Attachment 2

Post-Remedial Summary Laboratory Analytical Data for Remaining Soil Tables

Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

	1		1	1	1					1				1		1				1	1	1		
Client Sample ID:						1C-BOTTOM (3' BSG)	1D-BOTTOM (3' BSG)	1E-BOTTOM (3' BSG)	1F-BOTTOM (4' BSG)	1G-BOTTOM (3' BSG)	1H-BOTTOM (3.5' BSG)	1I-BOTTOM (3'BSG)	2C-BOTTOM (5' BSG)	2E-BOTTOM (7' BSG)	2G-BOTTOM (4.5' BSG)	2H-BOTTOM (7' BSG)	2I-BOTTOM (4'BSG)	2J-BOTTOM (4'BSG)	2L-BOTTOM (6' BSG)	2N-BOTTOM (5' BSG)	2O-BOTTOM (6.5 BSG)'	2P-BOTTOM (5.5' BSG)	2Q-BOTTOM (5.5' BSG)	2R-BOTTOM (6'BSG)
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	4.4-4.9	2.5-3	3.4-3.9	4.3-4.8	3.1-3.6	3.2-3.7	3.3-3.8	4.5-5	6.8-7.3	4.7-5.2	5.9-6.4	4.4-4.9	4.1-4.6	5.8-6.3	6-6.5	7.3-7.8	3.5-4	5.9-6.4	5.7-6.2
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	1-1.5	2.2-2.7	1.9-2.4	1.1-1.6	2.3-2.8	2.3-2.8	2.1-2.6	0.7-1.2	-0.7-(-0.2)	1.2-1.7	0.4-0.9	1.7-2.2	2.1-2.6	1.1-1.6	0.6-1.1	-0.7 -(-0.2)	3-3.5	0.7-1.2	0.8-1.3
Excavated:			(NJAC 7:26D	(NJAC 7:26D	Screening (NJAC 7:26D																			
Lab Sample ID:			6/12)	6/12)	11/13)	JB77658-2R	JB77658-7R	JB77658-12R	JB77660-3R	JB77660-5R	JB77883-1A	JB77884-3A	JB77658-4R	JB83888-4A	JB77660-8R	JB77883-3A	JB77884-4A	JB77884-8A	JB78116-3R	JB78118-4A	JB78376-2R	JB78376-4R	JB78376-6R	JB78862-3R
Date Sampled:						9/23/2014	9/23/2014	9/23/2014	9/24/2014	9/24/2014	9/25/2014	9/26/2014	9/23/2014	12/10/2014	9/24/2014	9/25/2014	9/26/2014	9/26/2014	9/30/2014	10/1/2014	10/3/2014	10/3/2014	10/3/2014	10/9/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis																								
Antimony	7440-36-0	mg/kg	450	31	6	2.3 UJ	2.2 UJ	2.2 UJ	2.4 UJ	2.2 UJ	2.5 U	0.35 J	2.4 UJ	1.4 J	2.3 UJ	0.40 J	2.4 U	2.6 U	0.59 J	2.6 UJ	0.41 J	0.89 J	1.7 J	0.60 J
Chromium	7440-47-3	mg/kg	120,000	-	-	176	17.1	20.9	41.2	161	221	240 J	413	152	379	514	370 J	115 J	284	30.7	113	125	919	444
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	11.6	8.3	9.9	18.8	10.7	8.8	24.1	29.7	43.5	8.6	54.7	39.8	12.1	30.5	12.4	14.7	15	13.9	17.7
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.2 U	1.2 U	1.2 U	1.9 U	1.2 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.3 U	1.3 U	1.5 U	1.3 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	24	28.8	17.3	19.5	28.7	13.3	41.7	30.8	52	15.7	50.2	41.7	15.6	48.1	13.3	19.4	20.5	22.7	30.9
General Chemistry																								
Chromium, Hexavalent	18540-29-9	mg/kg	20	_	_	4.5 J / 1.1 J	0.45 J / 0.48 J	0.40 J / 0.28 J	0.99 R / 0.45 J	4.1 R / 2.5 J	14.1	3.4	5 J / 5.7 J	0.76 U	10.5 R / 18.9 J	0.75	3.6	5.7	0.49 UJ / 1.4 R	0.32 J	0.27 J / 1.3 J	2.3 J / 3.8 J	0.61 UJ / 1.8 J	5.3 R / 3.4 J
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	0.83 ^b	-	-	-	-	-	-	-	-	-	-	-
pH	-	su	-	-	-	9.58	10.06	9.85	9.42	9.61	9.6	7.78	9.78	8.27	10.52	7.42	8.22	7.6	7.6	7.46	7.73	8.31	7.79	7.44
Redox Potential Vs H2	-	mV	-	-	-	173	161	160	208	218	228	116	161	83.9	161	156	187	354	204	310	259	275	135	290
Solids, Percent	-	%	-	-	-	84.8	90	88.4	83.6	91.1	79.8	81.5	81.7	52.3	87.5	80.9	81.3	78.4	82.2	77.1	75.3	77	66.1	81.4
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	5620	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- J The postive result reported for this analyte is a quantitative estimate.
- ${\bf U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- UJ This compound/analyte was not detected in the sample. The actual

quantitation/detection limit may be higher than reported.

Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
- ^g Analysis done out of holding time.

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

FBG= feet below grade

mg/kg = milligram per kilogram

- = Not Available
- --- = Not Analyzed
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.

Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						2X-BOTTOM (5'- 6 BSG)		3G-BOTTOM (3.5' BSG)	3H-BOTTOM (5'BSG)	3I-BOTTOM (4'BSG)	3J-BOTTOM (4'BSG)	3K-BOTTOM (6' BSG)	3L-BOTTOM (5' BSG)	3M-BOTTOM (4' BSG)	3N-BOTTOM (5' BSG)	3O-BOTTOM (5.5' BSG)	3P-BOTTOM (5' BSG)	3Q-BOTTOM (5'BSG)	3R-BOTTOM (4'BSG)	3S-BOTTOM (4'BSG)	3T-BOTTOM (6'BSG)	3X-BOTTOM (6' BSG)	40-BOTTOM (9' BSG)	4P-BOTTOM (5.5' BSG)	4Q-BOTTON (4.5' BSG)
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	5.4-5.9	2.1-2.6	3.3-3.8	3.8-4.3	3.7-4.2	3.7-4.2	5.1-5.6	4.8-5.3	5-5.5	4.8-5.3	6.1-6.6	5.4-5.9	5.7-6.2	4.8-5.3	4.1-4.6	5-5.5	5.9-6.4	8.3-8.8	5.4-5.9	5.6-6.1
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	2.1-2.6	3.9-4.4	3.5-4	3.5-4.0	3.1-3.6	3.1-3.6	1.9-2.4	2.1-2.6	1.8-2.3	1.7-2.2	0.9-1.4	1.1-1.6	1-1.5	1.5-2	1.9-2.4	0.8-1.3	2.5-3	-1.3-(-0.8)	1.2-1.7	0.7-1.2
Excavated:			Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening (NJAC 7:26D																		 		
Lab Sample ID:			6/12)	6/12)	11/13)	JB85408-1R	JB77660-2R	JB77660-9R	JB84206-1R	JB77884-5A	JB77884-9A	JB78117-2R	JB78116-2R	JB78118-1A	JB78118-2A	JB78374-2R	JB78374-3R	JB78376-7R	JB78607-3R	JB78607-4R	JB82417-1R	JB85288-2R	JB79897-1R	JB78374-4R	JB78860-1R
Date Sampled:						12/31/2014	9/24/2014	9/24/2014	12/15/2014	9/26/2014	9/26/2014	9/29/2014	9/30/2014	10/1/2014	10/1/2014	10/2/2014	10/2/2014	10/3/2014	10/6/2014	10/6/2014	11/20/2014	12/30/2014	10/22/2014	10/2/2014	10/7/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis						ē.																			
Antimony	7440-36-0	mg/kg	450	31	6	0.72 J	0.30 J	1.7 J	2.7 U	2.4 U	0.31 J	0.79 J	2.5 U	2.7 UJ	0.36 J	0.43 J	0.61 J	2.6 U	0.42 J	2.4 U	2.5 U	2.1 U	2.4 UJ	0.68 J	2.5 UJ
Chromium	7440-47-3	mg/kg	120,000	-	-	877	89.9	472	44.1	179 J	461 J	703	304	152	99.6	10.8	299	187	82.5	216	301 J	329	17.9	137	249 J
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	25.8	28.3	42.3	17.4	18.8	47.1	48.9	9.8	8.9	12.4	5.6	13.5	6.7	10.8	18.9	35.9	259	6.9	8.9	10.2
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.5 U	1.1 U	1.2 U	1.3 U	1.2 U	1.1 U	1.2 U	1.2 U	1.3 U	1.2 U	1.3 U	1.3 U	1.3 U	1.3 U	1.2 U	1.3 U	1.1 U	1.2 U	1.3 U	1.3 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	53	40.3	61.7	19.2	20.7	52.7	48.2	9.3	9.5	12.7	8.4	20.3	11.7	17.2	23.2	44.3	15.5	9.1	15.4	36.6
General Chemistry																									
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	6.6 J / 3.3 J	0.38 R / 1 J	2.4 R / 2.2 J	0.53 R / 0.7 J	2.1	2.4	4.9 J / 5.5 R	4.9 J / 3.7 R	4.2 J	2.9 J	0.44 J / 1.5 R	6.8 J / 5.5 R	2.2 J / 9.1 J	0.83 J / 1.4 R	3 J / 2.8 R	0.41 R / 1.5	8.2 J / 10.2 J	1 J / 0.26 R	6.4 J / 7.2 R	7.4 R / 16.9 J
Iron, Ferrous	-	%	-	-	-	-	-	-	1.2 ^b	-	-	-	-	-	-	-	-	-	-	1.1 ^b	-	-	-	-	0.78 ^b
pН	-	su	-	-	-	7.18	8.33	8.08	8.6	7.99	7.54	8.22	7.68	7.66	7.67	8.1	8.8	8.31	7.76	7.84	7.89	8.32	8.41	8.44	8.75
Redox Potential Vs H2	-	mV	-	-	-	256	288	222	307	274	330	276	270	246	248	300	277	251	251	223	176	347	199	287	226
Solids, Percent	-	%	-	-	-	65	91.5	83.3	75.4	80.7	83.5	82.5	78	77.9	81.5	76.7	77.6	75.6	75.9	82.9	78.3	92.4	79.4	78.6	77.1
Sulfide Screen	-	-	-	-	-	-	-	-	NEGATIVE ^c	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	-	-	-	-	NEGATIVE °
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	6480 ^d	-	-	-	-	-	-	-	_	-	-	14700 ^d	-	-	'	-	689

Analytical Data Qualifiers:

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- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
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- ${\bf U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
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quantitation/detection limit may be higher than reported.

