P4-G14A-16.0-16.5
17—	_				1, <u>11, 11, 1</u>		
	5	0.0	moist	SM		fine to medium silty SAND, some gravel, (7.5YR 5/1) gray,	
18			to wet			medium dense, moist to wet, no odor, no staining. Soils consistent with UNDno.	P4-G14A-18.0-18.5
19			WCt			CONSISTENT WITH ONLONG.	
4							
20		0.0	moist	SM		fine to medium silty SAND, (5YR 5/1) gray, moist, no odor,	P4-G14A-20.0-20.5
_		0.0	moist	SW		no staining. Soils consistent with UNDno.	j <u>20.0</u> <u>20.0</u>
21—			to wet			fine to coarse SAND, with gravel, (5YR 4/3) reddish brown, medium dense, moist to wet, no odor, no staining. Soils	
-22			wet			consistent with UNDno.	
	5						
23-							
4							



Boring ID: P4-G14A

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	-
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610887
Date Started Drilling: 3/11/2014 1:09:00 PM	Rig Type:	Coordinates (NJSPNAD83) y: 683201
Date Finished Drilling: 3/11/2014 1:55:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: MI & FM	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: G14A- Carteret Ave.		Surface Elevation: 12.4 ft NAVD88
-		

Logged	d By: MI &	k FM		et Ave.	Proje	ect Manager:	Chris Martell		Depth to Water: NA Surface Elevation:	12.4 ft NAVD88
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cover a	nd Thickn		e bgs = below.ground.surface) Sample ID
-25										
omme	n ts: 1) 3 atte	empts we	ere made to	obtain best re	covery 2) MM/l	JND confirmed	to be 1 ft thick 3) N	o COPR or	GGM encountered in any	interval of this boring.

PPG LOGS.GDT - 11/17/14 10:21

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-HAL-Y20A

 Project Name:
 PPG Garfield Ave
 Drilling Company:
 SGS North America

 Project Number:
 60240739
 Drilling Method:
 Geoprobe
 Coordinates (NJSPNAD83) x:
 611283.761

 Date Started Drilling:
 9/25/2014 9:10:00 AM
 Rig Type:
 Coordinates (NJSPNAD83) y:
 682791.299

 Date Finished Drilling:
 9/25/2014 9:55:00 AM
 Core Size:
 3.0 in
 Boring Total Depth:
 20 ft

 Logged By:
 SP
 Project Manager:
 Scott Mikaelian
 Depth to Water:
 NA

Surface Elevation: 11.3 ft NAVD88 Physical Location: Halliday ote bgs = below ground surface Depth Recovery PID Moisture Graphic Sample Range **USCS** Surface Cover and Thickness: (ft/ft) (ppm) Content Log ID (ft bgs) 0.0 **ASPHALT** ASPHALT, with concrete. 0.0 P4-HAL-Y20A-2.0-2.5 dry FILL fine to coarse SAND, trace gravel, trace ash, (10YR 5/2) 5 grayish brown, non plastic, loose, dry, no odor. 0.0 **FILL** dry CINDERS, trace gravel, trace wood fragments, trace coal, trace ceramics, (10YR 5/1) gray, non plastic, loose, dry, no odor. P4-HAL-Y20A-4.0-4.5 0.0 moist **FILL** CINDERS, trace ceramics, trace wood fragments, trace gravel, (10YR 5/1) gray, non plastic, loose, moist, no odor. P4-HAL-Y20A-6.0-6.5 5 P4-HAL-Y20A-8.0-8.5 27.1 moist **FILL** fine to medium silty SAND, trace gravel, (10YR 2/1) black, non plastic, soft, moist, moderate petroleum odor, P4-HAL-Y20A-10.0-10.5 0.5 saturated **FILL** fine to medium silty SAND, trace ceramics, trace wood fragments, trace gravel, (5YR 3/4) dark reddish brown, non plastic, saturated, no odor, sheen. P4-HAL-Y20A-12.0-12.5 5 -13 P4-HAL-Y20A-14.0-14.5 0.0 **FILL** fine to medium silty SAND, trace gravel, (5YR 3/4) dark wet reddish brown, non plastic, soft, wet, no odor. -16 P4-HAL-Y20A-16.0-16.5 P4-HAL-Y20A-17.0-17.5 5 P4-HAL-Y20A-17.5-18.0 0.0 moist PT PEAT (degraded vegetated material), 60% organic silt, 18 40% organic fibers, (10YR 3/3) dark brown, medium 1, 11, dense, moist, moderate organic odor. Soils consistent 11/ 11/ with MM. 19 1/ 1/1/ 1 20

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.

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-I14A

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	_
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610940
Date Started Drilling: 3/14/2014 10:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683174
Date Finished Drilling: 3/14/2014 11:25:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: MI & FM	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: 114A- Carteret Ave.	-	Surface Elevation: 12.1 ft NAVD88

Depth Range t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
_ -1				NR		Boring advanced directly to 5 ft bgs.	
-2 -3	0						
-4- -							
-5 - -6		0.0	slightly moist	FILL		medium to coarse SAND, with fine to coarse gravel, trace COPR cinders, (10YR 5/2) grayish brown, loose, slightly moist, no odor.	
-7 -8 -9	5	0.0	wet to saturated	FILL		fine to medium silty SAND, some fine to medium gravel, (2.5YR 4/3) reddish brown, loose, wet to saturated, no odor.	
10— 11— - 12—		0.0	wet to saturated	FILL		fine to medium silty SAND, some fine to medium gravel, (2.5YR 4/3) reddish brown, loose, wet to saturated, no odor.	P4-I14A-10.0-10.5
13— 13— — 14—	5						P4-I14A-12.0-12.5
_		0.0	moist	FILL		SILT, some fibers, little wood fragments, ash, (10YR 5/2)	P4-I14A-14.5-15.0
15 <u> </u>		0.0	moist	OL		grayish brown, non plastic, moist, no odor. UNDorg SILT, 90% organic silt, 10% organic fibers, (10YR 5/2) grayish brown, moist, no odor.	P4-I14A-15.0-15.5
16— - 17— -	5	0.0	dry to moist	PT		PEAT (degraded vegetated material), 80% organic silt, 20% organic fibers, (7.5YR 2.5/2) very dark brown, dry to moist, strong organic odor, no staining. Soils consistent with MM.	P4-I14A-16.0-16.5
18— — 19— —		0.0	moist	ML		UNDno SILT, trace roots, (7.5YR 5/1) gray, low plasticity, stiff, moist, no odor, no staining. Soils consistent with UNDno.	P4-I14A-18.0-18.5
20— — 21— —		0.0	moist	SM		UNDno fine SAND, little silt, (10YR 7/1) light gray, loose to dense, moist, no odor, no staining. Soils consistent with UNDno.	P4-I14A-20.0-20.5
22 - 23	5	0.0	moist	SP		UNDno fine to medium SAND, with fine to medium gravel, (5YR 4/3) reddish brown, loose to hard, moist, no odor, no staining. Soils consistent with UNDno.	



Boring ID: P4-I14A

		1 ugo: 2		
Project Name: PPG Garfield Ave	Drilling Company: SGS North America			
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610940		
Date Started Drilling: 3/14/2014 10:50:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683174		
Date Finished Drilling: 3/14/2014 11:25:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft		
Logged By: MI & FM	Project Manager: Chris Martell Depth to Water: NA			
Physical Location: 114A- Carteret Ave.		Surface Elevation: 12.1 ft NAVD88		
		(Note bgs = below ground surface)		
		, , , , , , , , , , , , , , , , , , , ,		

	By: MI 8		A O	A		Project Manager:	Chris Martell		Depth to Water:	NA 12	4.#.NA\/D00
Physic	al Location	n: 114	A- Carteret	Ave.				;	Surface Elevation	(Note ba	.1 ft NAVD88 s = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cover ar	d Thicknes	SS:		Sample ID
25						•					
20											
ommei	nts: 1) 3 atte	mpts we	ere made to	obtain best re	ecovery 2)	MM/UND confirmed t	o be 1 ft thick.				

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Boring ID: P4-J14A

		i ugo. i
Project Name: PPG Garfield Ave	Drilling Company: SGS North America	_
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610968
Date Started Drilling: 3/14/2014 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683161
Date Finished Drilling: 3/14/2014 10:20:00 AM	Core Size: 2.0 in	Boring Total Depth: 25 ft
Logged By: SS	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: J14A- Carteret Ave.		Surface Elevation: 12.1 ft NAVD88
		(Note has = holow ground surface)

Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content		Graphic Log	Surface Cover and Thickness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.	
-1							
_							
-2							
_	0						
-3							
_							
4							
4							
_							
-5		0.0	moist	FILL		medium SAND, some coarse gravel, little ash, little cin	iders.
_						trace ceramics, (10YR 5/2) grayish brown, dense, moi	ist, no
-6						odor, no staining.	
_		0.0	,,,-4	FILE		CCM with eithy and little access ground little size days	/FCV
-7		0.0	wet	FILL		GGM, with silty sand, little coarse gravel, little cinders, 6/2) light grayish green, soft, wet, no odor, no staining	(30)
_	5					orzy light grayion gracin, sort, wat, no odor, no staining	
-8							
_							
- 9							
9							
-10		0.0	wet	FILL		GGM, with silty sand, trace coarse gravel, (5Y 6/2) light	nt olive
_						gray, soft, wet, no odor, no staining.	
-11							
_							
-12							
_	5						
-13							
_							
-14							
14		0.0	moist	FILL		CLAY, little silt, (7.5YR 2.5/1) black, low plasticity, soft	t,
		0.0	moist	FILL		moist, no odor, no staining.	
-15		0.0	dry	OL		fine to medium silty SAND, little coarse gravel, trace w fragments, (7.5YR 3/3) dark brown, medium dense, m	7000
_						\no odor, no staining.	
-16						UNDorg fine to medium silty SILT, trace 90% organic	silt,
_		0.0	moist	PT	\11, \11,	5% organic fibers, trace fine sands, (7.5YR 4/2) brown	
-17		0.0	1110131		1, 11, 1	plasticity, soft, dry, no odor, no staining. Soils consiste UNDorg.	sit with
_	5				<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	PEAT (degraded vegetated material), 80% organic fibe	ers,
18-						20% organic silt, (7.5YR 2.5/2) very dark brown, medi	um
_					\(\frac{1}{1}\)\(\frac{1}{1}\)\(\frac{1}{1}\)	dense, moist, strong organic odor, no staining. Soils consistent with MM.	P4-J14A-18.0-18.5
19					<u>/// ///</u>	CONSISTENT WILLI IVIIVI.	
_					1, 11, 1		
20					11, 11,		
20		0.0	moist	SM		UNDno medium SAND, trace coarse gravel, (2.5Y 5/1) gray, P4-J14A-20.0-20.5
			to	Re-review of	- D - 244 1 A14 1 B	dense, moist to wet, no odor, no staining. Soils consist	tent
-21			wet	soil descrip	tions	with UNDno.	
_				indicates th	e USCS		
22				for this inte	15 11 21 21 21		
_	5			SP.			
23		0.0	4			LINIDan fine to madicine CANID little 1 (0.5	TVD
_		0.0	wet	SP		UNDno fine to medium SAND, little coarse gravel, (2.5 4/3) reddish brown, medium dense, wet, no odor, no) IN
				1	4.55	Troj reduish brown, medium dense, wet, no odor, no	



Boring ID: P4-J14A

		r ugo. z					
Project Name: PPG Garfield Ave	Drilling Company: SGS North America						
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 610968					
Date Started Drilling: 3/14/2014 10:00:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683161					
Date Finished Drilling: 3/14/2014 10:20:00 AM	Core Size: 2.0 in	Boring Total Depth: 25 ft					
Logged By: SS	Project Manager: Chris Martell	Depth to Water: NA					
Physical Location: J14A- Carteret Ave. Surface Elevation: 12.1 ft NAVD88							
		(Note bgs = below ground surface)					
		, , , , , , , , , , , , , , , , , , ,					

Date F	inished Dri	lling:	3/14/2014	10:20:00 AN	Л	Core Size: 2.0 in	Boring Total Depth:	25 ft
Logged	d By: SS					Project Manager: Chris Martell	Depth to Water: NA	\
Physic	al Location	n: J14	A- Cartere	t Ave.		-	Surface Elevation:	12.1 ft NAVD88
							(Not	e bgs = below ground surface)
Denth								
Depth Range (ft bgs)	Recovery	PID	Moisture	USCS	Graphi	Surface Cover and Thickr	1000.	Sample
(ft has)	(ft/ft)	(ppm)	Content	0303	Log	Surface Cover and Trilcki	1000.	ID.
(it bgs)								
						staining. Soils consistent with UNDno.		
⊢ −								
25								
1								
1								
1								
1								
1								
1								
1								
1								
1								
1								
<u>:</u>								
:[
1								
1								
3								
il .								
2]								
<u> </u>								
Comme	nts: 1) 3 atte	mpts we	ere made to	obtain best re	covery 2	MM/UND confirmed to be 1 ft thick.		

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Boring ID: P4-K14A

Page: 1

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Project Name:PPG Garfield AveDrilling Company:SGS North AmericaProject Number:60240739Drilling Method:GeoprobeCoordinates (NJSPNAD83) x:610994Date Started Drilling:3/14/2014 9:00:00 AMRig Type:Coordinates (NJSPNAD83) y:683147

 Date Finished Drilling:
 3/14/2014 9:20:00 AM
 Core Size:
 2.0 in
 Boring Total Depth:
 25 ft

 Logged By:
 SS
 Project Manager:
 Chris Martell
 Depth to Water:
 NA

							(Note bgs = be	low ground surface)
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:		Sample ID
				NR		Boring advanced directly to 5 ft bgs.		
-1-								
4								
2—								
_	0							
3—								
4								
4								
5—		0.0	dry	FILL		medium SAND, some coarse gravel, some asl	little cinders	
_		0.0	dry	FILL		√ (7.5YR 3/2) dark brown, medium dense, dry, r	o odor, no	
6-						\staining. GGM and silty sand, little coarse gravel, (5GY)		
7—						green, medium dense, dry, no odor, no staining	g.	
4	5							
8-								
, –								
9-								
10-		0.0						
-		0.0	dry	FILL		GGM, with fine to medium sand, little coarse g 5/4) light olive green, medium dense, dry, no d	ravel, (5GY dor, no	
11—						staining.	,	
12	5							
13		0.0						
-		0.0	moist to	FILL		CLAY, little silt, (7.5YR 2.5/1) black, low plasti moist to wet, no odor, no staining.	city, soft,	
14—			wet					
45								
15		0.0	moist	FILL		CLAY, little silt, (7.5YR 2.5/1) black, low plasti	•	
16-		0.0	to wet _			moist to wet, no odor, no staining.		P4-K14A-15.5-16.0
-		0.0	dry to	OL		UNDorg fine to medium silty SAND, (80% organic fibers), trace wood fragments, (7.5YR	3/2) dark	P4-K14A-16.0-16.5
17—	5		moist			brown, low plasticity, soft, dry to moist, no odo Soils consistent with UNDorg.	r, no staining.	
18	5	0.0	dry	OL	 	UNDorg SILT, 90% organic silt, 5% organic filt	ers, trace	
10			to moist			wood fragments, (5YR 4/1) dark gray, low plas medium dense, dry to moist, no odor, no staini	iticity, soft to ng. Soils	P4-K14A-18.0-18.5
19—						consistent with UNDorg.		
\dashv								
20-		0.0	wet	SM		UNDno fine to medium SAND, (2.5Y 6/1) gray		P4-K14A-20.0-20.5
21—						medium dense, wet, no odor, no staining. Soils with UNDno.	s consistent	
- ' -						mai diabilo.		
22-								
\dashv	5	0.0	moist	SP		UNDno medium SAND, (2.5YR 3/6) dark red,	dense. moist	
23-				٥.		no odor, no staining. Soils consistent with UNI		
\dashv								



Boring ID: P4-K14A

ate Started ate Finish ogged By: hysical Lo	nber: 60240 d Drilling: ed Drilling: SS pocation: K1 Decry PID (ppm)	3/14/2014 3/14/2014 4A- Cartere Moisture	et Ave.	M AM	Rig Type: Core Size: 2 Project Mana	ger: Chris Mar	cover and Thickr	Coordinate Boring Tota Depth to W Surface Ele	evation: 12.2	3) y : 683147 ft	
eate Finish ogged By: hysical Lo Depth eange t bgs)	SS K1	3/14/2014 4A- Cartere Moisture	et Ave.	AM Graphi	Core Size: 2 Project Mana	ger: Chris Mar		Boring Tota Depth to W Surface Ele	al Depth: 25 f later: NA evation: 12.2	ft NAVD88 below.ground.surface)	
ogged By: hysical Lo Depth ange t bgs)	SS cation: K1	4A- Cartere	et Ave.	Graphi	Project Mana	ger: Chris Mar		Depth to W Surface Ele	tater: NA evation: 12.2	ft NAVD88 below ground surface)	
Depth ange t bgs)	overy PID	Moisture	Hece	Graphi				Surface Ele	evation: 12.2	below ground surface) Sample	
repth ange bgs)	overy PID	Moisture	Hece	Graphi Log	С	Surface C	Cover and Thickr			below ground surface) Sample	
ange (ft.	overy PID (ppm)			Graphi Log	С	Surface C	Cover and Thickr	ness:		Sample	3
-25					.]						
				1							

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Boring ID: P4-M14A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611047 Date Started Drilling: 3/6/2014 11:15:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683118 Date Finished Drilling: 3/6/2014 12:15:00 PM Core Size: 2 in Boring Total Depth: 25 ft Depth to Water: NA Logged By: MI Project Manager: Chris Martell Physical Location: M14A - Carteret Ave. Surface Elevation: 12.3 ft NAVD88

epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		FILL		DGA	
1-		0.0	slightly moist	FILL		COPR, little fine sand, trace cinders, (2.5YR 3/6) dark red, loose, slightly moist, no odor.	
2—	_						
3-	5						
`							
4—		0.0	moist	FILL		GGM, some fine to medium gravel, little cinders, (5GY 5/2) grayish green, stiff, moist, no odor, green staining.	
5—		0.0	moist	FILL		GGM, some fine to medium gravel, little cinders, (5GY 5/2) grayish green, stiff, moist, no odor, green staining.	
6—		0.0	moist	FILL		GGM, little fine sand, (10YR 7/6) yellow, soft, moist, no odor, green staining.	
7—	5						
8							
9—							
10		0.0	wet	FILL		GGM, little fine gravel, (5GY 4/4) olive green, stiff, wet, no odor, no staining.	
11—		0.0	moist	FILL		SILT, some fine sand, trace roots, wood fragments, (5GY 4/4) olive green, low plasticity, soft, moist, no odor, no	D4 M444 44 7 40 0
12—	5	0.0	slightly	PT		staining. PEAT (degraded vegetated material), 80% organic fibers	P4-M14A-11.7-12.2 P4-M14A-12.2-12.7
13-	Ū	0.0	moist		1, <u>11, 11</u>	20% organic silt, (7.5YR 2.5/3) very dark brown, stiff, slightly moist, strong organic odor, no staining. Soils consistent with MM.	
14					1, 11, 1 11, 11,	IVIIVI.	P4-M14A-14.0-14.5
15		0.0	slightly moist	PT	<u> </u>	PEAT (degraded vegetated material), 80% organic fibers 20% organic silt, (7.5YR 2.5/3) very dark brown, stiff, slightly	
16			moist		1/ 1// 1// 1	moist, strong organic odor, no staining. Soils consistent with	P4-M14A-16.0-16.5
17—					1, 11, 1	WIW.	
+	5				1/ 1// 1//		
18					71/ 71/ 7 (1/ 71/		P4-M14A-18.0-18.5
19—		0.0	moist	SM	/, \ /, \	UNDno SILT, little roots, (10YR 4/2) dark grayish brown, low plasticity soft to stiff, moist, no odor, no staining. Soils	
20-		0.0	moist	SM		consistent with UNDno. UNDno SILT, little roots, little fine sand, (10YR 4/1) dark	P4-M14A-20.0-20.5
21			.5.5			gray, low plasticity, soft to stiff, moist, no odor, no staining. Soils consistent with UNDno.	
22	5						
23-							

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Boring ID: P4-M14A

	702.004.07	LOO OIIIOO	terepriorie						Page: 2
Projec	t Name:	PPG Ga	arfield Ave			Drilling Company: SGS North America			
Projec	t Number:	60240	0739			Drilling Method: Geoprobe	Coordinates (NJSP)	NAD83) x: 611047	
Date S	tarted Dril	ling:	3/6/2014 1	1:15:00 AM		Rig Type:	Coordinates (NJSPN	AD83) y: 683118	
Date F	inished Dr	illing:	3/6/2014	12:15:00 PM		Core Size: 2 in	Boring Total Depth:	25 ft	
Logge	d By: MI					Project Manager: Chris Martell	Depth to Water: NA	\	
Physic	al Locatio	n: M1	4A - Carter	ret Ave.			Surface Elevation:	12.3 ft NAVD88	
							(Not	e bgs = below ground surface)	
Depth Range	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	iness:	Sample	

25 UNDno fine to medium SAND, with fine gravel, (2.5YR 5/6) red, loose to hard, moist, no odor, no staining. Soils consistent with UNDno.

30 Knightsbridge Road, Piscataway, NJ 08854

Boring ID: P4-M15A

Project	Name: F	60240	739	FO:00 AAA		Drilling Company: SGS North America Drilling Method: Geoprobe	Coordinates (NJSPN	
			3/7/2014 8:			Rig Type:	Coordinates (NJSPN/	
		illing:	3///2014 9	9:15:00 AM		Core Size: 2 in	Boring Total Depth:	
	IBy: MI					Project Manager: Chris Martell	Depth to Water: NA	
Physica	al Locatio	n: M1	5A- Cartere	t Ave.			Surface Elevation: 1	
					T		(Note	bgs = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thicl	kness:	Sample ID
				FILL		ASPHALT		
-1-			slightly moist	FILL		medium SAND, little crushed concrete, fine to medium gravel, (7.5YR 2.5/3) ve		
. 4			slightly	FILL		slightly moist, no odor, no staining.		
-2 -3 -1	5		moist			COPR, little fine sand, trace cinders, (2 loose to hard, slightly moist, no odor, sli		
-4 - -5								
5			slightly	FILL		COPR, little fine sand, trace cinders, (2	.5YR 3/6) dark red,	
٦ ٦			moist	ГПТ		loose to hard, slightly moist, no odor, sli		
-6 -			moist	FILL		GGM, little fine to medium sand, (5GY moist to wet, no odor, green staining.	4/4) olive green, soft,	
-7 -8	5							
-9 								
-10			moist	FILL	\bowtie	GGM, little fine to medium sand, (5GY	1/1) olive green soft	
-11 -12	5		moist	FILL		moist to wet, no odor, green staining. SILT, some fine to medium sand, little c (7.5YR 2.5/1) black, low plasticity, soft,	clay,trace cinders,	P4-M15A-12.0-12.5
-13 - -14			ali aladi.	DT		staining.		P4-M15A-14.0-14.5 P4-M15A-14.5-15.0
-15 			slightly moist	PT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	TEAT (acgraded vegetated material), of		1 1- 10110/A-14.0-10.0
			slightly	PT	1 2 27	strong organic odor, no staining. Soils o		
-16 -17 - -18	5		moist moist	OL		PEAT (degraded vegetated material), 80 20% organic silt, (7.5YR 3/2) dark brow strong organic odor, no staining. Soils c UNDorg SILT, 70% organic silt, 30% or 5/2) grayish brown, low plasticity, soft to moderate organic odor, no staining. Soi	0% organic fibers, n, stiff, slightly moist, consistent with MM. ganic fibers, (10YR o stiff, moist,	P4-M15A-16.0-16.5
_ -19 - -						UNDorg.		P4-M15A-18.0-18.5
-20 21 	5		moist	OL		UNDorg SILT, 70% organic silt, 30% or 5/2) grayish brown, low plasticity, soft to moderate organic odor, no staining. Soi UNDorg.	stiff, moist,	P4-M15A-20.0-20.5
- 23			moist	SM		UNDno SILT, some fine to meduim san gravel, (10YR 5/1) gray, low plasticity, s		



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Boring ID: P4-M15A

	732.304.32	200 onice	telephone						Page: 2
Projec	t Name: F	PPG Ga	arfield Ave			Orilling Company: SGS North America			_
Projec	t Number:	60240	0739			Orilling Method: Geoprobe	Coordinates (NJSPN	IAD83) x: 611014	
Date S	tarted Dril	ling:	3/7/2014 8:	:50:00 AM	F	Rig Type:	Coordinates (NJSPN	AD83) y: 683079	
Date F	inished Dr	illing:	3/7/2014	9:15:00 AM		Core Size: 2 in	Boring Total Depth:	25 ft	
Logge	d By: MI				F	Project Manager: Chris Martell	Depth to Water: NA		
Physic	al Locatio	n: M1	5A- Cartere	et Ave.			Surface Elevation:	12.7 ft NAVD88	
							(Not	e bgs = below ground surface)	
Depth Range (ft bgs)	Recovery (ft/ft)		Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ness:	Sample ID	

Physica	al Location	II. IVI I	OA- Carter	CI AVC.			(Not	12.7 ft NAVD88 e bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn		Sample ID
						no staining. Soils consistent with UNDno.		
25								
						WUND confirmed to be 1 ft thick.		

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Boring ID: P4-N15A

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611064
Date Started Drilling: 3/13/2014 11:10:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 683080
Date Finished Drilling: 3/13/2014 11:25:00 AM	Core Size: 2.0 in	Boring Total Depth: 25 ft
Logged By: MI & FM	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: N15A- Carteret Ave.		Surface Elevation: 12.5 ft NAVD88

Depth Range It bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.	
-1							
_							
-2	0						
J _							
-4							
_							
-5		0.0		- 111	XXXXX	CODD cores fine to readiline and little fine to readiline	
_		0.0		FILL		COPR, some fine to medium sand, little fine to medium gravel, (2.5YR 4/6) red, loose to hard.	
-6						, ,	
_							
-7	5	0.0	moist	FILL		ASH, with GGM, little cinders, fine gravel, loose, moist, no	
_						odor, green staining.	
_8		0.0	moist	FILL		GGM, some fine to medium sand, little ash, (5GY 6/4) pale	
-9						yellowish green, low plasticity, soft, moist, green staining.	
_							
-10							
_		0.0	moist	FILL		GGM, trace fine sand, trace cinders, (5GY 4/4) olive green, stiff, moist, no odor, green staining.	
-11						Stiff, filolost, filo odor, green stairing.	
_							
-12							
_	5						
-13							
		0.0	moist	FILL		SILT, little roots, (10YR 5/2) grayish brown, low plasticity,	
-14		0.0	moist	OL		soft to stiff, moist, no odor, no staining. UNDorg SILT, 90% organic silt, 10% organic fibers, low	
_ -15						plasticity, soft, moist, moderate organic odor, no staining.	
15					<u> </u>	Soils consistent with UNDorg.	
-16							
_					<u> </u>		P4-N15A-16.0-16.5
-17							
_	3.5				<u> </u>		
-18						-	P4-N15A-18.0-18.5
-				NR	 	NO RECOVERY	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
19				•			
-							
20 —		0.0	moist	SM		UNDno SILT, some fine sand, low plasticity, soft to stiff,	P4-N15A-20.0-20.5
						moist, no odor, no staining. Soils consistent with UNDno.	
		0.0		SP-SM		UNDno fine to medium SAND, some silt, dense. Soils consistent with UNDno.	
-22						CONSISTENT WITH CINDING.	
	5						
23							
_							
	1				16 SERING		

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Boring ID: P4-N15A

Drilling Company: SGS North America	
Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611064
Rig Type:	Coordinates (NJSPNAD83) y: 683080
Core Size: 2.0 in	Boring Total Depth: 25 ft
Project Manager: Chris Martell	Depth to Water: NA
	Surface Elevation: 12.5 ft NAVD88
	Drilling Method: Geoprobe Rig Type: Core Size: 2.0 in

Logged	By: MI 8	A 1 1V1	-		F		Cumfage Flouretters	10 F # NIAV/D00
Physica	al Location	n: N15	5A- Cartere	et Ave.			Depth to Water: NA Surface Elevation:	12.5 ft NAVD88 pbgs = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and T		Sample ID
25		0.0	moist	SP		UNDno fine to medium SAND, with loose to hard, moist, no odor, no stawith UNDno.	fine to medium gravel, aining. Soils consistent	
						MM/UND confirmed to be 1 ft thick.		

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Boring ID: P4-O16A

Project	Name: F	PPG Ga	rfield Ave			Drilling Company: SGS North America		Page
Project	Number:	60240	739			Drilling Method: Geoprobe	Coordinates (NJSPN	AD83) x: 611056
Date Sta	arted Dril	ling: _3	3/10/2014 9	9:30:00 AM		Rig Type:	Coordinates (NJSPN/	AD83) y: 683025
Date Fir	nished Dr	illing:	3/10/2014	10:50:00 AN	Л	Core Size: 2 in	Boring Total Depth:	25 ft
	By: MI					Project Manager: Chris Martell	Depth to Water: NA	
Physica	al Locatio	n: 016	A- Cartere	et Ave.			Surface Elevation: 1	
							(Note	bgs = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
		0.0		FILL	XXXX	ASPHALT		
-		0.0	moist	FILL	 	fine to medium SAND, some fine to medi	um gravel. (7.5YR	
-1-					\bowtie	3/2) dark brown, loose to hard, moist, no		
_		0.0	moist	FILL		GGM, little fine sand, little fine to medium olive green, low plasticity, soft, moist, gre		
-2-	5							
	5							
-3-								
\dashv								
-4		0.0	me:et	- FILL		CCM some sinders fire to readily	rol little fine seed	
4		0.0	moist	FILL		GGM, some cinders, fine to medium grav trace COPR, (5GY 5/2) gravish green, lo		
-5-		0.0				moist, no odor, green staining.	placticity, sort,	
		0.0	slightly	FILL		GGM, with cinders, some salt precipitate,		
-6-			moist			green, dense to hard, slightly moist, no or	dor, green staining.	
-6-								
_ 7		0.0	slightly	FILL		CINDERS, some fine to medium gravel, (
-7-	E		moist			dark gray, loose to hard, slightly moist, no	odor, slight green	
\dashv	5					staining.		
-8-						×		
4		0.0	slightly	FILL		CINDERS, some fine to medium gravel, I		
-9-		0.0	moist	FILL		sand, (7.5YR 3/1) very dark gray, loose to		
_			slightly moist			moist, no odor, green staining, slight gree GGM, little fine sand, trace cinders, COP		
-10			HIUISL			green, stiff, slightly moist, no odor, green		
10		0.0	slightly	FILL		GGM, little fine sand, trace cinders, COP		
			moist			green, stiff, slightly moist, no odor, green	staining.	
-11								
\dashv								
-12	_							
\dashv	5	0.0						
-13		0.0	slightly	FILL		fine SAND, some silt, trace cinders, coal,		
4		0.0	moist moist	OL		(7.5YR 5/1) gray, dense, slightly moist, no UNDorg SILT, 90% organic silt, 10% organ	o odor, no staining.	P4-O16A-13.3-13.8
-14			1110131		F	3/2) dark brown, low plasticity, stiff, moisi	t, moderate organic	P4-O16A-13.8-14.3
]					<u> </u>	odor, hydrocarbon staining. Soils consiste	ent with UNDorg.	0 10/1 10.0 14.0
_15					<u> </u>			
-15		0.0		PT	71/2 71/	TEAT (degraded vegetated material), 707		
,,					1, 11,	30% organic silt, (7.5YR 2.5/3) very dark		
-16		0.0	moist	OL	<u> </u>	organic odor, no staining. Soils consisten UNDorg SILT, 90% organic silt, 10% organic	t WITH MM.	P4-O16A-16.0-16.5
\dashv					<u> </u>	3/2) dark brown, low plasticity, stiff, moisi	t. moderate organic	
-17					H	odor, hydrocarbon staining. Soils consiste		
\dashv	5					1	-	
18-					<u> </u>	1		D4 O16A 10 0 10 F
4					<u> </u>	-		P4-O16A-18.0-18.5
-19					<u> </u>	1		
					[
_20					<u></u>			
20		0.0	moist	SM		UNDno SILT, trace organics, (10YR 4/2)		P4-O16A-20.0-20.5
_ 7			F	Re-review o	the so	brown, low plasticity, stiff, moist, no odor,	no staining. Soils	
-21			d	escriptions	Indicat	consistent with UNDno.		
\dashv				ne USCS fo	1, 14, 14 1, 1	1		
-22					, uno 11	RCI Val		
\dashv	5		is	ML.				
-23		0.0				100		
-		0.0	slightly moist	SM		UNDno fine SAND, some silt, (7.5YR 4/1		
			TOTAL	I	in alterate	slightly moist, no odor, no staining. Soils	CONSISTENT WITH	

PPG - PPG_LOGS.GDT - 4/15/14 17:43

Boring ID: P4-O16A

Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611056 Date Started Drilling: 3/10/2014 9:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683025 Date Finished Drilling: 3/10/2014 10:50:00 AM Core Size: 2 in Boring Total Depth: 25 ft Logged By: MI Project Manager: Chris Martell Depth to Water: NA Physical Location: 016A- Carteret Ave. Surface Elevation: 13.1 ft NAVD88 Depth Range (ft/ft) (ppm) Moisture (ppm) Moisture (ppm) Surface Cover and Thickness: Sample ID O.0 slightly SP-SM UNDno. UNDno fine to medium SAND, little silt, (5YR 5/2) reddish gray, loose, slightly moist, no odor, no staining. Soils	30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone Page: 2				
Project Number: 60240739	Project Name: PP				
Date Started Drilling: 3/10/2014 9:30:00 AM Rig Type: Coordinates (NJSPNAD83) y: 683025					
Date Finished Drilling: 3/10/2014 10:50:00 AM					
Project Manager: Chris Martell Depth to Water: NA					
Depth Range (ft/ft) PID Moisture (ppm) Moisture (ppm) USCS Graphic Log Surface Cover and Thickness: Sample ID O.0 slightly moist SP-SM UNDno. UNDno fine to medium SAND, little silt, (5YR 5/2) reddish gray, loose, slightly moist, no odor, no staining. Soils					
Depth Range (ft bgs) Recovery (ft/ft) PID (ppm) Moisture (content USCS Graphic Log Surface Cover and Thickness: Sample ID	Physical Location:				
Range (ft bgs) (ft/ft) (ppm) (state (ppm) (ppm) (state (ppm)					
UNDno fine to medium SAND, little silt, (5YR 5/2) reddish gray, loose, slightly moist, no odor, no staining. Soils	Depth Range (ft bgs) Recovery (ft/ft) (p				
consistent with UNDno.	25				
Comments: 1) 3 attempts were made to obtain best recovery 2) MM/UND confirmed to be 1 ft thick.					

AECOM

Boring ID: P4-P15A

	Name: F					Drilling Company: SGS North America		NA BOO) 04441=
	Number:					Drilling Method: Geoprobe	Coordinates (NJSP	
			3/7/2014 10			Rig Type:	Coordinates (NJSPN	
		illing:	3/7/2014 1	11:20:00 AM		Core Size: 2.0 in	Boring Total Depth:	
	By: MI					Project Manager: Chris Martell	Depth to Water: N	
hysic	al Locatio	n: P1:	5A - Cartere	et Ave.			Surface Elevation:	
							(No	ote bgs = below ground surface)
Depth Lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	kness:	Sample ID
		0.0		FILL		ASPHALT		
_		0.0]	FILL		fine to medium SAND, little fine to medi		
-1		0.0	moist	FILL	\longrightarrow	2.5/3) very dark brown, loose, no odor, r	no staining.	-
-2 -3	5	0.0	moist	I ILL		COPR, little fine sand, trace fine to med 4/8) red, loose, moist, no odor, slight gre		
-4 -5		0.0	moist	FILL		COPR, little fine sand, trace fine to med		
-6						4/8) red, loose, moist, no odor, slight gre		
-6		0.0	moist	FILL		CINDERS, some coal slag, oil-like mate	rial, little silt, trace	
-7 -8 -9	5					organic fibers, (7.5YR 2.5/1) black, loos napthalene odor, sheen.	e, moist, moderate	
-10 - -11		0.0	moist moist	FILL		SILT, some fine sand, little organic fiber material, (7.5YR 3/2) dark brown, moist odor, sheen.	, slight napthalene	_
-12 -13 	5	0.0	moist	112		SILT, some fine to medium sand, (5YR stiff, moist, no odor, no staining.	4/3) reddish brown,	
_						×		P4-P15A-13.5-14.0
-14 - -15		0.0	moist	OL		UNDorg SILT, 70% organic silt, 30% org 3/3) dark brown, soft to stiff, moist, moc no staining. Soils consistent with UNDo	lerate organic odor,	P4-P15A-14.0-14.5
.5		0.0	moist	OL	H	UNDorg SILT, 70% organic silt, 30% org	ganic fibers, (7.5YR	
-16					<u> </u>	3/3) dark brown, soft to stiff, moist, mod no staining. Soils consistent with UNDor	lerate organic odor,	D. 2
					<u> </u>	10 Stairing. Cons consistent with ONDO	· 3 ·	P4-P15A-16.0-16.5
17						1		
-17	5					1		
_						1		
-18					ļ	4		P4-P15A-18.0-18.5
_					<u> </u>	1		
19						1		
_					ļ.,	1		_
-20		0.0	moist	SM		UNDno SILT, little fine sand, (7.5YR 3/2		
-20 — — -21—		0.0	moist	SM		moist, no odor, no staining. Soils consis UNDno SILT, little fine sand, (7.5YR 3/2 moist, no odor, no staining. Soils consis	2) dark brown, soft, tent with UNDno.	P4-P15A-20.0-20.5
- 22 -	. 5	0.0	moist	SP-SM		UNDno fine to medium SAND, little fine (10YR 5/1) gray, loose to hard, moist. S UNDno.		
-23 — —		0.0	slightly moist	SP-SM		UNDno fine to coarse SAND, some fine (2.5YR 4/8) red, loose to hard, slightly n		1



30 Knightsbridge Road, Piscataway, NJ 08854

Boring ID: P4-P15A

	732.564.32	200 office	telephone						Page: 2
Project	Name: F	PPG Ga	arfield Ave		1	Drilling Company: SGS North America			
Project	Number:	60240	0739		1	Drilling Method: Geoprobe	Coordinates (NJSPN	IAD83) x: 611115	
Date Sta	arted Dril	ling: 3	3/7/2014 1	0:30:00 AM	l l	Rig Type:	Coordinates (NJSPN	AD83) y: 683053	
Date Fi	nished Dr	illing:	3/7/2014	11:20:00 AM		Core Size: 2.0 in	Boring Total Depth:	25 ft	
Logged	By: MI					Project Manager: Chris Martell	Depth to Water: NA		
Physica	I Locatio	n : P1	5A - Carter	et Ave.			Surface Elevation:	11.9 ft NAVD88	
							(Not	e bgs = below ground surface)	
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID	
I						staining. Soils consistent with UNDno.			

i ilyoloc	al Locatio	11.	or Cartor	017110.			rrface Elevation: 11.9 ft NAVD88 (Note bgs = below ground surface)
							(Note bgs = below ground surrace)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
						staining. Soils consistent with UNDno.	
25							
						M/UND confirmed to be 1 ft thick.	