Notes:

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- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
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Client Sample ID:						4Q-BOTTOM DUP (4.5' BSG)	4S-BOTTOM (4' BSG)	4T-BOTTOM (6' BSG)	4T-BOTTOM (5' BGS)	4U (12/3)- BOTTOM (5.5' BSG)	4U-BOTTOM (4.5' BSG)	4V-BOTTOM (6' BSG)	4V-BOTTOM DUP (6' BSG)	(6' BELOW	5P BOTTOM (6' BELOW BLACKTOP)	5Q BOTTOM (5' BELOW BLACKTOP)	5R BOTTOM (5' BELOW BLACKTOP)	5S-BOTTOM (5' BSG)	5T-BOTTOM (5' BGS)	5U-BOTTOM (4.5' BSG)	5U-BOTTOM DUP (4.5' BSG)	5V-BOTTOM (6' BSG)	5V-BOTTOM (6'BSG)	5W-BOTTOM (7.5' BSG)	6L BOTTOM (2) (6.5' BELOW BLACKTOP)
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	5.6-6.1	4.9-5.4	5.6-6.1	5.5-6	6.6-7.1	5.3-5.8	6.4-6.9	6.4-6.9	5.5-6	5.1-5.6	4.9-5.4	5.1-5.6	5.3-5.8	5.5-6	5.1-5.6	5.1-5.6	6.8-7.3	5.8-6.3	6.9-7.4	6.9-7.4
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	0.7-1.2	1-1.5	0.3-0.8	1-1.5	(-0.1)-0.4	1.2-1.7	0.1-0.6	0.1-0.6	1.5-2	1.5-2	1.6-2.1	1.1-1.6	0.6-1.1	1-1.5	1.4-1.9	1.4-1.9	0.5-1	2.3-2.8	1.4-1.9	1.3-1.8
Excavated:			Contact Soil (NJAC 7:26D	(NJAC 7:26D	Screening (NJAC 7:26D																				
Lab Sample ID:			6/12)	6/12)	11/13)	JB78860-2R	JB78607-6R	JB82579-1A	JB82964-1R	JB83886-1T	JB83440-2R	JB84364-2R	JB84364-3R	JB72493-2R	JB72493-1R	JB73545-1R	JB73545-2R	JB78861-1R	JB82964-2R	JB83601-1R	JB83601-2R	JB83600-1R	JB84074-2R	JB84846-4R	JB72918-3A
Date Sampled:						10/7/2014	10/6/2014	11/21/2014	12/1/2014	12/3/2014	12/4/2014	12/16/2014	12/16/2014	7/23/2014	7/23/2014	8/6/2014	8/6/2014	10/8/2014	12/1/2014	12/5/2014	12/5/2014	12/8/2014	12/12/2014	12/19/2014	7/29/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis									•																
Antimony	7440-36-0	mg/kg	450	31	6	0.30 J	2.5 U	2.4 U	0.69 J	2.0 U	2.4 U	2.3 U	2.3 U	2.2 U	2.3 U	2.5 UJ	2.6 UJ	2.4 UJ	0.37 J	2.6 U	1.2 J	2.3 U	2.5 U	2.2 UJ	2.1 U
Chromium	7440-47-3	mg/kg	120,000	-	-	352 J	345	138	74.6	30.6	76.8	36.7	52	64	84.6	180	176	247 J	168	143	124	237	19.5	126	101
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9	7.1	7.5	6.5	9.9	8.9	8.9	10.2	5.8	7.8	10.1	9.6	11.6	16.8	15.6	11.6	14.7	7.7	5.9	10.6
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.1 U	1.3 U	1.2 U	1.2 U	0.99 U	1.2 U	1.1 U	1.2 U	1.1 U	1.1 U	1.2 U	1.3 U	1.2 U	1.2 U	1.3 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	14	13.3	18.5	7.7	11.1	11.4	9.6	10.7	11.5	39	32.4	30.1	37.6	9.3	19.1	15.1	16.1	10	9	14.9
General Chemistry														•					_						
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	6.2 R / 7.3 J	2.1 J / 6.7 R	4.1	4.7 J / 3.5	0.51 UJ	7.4 J / 6.5 J	2.3 / 2.9 J	3.6 / 1.1 J	2.1 R / 2.3 J	5.4 R / 2.8 J	8.5 J / 13.4 J	11.9 J / 10.5 J	10.8 J / 13.1 R	6 J / 6.9	5.2 J / 5.4 J	4.4 J / 6.1 J	10.2 J / 8.8 J	0.49 R / 0.63 J	8.1 J / 4.9 J	2.1
Iron, Ferrous	-	%	-	-	-	-	-	-	0.52 ^b	-	-	0.71 ^b	-	-	0.61	0.83 ^b	-	-	-	0.7 b	-	0.22 ^b	-	-	-
pН	-	su	-	-	-	8.62	8.12	8.25	8.22	7.7	8.19	8.15	7.93	8.88	8.25	8.31	8.27	8.57	8.45	8.04	8.04	7.76	7.9	8.39	8.02
Redox Potential Vs H2	-	mV	-	-	-	231	128	292	253	355 ^g	265	291	298	257	296	186	197	231	246	258	206	252	224	274	277
Solids, Percent	-	%	-	-	-	90.7	80.6	80.9	82	78.6	79.6	85.7	82	82.7	82.1	80.4	81	83.3	81.5	76.8	81.8	84.2	82.1	88.9	81.9
Sulfide Screen	-	-	-	-	-	-	-	-	NEGATIVE °	-	-	NEGATIVE °	-	-	NEGATIVE	NEGATIVE °	-	-	-	NEGATIVE °	-	NEGATIVE °	-	-	-
Total Organic Carbon	-	mg/kg	_	_	_	_	-	-	482	-	_	595	-	-	599 ^d	1260	-	_	_	2610	-	586	-	_	-

Analytical Data Qualifiers:

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quantitation/detection limit may be higher than reported.

Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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- = Not Available
- -- = Not Available --- = Not Analyzed
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
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Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						6M BOTTOM (2) (6.5' BELOW BLACKTOP)	(6' BELOW	60 BOTTOM (6' BELOW BLACKTOP)	6P BOTTOM (6' BELOW BLACKTOP)	6S-BOTTOM (4.5' BSG)	6T-BOTTOM (6' BSG)	6U-BOTTOM (6' BSG)	6V-BOTTOM (6' BSG)	7L BOTTOM (2) (6.5' BELOW BLACKTOP)	7M BOTTOM (2) (6.5' BELOW BLACKTOP)	7N BOTTOM (6' BELOW BLACKTOP)	(5' BELOW	7Q BOTTOM (5' BELOW BLACKTOP)	7Q BOTTOM DUP (5' BELOW BLACKTOP)	7R BOTTOM (4 FBG)	7S BOTTOM (4.5' BELOW SURFACE)	7T BOTTOM (5' BELOW SURFACE)	7U BOTTOM (6' BELOW SURFACE)	7U BOTTOM DUP (6' BELOW SURFACE)
Sample Depth (ft bgs):			NJ Non- Residential	NJ Residential	NJ Default Impact to	6-6.5	6.1-6.6	6.2-6.7	4.8-5.3	4.4-4.9	5.6-6.1	5.7-6.2	4.6-5.1	7.3-7.8	6.5-7	5.5-6	5.5-6	5.9-6.4	5.9-6.4	4-4.5	3.7-4.2	4.4-4.9	6.4-6.9	6.4-6.9
Sample Elevation (ft):	CAS#	Units	Direct	Direct	Groundwater Soil	1.8-2.3	1.4-1.9	1.1-1.6	2-2.5	1.6-2.1	1.5-2	2-2.5	4.0-4.5	1.1-1.6	1.4-1.9	2.1-2.6	1.8-2.3	1-1.5	1-1.5	2.8-3.3	3.3-3.8	3.1-3.6	1.8-2.3	1.8-2.3
Excavated:	G. 10		Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening																			
Lab Sample ID:			6/12)	6/12)	(NJAC 7:26D 11/13)	JB72918-2A	JB72493-4R	JB72493-3R	JB72240-2A	JB82704-3A	JB83888-1A	JB83888-2A	JB83888-3A	JB72918-4A	JB72918-1A	JB72493-5R	JB72240-1A	JB73136-1A	JB73136-2A	JB71600-1R	JB73546-2A	JB73868-2A	JB73867-1A	JB73867-2A
Date Sampled:						7/29/2014	7/23/2014	7/23/2014	7/22/2014	11/24/2014	12/10/2014	12/10/2014	12/10/2014	7/29/2014	7/29/2014	7/23/2014	7/22/2014	7/31/2014	7/31/2014	7/11/2014	8/7/2014	8/8/2014	8/11/2014	8/11/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	1	•									l	I.			•	•						I.	I.	
Antimony	7440-36-0	mg/kg	450	31	6	2.4 U	2.2 U	2.1 U	2.3 U	2.3 U	2.5 U	2.4 U	2.6 U	2.1 U	2.2 U	2.3 U	1.9 U	2.0 U	2.1 U	2.1 U	2.4 UJ	0.78 J	0.79 J	0.39 J
Chromium	7440-47-3	mg/kg	120,000	-	-	122	7.3	234	485 J	195	50	54.9	41.2	135	75	51.2	202 J	71.9 J	41 J	39.9	38.5	43	21.2	18.2
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	11.8	6.7	6.5	6.7	8.7	10.3	7.7	12	15.7	11.4	6	5.8	6.3	5.2	11.8	9.7	11.5	8.4	7.3
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.2 U	1.1 U	1.1 U	1.1 U	1.2 U	1.2 U	1.2 U	1.3 U	1.1 U	1.1 U	1.1 U	0.96 U	1.0 U	1.1 U	1.0 U	1.2 U	1.2 U	1.2 U	1.2 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	15.1	8.9	15.8	36.2	15.9	18.2	8.7	10.9	18.9	16.4	8.3	30.7	13.7	8.4	19.9	15.4	18	14.9	12.3
General Chemistry	1			1		T	1		1		1	ı		Ī	•	1		1	1	ı		ı	ı	_
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.8	0.43 R / 0.30 J	6.8 R / 7.6 J	13.9 J	6.2	3.7 J	1.7 J	2.2 J	4.9	3.1	2.6 R / 3.9 J	8.7 J	5.7	4.1	1.5 J / 1 J	1.2	1.8 J	1	0.89
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.65 ^b	-	-	-	-
рН	-	su	-	-	-	8.1	8.1	8.52	8.42	8.51	8.36	8.16	7.84	8.32	8.34	8.22	8.53	8.05	8.13	8.85	8.53	8.53	7.85	8.13
Redox Potential Vs H2	-	mV	-	-	-	274	303	274	289	276	283	291	298	278	256	313	291	313	310	265	252	244	243	244
Solids, Percent	-	%	-	-	-	78.8	82.6	80.3	78.9	84.4	78.6	80.1	77.9	84	86	81	90.2	84.4	84.4	91.2	85	80.5	85.2	84.2
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	_	-	-	-	-	-	_	-	_	-	-	-	_	-	495	-	-	-	_

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- J The postive result reported for this analyte is a quantitative estimate.
- ${\bf U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- UJ This compound/analyte was not detected in the sample. The actual

quantitation/detection limit may be higher than reported.

Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
- ^g Analysis done out of holding time.

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

FBG= feet below grade

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

- = Not Available
- --- = Not Analyzed
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.

Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						7V-BOTTOM (6'BSG)	(6' BELOW	8M BOTTOM (6' BELOW BLACKTOP)	(5' BELOW	80 BOTTOM (2) (6' BELOW BLACKTOP)	8R BOTTOM (3 FBG)	8S BOTTOM (4.5' BELOW SURFACE)	8T BOTTOM (5' BELOW SURFACE)	(5' BELOW	(5' BELOW	9M BOTTOM (5' BELOW BLACKTOP)	(5' BELOW	90 ВОТТОМ	9P BOTTOM	9S-BOTTOM	9T-BOTTOM	9U-ВОТТОМ	10L BOTTOM (5' BELOW BLACKTOP)	10M BOTTOM (5' BELOW BLACKTOP)	(5' BELOW
Sample Depth (ft bgs):			NJ Non- Residential	NJ Residential	NJ Default Impact to	6-6.5	6.7-7.2	6.1-6.6	4.6-5.1	5.3-5.8	4.1-4.6	4.2-4.7	4.7-5.2	4.8-5.3	5.5-6	5.5-6	4.5-5	3.9-4.4	3.6-4.1	4-4.5	4.2-4.7	4.3-4.8	5.3-5.8	5-5.5	4.6-5.1
Sample Elevation (ft):	CAS#	Units	Direct Contact Soil	Direct Contact Soil	Groundwater Soil	2.4-2.9	1.8-2.3	2.1-2.6	3.1-3.6	2.3-2.8	2.8-3.3	3.4-3.9	3.3-3.8	3.5-4	2.9-3.4	2.6-3.1	3.3-3.8	3.7-4.2	3.9-4.4	3.6-4.1	3.8-4.3	4.1-4.6	3-3.5	3.1-3.6	3.2-3.7
Excavated:			(NJAC 7:26D	(NJAC 7:26D	Screening (NJAC 7:26D																				
Lab Sample ID:			6/12)	6/12)	11/13)	JB84075-3A	JB72494-4R	JB72494-5R	JB72493-6R	JB72919-1R	JB71600-2R	JB73546-1A	JB73868-1A	JB73868-3A	JB72918-5A	JB72918-6A	JB72918-7A	JB71107-1A	JB71107-5A	JB70989-1	JB70650-1	JB70650-2	JB73136-7A	JB73136-5A	JB73136-3A
Date Sampled:						12/11/2014	7/24/2014	7/24/2014	7/23/2014	7/30/2014	7/11/2014	8/7/2014	8/8/2014	8/8/2014	7/29/2014	7/29/2014	7/29/2014	7/8/2014	7/8/2014	7/2/2014	6/30/2014	6/30/2014	7/31/2014	7/31/2014	7/31/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis																									
Antimony	7440-36-0	mg/kg	450	31	6	2.4 U	2.1 UJ	2.3 UJ	2.7 U	1.8 U	2.1 U	2.3 UJ	0.58 J	0.47 J	0.56 J	2.9 U	2.4 U	2.2 U	2.1 U	2.2 U	2.1 U	1.9 U	2.2 U	2.1 U	2.1 U
Chromium	7440-47-3	mg/kg	120,000	-	-	74.8	132 J	130 J	48.6	36.6	20.3	33.8	18.5	12.8	375	112	65.8	22.1	14.3	11.7 J	15.7	8.6	56.8	60.6	28.3
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	12.8	6.4	6.3	11.7	6	7.5	16.8	9.2	8.6	11.2	9	5.9	7.8	6.2	4.8 J	7.4	5.6	6.6	7.6	11.5
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.2 U	1.0 U	1.2 U	1.3 U	0.92 U	1.1 U	1.2 U	1.1 U	1.1 U	1.6 U	1.4 U	1.2 U	0.59 J	1.0 U	1.1 U	1.1 U	0.97 U	1.1 U	1.0 U	1.0 U
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	16.5	8.7	6.7	15.5	8.4 J	13.3	26.2	15.7	11.8	14.1	11.7	8	11.8	9.7	6.7 J	7.3	7.7	10.7	9.1	13.5
General Chemistry				_																					
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.4	8.1 R / 7.6 J	6.5 R / 8.2 J	1.2 R / 1.9 J	4.9 J / 2.3 J	2 J / 2.6 J	1.9	2.2 J	0.67 J	11.2	6.1	1	2.4	1.2	0.85	1.1	0.48	2.1	2.3	0.43 J
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pН	-	su	-	-	-	8.52	7.92	8	7.01	8.28	8.91	8.85	8.85	8.75	7.76	8.05	8.48	8.13	8.47	8.57	8.67	8.69	7.85	8.43	8.29
Redox Potential Vs H2	-	mV	-	-	-	248	302	305	300	319	267	227	230	238	297	265	264	355	339	314	381	386	310	277	319
Solids, Percent	-	%	-	-	-	86.7	81.2	77.3	71.5	93.9	89.5	85.3	91.3	90.2	61.3	68.6	83.1	85.8	84	82.8	88.6	87.1	82.6	81.2	82.9
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

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- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
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quantitation/det

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
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ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

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mg/kg = milligram per kilogram

- = Not Available
- --- = Not Analyzed
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.

Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						100 ВОТТОМ	10P BOTTOM	10Q-BOTTOM	110 BOTTOM	11P BOTTOM	11S-BOTTOM	11T-BOTTOM	120 BOTTOM	12P BOTTOM	12Q BOTTOM LOW (6.5' BELOW BLACKTOP)	12Q BOTTOM HIGH (4' BELOW BLACKTOP)	12R BOTTOM HIGH (4' BELOW BLACKTOP)	12R BOTTOM LOW (6.5' BELOW BLACKTOP)	12S-BOTTOM	12S-BOTTOM DUP	130 BOTTOM	13P BOTTOM
Sample Depth (ft bgs):	:		NJ Non-	NJ	NJ Default Impact to	3.1-3.6	3.6-4.1	3.2-3.7	3-3.5	3.6-4.1	3.3-3.8	3.5-4	2.8-3.3	3.4-3.9	5.2-5.7	7.5-8	4.8-5.3	7.5-8	3.6-4.1	3.6-4.1	3.5-4	3.6-4.1
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	4.6-5.1	3.9-4.4	4.2-4.7	4.7-5.2	3.9-4.4	4.6-5.1	4.7-5.2	4.9-5.4	4.2-4.7	2.6-3.1	0-0.5	3.2-3.7	0.4-0.9	4.6-5.1	4.6-5.1	4.2-4.7	4.2-4.7
Excavated:			Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening (NJAC 7:26D																	
Lab Sample ID:			6/12)	6/12)	11/13)	JB71107-2A	JB71107-6A	JB70989-2	JB71107-3A	JB71336-1A	JB70649-3	JB70649-4	JB71107-4A	JB71336-2A	JB72919-10R	JB72919-11R	JB72919-8R	JB72919-9R	JB70989-3	JB70989-4	JB71336-4A	JB71336-3A
Date Sampled:						7/8/2014	7/8/2014	7/2/2014	7/8/2014	7/9/2014	7/1/2014	7/1/2014	7/8/2014	7/9/2014	7/30/2014	7/30/2014	7/30/2014	7/30/2014	7/2/2014	7/2/2014	7/9/2014	7/9/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil									
Metals Analysis	•		•	•						•	•			•					•			
Antimony	7440-36-0	mg/kg	450	31	6	2.0 U	2.1 U	1.9 U	1.9 U	2.0 U	2.2 U	2.0 U	2.0 U	2.2 U	0.59 J	0.25 J	1.9 U	0.36 J	1.9 U	1.9 U	2.1 U	2.1 U
Chromium	7440-47-3	mg/kg	120,000	-	-	12.6	13.9	41.7 J	16.1	33.3	248	14.6	28.1	74.4	84.5	98.7	19.9	239	16.7 J	16.1 J	197	234
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	5.9	6.4	19.3 J	7.5	7.7	65.4	6.3	9.2	15.7	7	9.9	13.5	9.2	8.6 J	8 J	43.8	28.7
Thallium	7440-28-0	mg/kg	NR	NR	NR	0.60 J	0.44 J	0.96 U	0.97 U	1.0 U	0.51 J	0.98 U	0.57 J	1.1 U	1.0 U	0.87 U	0.97 U	1.1 U	0.94 U	0.95 U	0.71 J	0.59 J
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	8.2	15.1	16.9 J	9	11.8	74.8	9.7	11.8	22.1	8.4 J	21.8 J	20.7 J	9.8 J	9.7 J	9.3 J	33.4	35.4
General Chemistry	,			,																		
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.77	0.48 U	0.95	0.44	3.1	2.8	0.69	1.2	4.2	6.1 J / 2.4 J	4.6 J / 1.4 J	1.8 J / 0.94 J	12.7 J / 6.1 J	1.3	0.83	2.2	4
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
рН	-	su	-	-	-	8.71	8.4	8.52	8.85	8.43	8.62	9.01	8.31	8.68	8.14	8.2	9.14	8.45	8.84	8.68	8.96	8.92
Redox Potential Vs H2	-	mV	-	-	-	339	347	342	333	291	390	372	394	288	292	282	294	313	330	350	276	275
Solids, Percent	-	%	-	-	-	94.2	83.8	92.8	91.9	84.3	92	93.1	91.6	84.4	87.2	97.7	88.9	82	94.8	95.5	80.3	87.1
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- R The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- J The postive result reported for this analyte is a quantitative estimate.
- **U** This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
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quantitation/detection limit may be higher than reported.

Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- $^{\rm f}$ Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
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mg/kg = milligram per kilogram

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- mV = millivolts
- = Not Available --- = Not Analyzed
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
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Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						13Q BOTTOM HIGH (5' BELOW BLACKTOP)	13Q BOTTOM LOW (6.5' BELOW BLACKTOP)	13R BOTTOM (2) (6.5' BELOW BLACKTOP)	14P BOTTOM (5' BELOW BLACKTOP)	14Q BOTTOM (5' BELOW BLACKTOP)	14S BOTTOM (2.5' BELOW BLACKTOP)	14S BOTTOM DUP (2.5' BELOW BLACKTOP)	15P BOTTOM (6' BELOW BLACKTOP)	15Q BOTTOM (4.5' BELOW BLACKTOP)	16O-BOTTOM (5' BSG)	16P-BOTTOM (3.5 BSG)	16Q-BOTTOM (3.5 BSG)	16Q BOTTOM	16S BOTTOM	17N-BOTTOM (5'BSG)	17P-BOTTOM (3.5 BSG)	17S BOTTOM
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	5-5.5	6.9-7.4	6.8-7.3	4.4-4.9	5-5.5	3.6-4.1	3.6-4.1	5.5-6	4.3-4.8	4.4-4.9	4-4.5	3.8-4.3	3.9-4.4	2.8-3.3	4.2-4.7	3.4-3.9	3-3.5
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	2.7-3.2	0.8-1.3	1.2-1.7	3.4-3.9	2.8-3.3	4.7-5.2	4.7-5.2	2.1-2.6	3.6-4.1	3.3-3.8	3.9-4.4	4.3-4.8	4.1-4.6	5.9-6.4	3.3-3.8	4.8-5.3	5.9-6.4
Excavated:			Contact Soil (NJAC 7:26D	(NJAC 7:26D	Screening (NJAC 7:26D																	
Lab Sample ID:			6/12)	6/12)	11/13)	JB73139-1A	JB72919-13R	JB73307-1R	JB73307-3R	JB73307-2R	JB72918-8A	JB72918-9A	JB73867-4A	JB73867-5A	JB79898-1R	JB76205-2R	JB76205-3R	JB74359-6A	JB74359-3A	JB76593-1A	JB76205-1R	JB74359-5A
Date Sampled:						8/1/2014	7/30/2014	8/5/2014	8/5/2014	8/5/2014	7/29/2014	7/29/2014	8/11/2014	8/11/2014	10/14/2014	9/9/2014	9/9/2014	8/18/2014	8/18/2014	9/11/2014	9/9/2014	8/18/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis																						
Antimony	7440-36-0	mg/kg	450	31	6	2.1 U	2.2 U	2.4 U	2.4 U	2.6 U	0.29 J	2.2 U	1.3 J	0.53 J	1.0 J	2.3 UJ	2.2 UJ	2.6 U	2.2 U	2.4 UJ	2.1 UJ	2.2 U
Chromium	7440-47-3	mg/kg	120,000	-	-	130	171	329	155	40.1	26.4	24.4	203	34.1	45.4	92	298	55.9	24.7	138	90	23.2
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	8.8	9.3	10	10.3	9.3	10.8	11	12.9	8.1	9.8	11.3	10.6	12.2	9.2	14.5	10.7	9.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.0 U	1.1 U	1.2 U	1.2 U	1.3 U	1.1 U	1.1 U	1.2 U	1.2 U	1.3 U	1.2 U	1.1 U	1.3 U	1.1 U	1.2 U	1.0 U	1.1 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	8.9	12.2 J	12.4	13.3	14.7	14.4	12.3	16.6	10.4	11.7	12.1	16.7	17.4	12.5	21.8	16.6	18.1
General Chemistry	1	1	1	1		1		T	1	1	1	T	ı	1	1	•	1	1		•	ı	т.
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	3.9	2.6 J / 4.6 J	12.4 J / 5.3 J	9.7 J / 8.4 J	2.7 J / 2.6 J	0.71	0.7	8.4	2.1	1.9 J / 1.6 R	3.2 J / 2.1	5.7 J / 4.6	2.3	1.2	7.4	5 J / 0.63	0.89
Iron, Ferrous	-	%	-	-	-	-	-	1.4 ^b	-	-	-	-	-	-	0.75 ^e	-	-	-	-	-	0.66	-
pH	-	su	-	-	-	8.19	8.37	8.64	8.58	8.72	8.63	8.6	8.44	8.66	8.71	8.72	8.74	8.67	8.55	9.88	8.93	8.51
Redox Potential Vs H2	-	mV	-	-	-	290	284	223	256	250	292	312	238	232	200	292	299	374	343	234	285	361
Solids, Percent	-	%	-	-	-	82.7	79.6	82.5	80.8	80.9	82.1	86.4	84	81.6	79.5	85.5	91.4	78.4	95.1	81	93.8	93.8
Sulfide Screen	-	-	-	-	-	-	-	NEGATIVE	-	-	-	-	-	-	NEGATIVE ^e	-	-	-	-	-	NEGATIVE	-
Total Organic Carbon	_	mg/kg	_	_	_	_	_	330	_	_	_	_	_	_	1690 ^d	_	_	_	_	_	566 ^d	_

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
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Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
- ^g Analysis done out of holding time.