AECOM

Boring ID: P4-P16A

			arfield Ave			Drilling Company: SGS North America		
roject	Number:	60240	739			Drilling Method: Geoprobe	Coordinates (NJSP)	NAD83) x: 611080.495
				0:00:00 AM		Rig Type:	Coordinates (NJSPN	IAD83) y: 683010.017
			3/14/2014	10:40:00 A		Core Size: 2 in	Boring Total Depth:	
	By: MI					Project Manager: Chris Martell	Depth to Water: NA	
Physica	al Locatio	n : P16	6A- Cartere	et Ave.			Surface Elevation:	
							(Not	te bgs = below ground surface)
Depth Range it bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	Surface Cover and Thi	ckness:	Sample ID
				NR		Boring advanced directly to 5 ft bgs.		
, 7								
' _								
_2								
	0							
3_								
J								
4-								
_								
5—		0.0	moist	FILL		GGM, little fine sand, trace cinders,		
۾ ٦					\bowtie	green, low plasticity, stiff, moist, no	odor, green staining.	
ъ-					\bowtie	8		
, \neg						8		
′ 🗆	2			NR		NO RECOVERY		
7	_							
8-								
\Box								
9-								
,,								
10		0.0	moist	FILL		GGM, little fine sand, trace cinders,		
,, T						green, low plasticity, stiff, moist, no		
11—						8		
<u>,</u> ,		0.0	slightly	FILL		fine to coarse SAND, with fine to coa	arse gravel, trace	
12-	5	0.0	moist	FILL		oil-like material, (7.5YR 4/2) brown,	loose, slightly moist, /	
,, T			slightly			\slight naphthalene odor.	onte trace reets	
13-		0.0	moist moist	FILL		fine silty GRAVEL, trace wood fragn (10YR 5/6) yellowish brown, slightly	moist, no odor	
, , T						SILT, some roots, fine to medium sa	ind, trace coarse	
14—					\bowtie	gravel, (10YR 3/3) dark brown, soft	o stiff, moist, no	
<u>,</u>						odor.		
15		0.0	moist	OL	<u> </u>	UNDorg SILT, 80% organic silt, 20%	6 organic fibers,	
, T					H	(10YR 4/2) dark gravish brown, stiff,	moist, moderate	
16—						organic odor. Soils consistent with L	NDorg.	P4-P16A-16.0-16.5
🖯					[
17—	5					-		
	5				 	 		
18 –					<u> </u>			P4-P16A-18.0-18.5
					[
19—					H	+		
_						. 		
20		0.0	moist	SM		UNDno SILT, some fine sand, trace	roots, (7.5YR 5/1)	P4-P16A-20.0-20.5
_, ⊣						gray, low plasticity, soft to stiff, mois	t, no odor, no	
-21					1414	staining. Soils consistent with UNDn	0.	
\Box						4		
22-	_					:		
\dashv	5					4		
23-		0.0	slightly	SP		UNDno fine to medium SAND, trace	wood fragments	
\dashv		3.5	moist	OI '		(7.5YR 7/1) light gray, loose, slightly	moist, no odor, no	
24-						staining. Soils consistent with UNDn	0	
\dashv		0.0	slightly	SP		UNDno fine to medium SAND, with	coarse gravel,	
25			moist		1 1 1 1 1 1 1 1	(2.5YR 4/6) red, loose to hard, slight staining. Soils consistent with UNDn	ly moist, no odor, no	
						Stairing. Sons consistent with UNDI	<u>o.</u>	

AECOM

Boring ID: P4-Q16A

	t Name: F t Number:					Drilling Company: SGS North America Drilling Method: Geoprobe	Coordinates (NJSPN	NAD83) x: 611138
				1:30:00 AM		Rig Type:	Coordinates (NJSPN	
				12:00:00 PM		Core Size: 2.0 in	Boring Total Depth:	
	d By: MI					Project Manager: Chris Martell	Depth to Water: NA	4
	al Location	n: Q1	6A - Carter	et Ave.			Surface Elevation:	11.9 ft NAVD88
							(Not	te bgs = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	kness:	Sample ID
_	-	0.0		ASPHALT		ASPHALT		
-1 -2 -3	5	0.0	moist to wet moist to wet	FILL FILL		fine to medium silty SAND, and coarse (10YR 4/3) brown, medium dense, mois GGM, little COPR, (10YR 5/3) brown, n to wet.	of to wet.	
-4- -	_	0.0	moist to	FILL		GGM, (10YR 5/3) brown, (2.5Y 5/2) gradense, moist to saturated, sheen.	ayish brown, medium	
-5— -		0.0	saturated wet	FILL		GGM, some cinders, (2.5Y 5/2) grayish dense, wet.	brown, medium	
-6 - -7	5	0.0	wet	FILL		COPR, some GGM, (2.5YR 5/3) reddist dense, wet, sheen.	n brown, medium	
-8 -9		0.0	wet	FILL		SILT, little oil-like material, trace fine gradark grayish brown, low plasticity, soft, vertoleum odor, sheen, diesel odor.		
-10 - -11 -	-	0.0	wet	FILL		fine to medium silty SAND, little coarse dark yellowish brown, medium dense, w odor sheen, diesel odor.		
-12 -13 -14	5	0.0	moist to saturated	FILL		fine to medium silty SAND, little coarse trace ceramics, (10YR 4/4) dark yellowi dense, moist to saturated.		P4-Q16A-14.0-14.5
_		0.0			XXXX			· ·
-15 -16		0.0	moist moist to wet	PT PT	\(\frac{1}{2}\frac{1}{	20% roots, (10YR 3/3) dark brown, low slight sulfur odor. Soils consistent with I PEAT (degraded vegetated material), 80	plasticity, stiff, moist, MM. 0% organic fibers,	P4-Q16A-14.5-15.0
_ -17 -	5		Wot			plasticity, medium soft, moist to wet. Śo MM.	sh brown, low ils consistent with	P4-Q16A-16.0-16.5
-18 - - -19 - -	-				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<u> </u>		P4-Q16A-18.0-18.5
-20 -21 -22	5	0.0	moist to wet moist to wet	PT SP-SM		PEAT (degraded vegetated material), (1 brown, low plasticity, medium soft, mois consistent with MM. fine to medium silty SAND, trace fine gray, medium dense, moist to wet. Soils UNDno.	t to wet. Soils avel, (10YR 6/1)	P4-Q16A-20.0-20.5
-23 -		0.0	moist	SP-SM		fine to medium silty SAND, some coarsi brown, medium dense, moist. Soils con-		



Boring ID: P4-Q16A

Page: 2

Drilling Company: SGS North America	
Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611138
Rig Type:	Coordinates (NJSPNAD83) y: 683008
Core Size: 2.0 in	Boring Total Depth: 25 ft
Project Manager: Chris Martell	Depth to Water: NA
	Surface Elevation: 11.9 ft NAVD88
	Drilling Method: Geoprobe Rig Type: Core Size: 2.0 in

1 ~~~~						Core Size: 2.0 in		epth: 25 ft
Logget	d By: MI				F	Project Manager: Chris Mart	ell Depth to Water	: NA
Physic	al Location	n: Q16	6A - Carter	et Ave.			Surface Elevat	ion: 11.9 ft NAVD88
								(Note bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	(ppm)	Moisture Content	USCS	Graphic Log		over and Thickness:	Sample ID
		0.0	moist	SP		fine to coarse SAND, som reddish brown, medium do UNDno.	e fine gravel, (5YR 3/3) dark ense, moist. Soils consistent with	
-25						ONDIIO.		
						MM/UND confirmed to be 1 ft thic		

AECOM

Boring ID: P4-R17A

30 Kr	732.564.32		telephone	18854					Page: 1
Project	t Name: F	PPG Ga	arfield Ave			Drilling Company: SGS North America			
Project	Number:	60240	0739			Drilling Method: Geoprobe	Coordinates (NJSPN	NAD83) x: 611121	
Date S	tarted Dril	ling: :	3/11/2014	11:15:00 AM		Rig Type:	Coordinates (NJSPN	AD83) y: 682958	
Date F	inished Dr	illing:	3/11/2014	4 11:45:00 AN	Λ	Core Size: 2 in	Boring Total Depth:	25 ft	
Logged	d By: MI					Project Manager: Chris Martell	Depth to Water: NA	\	
Physic	al Locatio	n : R1	7A- Carter	et Ave.		-	Surface Elevation:	12.3 ft NAVD88	
							(Not	e bgs = below ground surface)	
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	c Surface Cover and Thickn	ess:	Sample ID	
		0.0	moist	FILL FILL		ASPHALT fine to medium SAND, little fine gravel, tra	ace cinders, (7.5YR		

Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		FILL		ASPHALT	
		0.0	moist	FILL		fine to medium SAND, little fine gravel, trace cinders, (7.5YR	
-1		0.0	moist	FILL		2.5/2) very dark brown, loose, moist, no odor, no staining. GGM, some COPR, little salt precipitate, trace cinders, (5YR	
						5/2) reddish gray, low plasticity, soft, moist, no odor, green	
-2-						staining.	
_	5	0.0	- 15 - 1- 41			ONDEDO EM- and ask EM- for arrayal (7.5)/D 0.5(4)	
-3-		0.0	slightly moist	FILL		CINDERS, little coal ash, little fine gravel, (7.5YR 2.5/1) black, slightly moist, no odor, slight green staining.	
			IIIOISt			black, slightly filoist, filo odor, slight green staining.	
,							
-4							
-5-		0.0	slightly	FILL		CINDERS, little coal ash, little fine gravel, (7.5YR 2.5/1)	
-		0.0	moist	FILL		black, slightly moist, no odor, slight green staining.	
-6-		0.0	slightly	FILL		GGM, some cinders, little gravel, little salt precipitate, (5GY	
_			moist			5/4) light olive green, non plastic, soft, slightly moist, no	
_7						odor, green staining.	
']	5						
-8-		0.0	moist	FILL		GGM, some fine sand, trace salt precipitate, (5GY 4/4) olive	
-				_		green, low plasticity, soft to stiff, moist, no odor, green	
-9-						staining.	
-10							
. " _		0.0	moist	FILL		GGM, some fine sand, trace salt precipitate, (5GY 4/4) olive	
						green, low plasticity, soft to stiff, moist, no odor, green	
-11						staining.	
-12	_	0.0	moist	OL	<u> </u>	UNDorg SILT, 90% organic silt, 10% organic fibers, (7.5YR	P4-R17A-12.0-12.5
	5		1110101	OL.		3/2) dark brown, low plasticity, soft, moist, moderate organic	
-13					+=+	odor. Soils consistent with UNDorg.	
. 4							
-14							
							P4-R17A-14.0-14.5
45							
-15		0.0	moist	OL	===	UNDorg SILT, 95% organic silt, 5% organic fibers, (7.5YR	
					H	3/2) dark brown, low plasticity, soft, moist, moderate organic	
-16						odor. Soils consistent with UNDorg.	P4-R17A-16.0-16.5
-17		0.0	ali edeki	DT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	DEAT (degreeded vergeteted methodel) 000/	
. 4	5	0.0	slightly moist	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 2.5/3) very dark brown, stiff, slightly	
-18			IIIOISL		\(\triangle \(\triangle \) \(\triangle \)	moist, strong organic odor, no staining. Soils consistent with	
					<u>//// ////</u>	MM.	P4-R17A-18.0-18.5
40					1/ 1/1/ 1		
- 19					11, 11,		
		0.0	dry	OL	===	UNDorg SILT, 80% organic silt, 20% organic fibers, (10YR	
-20		0.0	dry	OL	 ==	√ 4/2) dark grayish brown, stiff, dry, strong organic odor, no /// /// /// /// /// /// // //	P4-R17A-20.0-20.5
-			. ,		H	staining. Soils consistent with UNDorg.	
-21		0.0	moist	SM		UNDorg SILT, 80% organic silt, 20% organic fibers, (10YR 4/2) dark grayish brown, stiff, dry, strong organic odor, no	
. 4		0.0	IIIOISI	JIVI		staining. Soils consistent with UNDorg.	
-22						UNDno fine SAND, some silt, (7.5YR 5/1) gray, dense,	
	5					moist, no odor, no staining. Soils consistent with UNDno.	
-23							
25							
_	1						



PPG - PPG_LOGS.GDT - 4/15/14 17:43

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Boring ID: P4-R17A

Page: 2

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611121
Date Started Drilling: 3/11/2014 11:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682958
Date Finished Drilling: 3/11/2014 11:45:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: MI	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: R17A- Carteret Ave.		Surface Elevation: 12.3 ft NAVD88
-		

Date Fi	nished Dr	illing:	3/11/2014	11:45:00 AM	1	Core Size: 2 in		Boring Total Depth:	25 ft
Logged	By: MI					Project Manager:	Chris Martell	Depth to Water: NA	
Physic	al Locatio	n : R1	7A- Cartere	et Ave.				Surface Elevation:	12.3 ft NAVD88
								(Note	bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphi Log	С	Surface Cover and Thickness	ess:	Sample ID
25						- 4			
Comme	nts: 1) 3 atte	empts we	ere made to	obtain best red	covery 2) MM/UND confirmed	to be 1 ft thick.		

A=COM

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Boring ID: P4-S17A

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611145

Date Started Drilling: 3/13/2014 10:25:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682943

Date Finished Drilling:3/13/2014 10:45:00 AMCore Size:2 inBoring Total Depth:25 ftLogged By:MI & FMProject Manager:Chris MartellDepth to Water:NA

						(NOIE	bgs = below ground surface)
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
		0.0		CONCRETE	P & 4 P 0	CONCRETE	
1— 2— 3— 4—	5	0.0	dry	FILL		fine to medium SAND, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.	
5		0.0	moist	FILL		medium to coarse gravelly SAND, some glass fragments,	
6—			to wet			little wood fragments, (7.5YR 4/1) dark gray, loose, moist to wet, no odor, no staining.	
7— 8—	5		we.				P4-S17A-6.0-6.5
9							P4-S17A-8.0-8.5
٦		0.0	moist	FILL		SILT, some roots, little fine sand, (7.5YR 5/1) gray, low	P4-S17A-10.0-10.5
11			to wet			plasticity, soft to stiff, moist to wet, no odor, no staining.	P4-S17A-12.0-12.5
-	5	0.0	wet	FILL	+	fine to medium silty SAND, little fine sand, (5YR 2.5/2) dark	1 4 0177 12.0 12.0
13 		0.0	WCt	I ILL		reddish brown, low plasticity, wet, no odor, no staining.	D. 0474 0
4		0.0		FILL		fire to mediate site OAND to a fire model (EVD 4/0)	P4-S17A-14.0-14.5
15		0.0	wet moist	FILL		fine to medium silty SAND, trace fine gravel, (5YR 4/3) reddish brown, low plasticity, loose, wet, no odor, no	
-		0.0	moist	LILL		\staining. /	
6						SILT, with fine to medum sand, trace roots, (10YR 5/2) grayish brown, low plasticity, soft, moist, no odor, no staining.	P4-S17A-16.0-16.5
17—	-						
	5						
18—							P4-S17A-18.0-18.5
9—							
_							P4-S17A-19.0-19.5
20-		0.0	moist	PT	71/ 71/	PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, medium dense, moist, moderate organic	P4-S17A-19.5-20.0
21		0.0	moist	PT	1, 11, 1	odor, no staining. Soils consistent with MM. PEAT (degraded vegetated material), 80% organic fibers,	
22—					<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	20% organic silt, (5YR 2.5/2) dark reddish brown, medium dense, moist, moderate organic odor, no staining. Soils consistent with MM.	
4	5	0.0	,	014	<u> </u>	OUT (7.5VD 5(4) many law planting to the control of	
23		0.0	wet	SM		SILT, (7.5YR 5/1) gray, low plasticity, medium dense, wet, no odor, no staining. Soils consistent with UNDno.	



Boring ID: P4-S17A

30 K	nightsbridge F 732.564.32	Road, Pise 200 office	cataway, NJ 0 telephone	08854							Page:
Proiec	t Name:	PPG Ga	arfield Ave			Drilling Company	: SGS North Am	nerica			. ugo.
	t Number:					Drilling Method:			Coordinates (NJS	PNAD83) x:	611145
				10:25:00 AM		Rig Type:			Coordinates (NJS		
				4 10:45:00 Al		Core Size: 2 in			Boring Total Dept		
	d By: MI		2 0. 201		-	Project Manager:	Chris Martell		Depth to Water:		
Physic	al Locatio	n: S1	7A- Cartere	et Ave		i i ojoot managon			Surface Elevation		/D88
yo.			, Cartor	1	_				Ouridoo Elovation	Note bgs = below gr	ound surface)
Depth											
Range (ft bgs)	(ft/ft)	PID (ppm)	Moisture Content	USCS	Graph Log	ic	Surface Cover a	and Thickn	ess:		Sample ID

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Boring ID: P4-T17A

S2:304.3200 dilice telepriorie Page: 1

 Project Name:
 PPG Garfield Ave
 Drilling Company:
 SGS North America

 Project Number:
 60240739
 Drilling Method:
 Geoprobe
 Coordinates (NJSPNAD83) x:
 611206

 Date Started Drilling:
 3/7/2014 9:15:00 AM
 Rig Type:
 Coordinates (NJSPNAD83) y:
 682941

 Date Finished Drilling:
 3/7/2014 10:15:00 AM
 Core Size:
 2.0 in
 Boring Total Depth:
 25 ft

 Logged By:
 MI
 Depth to Water:
 NA

 Physical Loggical Loggical

epth							
ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
				ASPHALT		ASPHALT	
				FILL		fine to medium silty SAND, some fine gravel, little GGM,	
' _			wet	FILL		(10YR 4/2) dark grayish brown, very dense. GGM, (10Y 5/2) grayish olive, medium dense, wet.	
2—							
\dashv	5						
3—							
\dashv							
4-							
_							
3				FILL		fine to medium silty SAND, some GGM, (5Y 4/3) olive.	
6—			moist to	FILL		CINDERS, some fine to medium sand, little GGM, trace oil-like material, (10YR 4/2) dark grayish brown, loose, moist	
_			wet			to wet.	
7—	_						
\dashv	5						
8—							
9—							
9			moist	FILL		SILT, little fine sand, (10YR 2/1) black, medium plasticity,	
10		0.0	moist	FILL		soft, moist, slight naphthalene odor. fine to medium SAND, little silt, (10YR 4/3) brown, non	
4		44.0	wet	FILL		\plastic. medium dense, moist, slight naphthalene odor.	
11—						fine to medium silty SAND, little fine gravel, little roots, (10YR 5/3) brown, non plastic, loose, wet, moderate	
+						naphthalene odor, sheen.	
12—	4						
13-	•						
' _							
14							P4-T17A-14.0-14.5
\dashv							F4-11/A-14.0-14.0
15		1.2	moist	FILL		fine to medium silty COBBLES, little fine gravel, (7.5YR 4/3)	
			to			brown, non plastic, medium dense, moist to wet, slight naphthalene odor, sheen.	
16—			wet			парпилаюте осот, эпест.	P4-T17A-16.0-16.5
17—							P4-T17A-16.7-17.2
4	5	6.6	moist	PT	<u> </u>	PEAT (degraded vegetated material), 80% organic fibers,	P4-T17A-17.2-17.7
18-					<u> </u>	20% organic silt, (10YR 3/3) dark brown, low plasticity, medium dense, moist, slight sulfur odor. Soils consistent	
,,					<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	with MM.	
19					<u> </u>		P4-T17A-19.2-19.7
20-		4.2	moist	SP-SM		fine silty SAND, (10YR 5/2) grayish brown, non plastic, medium dense, moist, slight sulfur odor. Soils consistent	
		1.0	moist to	SP-SM		\with UNDno.	P4-T17A-20.0-20.5
21—			wet			fine to medium silty SAND, little gravel, little roots, (10YR 5/1) gray, non plastic, medium dense, moist to wet. Soils	
\dashv						consistent with UNDno.	
22—	5						
72	3						
23		0.0	moist	SP		fine to medium SAND, little fine gravel, (5YR 4/4) reddish	
1			to		n avend	brown, non plastic, medium dense, moist to wet. Soils	



Boring ID: P4-T17A

Page: 2

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	-
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611206
Date Started Drilling: 3/7/2014 9:15:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682941
Date Finished Drilling: 3/7/2014 10:15:00 AM	Core Size: 2.0 in	Boring Total Depth: 25 ft
Logged By: MI	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: T17A - Carteret Ave.	-	Surface Elevation: 11.9 ft NAVD88
•		

Lanna	IIIISIIEU DI	iiiiig.	3/1/2014	10.13.00 AW		businest Marramana Claria Martall	Donning Total Deptil.	25 11
Logge	d By: MI				ļ P	Project Manager: Chris Martell	Depth to Water: NA	\
Physic	al Locatio	n: T17	7A - Cartere	et Ave.			Surface Elevation:	11.9 ft NAVD88
							(Not	e bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickr	ness:	Sample ID
			wet		2.32.50.82	consistent with UNDno.		
L _			wei			Consistent with ONDIO.		
م ا								
25								
1								
1								
1								
1								
1								
1								
?								
5								
[
:[
3								
4								
2]								
Comme	nts: 1) 3 atte	empts w	ere made to	obtain best re	covery 2) I	MM/UND confirmed to be 1 ft thick.		

AECOM

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Boring ID: P4-U19A

_ .

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611189 Date Started Drilling: 3/11/2014 1:00:00 PM Rig Type: Coordinates (NJSPNAD83) y: 682869 Date Finished Drilling: 3/11/2014 1:25:00 PM Core Size: 2 in Boring Total Depth: 25 ft Depth to Water: NA Logged By: MI Project Manager: Chris Martell Physical Location: U19A- Carteret Ave. Surface Elevation: 12.4 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-		0.0	slightly moist	FILL		GGM, little fine sand, little salt precipitate, (5GY 4/4) olive green, low plasticity, stiff, slightly moist, no odor, green staining.	
3-4	5						
5—		0.0	moist	FILL		GGM, some cinders, little fine gravel, (5GY 5/2) grayish	
-6-		0.0	moist	FILL		green, soft, moist, no odor, green staining. CINDERS, some ash, coal, little fine gravel, (7.5YR 4/1) dark gray, moist, no odor, slight green staining.	
-7- -8- -9-	5	0.0	moist	FILL		ASH, with cinders, little coal, ceramics, (7.5YR 6/1) gray, loose, moist, no odor, no staining.	
11— 12— 13— —	5	0.0	slightly moist	FILL		GGM, little fine sand, little salt precipitate, (5GY 4/4) olive green, low plasticity, stiff, slightly moist, no odor, green staining.	
14—		0.0	moist	FILL		SILT, some fine sand, little fill materail, (7.5YR 2.5/2) very dark brown, low plasticity, soft to stiff, moist, no odor, no	
15 — 16 — 17 —	5	0.0	moist to wet	FILL		staining. fine to medium silty SAND, (7.5YR 4/2) brown, dense, moist to wet, no odor, no staining.	
19		0.0	slightly moist	PT		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 2.5/3) very dark brown, stiff, slightly moist, strong organic odor. Soils consistent with MM.	P4-U19A-18.0-18.5
20	5	0.0	slightly moist moist	PT SM		PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (7.5YR 2.5/3) very dark brown, stiff, slightly moist, strong organic odor. Soils consistent with MM. UNDno fine SAND, some silt, (7.5YR 5/1) gray, dense, moist, no odor, no staining. Soils consistent with UNDno.	P4-U19A-20.0-20.5



Project Number: 60240739

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Date Started Drilling: 3/11/2014 1:00:00 PM

Boring ID: P4-U19A

Page: 2

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611189 Rig Type: Coordinates (NJSPNAD83) y: 682869

Date F	inished Dr	illing:	3/11/2014	1:25:00 PM		Core Size: 2 in		Boring Total Depth:	25 ft
Logge	d By: MI					Project Manager:	Chris Martell	Depth to Water: NA	
Physic	al Location	n: 1110	9A- Carter	et Ave		, .,		Surface Elevation:	12.4 ft NAVD88
,	<u>-</u>	010	o, Country	,, , , , , , , , , , , , , , , , , , ,					p bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graph Log	ic	Surface Cover and Thickne		Sample ID
 25		0.0	moist	SM		UNDno fine S/ 5/1) gray, dens	AND, some silt, (5YR 5/2) rose, moist, no odor, no stainin UNDno.	eddish gray (7.5YR ng. Soils	
25									

PPG - PPG_LOGS.GDT - 4/15/14 17:43

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

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Boring ID: P4-V18A

	Name: F					Drilling Company: SGS North America		
	Number:					Drilling Method: Geoprobe	Coordinates (NJSPNA	
			3/13/2014 8			Rig Type:	Coordinates (NJSPNAD	
			3/13/2014	10:00:00 Al		Core Size: 2 in	Boring Total Depth: 2	5 ft
	IBy: MI8					Project Manager: Chris Martell	Depth to Water: NA	
Physica	al Location	n: V18	BA- Carteret	: Ave.			Surface Elevation: 11.	
							(note bg	s = below ground surface)
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	rness:	Sample ID
_ _1		0.0	moist	FILL		fine to medium silty SAND, with fill mate reddish brown, medium dense, moist, no		
-2 -3 -4	5							
-5-		0.0			\longrightarrow			
		0.0	moist	FILL	\otimes	fine to medium SAND, with fill material, 5/2) grayish brown, medium dense, moi		
-6 -7	5	0.0	moist	FILL		Staining. GGM, with fill material (cinders, ash, gla (5.5-6.5 chromium precipitate white), litt (10Y 4/4) olive, medium dense, moist, n staining.	ass), some COPR le course gravel,	
-8 -9		0.0	moist to wet	FILL		coarse sandy GRAVEL, with fill materal, material, (7.5YR 5/1) gray, medium den moderate chemical odor, hydrocarbon st	se, moist to wet,	
40		0.0	moist	FILL		medium to coarse gravelly SAND, with f		
-10 -		0.0	to wet wet	FILL		tar-like material, medium dense, moist to petroleum odor, hydrocarbon staining. SILT, (5YR 4/1) dark gray (10YR 5/2) gr	/	
-11 -		0.0	moist to wet	FILL		plastic, very loose, wet, moderate petrole gravelly SILT, with fill material, some tar 4/3) reddish brown, low plasticity, loose,	eum odor, sheen. -like material, (5YR	
-12	5	0.0	moist	FILL		moderate hydrocarbon odor, sheen.		
-13 -14 -14	· ·		to wet			sandy SILT, with fill material, some grav material, (5YR 4/3) reddish brown, low p to wet, strong hydrocarbon odor, hydrocarbon	plasticity, soft, moist	
-15 -16 -17	_	0.0	moist to wet	FILL		fine to medium SAND, some fill material coarse gravel, (5YR 4/3) reddish brown, moist to wet, no odor, sheen.		P4-V18A-17.0-17.5
-	5	0.0	ds.	PT	XXXX	PEAT (degraded vegetated material), 80	10/ organia fibera	P4-V18A-17.5-18.0
-18 - -19		0.0	dry to moist	FI	\(\frac{1}{2} \) \(\fra	20% organic silt, (7.5YR 2.5/3) very darl moist, strong organic odor, no staining. MM.	k brown, stiff, dry to	1 - - v 10 00- 17.3-10.0
4		0.0	de:	O!	<u> </u>		rania fibera (7.5\/D	
-20			dry	OL	-	UNDorg SILT, 70% organic silt, 30% org 5/1) gray (10YR 5/2) grayish brown, stift		
_ _21		0.0	dry	OL		odor, no staining. Soils consistent with L UNDorg SILT, 70% organic silt, 30% org 5/1) gray (10YR 5/2) grayish brown, stiff	JNDorg. ganic fibers, (7.5YR f, dry, slight organic	
-22 - -23	5	0.0	moist	SM		odor, no staining. Soils consistent with L UNDno SILT, with fine to medium sand, medium dense, moist, no odor, no staini with UNDno.	(7.5YR 5/1) gray,	
20								
		0.0	moist	SP-SM		UNDno fine to coarse SAND, with grave	(5YR 4/3) reddish	



Boring ID: P4-V18A

Page: 2

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611245
Date Started Drilling: 3/13/2014 8:55:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682887
Date Finished Drilling: 3/13/2014 10:00:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: MI & FM	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: V18A- Carteret Ave.		Surface Elevation: 11.8 ft NAVD88
-		(Alata has a halass sussessed assets as)

			3/13/2014	10:00:00 Al	VI Co	re Size: 2 in	Boring Total Depth:	_ <u>25 ft</u>
ogged	I By : MI 8	k FM			Pro	oject Manager: Chris Martell	Depth to Water: N	Α
ysic	al Location	n: V18	BA- Cartere	t Ave.			Surface Elevation:	11.8 ft NAVD88
							(No	ote bgs = below ground surface)
epth nge bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thi	ckness:	Sample ID
75						brown, medium dense, moist, no odor, consistent with UNDno.	no staining. Soils	
25								

Boring ID: P4-W18A

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611264 Date Started Drilling: 3/13/2014 11:00:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682867 Date Finished Drilling: 3/13/2014 1:20:00 PM Core Size: 2 in Boring Total Depth: 25 ft Logged By: MI & FM Depth to Water: NA Project Manager: Chris Martell

,		** !	8A- Cartere			Surface Elevation: 11.9 ft NAVD88 (Note bgs = below ground surface)				
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID			
_		0.0		FILL		fine to coarse gravelly SAND, with 10% ash and cinders.				
-1	_									
_	-									
-2	_									
_	5									
-3- -										
-4	-									
_										
-5		13.0	wet	FILL		fine to coarse gravelly FILL MATERIAL, with fine to coarse				
-6						sand, wet, moderate hydrocarbon odor, sheen, hydrocarbon staining.				
_										
-7	5									
_ 8										
_	-									
-9-	1									
_	_									
–10— –		6.0	wet	FILL		GGM, some coarse gravel, (5GY 4/4) olive green, low				
-11	1	5.0	vent	FILL		plasticity, loose, wet, no odor, green staining.				
_	_	3.0	wet	FILL		fine to medium sandy GRAVEL, with tar-like material, some silt, (5YR 3/1) very dark gray (7.5YR 2.5/2) very dark brown,				
-12	5	5.0	wet	FILL		 soft, wet, moderate hydrocarbon odor, hydrocarbon staining. fine to medium silty SAND, with fill material, some tar-like 				
_ _13			to moist			material, (5YR 4/2) dark reddish gray, loose, wet to moist, strong naphthalene odor, sheen.				
_	-	4.0	moist	FILL		fine to medium silty SAND, some fine to medium sand, little				
- 14 	1	4.0	IIIOISt	FILL		fill material, trace oil-like material, (5YR 4/3) reddish brown,				
_ _15						low plasticity, soft, moist, slight naphthalene odor, no staining.				
-	-	0.0	dry	FILL		fine to medium SAND, some coarse gravel, (5YR 4/3) reddish brown, medium dense, dry, no odor, no staining.				
- 16 	_	0.0	dry	PT		PEAT (degraded vegetated material), 80% organic fibers,	P4-W18A-16.0-16.5			
_ -	1	5.5	Gi y		<u> </u>	20% organic silt, (7.5YR 2.5/3) very dark brown, medium	P4-W18A-16.5-17.0			
17 	5				<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	stiff, dry, moderate organic odor, no staining. Soils consistent with peat.				
-18	1				V 7 V 7					
-					\(\frac{1}{21/2}\)					
- 19 	-				<u> </u>					
					1 <u>1111</u>					
	-	0.0	moist	OL	[]	SILT, with sand, 80% organic silt, 20% organic fibers, (7.5YR 5/1) gray, moist, no odor, no staining. Soils				
-21	-	0.0	dry	SP		consistent with UNDorg. fine SAND, little silt, (7.5YR 5/1) gray, medium stiff, dry, no				
]			<u> </u>		odor, no staining. Soils consistent with UNDno.				
22	5	0.0	dry	SP		fine SAND, (7.5YR 5/1) gray, very dense, dry, no odor, no staining. Soils consistent with UNDno.				
-23	-					staining. John Composert with ONDHO.				
_	_	0.0	dry	SP		fine to coarse SAND, with coarse gravel, (5YR 4/3) reddish				
omme	nts: 1) 3 atte	empts w	ere made to	obtain best r	ecovery 2) M	M/UND confirmed to be 1 ft thick.				



Boring ID: P4-W18A

				11:00:00 AM		Rig Type:	Coordinates (NJSPN	
			3/13/2014	1:20:00 PM		Core Size: 2 in	Boring Total Depth:	
Logged	By: MI	& FM			F	Project Manager: Chris Martell	Depth to Water: NA	\
Physica	al Locatio	n: W1	8A- Carter	et Ave.			Surface Elevation:	11.9 ft NAVD88
							(Not	e bgs = below ground surface)
Depth Range (ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and	d Thickness:	Sample ID
						brown, very stiff, dry, no odor, no with UNDno.	staining. Soils consistent	
25					1.251.65			
	-t 1\ 2 otto	mpto w	oro mada ta	obtoin boot ro	201/02/	MM/UND confirmed to be 1 ft thick.		I .

PPG - PPG_LOGS.GDT - 4/15/14 17:43

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

AECOM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-W19A

Page: 1 Project Name: PPG Garfield Ave Drilling Company: SGS North America Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611232 Date Started Drilling: 3/5/2014 11:40:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682835 Date Finished Drilling: 3/5/2014 12:10:00 PM Core Size: 2 in Boring Total Depth: 25 ft Logged By: A. Bogucki Project Manager: Chris Martell Depth to Water: NA Physical Location: W19A - Carteret Ave. Surface Elevation: 12.5 ft NAVD88

Depth Lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickness:	Sample ID
_		0.0	slightly moist	FILL		fine to medium SAND, little fine gravel, trace GGM, cinders, (10YR 5/4) yellowish brown, loose to dense, slightly moist, no odor, green staining.	
-2-		0.0	moist	FILL		GGM, little salt precipitate, (5GY 4/4) olive green, low plasticity, soft, moist, no odor, green staining.	
-3 4 4	5						
-5— -6— -7—	5	0.0	moist	FILL		GGM, little salt precipitate, (5GY 4/4) olive green, low plasticity, soft, moist, no odor, green staining.	
-8 -9 -10	·	0.0					
11—		0.0	moist	FILL		medium SAND, some fine to medium gravel, little cinders, trace GGM, (10YR 5/6) yellowish brown, low plasticity, hard, moist, no odor, green staining.	
13 — - 14 — -	5	0.0	moist	FILL		GGM, little salt precipitate, (5GY 4/4) olive green, low plasticity soft, moist, no odor, green staining.	
15 - 16		0.0	wet	FILL		sandy SILT, little GGM, (10YR 3/2) very dark grayish brown, non plastic, medium dense, wet.	
\dashv		0.0	moist	PT	<u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	PEAT (degraded vegetated material), 80% organic fibers,	P4-W19A-16.2-16.7
-17	5		moist	, ,	<u> </u>	20% organic silt, (10YR 3/3) dark brown, low plasticity, medium stiff, moist, strong sulfur odor. Soils consistent with MM.	P4-W19A-16.7-17.2
19-					<u> </u>		P4-W19A-18.0-18.5
\dashv					<u> </u>		
20		0.0	moist	PT	1/2 1/2 1/2 1/2 1/2 1/2	PEAT (degraded vegetated material), 80% organic fibers, 20% organic silt, (10YR 3/3) dark brown, low plasticity, medium stiff, moist, strong sulfur odor. Soils consistent with	P4-W19A-20.0-20.5
-21 -22	E	0.0	wet	SP-SM		MM. fine to medium silty SAND, some gravel little clay, (10YR 5/1) gray, non plastic, dense, wet. Soils consistent with	
23-	5					UNDno.	



Boring ID: P4-W19A

Page: 2

Project Name: PPG Garfield Ave	Drilling Company: SGS North America	-
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611232
Date Started Drilling: 3/5/2014 11:40:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682835
Date Finished Drilling: 3/5/2014 12:10:00 PM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: A. Bogucki	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: W19A - Carteret Ave.	-	Surface Elevation: 12.5 ft NAVD88
		(Note bgs = below ground surface)

ate F	inished Dr	illing:	3/5/2014	<u>12:10:00 PM</u>	Core	Size: 2 in			Boring Total Dep	oth: 25 f	t
ogge	d By: A. B	ogucki			Proje	ct Manager:	Chris Martell		Depth to Water: Surface Elevation	NA	
hysic	al Location	n: W1	9A - Carte	ret Ave.					Surface Elevation	on: 12.5	ft NAVD88
										(Note bgs =	below ground surface)
epth ange bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log		Surface Cover	and Thickne	ess:		Sample ID
_											
25											
	nts: 1) 3 atte	mots w	ere made to	obtain hest re	covery 2) MM/U	ND confirmed to	o be 1 ft thick				

Boring ID: P4-X19AR

Page: 1

Project Name: PPG Garfield Ave Drilling Company: SGS North America

Project Number: 60240739 Drilling Method: Geoprobe Coordinates (NJSPNAD83) x: 611270.755 Date Started Drilling: 12/12/2014 9:10:00 AM Rig Type: Coordinates (NJSPNAD83) y: 682827.642 Date Finished Drilling: 12/12/2014 Core Size: 3 0 in Boring Total Depth: 20.5 ft

		illing:	12/12/201	<u> 4 </u>		Core Size: 3.0 in	Boring Total Depth:	
	By: SS					Project Manager: Scott Mikaelian	Depth to Water: NA	11.0 (1)11/17.22
hysica	I Location	1: X19	A - Carter	et Ave.		1	Surface Elevation:	11.9 ft NAVD88
Depth Range ft bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thickn	ess:	Sample ID
-		0.0		ASPHALT		ASPHALT		
-1 - -2	5	0.0	dry	FILL		fine to medium SAND, little fine to mediun (30%) COPR, (5YR 3/4) dark reddish broodor, no staining.	m gravel, little wn, loose, dry, no	P4-X19A-1.0-1.5 P4-X19A-2.0-2.5
-3 -4 -	J .	0.0	dry	FILL		ASH, some fine to medium sand, trace bi (10YR 4/2) dark grayish brown, loose, dry staining.		P4-X19A-4.0-4.5
-5-		0.0	moist to	FILL		ASH, little fine to medium sand and grave black, loose, moist to saturated, no odor,		
-6-			saturated			at 6.0 feet.		P4-X19A-6.0-6.5
-7— -8— -9—	5	0.0	wet	FILL		GGM (70%), little fine gravel, (5GY 5/2) g loose, wet, no odor, no staining.	grayish green,	
10 -		0.0	wet	FILL		GGM (100%), (2.5Y 3/3) dark olive brown petroleum odor, product staining.	n, soft, wet, slight	
-12		8.5	wet	FILL		fine to medium silty SAND, trace fine graduark brown, loose, wet, slight petroleum of		P4-X19A-11.5-12.0
-13 -14	5					staining.	noor, product	P4-X19A-12.0-12.5
-15		0.5	saturated	FILL		fine to medium silty SAND, (10YR 5/1) gr	av soft saturated	-
16-	2	0.0	moist	FILL		no odor, no staining. fine to medium SAND, trace fine gravel, (medium dense, moist, no odor, no stainin	7.5YR 4/2) brown,	
-17 		0.8	moist	FILL		fine to medium SAND, trace fine gravel, (gray, medium dense, moist, slight petrole	10YR 4/1) dark	
-18		0.0	moist	PT	7 77 77	\staining. PEAT (degraded vegetated material), (60	% organic silt, 40%	
19—	3.5				<u> </u>	moderate organic odor, no staining. Soils MM.		
20					<u> </u>			P4-X19A-20.0-20.5R
/IM - mea	adow mat		GGM - gree			sidue UNDno - non-organic undisturbed native d UNDorg - organic undisturbed native depo		ufactured gas plant romate chemical production w

A=COM

30 Knightsbridge Road, Piscataway, NJ 08854 732.564.3200 office telephone

Boring ID: P4-X19A

	t Name: F t Number:					Orilling Company: SGS North America Orilling Method: Geoprobe	Coordinates (NJSPNA	D83) x· 611253
				0:20:00 AM		Rig Type:	Coordinates (NJSPNA)	
				10:20:00 AM		Core Size: 2 in	Boring Total Depth: 2	
	d By: A.Bo		0.0.20			Project Manager: Chris Martell	Depth to Water: NA	
	al Location		A - Carter	et Ave.		2	Surface Elevation: 12	0.0 ft NAVD88
.,			. 5001					gs = below ground surface)
Depth	Doces :	חום	Mainter		Crant.			O-marile
lange t bgs)	Recovery (ft/ft)	PID (ppm)	Moisture Content	USCS	Graphic Log	Surface Cover and Thick	ness:	Sample ID
		0.0	slightly	FILL		fine to medium SAND, some GGM, little		
-1 -2	5	0.0	moist slightly moist	FILL		\(\frac{3}{4}\) dark brown, loose to dense, slightly green staining. GGM, with ash, cinders, coal, little fine to (5GY 3/2) very dark grayish green, stiff, odor, no staining.	o medium gravel,	
-3 -4 -5								
-6		0.0	slightly moist	FILL		GGM, with ash, cinders, coal, little fine to (5GY 3/2) very dark grayish green, stiff, odor, no staining.		
-7 -8	5	0.0	moist	FILL		GGM, little fine sand, trace COPR, (5GY low plasticity, soft to stiff, moist, no odor,		
-9 10 -		0.0	moist slightly	FILL		GGM, little fine sand, trace COPR, (5GY low plasticity, soft to stiff, moist, no odor,	, green staining.	
11	1	0.0	moist	FILL		fine silty SAND, little coarse gravel, trace	e oil-like material,	
12— 13— 13—	4.5	0.0	slightly moist	FILL		stiff, slightly moist, slight naphthalene of SILT, trace roots, fibers, little fine to med 2.5/2) very dark brown, low plasticity, sof slight naphthalene odor, sheen. fine to medium SAND, with silt, trace oil (7.5YR 3/3) dark brown, dense, slightly r naphthalene odor.	dium sand, (7.5YR ft to stiff, moist,	
' _								P4-X19A-14.0-14.5
15				NR		NO RECOVERY		
16		0.0	wet	FILL		GGM, some sand, (10YR 4/3) brown, m soft, wet.	edium plasticity,	
]							P4-X19A-16.0-16.5
17]							P4-X19A-16.5-17.0
17 <u> </u>	5	00						P4-X19A-17.0-17.5
18— — 19— —			moist	PT	7 7 7 7 7 7 7 7 7 7 7 7	PEAT (degraded vegetated material), 80 20% organic silt, (10YR 3/3) dark brown medium dense, moist, moderate sulfur owith MM.	, low plasticity,	P4-X19A-18.0-18.5
20		0.0	moist wet	PT SP-SM		PEAT (degraded vegetated material), (10 brown, low plasticity, medium dense, mo		P4-X19A-20.0-20.5
21				review of th	e soil	odor. Soils consistent with MM.	/	
_				criptions in	NESTHAL	fine silty SAND, some clay, (10YR 5/1) g	gray, low plasticity,	
22				CS for this i	PER CHILDRE	Sort, Wet. Colle Corlesterit With Orabile.		
	5				iici vai l	.		
23		0.0	SM	SP-SM		fine to medium silty SAND, some gravel		
			i	1	a Seest, Ellis	reddish gray, low plasticity, dense, moist	/TILL\ Coilo	



Boring ID: P4-X19A

Page: 2

		1 4901 2
Project Name: PPG Garfield Ave	Drilling Company: SGS North America	-
Project Number: 60240739	Drilling Method: Geoprobe	Coordinates (NJSPNAD83) x: 611253
Date Started Drilling: 3/5/2014 10:20:00 AM	Rig Type:	Coordinates (NJSPNAD83) y: 682823
Date Finished Drilling: 3/5/2014 10:20:00 AM	Core Size: 2 in	Boring Total Depth: 25 ft
Logged By: A.Bogucki	Project Manager: Chris Martell	Depth to Water: NA
Physical Location: X19A - Carteret Ave.		Surface Elevation: 12.0 ft NAVD88
		(Note bgs = below ground surface)
		, , , , , , , , , , , , , , , , , , , ,

te Fi	nished Dr	ming.	3/3/2014	10.20.00 AIVI	- 0	ore Size: 2 in		Boring Total De	ptiii. 20 it
gged	By: A.Bo	ogucki			Pr	oject Manager:	: Manager: Chris Martell Depth to Wate		: NA
ysica	al Location	n: X19	9A - Cartere	et Ave.				Surface Elevat	ion: 12.0 ft NAVD88
									(Note bgs = below ground surface)
epth	Recovery	PID	Moisture		Graphic				Sample
epth inge bgs)	(ft/ft)	(ppm)	Content	USCS	Graphic Log		Surface Cover and	d Thickness:	Sample ID
-3-7					TO SOFTEN	consistent wi	th LINDno		
-						CONSISTENT WI	ur orabno.		
5									
			1		1				1



Boring ID: P4-Y19A

Page: 1

Project Name:PPG Garfield AveDrilling Company:SGS North AmericaProject Number:60240739Drilling Method:Direct PushCoordinates (NJSPNAD83) x:611303.112Date Started Drilling:12/8/2014 12:40:00 PMRig Type:GeoprobeCoordinates (NJSPNAD83) y:682811.3Date Finished Drilling:12/8/2014 1:30:00 PMCore Size:3.0 inBoring Total Depth:17 ftLogged By:SSProject Manager:Scott MikaelianDepth to Water:N/APhysical Location:Carteret AvenueSurface Elevation:11.8 ft NAVD88

Пузіс	ai Lucatio	n: Cai	rteret Aver	iue		Surface Elevation:	bgs = below ground surface)
Depth Range	Recovery	PID	Moisture	USCS	Graphic	Surface Cover and Thickness:	Sample
t bgs)	(ft/ft)		Content		Log		ID
-		0.0		ASPHALT		ASPHALT.	
-1 - -2	F	0.0	dry	FILL		fine to medium SAND,little medium gravel,little COPR(20%),(5YR 3/3) dark reddish brown,loose,dry,no odor,no staining.	P4-Y19A-1.0-1.5 P4-Y19A-2.0-2.5
-3 -4 -	5	0.0	moist	FILL		GGM,little ash,trace brick,(5GY 4/4) olive green,loose,moist,no odor,no staining.	
-5		0.0	moist	FILL		ASH,little GGM,little medium gravel,trace debris,(7.5YR 3/1) very dark gray,loose,moist,no odor,green staining.	P4-Y19A-5.0-5.5
-6 - -7 -	5						P4-Y19A-6.0-6.5
-8— -9— -							P4-Y19A-8.0-8.5
11-		0.0	moist	FILL		ASH,little debris,little GGM,trace wood,(7.5YR 4/1) dark gray,loose,moist,no odor green staining.	P4-Y19A-10.0-10.5
-12 -13 -14	5	0.0	wet	FILL		fine to medium silty SAND,some oil-like material,little fine to medium gravel,trace roots,(7.5YR 2.5/1) black,soft,wet,moderate petroleum odor sheen.	P4-Y19A-12.0-12.5 P4-Y19A-14.0-14.5
-15							
-	2	0.0	dry	FILL		fine to medium silty SAND,little oil-like material little organics,(7.5YR 2.5/3) very dark brown,soft,dry,slight petroleum odor,sheen.	
-16 - -17	_					petroleum duor,sneem.	P4-Y19A-16.0-16.5

AECOM Note: Ground surface elevation = 12.0 ft NAVD88

PSEG SC Former Halladay Street Gas Works Site **SCHOOR DEPALMA Supplemental Remedial Investigation** Page 1 of 6 **LOG OF SOIL BORING SB-28** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/11/05 COMPLETION DEPTH (FT BGS) DRILLING EQUIPMENT ROCK DEPTH (FT) Hollow Stem Auger Rig, 4.25" Augers not encountered N/A SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 27 JNDIST. N/A N/A 2.5' N/A N/A N/A WATER DEPTH COMPL N/A 24HR CASING FIRST CASING HAMMER WEIGHT N/A DROP N/A BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP 30" Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambier Time Head Time Resis Time Sample (ft bgs) (ft) BL/6ii Air Space Date 0 0.0-0.5' Asphalt road surface 2.0 5 0845 0.0 0.0 0845 N/A N/A 0.5-0.6' Gravel sub-base 0.6-3.0' FILL: Dark greenish gray (GLEY1 2 0.0 4/1) fine to medium SAND, trace silt, tight 2 0.0 3 0.0 2 2 0850 N/A N/A 1.2 0.0 0.0 0850 4 3.0-3.2' FILL: Bright green / yellow sand, 0.0 2 suspected Chromate Ore Processing 3 Residue (COPR) 10 4 4.0-6.0' FILL: Dark gray (5YR4/1) fine to 3 2.0 0857 0.0 0.0 N/A N/A medium SAND, trace silt, wood fragments, gravel, glass fragments 5 0.0 5 0.0 0.0 6 2.0 0900 0.0 0.0 0900 N/A N/A 4 11 6.0-7.5' FILL: Dark gray to black fine to medium SAND, with 50% angular gravel 0.0 13 (1/4"), loose 7.5-8.0' FILL: Bright green, fine SILTY 10 0.0 SAND, COPR 12 0.0 8 8.0-9.0' FILL: Greyish green (GLEY1 5/2) 1.0 0913 0.0 0.0 0913 N/A N/A 5 3 tight fine SANDY SILT, little coal fragments 2 0.0 9

PSEG SC Former Halladay Street Gas Works Site SCHOOR DEPALMA Supplemental Remedial Investigation Page 2 of 6 **LOG OF SOIL BORING SB-28** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/11/05 COMPLETION DEPTH (FT BGS) DRILLING EQUIPMENT ROCK DEPTH (FT) Hollow Stem Auger Rig, 4.25" Augers not encountered N/A SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 27 UNDIST. N/A 2.5' N/A N/A N/A WATER DEPTH FIRST COMPL N/A 24HR CASING CASING HAMMER WEIGHT N/A DROP N/A BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Time Ambien Time Head Time Resist Sample (ft bgs) (ft) BL/6ii Air Space Date - 10 10.0-10.3' FILL: Greyish green (GLEY1 5/2) Slight naphthaline like 6 1.5 0922 0.0 0.0 0922 N/A N/A 3 tight fine SANDY SILT, little coal fragments, odors, some staining some fine gravel from 10.5-11.25 2 0.0 10.3-14.0' Bluish black (GLEY2 2.5/1) organic SILT and CLAY, with visible peat 0930 Sample SB-28(10.5-3 0.0 fibers (PT) 11.0) for TCL VOC, TCL SVOC, TAL Metals, CN 3 - 12 0928 N/A N/A 2.0 0.0 0.0 0928 No staining or odors 4 noted in this spoon 3 0.0 - 13 0.0 0.0 - 14 14.0-16.8' Reddish brown (2.5YR4/3) fine 8 0.5 0936 0.0 0.0 0936 N/A N/A SAND, wet, trace silty clay (SM) - 15 2 - 16 9 2.0 0941 0.0 0.0 0941 N/A 2 N/A 0943 Sample SB-28(16.0-16.5) for TCL VOC, TCL SVOC, TAL Metals, CN 2 0.0 16.8-18.5' Dark yellowish brown (10YR3/4) PEAT, very fibrous and firm 0.0 0.0 - 18 10 1.5 0947 0.0 0.0 0947 N/A N/A 2 18.5-23.0' Very dark bluish gray (GLEY2 3/1) 2 0.0 bands (1" to 1.5") of PEAT and organic CLAY (OH) - 19 0.0

AECOM Note: Ground surface elevation = 12.0 ft NAVD88

PSEG SC Former Halladay Street Gas Works Site SCHOOR DEPALMA Supplemental Remedial Investigation Page 3 of 6 **LOG OF SOIL BORING SB-28** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/11/05 COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers not encountered SIZE AND TYPE CORE BARREL N/A TYPE BIT N/A NO. SAMPLES DIST. 27 UNDIST. N/A 2.5' N/A N/A N/A WATER DEPTH FIRST COMPL N/A 24HR CASING N/A CASING HAMMER WEIGHT N/A DROP BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP 30" Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Time Ambien Time Head Time Sample (ft bgs) (ft) BL/6ii Air Space Date - 20 18.5-23.0' Very dark bluish gray (GLEY2 3/1) 0951 11 2.0 2 0.0 0.0 0951 N/A N/A bands (1" to 1.5") of PEAT and organic CLAY (OH) 0.0 - 21 2 0.0 0.0 22 12 0955 N/A N/A 2.0 13 0.0 0.0 0955 0.0 10 23 23.0-24.0' Dark gray (GLEY1 4/N) fine to 0.0 medium SILTY SAND, tight, 5% fine gravel, rounded (GM) 0.0 6 - 24 24.0-25.5' Very dark gray (GLEY1 3/N) fine 13 1.5 1030 0.0 0.0 1030 N/A N/A to medium SAND, trace silt (SW) 2 0.0 25 0.0 2 - 26 26.0-30.0' Dark reddish gray (2.5YR4/1) fine 14 2.0 1035 0.0 0.0 1035 N/A N/A to medium SILTY SAND, trace silt (SW) 2 0.0 3 - 27 2 0.0 2 0.0 - 28 15 2.0 3 1036 0.0 1036 N/A N/A 0.0 2 0.0 - 29 3 0.0 0.0

h	NOLE. GROUNG SUNA Halladay Street Gas Work					•								SCHOOR DEPALMA
Supplemental Rer	nedial Investigation			_	\F.O.		-	IN/A 1		•				Page 4 of 6
			LOG	C)FS(JIL E	SOR	ING S	5B-2	8				
PROJECT LOCATION								GPO! IV'') El EV/^?	TION (FT.	MSI \	PPO IFO	T NUMBE	:R
Halladay Street, Jersey	City, New Jersey							GHOUNL	LEVAI	HON (F1.	IVIOL)	PROJEC	I NUMBE	:н 020667601
DRILLING CONTRACTOR	,, 25.00j		FOREMAN	N				DATE ST	ARTED			DATE CO	OMPLETE	
Advanced Drilling, Inc.			Jeremy	Lo	gel				04/1	11/05				04/11/05
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
Hollow Stem Auger Rig,	4.25" Augers								54'				not end	countered
TYPE BIT N/A			SIZE AND	ΤY	PE CORE	BARRE	EL	NO. SAM	IPLES	DIST.	27	UNDIST.	N/A	CORE N/A
CASING N/A	T			N/	/A			WATER I	DEPTH	FIRST	2.5'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP	N/	/Α			1	LOCATIO					
	eter, 2' long split-spoon									of Carte		enue, Ro	ad Sho	ulder
SAMPLER HAMMER	WEIGHT 140 lbs.	\dashv	DROP		30"			INSPECT	OR	Eric G				<u> </u>
		Interval		able		San	nples			PID	(BBM)	NGS		
DE	SCRIPTION		Depth	ater T	Number	Recov.	Penetr. Resist.	Timo	Sample	Ambiant	(PPM)	Head	Timo	REMARKS
<i>D</i> L		Sample	(ft bgs)	M	ramber	(ft)	BL/6in	Time	Sample	Ambient	inite	Space	Time	TILIWI II II II
		\top	- 30 -	П										
	ddish gray (2.5YR4/1) fine				16	2.0	2	1051	0.0	0.0	1051	N/A	N/A	
rounded gravel (S)	with trace silt, <1% fine W)													
graner (er	,						3		0.0					
			- 31 -											
							3		0.0					
			00				3		0.0					
			- 32 -		17	17	3	1053	0.0	0.0	1050	NI/A	NI/A	
					17	1.7	3	1000	0.0	0.0	1053	N/A	N/A	
							4		0.0					
32 9-33 // Reddish	brown (2.5YR4/4) fine		- 33 -						0.0					
SANDY SILT (SM)							4		0.0					
33.4-33.7' Dark rec SANDY SILT (SM)	Idish gray (2.5YR3/1) fine						3		0.0					
OAND FOILT (ON)			- 34 -											0.1
	ldish brown (2.5YR3/4)				18	2.0	1	1119	10.4	0.0	1119	N/A	N/A	Oil material (OM) from 34.5 to 38.0,
fine SILTY SAND (OIVI)													naphthalene like odors;
			0.5				1		87.0					positive dye test at 36'
			- 35 -				3		72.0 118.0					
							3		116.0					
							4		74.0					
			- 36 -				ļ							
					19	2.0	3	1138	94.0	0.0	1138	N/A	N/A	1145 Sample SB-28(36.5
														37.0) for GC fingerprint, TCL VOC, TCL SVOC,
							3		58.0					TAL Metals, Total and
			- 37 -											Amenable CN
							2		284.0					
							1		62.0					
38.0-42.7' Dark red	ddish brown (2.5YR3/4)		- 38 -											Sheen and odors noted
fine SANDY SILT (20	2.0	1	1152	1.0	0.0	1152	N/A	N/A	from 38.0' to 42.7'
							2		1.0					
			- 39 -				4		1.0					
			55 -				2		1.0					
							-							
							1		1.0					
			- 40 -		 		ļ		ļ	ļ				

PSEG SC Former Halladay Street Gas Works Site **SCHOOR DEPALMA** Supplemental Remedial Investigation Page 5 of 6 **LOG OF SOIL BORING SB-28** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/11/05 COMPLETION DEPTH (FT BGS) DRILLING EQUIPMENT ROCK DEPTH (FT) Hollow Stem Auger Rig, 4.25" Augers not encountered TYPE BIT N/A SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 27 UNDIST. N/A N/A 2.5' N/A N/A N/A WATER DEPTH FIRST COMPL N/A 24HR CASING CASING HAMMER WEIGHT N/A DROP N/A BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambien Time Head Time Resist Time Sample (ft bgs) (ft) BL/6ir Air Space Date - 40 38.0-42.7' Dark reddish brown (2.5YR3/4) Sheen and odors noted 21 2.0 1209 14.2 0.0 1209 N/A N/A 3 fine SANDY SILT (SM) from 38.0' to 42.7' 14.7 - 41 44.3 8.7 - 42 42.7-48.25' Dark reddish brown (2.5YR3/4) 22 1211 N/A N/A 2.0 0.0 0.0 3 1211 fine SANDY SILT with occassional thin (1/2") bands of SILT 1.0 1217 Sample SB-28 - 43 (43.5-44.0) for TCL VOC, 6 0.0 TCL SVOC, TAL Metals, Total and Amenable CN 0.0 - 44 23 2.0 1337 0.0 0.0 1337 N/A N/A 5 0.0 - 45 6 0.0 0.0 24 2.0 1342 0.0 1342 N/A N/A 6 0.0 0.0 8 - 47 0.0 6 0.0 - 48 25 2.0 5 1410 0.0 N/A N/A 0.0 1410 48.25-51.8' Dark reddish brown (2.5YR3/4) loose fine SILTY SAND (SM) 7 0.0 - 49 8 0.0 Sheen and odors noted at 49.75' 0.0

AECOM Note: Ground surface elevation = 12.0 ft NAVD88

PSEG SC Former	COM Note: Groun Halladay Street Gas Works			10		ic vc	<u> </u>		12.0	1010	.,	<u> </u>			SCHOOR DEPALM
Supplemental Re	medial Investigation		LOG	С	F S	OIL E	3OR	ING S	SB-2	8					Page 6 of
PROJECT LOCATION Halladay Street, Jersey	City New Jarsey							GROUNE	D ELEVAT	ΠΟΝ (FT.	MSL)	PROJEC	T NUMBE		20667601
DRILLING CONTRACTOR	ony, new dolady		FOREMAN	V.				DATE ST	ARTED			DATE CO	OMPLETE		
Advanced Drilling, Inc.			Jeremy		ael					11/05					04/11/05
DRILLING EQUIPMENT			,		<u> </u>			COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT		
Hollow Stem Auger Rig	, 4.25" Augers								54'				not end	counter	ed
YPE BIT N/A			SIZE AND	ΤY	PE CORI	BARRE	ΕL	NO. SAM	IPLES	DIST.	27	UNDIST.	N/A		CORE N/A
ASING N/A				N/	Α			WATER	DEPTH	FIRST	2.5'	COMPL.	N/A		24HR N/A
ASING HAMMER	WEIGHT N/A		DROP	N/	Α			BORING	LOCATIO	ON					
AMPLER 2" diam	eter, 2' long split-spoon	- 1								of Carte	eret Ave	enue, Ro	ad Sho	ulder	
SAMPLER HAMMER	WEIGHT 140 lbs.	\dashv	DROP		30"			INSPECT	FOR	Eric Ga				1	
		erval		ple		San	nples	1		PID	READI				
5.	ECODIDITION	ple Int	Б.:	ter Ta	<u>.</u>		Penetr.			1	(PPM)				DEMARKO
Di	ESCRIPTION	Sample	Depth	Wa	Number		Resist.	Time	Sample		Time	Head	Time	ł	REMARKS
		+	(ft bgs)	H		(ft)	BL/6in			Air		Space	Date		
	reddish brown (2.5YR3/4)		- 50 -		26	2.0	9	1452	0.0	0.0	1452	N/A	N/A		
oose fine SILTY S	SAND (SM)				-				0.0	5.5	. 102	. 4//	,,,		
							10		0.0					I .	
			- 51 -												Sample SB-28
51 8-52 0' Dark re	ddish brown (2.5YR3/4)						12		0.0						-51.0) for TCL VOC SVOC, TAL Metals,
	LTY and SILTY CLAY, wet														and Amenable CN
							11		0.0						
52 0-52 5' Dark re	ddish brown (2 5YB3/4)		- 52 -												
	0-52.5' Dark reddish brown (2.5YR3/4) ds of SAND SILTY and SILTY CLAY,				27	0.5	10	1455	0.0	0.0	1455	N/A	N/A	Run	ning sands jamming
	fine SILTY SAND (1"													rods	
thick)							11								
			- 53 -												
							12								
							13								
End of Boring at 5	54'		- 54 -												
3															
			- 55 -												
			- 56 -												
			- 57 -												
			F0												
			- 58 -						· · · · · ·	1		1		1	
			- 59 -												
			30 '												
			- 60 -			L	<u> </u>		l	l		<u> </u>	<u> </u>	L	

PSEG SC Former Halladay Street Gas Wor	rks Si	te											SCHOOR DEPALM
Supplemental Remedial Investigation		LOG	С	F SC	DIL E	BOR	ING S	SB-2	9				Page 1 of
PROJECT LOCATION							GROUNI	D ELEVAT	ΠΟΝ (FT.	MSL)	PROJEC	T NUMBE	ER .
Halladay Street, Jersey City, New Jersey													020667601
PRILLING CONTRACTOR		FOREMA	N				DATE ST	TARTED			DATE CO	OMPLETE	D
dvanced Drilling, Inc.		Jeremy	Lo	gel				04/1	12/05				04/13/05
PRILLING EQUIPMENT							COMPLE	ETION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
Hollow Stem Auger Rig, 4.25" Augers to 34'; mud rotary	with 3 7	7/8" Roll	er E	Bid to 84	ľ			84'				not end	countered
YPE BIT N/A		SIZE ANI) TY	PE CORE	BARRE	EL	NO. SAN	MPLES	DIST.	25	UNDIST.	N/A	core N/A
ASING 4" steel casing to 34'			N/	'A			WATER	DEPTH	FIRST	3'	COMPL.	N/A	24HR N/A
ASING HAMMER WEIGHT 140 lbs.		DROP	30)"			BORING	LOCATIO	ON				·
AMPLER 2" diameter, 2' long split-spoon		-					Southe	rn side	of Carte	eret Ave	nue, Ro	ad Sho	ulder
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC	TOR	Eric Ga	aulin			
•	/al		9		San	nples			PID	READI	NGS		
	Interval		Table			Penetr.				(PPM)			
DESCRIPTION	Sample	Depth	Vater	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	Sa	(ft bgs)	>		(ft)	BL/6in			Air		Space	Date	
		- 0 -	П										
0.0-0.3' Asphalt road surface				1	1.7	3	0931	0.0	0.0	0931	N/A	N/A	
0.3-0.7' FILL: Dark brown fine to medium													
SAND, clinker, glass fragments						4		0.0					
0.7.4.7.5.1.1. D		- 1 -											
0.7-1.7' FILL: Bright greenish gray fine						4		0.0					
SANDY SILT, Chromate Ore Processing Residue (COPR)													
riosidae (SGI II)						3		0.0					
		- 2 -											
2.0-4.25' FILL: Gray fine to medium SAND,		_		2	1.5	5	0937	0.0	0.0	0937	N/A	N/A	
silt, clinker, ash, brick pieces				-	1.0		0007	0.0	0.0	0007	14// (14//	
		-				8		0.0					
		- 3 -	∇			0		0.0					
		- 3 -	Ě										
						9		0.0					
						11							
		- 4 -											
				3	1.25	5	0946	0.0	0.0	0946	N/A	N/A	
						5		0.0					
		- 5 -											
						7		0.0					
						4							
6.0-7.25' FILL: black fine to medium SAND,		- 6 -											
silt, wood fragments				4	1.5	6	0947	0.0	0.0	0947	N/A	N/A	Sweet, organic odors from 6.0' to 6.5'
-													110111 0.0 10 0.3
						7		0.0					
		- 7 -											
						5		0.0					
						5							
8.0-9.75' FILL: black fine to medium SAND,		- 8 -											
silt, wood fragments, clam shell fragment				5	2.0	10	0951	0.0	0.0	0951	N/A	N/A	No odors this spoon
, Table and the state of the st													
						9		0.0					
		- 9 -											
						8		0.0					
9.75-10.0' Weak red (2.5YR4/2) medium						8		0.0					
dense fine SILTY SAND (SM)		- 10 -			L	L		l]	L]		l

PSEG SC Former Halladay Street Gas Works Site **SCHOOR DEPALMA** Supplemental Remedial Investigation Page 2 of 9 **LOG OF SOIL BORING SB-29** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/13/05 COMPLETION DEPTH (FT BGS) DRILLING EQUIPMENT ROCK DEPTH (FT) Hollow Stem Auger Rig, 4.25" Augers to 34'; mud rotary with 3 7/8" Roller Bid to 84' not encountered SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 25 UNDIST. N/A 4" steel casing to 34' FIRST N/A N/A WATER DEPTH 3' COMPL N/A 24HR CASING CASING HAMMER WEIGHT 140 lbs. DROP 30" BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP 30" Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Time Ambien Time Head Time Resis Sample (ft bgs) (ft) BL/6ii Air Space Date - 10 10.0-14.0' Weak red (2.5YR5/2) firm fine 6 0.5 1001 0.0 0.0 1001 N/A N/A SILTY SAND (SM) with occassional large Sweet, solvent odors (1") gravel, rounded, some roots, occassional thin band (1/2") band of silty clay - 11 6 5 12 1003 N/A N/A 2.0 0.0 0.0 1054 No water in 5 1003 hydropunch (10 to 14). Sample with bailer SB-29 5 0.0 W(10) for TCL VOC, TCL 13 SVOC, TAL Metals, level 0.0 of water observed in augers 0.0 - 14 15 15.0-15.3' Gravel 1" to 2" in diameter, 1.7 1153 8 6 0.0 0.0 000 N/A N/A Swampy odors this subangular to subrounded noogs 15.3-15.5' Very dark gray (10YR3/1) fine 0.0 SILTY SAND (SM) 16 0.0 9 15.5-17.2' Dark brown (10YR3/3) PEAT, very fibrous and firm 10 0.0 - 17 9 0.5 10 1157 0.0 0.0 1157 N/A N/A 17.2-17.5' Dark reddish gray (2.5YR4/1) organic CLAY, with a single piece of gravel (coarse grained metamorphic, peppery 12 colored) 18 11 10 - 19

AECOM Note: Ground surface elevation = 11.7 ft NAVD88

PSEG SC Former Halladay Street Gas Works Site **SCHOOR DEPALMA Supplemental Remedial Investigation** Page 3 of 9 **LOG OF SOIL BORING SB-29** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. 04/13/05 Jeremy Logel COMPLETION DEPTH (FT BGS) DRILLING EQUIPMENT ROCK DEPTH (FT) Hollow Stem Auger Rig, 4.25" Augers to 34'; mud rotary with 3 7/8" Roller Bid to 84' not encountered SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 25 JNDIST. N/A 4" steel casing to 34' N/A N/A WATER DEPTH 3' COMPL N/A 24HR CASING FIRST CASING HAMMER WEIGHT 140 lbs DROP 30" BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP 30" Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambier Head Time Resis Time Sample Time (ft bgs) (ft) BL/6ii Air Space Date - 20 20.0-20.1' Dark reddish gray (5YR4/2) fine 10 0.3 1301 0.0 0.0 N/A N/A 11 1301 SILTY SAND (SM) 12 20.1-22.2' Dark reddish gray (5YR4/2) 21 angular to subangular fine gravel (1/8" to 1"), sand, silt 22 22.2-22.8' Dark blushish gray (GLEY2 4/1) 11 1308 N/A N/A 1.7 0.0 0.0 3 1308 fine SANDY SILT and SILT, firm 3 0.0 22.8-23.5' Dark blushish gray (GLEY2 4/1) 23 fine to medium SAND, trace silt, trace fine 0.0 gravel 23.5-24.1' Dark blushish gray (GLEY2 4/1) 0.0 fine to medium SAND, trace gravel 24 24.1-24.7' Dark reddish gray (2.5YR4/1) 12 1.2 1331 0.0 0.0 1331 N/A N/A coarse to fine very loose SAND, banding of coarse sand (SW) 0.0 24.7-24.9' Dark reddish gray (2.5YR4/1) fine 25 grained sedimentary rock gravel fragment 8 0.0 24.9-25.0' Reddish brown (2.5YR4/4) fine to medium SAND (SW) 25.0-27.0' Reddish brown (2.5YR4/4) fine 11 SILTY SAND (SM) 26 13 1341 0.0 1341 N/A N/A 1.3 9 0.0 5 0.0 27 27.0-27.3' Reddish brown (2.5YR4/4) fine 3 0.0 SAND, firm (SP) 4 28 28.0-28.7' Reddish brown (2.5YR4/4) coarse 1349 0.0 N/A N/A 14 1.6 4 0.0 1349 to fine SAND and gravel (GP) 0.0 5 29 28.3-30.2' Reddish brown (2.5YR4/4) fine 6 0.0 SAND (SP)

AECOM Note: Ground surface elevation = 11.7 ft NAVD88

PSEG SC Former Halladay Street Gas Works Site SCHOOR DEPALMA Supplemental Remedial Investigation Page 4 of 9 **LOG OF SOIL BORING SB-29** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/13/05 COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) DRILLING EQUIPMENT Hollow Stem Auger Rig, 4.25" Augers to 34'; mud rotary with 3 7/8" Roller Bid to 84' not encountered SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 25 UNDIST. 4" steel casing to 34' N/A N/A WATER DEPTH FIRST 3' COMPL N/A 24HR CASING CASING HAMMER WEIGHT 140 lbs. DROP 30" BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambien Time Time Head Time Resist Sample (ft bgs) (ft) BL/6ir Air Space Date - 30 28.3-30.2' Reddish brown (2.5YR4/4) fine 15 1.2 1412 0.0 0.0 N/A N/A 1412 SAND (SP) 30.2-31.2' Reddish brown (2.5YR4/4) coarse 0.0 to fine SAND and 1/4" angular to - 31 subrounded gravel (GP) 0.0 32 32.0-31.1' Reddish brown (2.5YR4/4) fine 1415 16 0.0 N/A N/A 0.1 0.0 Remnants of rock 5 1415 SAND (SP) and black angular rock couldn't be moved by fragments augers. Drove casing to 34' and switched to mud 33 rotary 34 34.0-34.5' Reddish brown (2.5YR4/4) coarse 17 0.7 1510 0.0 0.0 N/A N/A to fine SAND and 1/4" angular to subrounded gravel (GP) 9 34.5-37.0' Reddish brown (2.5YR4/4) fine 35 grained siltstone fragments (GW) 9 10 36 1515 Sample SB-29 18 1.5 1511 0.0 0.0 N/A N/A 6 1511 (36.5-37.0) for total and amenable CN, TCL 7 0.0 VOC, TCL SVOC, TAL Metals 37 37.0-40.2' Reddish brown (2.5YR4/4) fine 0.0 SILTY SAND (SM) 38 19 1.75 1515 0.0 0.0 1515 N/A N/A 8 0.0 9 39 0.0 0.0

	Halladay Street Gas Works	s Sit	te											SCHOOR DEPALMA		
Supplemental Ren	nedial Investigation		LO	G C	F S	OIL E	BOR	ING S	SB-2	9				Page 5 of 9		
PROJECT LOCATION								GROUNE	D ELEVAT	ΠΟΝ (FT.	MSL)	PROJEC	T NUMBE			
Halladay Street, Jersey (City, New Jersey													020667601		
DRILLING CONTRACTOR			FOREM					DATE ST				DATE CO	OMPLETE			
Advanced Drilling, Inc.			Jerem	y Lo	gel					12/05				04/13/05		
DRILLING EQUIPMENT	4 25" Augura to 24' - mud rotany with	h 2 7	/0" Do	llor E	oid to 0	4'		COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT	ountered		
TYPE BIT N/A	4.25" Augers to 34'; mud rotary with				PE COR		-L	NO. SAN	84'	DIST.	25	UNDIST.				
	casing to 34'		OILL 711	N,				WATER		FIRST	3'	COMPL.	N/A			
CASING HAMMER	WEIGHT 140 lbs.		DROP	30					LOCATIO							
	eter, 2' long split-spoon							1			eret Ave	enue, Ro	ad Sho	vulder		
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT	TOR	Eric Ga	aulin					
	•	val		n		San	nples			PID	READI	NGS				
		Inter		r Table			Penetr.				(PPM)					
DE	SCRIPTION	Sample	Depti	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS		
		S	(ft bgs	s)		(ft)	BL/6in			Air		Space	Date			
37.0-40.2' Reddish SILTY SAND (SM)	n brown (2.5YR4/4) fine		- 40	-	20	0.6	11	1539	0.0	0.0	1539	N/A	N/A			
40.2-40.5' Coarse (GP)	SAND and fine GRAVEL		-	-			12									
40.5-42.2' Reddish SANDY SILT (SM)	brown (2.5YR4/4) fine		- 41	-			12									
			- 42				13									
SILTY SAND (SM)			_	_	21	0.7	4	1540	0.0	0.0	1540	N/A	N/A			
42.3-42.5' Reddish SANDY SILT (SM)	n brown (2.5YR4/4) fine)		- 43	_			4		0.0							
42.5-46.3' Reddish SILTY SAND (SM)	brown (2.5YR4/4) fine		-	-			5									
			- 44	-	22	1.25	 5	1601	0.0	0.0	1601	N/A	 N/A	Slight naphthalene like		
			-	-			6		0.0					odors from 44' to 45.25'; no sheen, no staining; odors limited to this		
			- 45	-			6		0.0					interval		
			- 46				5									
	n brown (2.5YR4/4) fine		-	_	23	2.0	4	1605	0.0	0.0	1605	N/A	N/A	No odors		
SANDY SILT (SM) 46.8-49.8' Reddish) h brown (2.5YR4/4) fine		- 47	-			4		0.0							
SILTY SAND (SM)			-	-			4		0.0							
			- 48	-			3		0.0							
			-	-	24	2.0	3	1615	0.0	0.0	1615	N/A	N/A			
			- 49	-			3		0.0							
49.8-50.0' Reddish SANDY SILT (SM)	n brown (2.5YR4/4) fine		-	-			3		0.0					Ended here on 4/12/05		
(5141)	•		- 50				<u> </u>	l]]	<u> </u>			

PSEG SC Former Halladay Street Gas Works Site SCHOOR DEPALMA Supplemental Remedial Investigation Page 6 of 9 **LOG OF SOIL BORING SB-29** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, New Jersey 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Jeremy Logel 04/13/05 DRILLING EQUIPMENT COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) Hollow Stem Auger Rig, 4.25" Augers to 34'; mud rotary with 3 7/8" Roller Bid to 84' not encountered SIZE AND TYPE CORE BARREL NO. SAMPLES DIST. 25 UNDIST. WATER DEPTH FIRST 4" steel casing to 34' N/A N/A 3' COMPL N/A 24HR CASING 140 lbs. 30" CASING HAMMER WEIGHT DROP BORING LOCATION SAMPLER 2" diameter, 2' long split-spoon Southern side of Carteret Avenue, Road Shoulder SAMPLER HAMMER WEIGHT 140 lbs DROP Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambien Time Sample Time Head Time Resist (ft bgs) (ft) BL/6ir Air Space Date - 50 50.0-54.0' No Sample Collected -Started here on 4/13/05 Hydropunch Driven 0931 Sample SB-29-W(50-54) collected for - 51 TCL VOC, TCL SVOC, TAL Metals; sample turbid, no odors or sheen 52 53 54 54.0-57.6' Reddish brown (2.5YR4/4) fine 25 1008 0.0 0.0 N/A N/A SANDY SILT (SM), firm 10 0.0 55 8 0.0 10 56 26 2.0 1011 0.0 0.0 1011 N/A N/A 10 1021 Sample SB-29(56.5-57.0) for TCL VOC, TCL SVOC, TAL Metals, CN 0.0 10 57 0.0 57.6-61.75' Reddish brown (5YR5/3) thinly 6 0.0 interlaminated CLAY and SILTY CLAY 58 27 2.0 5 1032 0.0 0.0 1032 N/A N/A 0.0 6 59 0.0 0.0

AECOM Note: Ground surface elevation = 11.7 ft NAVD88

	Halladay Street Gas Work				0 01	010	10.				.,			SCHOOR DEPALM
Supplemental Rer	medial Investigation			_						_				Page 7 of
			LOG	O	F SC	OIL E	BOR	ING S	SB-2	9				
DD0 1507 1 00 1710 1								onounir	. =: =:	TION /FT		DD0 150		
PROJECT LOCATION Halladay Street, Jersey	City New Jersey							GROUNL) ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	-R 020667601
DRILLING CONTRACTOR	0.1,110.11 00.00,		FOREMAN	J				DATE ST	ARTED			DATE CO	OMPLETE	
Advanced Drilling, Inc.			Jeremy	Lo	gel					12/05				04/13/05
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
Hollow Stem Auger Rig,	4.25" Augers to 34'; mud rotary wi	ith 3 7	7/8" Rolle	r B	Bid to 84	1'			84'				not end	countered
TYPE BIT N/A			SIZE AND	ΤY	PE CORE	BARRE	L	NO. SAM	IPLES	DIST.	25	UNDIST.	N/A	CORE N/A
CASING 4" steel	casing to 34'			N/	Α			WATER I	DEPTH	FIRST	3'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT 140 lbs.		DROP	30)"			BORING						
	eter, 2' long split-spoon									of Carte		enue, Ro	ad Sho	ulder
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP	1	30"			INSPECT	TOR	Eric G				<u> </u>
		Interval		aple		San	nples	\Box	ł	PID	READI			
DE	ESCRIPTION	Sample In	Depth	-	Number	Recov.	Penetr. Resist.	Time	Sample	Ambient	(PPM) Time	Head	Time	REMARKS
DL		San	(ft bgs)	≥	. sambel	(ft)	BL/6in		Sample	Ambient	111110	Space	Date	. 12.17.7.11.11.0
			- 60 -											
	sh brown (5YR5/3) thinly AY and SILTY CLAY				28	1.75	6	1037	0.0	0.0	1037	N/A	N/A	
interiariiriateu GL/	AT AND SILTT CLAT													
							6		0.0					
			- 61 -											
							10		0.0					
							40							
			- 62 -				12		0.0					
62.0-70.0' No Sar	nple Collected		02											
			- 63 -											
			- 64 -											
			ee.											
			- 65 -											
			- 66 -											
			- 67 -											
			66											
			- 68 -							1		1		
			- 69 -											
			- 70 -		 					ļ				1

PSEG SC Former	Halladay Street Gas Works	s Si	te											SCHOOR DEPALMA
Supplemental Rei	medial Investigation		LO	G (OF S	OIL I	BOR	ING S	SB-2	9				Page 8 of 9
PROJECT LOCATION Halladay Street, Jersey	City. New Jersey							GROUNI	D ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	ER 020667601
DRILLING CONTRACTOR			FORE	IAN				DATE ST	TARTED			DATE CO	OMPLETE	ED .
Advanced Drilling, Inc.			Jeren	ny Lo	ogel				04/	12/05				04/13/05
DRILLING EQUIPMENT								COMPLE	ETION DE	PTH (FT I	BGS)	ROCK D	EPTH (FT)
Hollow Stem Auger Rig,	4.25" Augers to 34'; mud rotary wit	th 3 7	7/8" Ro	ller	Bid to 8	4'			84'				not end	countered
TYPE BIT N/A			SIZE A	ND T	YPE COR	E BARR	EL	NO. SAN	/IPLES	DIST.	25	UNDIST.	. N/A	CORE N/A
CASING 4" steel	casing to 34'			N	l/A			WATER	DEPTH	FIRST	3'	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT 140 lbs.		DROP	3	0"			BORING	LOCATION	NC				
	eter, 2' long split-spoon		1					Southe	ern side			enue, Ro	oad Sho	ulder
SAMPLER HAMMER	WEIGHT 140 lbs.	1	DROP		30"			INSPEC	TOR	Eric G				1
		nterval		aple	-	Sar	nples	I	ł	PID	READI			
DI	CODIDTION		_	e. T			Penetr.			I	(PPM)			
DE	ESCRIPTION	Sample	Dep	- 1-	Numbe		Resist. BL/6in	Time	Sample		Time	Head	Time	REMARKS
		+	(ft bg		1	(ft)	DL/BIN	<u> </u>		Air	<u> </u>	Space	Date	
	eddish brown (5YR5/3)				29	2.0	8	1107	0.0	0.0	1107	N/A	N/A	
thinly interlaminat tight	ed CLAY and SILTY CLAY,		-	-										
tigrit							7		0.0					
			- 71	-										
	h brown (5YR5/3) very soft CLAY, with 10% angular						6		0.0					
1/4" gravel	OLAT, With 10 % angular		-	-										
3							5		0.0					
72 0 74 0' Dark ro	eddish brown (2.5YR3/4)		- 72	-										
	ed CLAY and SILTY CLAY,				30	2.0	5	1111	0.0	0.0	1111	N/A	N/A	
tight (CL)	,		-	-										
							8		0.0					
			- 73	-										
							7		0.0					
			-	-										
			74				3		0.0					
74.0-78.0' No San	nple Collected		- 74				1			1				
			_											
			- 75	-										
			-	-										
			- 76	-										
														Drillers noted change to
			-	-										coarse till at 77.5' based on screening mud
														on sorcening maa
			- 77	-										
			-	-										
			- 78											
78.0-82.0' Hydrop	ounch driven		''		1									
			_	_										
			- 79	-										
			-	-										
			- 80	-	[.	ļ			ļ		ļ		

PSEG SC Former Halladay Street Gas Works	Si	te											SCHOOR DEPALMA
Supplemental Remedial Investigation													Page 9 of 9
		LOG	C	F S	OIL I	BOR	ING S	SB-2	9				
PROJECT LOCATION							GROUNI	D ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street, Jersey City, New Jersey													020667601
DRILLING CONTRACTOR		FOREMA	٨N				DATE ST	TARTED			DATE CO	OMPLETE	ED
Advanced Drilling, Inc.		Jeremy	/ Lo	gel				04/	12/05				04/13/05
DRILLING EQUIPMENT		,					COMPLE		EPTH (FT I	BGS)	ROCK D	EPTH (FT	
Hollow Stem Auger Rig, 4.25" Augers to 34'; mud rotary with	137	7/8" Roll	er E	Bid to 84	4'			84'	,	,			countered
TYPE BIT N/A				PE CORI		EL	NO. SAM		DIST.	25	UNDIST.		
CASING 4" steel casing to 34'			N/				WATER		FIRST	3'	COMPL.	N/A	
CASING HAMMER WEIGHT 140 lbs.		DROP	30					LOCATIO	٠				
SAMPLER 2" diameter, 2' long split-spoon		BITOI		,			1			eret Ave	nue Ro	oad Sho	nulder
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPEC		Eric G		31100, 110	Jau Ono	didei
SAWIFLER HAWINIER WEIGHT 140 IUS.	T	DNOF	Τ	30	C = -		INSPEC	ION		READI	NCC		
	Sample Interval		Fable		Sai	nples		ł	PID		NGS		
DESCRIPTION	ple In	.	, P			Penetr.			1	(PPM)	l		REMARKS
DESCRIPTION	Sam	Depth	_	Number		Resist.	Time	Sample		Time	Head	Time	NEWANNO
	+	(ft bgs)	+		(ft)	BL/6in			Air		Space	Date	
78.0-82.0' Hydropunch driven		- 80 -	1			1			1		1		
		- 81 -	-										
82.0-84.0 No Sample Collected		- 82 -	-										4040 OI- OD 00 W
02.0 04.0 NO Gample Collected													1242 Sample SB-29-W (78-82) for TCL VOC
													only due to lack of
													sample
		- 83 -	-										
		- 84 -				ļ							
End of boring at 84.0'													
		l											
		- 85 -											
		00											
		- 86 -	1						1				
		- 87 -	-										
		- 88 -	-	 -									
			-										
		- 89 -	-										
		- 90 -	-		ļ	ļ			ļ				

PSEG SC Former Halladay Street Gas Works Interim Data Submittal No.4		1.00		\F C/		B O D	INC	CD E	0					SCHOOR DEPALMA Page 1 of 6
		LOC	л C)F 5(JIL I	BOR	ING S	5B-5	2					
PROJECT LOCATION							GROUNI	D ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	R	
Halladay Street , Jersey City, NJ								12	2.22				0:	20667601
DRILLING CONTRACTOR		FOREM	AN				DATE ST	TARTED			DATE CO	OMPLETE	D	
Advanced Drilling, Inc.		Roger	Log	el				11/2	22/06			11	/27/06	
DRILLING EQUIPMENT							COMPLE	ETION DE	EPTH (FT I	BGS)	ROCK D	EPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers								56				not en	counter	red
TYPE BIT Hollow-stem auger		SIZE AN	ID TY	PE CORI	E BARR	EL	NO. SAN	MPLES	DIST.	26	UNDIST.	. N/A		core N/A
casing N/A			N.	/A			WATER	DEPTH	FIRST	NA	COMPL.	N/A		24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: West	ern shou	lder of Ca	arteret A	venue, 8	88 ft SE from the
SAMPLER 2" diameter, 2' long split-spoon							1				Street / C	arteret A	venue i	ntersection.
SAMPLER HAMMER WEIGHT 140 lbs.	Т	DROP	Т	30"			INSPEC	TOR	Eric G				1	
	terval		able		Sar	nples		1	PID	READI	NGS			
DECORIDATION	Sample Interval		Vater Ta			Penetr.			1	(PPM)			1	DEMARKS
DESCRIPTION	Sam	Depth (# bac	>	Number		Resist.	Time	Sample		Time	Head	Time	-	REMARKS
	╁	(ft bgs)		(ft)	BL/6in			Air		Space	Date		
Cleared via hand digging to 4'; ash material		- 0												
(AM), gravel, clinker material (CM)														
		-	-											
		- 1												
		- 1												
		_	_											
		- 2	-											
		_	_											
		- 3	-											
		-	-											
	l	- 4	-										ļ	
4.0-6.9 FILL: CM, trace ash, gravel				1	1.0	4	1311	0.0	0.0	1311	N/A	N/A	No d	odors or other
		-	-											ence of
						5		0.0	0.0				cont	amination
		- 5	-											
						5								
		-	-											
						7								
		- 6	-											
				2	1.1	4	1313	0.0	0.0	1313	N/A	N/A		odors or other
		-	-											ence of amination
						4		0.0	0.0				COIN	ammation
6.9-8.0 Black fine SAND (SP) with silty clay,	1	- 7	-											
highly plastic						3		0.0	0.0					
		-	-											
						4								
8.0-8.8 Grayish brown SILTY CLAY (CL)		- 8	-						1				l	
with black mottling				3	1.0	4	1317	0.0	0.0	1317	N/A	N/A		odors or other ence of
Ĭ		-	-											amination
8.8-8.9 Reddish brown SILTY CLAY (CL)		_				2		0.0	0.0					
8.9-12.0 Disturbed PEAT (PT), with some		- 9	- [_								
reddish gray silty clay						2		0.0	0.0					
	1	-	-			2								
	1	1		I	1	-	I		1	1	1	1		

PSEG SC Former	Halladay Street Gas Works	s												SCHOOR DEPALMA
Interim Data Subn	nittal No.4		100		\F 04	\	205	INIC 1	SD 5	^				Page 2 of 6
			LOG	C)F 50	JIL E	SOR	ING :	5B-5	2				
PROJECT LOCATION								GROUNI) FI FVAT	TION (FT.	MSL)	PROJEC	T NUMBE	-R
Halladay Street , Jersey	City, NJ							GHOONE		2.22	WOL)	THOOLO	THOMBE	020667601
DRILLING CONTRACTOR			FOREMA	N				DATE ST	ARTED			DATE CO	OMPLETE	:D
Advanced Drilling, Inc.			Roger L	.og	el				11/2	22/06			11/	/27/06
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT)
GEFCO SS 5 Drill Rig to	urning 4.25-inch hollow-stem augers	:							56	1			not end	countered
TYPE BIT Hollow-s	stem auger		SIZE AND	TY	PE CORI	BARRE	EL	NO. SAN	IPLES	DIST.	26	UNDIST.	N/A	CORE N/A
CASING N/A	T			N/	/A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP		N/A			BORING	LOCATIO	DN: Weste	ern shoul	lder of Ca	arteret A	venue, 88 ft SE from the
	eter, 2' long split-spoon											Street / C	arteret A	venue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	П	DROP	Τ	30"			INSPECT	OR	Eric G				<u> </u>
		Interval		aple		San	nples	I		PID	READI	NGS		
DE	ESCRIPTION		Depth	Ė.	ļ., ,		Penetr.	_			(PPM)	I	_	REMARKS
DE	-COLIII LION	Sample	(ft bgs)	W	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient	Time	Head Space	Time	HEIVIANNO
		\forall	- 10 -	H		(11)	DE/OII1					opace		
	PEAT (PT), with some				4	1.2	2	1329	0.0	0.0	1329	N/A	N/A	
reddish gray silty o	elay													
							1		0.0	0.0				
			- 11 -											
							2		0.0	0.0				
							2							
12.0-16.0 Reddish	brown SILT (ML) and silty		- 12 -											
clay, trace fine gra					5	1.5	2	1338	0.0	0.0	1338	N/A	N/A	
							2		0.0	0.0				
			- 13 -											
							2		0.0	0.0				
							2							
			- 14 -						l					
					6	0.9	2	1339	0.0	0.0	1339	N/A	N/A	
		$ \setminus $												
							3		0.0	0.0				
			- 15 -											
							3							
														Drilling ended here 11
							3							22-06
16.0-16.4 Very da	rk greenish gray (GLEY1		- 16 -											Dalling
3/1 10Y) PEAT (P					7	1.2	1	0900	0.0	0.0	0900	N/A	N/A	Drilling resumed here 11-27-06
16.4-18.4 Verv da	rk greenish gray (GLEY1						_		100					11-21-00
3/1 10Y) organic C	CLAY (OH), with 10% peat		. 17				2		10.3	0.0				
fragments			- 17 -				1		10.0	0.0				
							'		10.0	0.0				Anaerobic, swampy
							2							odors
			- 18 -				ļ		ļ		ļ		 	
					8	2.0	2	0905	26.3	0.0	0905	N/A	N/A	Anaerobic, swampy
	ganic CLAY (OH), with less													odors
than 5% peat fiber	'S						2		53.6	0.0				
			- 19 -											
							2		?	0.0				
							2		?	0.0				
			- 20 -	ı			4			4				

PSEG SC Former Halladay Street Gas Wor	ks				_							_	SCHOOR DEPALM
Interim Data Submittal No.4		100	_	NE 04	باد	200	INIO 1	SD 5	2				Page 3 of
		LOG	O)FSC	JIL E	BOK	ING S	3B-5	2				
PROJECT LOCATION							GROUNE) ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey City, NJ									.22				020667601
DRILLING CONTRACTOR		FOREMAI	N				DATE ST	ARTED			DATE CO	OMPLETE	ED
Advanced Drilling, Inc.		Roger L	.og	el				11/2	22/06			11.	/27/06
DRILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT	T)
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auge	rs							56				not en	countered
TYPE BIT Hollow-stem auger		SIZE AND	TYI	PE CORE	BARRE	EL	NO. SAM	IPLES	DIST.	26	UNDIST.	. N/A	CORE N/A
CASING N/A			N/	Ά			WATER	DEPTH	FIRST	4.8	COMPL.	N/A	24HR N/A
CASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	N: West	ern shou	lder of Ca	arteret A	venue, 88 ft SE from the
SAMPLER 2" diameter, 2' long split-spoon							souther	n corner	of the H	alladay S	Street / C	arteret A	Avenue intersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPECT	FOR	Eric G	aulin			
	aval		e e		San	nples	1		PID	READI	NGS		
	le Inte		er Tat			Penetr.			1	(PPM)	1		-
DESCRIPTION	Sample	Depth	Wate	Number		Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
	- -	(ft bgs)	Н		(ft)	BL/6in			Air		Space	Date	
20.0-20.8 Brown PEAT (PT)		- 20 -									1		Unidontifichie
				9	1.8	2	0910	10.0	0.0	0910	N/A	N/A	Unidentifiable odors, strong, no staining visible
		-						_					onong, no staining visible
20.8-24.0 light gray, SILTY CLAY (CL)						2		5.2	0.0				Sample SB-52(21.0-
		- 21 -											21.5) collected at 0919
						3		98.8	0.0				for TCL SVOC, TCL
													VOC, TAL Metals, Total
		00				3							and Amenable CN
		- 22 -		10	4.0		0045	15		0915	1	N/A	
				10	1.3	3	0915	15	0.0	0915	N/A	IN/A	
						_							
		00				5		20	0.0				
		- 23 -						440					
						6		14.3	0.0				
		-				6							
		- 24 -				0							
24.0-24.9 Grayish red fine to coarse SAND		- 24 -		11	2.0	4	0928	0.0	0.0	0928	N/A	N/A	
(SW), trace silt				l ''	2.0	-	0320	0.0	0.0	0320	14/7	14//	
						5		0.0	0.0				
24.9-25.2 angular gravel/cobble fragments,		- 25 -						3.5	0.0				
1/4" in diameter						7		0.0	0.0				
25.2-26.0 Reddish brown (2.5YR4/4) fine to						<u> </u>		3.5	0.0				
medium SAND (SW), trace silt						7		0.0	0.0				
, , ,		- 26 -				ļ				ļ			
26.0-28.0 Reddish brown (2.5YR4/4) fine to				12	1.2	6	0933	0.0	0.0	0933	N/A	N/A	
medium SAND (SW), trace silt, with some fine (1/8") gravel layers up to 1" thick													
ine (1/8) graver layers up to 1" thick						7		0.0	0.0				
		- 27 -											
						7		0.0	0.0				
						7							
28.0-29.4 Reddish brown (2.5YR4/4) fine to		- 28 -				ļ		ļ			ļ		
medium SAND (SW), trace silt, with some fine (1/8") gravel layers up to 1" thick, and				13	2.0	7	0942	0.0	0.0	0942	N/A	N/A	
with some coarse sand													
						6		0.0	0.0				
29.4-30.0 Reddish brown (2.5YR4/4) fine		- 29 -											
SILTY SAND (SM)						7		0.0	0.0				
						6		0.0	0.0				
		30	Н			l	1	l			1	1	1

	NOTE: Ground Surfa Halladay Street Gas Work		0101		101	•			47.10					SCHOOR DEPALMA
Interim Data Subn	nittal No.4			_						_				Page 4 of 6
			LOG	O	FSC	OIL E	3OR	ING S	SB-5	2				
				_										
PROJECT LOCATION	Otto N.I.							GROUNE		TION (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street , Jersey	City, NJ		FOREMAN	_				DATE ST		2.22		DATE OF	OMPLETE	020667601
DRILLING CONTRACTOR					al			DATEST		22/06		DATE CO		:D /27/06
Advanced Drilling, Inc. DRILLING EQUIPMENT			Roger Lo)ge	31			COMBLE		22/06 PTH (FT E	200)	BOCK D	EPTH (FT	
	ırning 4.25-inch hollow-stem auger	re						COMPLE	56	:FIH (FI 1	503)	NOCK DI	,	countered
	tem auger		SIZE AND	TYF	PE CORE	BARRE		NO. SAM		DIST.	26	UNDIST.	N/A	
CASING N/A				N/A	A			WATER I	DEPTH	FIRST	4.8	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP		N/A			BORING	LOCATIO	DN: Weste	ern shoul	der of Ca	arteret A	venue, 88 ft SE from the
SAMPLER 2" diame	eter, 2' long split-spoon	•						souther	n corner	of the H	alladay S	Street / C	arteret A	venue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT	ГOR	Eric Ga	aulin			
	•	val		0		San	nples			PID	READI	NGS		
		Interval		r Table			Penetr.				(PPM)			
DE	SCRIPTION	Sample	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS
		S	(ft bgs)	╛		(ft)	BL/6in			Air		Space	Date	
30.0-34.0 Reddish	brown (2.5YR5/4) fine		- 30 -	١										
SANDY SILT (ML)	,	\setminus		١	14	8.0	5	1003	0.0	0.1	1003	N/A	N/A	No odors, no sheen
				١			6		0.0	0.0				
			- 31 -	١										
				١			6							
				١			_							
			- 32 -	١			7							
			- 32 -	١	15	1.1	5	1012	0.0	0.0	1012	N/A	N/A	No odors, no sheen
		\setminus		١	13	'		1012	0.0	0.0	1012	19/73	19/75	The eddie, no encon
				١			7		0.0	0.0				
			- 33 -	١			′		0.0	0.0				
			00	١			9		0.0	0.0				
				١										
				١			9							
			- 34 -	١										
	brown (2.5YR5/4) fine				16	1.1	4	1031	0.0	0.0	1031	N/A	N/A	Extremely faint
SILTY SAND (SM)													naphthalene-like odors,
							5		0.0	0.0				no sheen, no staining, no product
			- 35 -											product
							5		1.4	0.0				
				-			5							
			- 36 -											
		\setminus			17	0.8	4	1033	1.9	0.0	1033	N/A	N/A	Sample SB-52(36.3-36.8)
				-					_					collected at 1039 for TCL SVOC, TCL VOC, TAL
				-			4		5.6	0.0				Metals, Total and
			- 37 -				_							Amenable CN
							5							
			- 38 -				6							
			- 36 -	-	18	1.2	4	1043	3.3	0.0	1043	N/A	N/A	Extremely faint odors,
					10	1.2	4	1043	3.3	0.0	1043	IN/A	IN/A	unidentifiable, possibly
			-				4		2.5	0.0				naphthalene-like
			- 39 -						2.0	0.0				
				-			4		11.6	0.0				
				-										
							5							
			- 40 -	١					ļ					

PSEG SC Former Halladay Street Gas Works SCHOOR DEPALMA Interim Data Submittal No.4 Page 5 of 6 **LOG OF SOIL BORING SB-52** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street , Jersey City, NJ 12.22 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Roger Logel 11/22/06 11/27/06 COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) DRILLING EQUIPMENT GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers not encountered SIZE AND TYPE CORE BARREL Hollow-stem auger NO. SAMPLES DIST. 26 JNDIST. N/A N/A N/A WATER DEPTH FIRST 4.8 COMPL N/A 24HR CASING CASING HAMMER WEIGHT N/A DROP BORING LOCATION: Western shoulder of Carteret Avenue, 88 ft SE from the SAMPLER 2" diameter, 2' long split-spoon southern corner of the Halladay Street / Carteret Avenue intersection. SAMPLER HAMMER WEIGHT 140 lbs DROP 30" Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambien Time Sample Time Head Time Resist (ft bgs) (ft) BL/6ir Air Space Date - 40 34.0-44.0 Reddish brown (2.5YR5/4) fine 19 1.0 1056 9.5 0.0 1056 N/A N/A 3 Faint naphthalene-like SILTY SAND (SM) odors, no sheen, no staining, no product at 2 0.8 0.0 top of spoon; no odors - 41 noted from 40.5 down 2 2 42 Dark layer observed at 20 1100 11.5 N/A N/A 1.2 2 0.0 1100 42.9' in this spoon 3 1.0 0.0 Sample SB-52(42.9-43.2) 43 collected at 1100 for TCL 3 0.0 0.0 SVOC, TCL VOC, TAL Metals, Total and Amenable CN 44 44.0-48.8 Reddish brown (2.5YR5/4) fine No odors noted in this 21 1.2 1115 0.0 0.0 1115 N/A N/A SANDY SILT (ML) spoon 3 0.0 0.0 45 3 0.0 0.0 3 46 No odors noted in this 22 1.2 1117 0.0 0.0 N/A N/A 3 1117 spoon 4 0.0 0.0 47 3 0.0 0.0 5 48 No odors noted in this 23 1.0 1129 0.0 0.0 1129 N/A N/A 4 48.8-50.6 Reddish brown (2.5YR5/4) fine noogs SANDY SILT (ML), with silty clay 0.0 0.0 4 49 4

AECOM Note: Ground surface elevation = 11.1 ft NAVD88

PSEG SC Former Halladay Street Gas Works SCHOOR DEPALMA Interim Data Submittal No.4 Page 6 of 6 **LOG OF SOIL BORING SB-52** PROJECT LOCATION GROUND ELEVATION (FT. MSL) PROJECT NUMBER Halladay Street, Jersey City, NJ 12.22 020667601 DRILLING CONTRACTOR FOREMAN DATE STARTED DATE COMPLETED Advanced Drilling, Inc. Roger Logel 11/27/06 DRILLING EQUIPMENT COMPLETION DEPTH (FT BGS) ROCK DEPTH (FT) GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem augers not encountered SIZE AND TYPE CORE BARREL Hollow-stem auger NO. SAMPLES DIST. 26 JNDIST. N/A N/A WATER DEPTH FIRST 4.8 COMPL 24HR CASING BORING LOCATION: Western shoulder of Carteret Avenue, 88 ft SE from the CASING HAMMER WEIGHT N/A DROP SAMPLER 2" diameter, 2' long split-spoon southern corner of the Halladay Street / Carteret Avenue intersection. SAMPLER HAMMER WEIGHT 140 lbs DROP 30" Eric Gaulin PID READINGS Samples **DESCRIPTION** REMARKS Depth Ambien Time Sample Time Head Time Resist (ft bgs) (ft) BL/6ir Air Space Date - 50 48.8-50.6 Reddish brown (2.5YR5/4) fine 24 1.2 1139 0.0 0.0 1139 N/A N/A No odors noted in this SANDY SILT (ML), with silty clay spoon 0.0 0.0 50.6-52.0 Reddish brown (2.5YR5/4) fine SILTY SAND (SM) 51 52 52.0-55.2 dark reddish brown (2.5YR3/3) fine 25 1143 No odors noted in this 1.7 N/A N/A 0.0 0.0 1143 spoon to medium SAND (SW), trace silt 0.0 0.0 53 0.0 0.0 54 Sample SB-54(55.5-56.0) 26 1.2 1155 0.0 0.0 1155 N/A collected at 1157 for TCL VOC, TCL SVOC, TAL 0.0 0.0 Metals, Total and 55 Amenable CN 0.0 0.0 0.0 0.0 56 End of Boring at 56' 57 58 59

PSEG SC Former	Halladay Street Gas Works	S												SCHOOR DEPALMA
Interim Data Subn	nittal No.4				\F 0/	 .	200	INIO (2D E	4				Page 1 of 6
			LOG	7 C)F 50	JIL I	SUR	ING S	2B-2	4				
PROJECT LOCATION								GROUNE	D ELEVA	TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey	City, NJ							GI 100112		1.40				020667601
DRILLING CONTRACTOR	•		FOREM	٩N				DATE ST	ARTED			DATE CO	OMPLETE	D
Advanced Drilling, Inc.			Roger	Log	jel				11/2	27/06			11.	/28/06
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
GEFCO SS 5 Drill Rig tu	rning 4.25-inch hollow-stem augers								56				not end	countered
TYPE BIT Hollow-s	tem auger		SIZE AN	D TY	PE COR	E BARRE	EL	NO. SAN	IPLES	DIST.	26	UNDIST.	N/A	CORE N/A
CASING N/A	T			N/	/A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A	24HR N/A
CASING HAMMER	WEIGHT N/A		DROP		N/A			BORING	LOCATIO	ON: Easte	ern shoul	der of Ca	arteret A	venue, 95 ft SE from the
	eter, 2' long split-spoon											reet / Ca	rteret Av	enue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	\blacksquare	DROP	Т	30"			INSPECT	TOR	Eric Ga				
		Interval		able		San	nples	1		PID	READI			
DE	SCRIPTION	nl əldi	Depth	1			Penetr.	_		Ī	(PPM)			REMARKS
DE	SONIFTION	Sample	(ft bgs	1-	Number	Recov.	Resist. BL/6in	Time	Sample	Ambient	Time	Head Space	Time	HEIWARKS
		$\dagger \dagger$	- 0 -			(11)	DE/OII1			- All		орасе	Date	
	digging to 4'; boring													
	ill consisted of brownish ine to medium sand			-										
yellow (101Ho/o) i	ine to medium sand													
			- 1 -											
				-										
			- 2 -											
				-										
			- 3 -	•										
				-										
		╻┃┃	- 4 -											
4.0-4.2 FILL: black	fill, silt, wood		7		1	0.8	1	1455	0.0	0.0	1455	N/A	N/A	No odors or other
	gray ash material (AM),			-	'			.50						evidence of
clinker	gray asii materiai (Aw),						1		0.0	0.0				contamination
		-\	- 5 -	Ē	1									
							1							
				-										
							1							
6 0-6 0 Black fine 9	SAND with silty clay, highly	М	- 6 -											
plastic (SP)	SAND WITH SITY Clay, HIGHLY	\setminus			2	1.1	1	1457	0.0	0.0	1457	N/A	N/A	No odors or other
	· · · · · · (DT)	$ \cdot $		-										evidence of contamination
6.9-8.4 Disturbed borganic matter	prownish peat (PT) and						1		0.0	0.0				Contamination
organic matter		\ 	- 7 -											
							1		0.0	0.0				
				-										
							1							
			- 8 -		3	0.7	1	1503	0.0	0.0	1503	N/A	N/A	No odors or other
8.4-10.0 Reddish g	rayish SILTY SANDY				3	0.7	'	1003	0.0	0.0	1503	IN/A	IN/A	evidence of
CLAY (CL)							1		0.0	0.0				contamination
		П	- 9 -				'		0.0	0.0				
							1		0.0	0.0				
				-										
							1							
			- 10	-1			ļ							

PSEG SC Former Interim Data Subr	Halladay Street Gas Works nittal No.4	s	LOC	3 ()F S(י ווכ	BOR	ING S	SB-5	4					SCHOOR DEPALI Page 2 o
PROJECT LOCATION	a:							GROUNI		TION (FT.	MSL)	PROJEC	T NUMBE		
Halladay Street , Jersey	City, NJ		I							.40					20667601
RILLING CONTRACTOR			FOREM					DATE ST		7/00		DATE CO	OMPLETE		
dvanced Drilling, Inc.			Roger	Log	gei			001401		27/06	200	DOO! D		/28/06	
RILLING EQUIPMENT	. 405. 11. 11							COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT		
	urning 4.25-inch hollow-stem augers stem auger		CIZE AN	D TV	PE COR	E DADDI		NO. SAN	56	DIST.	26	UNDIST.	not end		core N/A
ASING N/A	sterri auger		SIZE AN	N,		E BARRI	EL	WATER		FIRST	4.8	COMPL.	N/A		24HR N/A
	MEIOUE N/A			IN	N/A			 							95 ft SE from the
ASING HAMMER	WEIGHT N/A		DROP		IN/A			1							
	eter, 2' long split-spoon		I		00"							reet / Ca	rteret Av	enue in	tersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	\top	DROP	Т	30"			INSPEC	TOR	Eric G				П	
		Interval		aple	-	Sar	nples	1	1	PID	READI				
	CODIDTION	ole Int		1	1		Penetr.		<u> </u>		(PPM)		1	ł	DEMARKO
DE	ESCRIPTION	Sample	Depth	- 1	Number		Resist.	Time	Sample		Time	Head	Time	ł	REMARKS
		+	(ft bgs)	1	(ft)	BL/6in	-	-	Air	-	Space	Date		
CLAY (CL), disturb	n grayish SILTY SANDY bed, trace wood, trace fine		- 10	-	4	1.0	2	1512	0.0	0.0	1512	N/A	N/A		nple SB-54(10.0-
gravel			-				2		0.0	0.0				TAL	. VOC, TCL SVOC, Metals, Total and
			- 11	-			2							Ame	enable CN
			- 12				3								
				_	5	0.7	2	1512	0.0	0.0	1512	N/A	N/A		
			- 13	_			3		0.0	0.0					
				-			2								
			- 14	-			3							ļ	
	ark greenish gray (GLEY1 CLAY (OH), less than 1%			-	6	2.0	1	1525	3.7	0.0	1525	N/A	N/A	Ana odor	erobic, swampy s
			- 15	-			1		3.0	0.0					
			-	-			1		0.0						
			- 16	-	7	2.0	1	1526	1.0	0.0	1526	N/A	N/A	Ana	erobic, swampy
			-	-			1		3.2	0.0				odor	rs .
			- 17	-			1		0.0	0.0					
			- 10				1		5.2	0.0					
			- 18		8	2.0	1	1533	8.1	0.0	1533	N/A	N/A	Ana	erobic, swampy
			- 19	_			1		9.7	0.0					-
			_	-			1		4.2	0.0					
			- 20				1		1.0	0.0					

	Halladay Street Gas Works	s												SCHOOR DEPALMA
Interim Data Subn	nittal No.4		LOG	_)F 9/	י ווכ	ROP	ING 9	SR-5	4				Page 3 of 6
			LUG		,ı 3(JIL [JUN		, <u>0-</u> 0,	7				
PROJECT LOCATION								GROUNE	D ELEVAT	TION (FT.	MSL)	PROJEC	T NUMBE	ER
Halladay Street , Jersey	City, NJ								11	.40				020667601
DRILLING CONTRACTOR			FOREMA	N				DATE ST	ARTED			DATE CO	OMPLETE	ED .
Advanced Drilling, Inc.			Roger L	.og	el				11/2	27/06			11/	/28/06
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT)
	urning 4.25-inch hollow-stem augers								56	ı				countered
	stem auger		SIZE AND			BARRE	EL	NO. SAN		DIST.	26	UNDIST.	N/A	<u> </u>
CASING N/A				N/				WATER		FIRST	4.8	COMPL.	N/A	
CASING HAMMER	WEIGHT N/A		DROP		N/A			1						venue, 95 ft SE from the
	eter, 2' long split-spoon	П	DDOD		30"							reet / Ca	rteret Av	renue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	T	DROP		30	San	nples	INSPECT	IOR	Eric G	READI	NGS		
		Interval		Fable		San	Penetr.			FID	(PPM)	INGS		
DE	ESCRIPTION	Sample I	Depth	ater T	Number	Recov.	Resist.	Time	Sample	Ambient		Head	Time	REMARKS
5.	E-14 5	Sar	(ft bgs)	1		(ft)	BL/6in			Air		Space	Date	1
14.0-20.7 \/20.45	rk groonish grov (CLEV1	\top	- 20 -	Γ						ļ				
	rk greenish gray (GLEY1 CLAY (OH), less than 1%				9	1.7	1	1541	3.3	0.0	1541	N/A	N/A	Anaerobic, swampy
peat fibers	(-), /0													odors
							3		n/a	0.0				
			- 21 -											
00 7 04 04 14	" OU TV OAND 4004						3		n/a	0.0				
20.7-24.8 Light gr rounded gravel (S	ay fine SILTY SAND, 10%													
rounded graver (C	1)						4		4.4	0.0				
			- 22 -											
					10	1.6	4	1544	1.3	0.0	1544	N/A	N/A	
							_		4.0					
			00				5		4.0	0.0				
			- 23 -				5		0.0	0.0				
									0.0	0.0				D ''''
							5							Drilling ended here 11 27-06
			- 24 -											27 00
					11	1.2	2	0835	0.0	0.0	0835	N/A	N/A	Drilling resumed here
04 0 06 0 0 0 44:-1-	hroun (0 EVD4/4) fine +-													11-28-06
24.8-26.0 Reddish medium SAND (S)	i brown (2.5YR4/4) fine to W), trace silt						2		16.4	0.0				
	,,		- 25 -											
							2		5.5	0.0				
							2							
26 0-27 2 Gravish	red fine to coarse SAND		- 26 -											
(SW), trace silt	TOO TIME TO COOLSE SHIND				12	1.9	2	0843	12.7	0.0	0843	N/A	N/A	Extremely faint
									C4 1					naphthalene-like odors, no sheen, no staining, no
			. 07				3		21.1	0.0				product
			- 27 -				2		8.6	0.0				
							_		0.0	0.0				
							2		11.4	0.0				
07.0.00.0.0	ddiab gray (EVD 4/0) fir 1		- 28 -				ļ				<u></u>		 	
27.2-32.6 Dark red medium SAND (S)	ddish gray (5YR4/2) fine to W), trace silt				13	1.6	2	0855	10.6	0.0	0855	N/A	N/A	Extremely faint
modium OAND (3	,,, naoc ont													naphthalene-like odors,
							2		21.4	0.0				no sheen, no staining, no
			- 29 -											product
							2		20.0	0.0				
							2							
			- 30 -	1						1				

	Halladay Street Gas Works	s							۱۱۱ ک					SCHOOR DEPALMA
Interim Data Subm	ittal No.4			<u> </u>)E 04	بىر	205	INIO 1	2D -	Л				Page 4 of 6
			LO	GC)F 50	JIL I	BOR	ING S	SB-5	4				
PROJECT LOCATION								GROUNI) FLEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	
Halladay Street , Jersey (City, NJ							0.10011		.40				020667601
DRILLING CONTRACTOR	•		FORE	ΛAN				DATE ST	TARTED			DATE CO	OMPLETE	:D
Advanced Drilling, Inc.			Roge	r Log	jel				11/2	27/06			11.	/28/06
DRILLING EQUIPMENT								COMPLE	TION DE	PTH (FT E	BGS)	ROCK D	EPTH (FT)
GEFCO SS 5 Drill Rig tur	ning 4.25-inch hollow-stem augers	:							56				not end	countered
TYPE BIT Hollow-st	em auger		SIZE A	ND TY	PE COR	E BARRE	EL	NO. SAM	IPLES	DIST.	26	UNDIST.	N/A	CORE N/A
CASING N/A				N.	/A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A	24HR N/A
	WEIGHT N/A	!	DROP		N/A			BORING	LOCATIO	ON: Easte	ern shoul	der of Ca	arteret A	venue, 95 ft SE from the
	er, 2' long split-spoon		ı									reet / Ca	rteret Av	renue intersection.
SAMPLER HAMMER	WEIGHT 140 lbs.	\dashv	DROP	1	30"			INSPEC	TOR	Eric Ga				
		Interval		aple		Sar	nples		ł	PID	READI			
DE	SCRIPTION		Dep	ater Ta	l		Penetr.	_			(PPM)			REMARKS
DE	SONIFTION	Sample	(ft bg	- 1-	Numbe	Recov.	Resist. BL/6in	Time	Sample	Ambient Air	Time	Head Space	Time	HEWARKS
		\top	- 30	\rightarrow		(11)	DE/OIII							
27.2-32.6 Dark red medium SAND (SV	dish gray (5YR4/2) fine to	\setminus			14	1.0	2	0908	11.8	0.0	0908	N/A	N/A	Faint naphthalene-like
illedidili SAND (SV	v), trace siit	$ \setminus $	-	-										odors, no sheen, no staining, no product
							1		20.3	0.0				Stairing, no product
			- 31	-										
							2							
			-	-										
							2							
		Ш	- 32	-										
					15	1.6	2	0913	4.6	0.0	0913	N/A	N/A	Faint naphthalene-like
			-	-										odors, no sheen, no
	brown (2.5YR5/4) fine						3		7.9	0.0				staining, no product
SANDY SILT (ML)			- 33	-										
	brown (2.5YR5/4) fine						2		8.3	0.0				
SILTY SAND (SM)			-	-										
							2		0.0	0.0				
			- 34	-										
		$ \setminus $			16	8.0	2	0922	3.2	0.0	0922	N/A	N/A	Faint naphthalene-like odors, no sheen, no
			-	-			2		7.0	0.0				staining, no product
			- 35				_		7.0	0.0				
							2							
			_	-										
							2							
			- 36	-			ļ							
	brown (2.5YR5/4) fine	\			17	1.2	2	0924	10.6	0.0	0924	N/A	N/A	Stronger naphthalene-like
SAND (SP), trace s	silt		-	-										odors, no sheen, no staining, no product
							2		21.5	0.0				
			- 37	-										Sample SB-54(36.5-37.0)
							2		8.3	0.0				collected at 0928 for TCL SVOC, TCL VOC, TAL
			-	-										Metals, Total and
0004067	(0.5)(5.1); f						2							Amenable CN
	brown (2.5YR5/4) fine		- 38	-		·								
SANDY SILT (ML)					18	1.1	2	0933	10.2	0.0	0933	N/A	N/A	Naphthalene-like odors,
			-	-					45.5					no sheen, no staining, no product
							1		15.3	0.0				p. 54460
			- 39	-			2		33.2	0.0				
							-		33.2	0.0				
				-			2							
			- 40		l	L	l -	J]]	L	

PSEG SC Former Halladay Street Gas Work Interim Data Submittal No.4		LOG	0	F SC	OIL E	BOR	ING S	SB-5	4					SCHOOR DEPALI Page 5 c
PROJECT LOCATION							GROUNE	D ELEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	ER .	
Halladay Street , Jersey City, NJ									.40	,				20667601
RILLING CONTRACTOR		FOREMAN					DATE ST	ARTED			DATE CO	OMPLETE	D	
dvanced Drilling, Inc.		Roger Lo	oge	el				11/2	27/06			11.	/28/06	
PRILLING EQUIPMENT							COMPLE	TION DE	PTH (FT E	BGS)	ROCK DI	EPTH (FT)	
GEFCO SS 5 Drill Rig turning 4.25-inch hollow-stem auger	S							56				not end	counter	red
YPE BIT Hollow-stem auger		SIZE AND	TYI	PE CORE	BARRE	ΞL	NO. SAM	IPLES	DIST.	26	UNDIST.	N/A		CORE N/A
asing N/A		- 1	N/	A			WATER	DEPTH	FIRST	4.8	COMPL.	N/A		24HR N/A
ASING HAMMER WEIGHT N/A		DROP		N/A			BORING	LOCATIO	N: Easte	rn shoul	der of Ca	arteret A	venue, 9	95 ft SE from the
AMPLER 2" diameter, 2' long split-spoon							eastern	corner c	of the Hal	laday St	reet / Ca	rteret Av	enue in	tersection.
SAMPLER HAMMER WEIGHT 140 lbs.		DROP		30"			INSPECT	TOR	Eric Ga	aulin				
·	val		m		San	nples			PID	READI	NGS			
	Interval		Table			Penetr.				(PPM)				
DESCRIPTION	Sample	Depth	Wate	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time		REMARKS
	Š	(ft bgs)			(ft)	BL/6in			Air		Space	Date		
		- 40 -	1				<u>-</u>	ļ				ļ	ļ	
88.0-42.0 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)				19	0.4	2	0955	0.3	0.0	0955	N/A	N/A	odoi	t naphthalene-like rs, no sheen, no ning, no product
		- 41 -				2								3. 1
						3								
2.0-42.6 Reddish brown (2.5YR5/4) fine SILTY SAND (SM)		- 42 -		20	1.4	2	1006	12.9	0.0	1006	N/A	N/A	odoi	t naphthalene-like rs, no sheen, no
2.6-46.3 Reddish brown (2.5YR5/4) fine SANDY SILT (ML)		- 43 -				2		0.3	0.0				Sam	ning, no product nple SB-54(42.5-43.
						2		4.6	0.0				SVC Meta	ected at 1100 for TC DC, TCL VOC, TAL als, Total and enable CN
		- 44 -		21	1.1	2	1036	0.0	0.0	1036	N/A	N/A	No	odors this spoon
		- 45 -				2		0.0	0.0					
						2		0.0	0.0					
		- 46 -				3								
6.3-48.0 Reddish brown (2.5YR5/4) SILTY				22	0.8	2	1047	0.0	0.0	1047	N/A	N/A	No	odors this spoon
CLAY (CL), trace fine sand		- 47 -				3		0.0	0.0					
						3		0.0	0.0					
		- 48 -				3							ļ	
8.0-52.0 Reddish brown (2.5YR5/4) fine AND (SP), trace silt				23	1.1	3	1100	0.0	0.0	1100	N/A	N/A	No	odors his spoon
(3) // made one		- 49 -				3		0.0	0.0					
						3		0.0	0.0					
		- 50 -				3								

	Halladay Street Gas Work	s												SCHOOR DE	
Interim Data Subn	nittal No.4		LOG	С	FSC	OIL E	BOR	ING S	SB-5	4				Pa	ge 6 o
ROJECT LOCATION								GROUNE	D ELEVAT	ΓΙΟΝ (FT.	MSL)	PROJEC	T NUMBE	ER	
Halladay Street , Jersey	City, NJ	-							11	.40				020667601	
RILLING CONTRACTOR			FOREMAN	N				DATE ST	ARTED			DATE CO	OMPLETE	ED	
dvanced Drilling, Inc.			Roger L	og	el					27/06				/28/06	
RILLING EQUIPMENT								COMPLE		PTH (FT E	BGS)	ROCK D	EPTH (FT		
	ırning 4.25-inch hollow-stem augers stem auger		SIZE AND	TV	DE CODE		-1	NO. SAM	56	DIST.	26	UNDIST.		countered CORE N/A	
ASING N/A	item augei			N/		DANNE	L	WATER I		FIRST	4.8	COMPL.	N/A		
ASING HAMMER	WEIGHT N/A		DROP	1 4/	N/A					-				venue, 95 ft SE from the	
	eter, 2' long split-spoon		DHOF		19/73			1						venue intersection.	
SAMPLER HAMMER	WEIGHT 140 lbs.		DROP		30"			INSPECT		Eric Ga		10017 04			
-						San	nples				READI	NGS			
		Interva		Table			Penetr.				(PPM)				
DE	SCRIPTION	Sample	Depth	Water	Number	Recov.	Resist.	Time	Sample	Ambient	Time	Head	Time	REMARKS	6
		Sa	(ft bgs)			(ft)	BL/6in			Air		Space	Date		
48 0-52 0 Raddisk	n brown (2.5YR5/4) fine		- 50 -												
SAND (SP), trace		\setminus			24	0.9	3	1123	0.0	0.0	1123	N/A	N/A		
(,,, = ====															
							3		0.0	0.0					
			- 51 -												
							2								
							3								
52.0-56.0 Reddish	brown (2.5YR5/4) fine to		- 52 -		05			4405			4405	NI/A	NI/A	.	
medium SAND (S	W)				25	2.0	2	1125	0.0	0.0	1125	N/A	N/A		
							3		0.0	0.0					
			- 53 -				3		0.0	0.0					
			50				3		0.0						
									0.0						
							3		0.0						
			- 54 -						ļ		 			 	
					26	2.0	3	1127	0.0	0.0	1127	N/A	N/A	Sample SB-54(55.	
														collected at 1127 fo	
							3		0.0	0.0				VOC, TCL SVOC, Metals, Total and	ıAL
			- 55 -											Amenable CN	
							3		0.0	0.0					
							3		0.0	0.0					
			- 56 -												
end of Boring at 56)'														
			F-7												
			- 57 -												
			- 58 -						.		 				
			- 59 -												
			- 60 -		l	L	L	l	l	1		l	L	1	