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

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mg/kg = milligram per kilogram

- = Not Available
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- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
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Base Post-Excavation Soil Samples (2014-2015)
Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil
PPG Site 16, 45 Linden Avenue East, Jersey City, NJ
2014-2015 Sampled by WCD and CB&I

Client Sample ID:						17T BOTTOM (1' BELOW SURFACE)	18/19M-OH DOOR COMPOSITE (3'BSG)	18M-BOTTOM (4'BSG)	18M- BOTTOMBLDG (5' BSG)	18N-BOTTOM (4'BSG)	18O-BOTTOM (4'BSG)
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	2.8-3.3	2.9-3.4	6.6-7.1	5.5-6	6.2-6.7	5.2-5.7
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	6.3-6.8	6-6.5	2.1-2.6	3.5-4	2.2-2.7	2.8-3.3
Excavated:		55	Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening (NJAC 7:26D						
Lab Sample ID:			6/12)	6/12)	11/13)	JB74360-4A	JB80631-6A	JB76016-16A	JB80537-7R	JB76016-14A	JB76016-12A
Date Sampled:						8/15/2014	10/30/2014	9/5/2014	10/29/2014	9/5/2014	9/5/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•	•		•				•		•	•
Antimony	7440-36-0	mg/kg	450	31	6	2.1 U	2.4 U	2.5 UJ	2.4 U	2.5 UJ	2.6 UJ
Chromium	7440-47-3	mg/kg	120,000	-	-	22.9	296 J	200	156	245	160
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9.8	35.8	8.6	8	8.4	11.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.1 U	1.2 U	1.2 U	1.2 U	1.2 U	1.3 U
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	12.5	60.8	9	12.1	11.8	16.6
General Chemistry						•		•			_
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.6 J	9.4	4.2	10.3 R/6.8	4.3	7.3
Iron, Ferrous	-	%	-	-	-	-	-	-	0.74 ^b	-	-
pН	-	su	-	-	-	8.77	7.98	8.75	10.55	8.47	8.66
Redox Potential Vs H2	-	mV	-	-	-	381	262	317	84.3	326	326
Solids, Percent	-	%	-	-	-	95.3	85.2	78.4	80.2	80.8	79.1
Sulfide Screen	-	-	-	-	-	-	-	-	NEGATIVE °	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	10100	-	-

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Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						18P-BOTTOM (4.5' BSG)	18R BOTTOM (2.5' BELOW SURFACE)	18S BOTTOM (2.5' BELOW SURFACE)	18T BOTTOM (2.5' BELOW SURFACE)	18U BOTTOM (1.5' BELOW SURFACE)	19M-BOTTOM (4'BSG)	19M- BOTTOMBLDG (5'BSG)	19M- BOTTOMBLDG DUP (5'BSG)	19N-BOTTOM (4'BSG)	19O-BOTTOM (4'BSG)	19P-BOTTOM (3'BSG)	19Q-BOTTOM (3'BSG)	19S BOTTOM HIGH (2' BELOW SURFACE)	19S BOTTOM LOW (5' BELOW SURFACE)	19T-BOTTOM (3' BELOW SURFACE)	20M-BOTTOM	20M-CMU WALL- BOTTOM (1.5'BSG)	20M-CMU WALL- BOTTOM DUP (1.5'BSG)
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	4.4-4.9	2.6-3.1	2.6-3.1	3.1-3.6	1.5-2	6.2-6.7	4.5-5	4.5-5	6-6.5	5-5.5	4.2-4.7	3.1-3.6	2.6-3.1	4.9-5.4	2.9-3.4	6-6.5	1.1-1.6	1.1-1.6
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	3.6-4.1	5.8-6.3	6.1-6.6	5.8-6.3	7.6-8.1	2.4-2.9	3.8-4.3	3.8-4.3	2.3-2.8	2.5-3	3.4-3.9	4.7-5.2	5.7-6.2	3.3-3.8	5.7-6.2	2.9-3.4	5-5.5	5-5.5
Excavated:	UA3#	Onits	Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening																		
Lab Sample ID:			6/12)	6/12)	(NJAC 7:26D 11/13)	JB76015-1R	JB74089-1A	JB74089-2A	JB74360-1A	JB74360-2A	JB76016-17A	JB80631-4A	JB80631-5A	JB76016-15A	JB76016-13A	JB76016-11R	JB76016-8R	JB74091-1A	JB74091-2A	JB74090-8A	JB96558-1A	JB82417-5R	JB82417-6R
Date Sampled:						9/8/2014	8/14/2014	8/14/2014	8/15/2014	8/15/2014	9/5/2014	10/30/2014	10/30/2014	9/5/2014	9/5/2014	9/5/2014	9/5/2014	8/12/2014	8/12/2014	8/13/2014	6/9/2015	11/20/2014	11/20/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•			•	•								•	•	•		•	•			•		
Antimony	7440-36-0	mg/kg	450	31	6	2.6 UJ	2.2 U	2.2 U	2.2 U	2.1 U	2.5 UJ	2.5 U	2.4 U	2.5 UJ	2.4 UJ	2.4 UJ	2.2 UJ	2.5 U	2.5 U	2.1 U	<2.5	2.6 U	2.6 U
Chromium	7440-47-3	mg/kg	120,000	-	-	35.1 J	18.7	17.9	51.1	47.6	110	199 J	155 J	13	65.8	68.6	259	51.4	33.2	18.7	302	652 J	293 J
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	8.3	9.5	9.7	9.7	10.4	6.6	9.8	7	7.8	6.7	9.5	8.9	11.2	8.4	7	8.6	54.7	29.5
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.3 U	1.1 U	1.1 U	1.1 U	1.0 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.2 U	1.3 U	1.0 U	<1.3	1.3 U	1.3 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	9.6	14.9	12.3	24.8	14.5	7.7	12.6	11.3	8.4	7.2	11.3	22.3	25.2	17.2	9.8	9.2	62.3	35.7
General Chemistry		1	1		1	Ī	1		1		•	Ī	1	1	1	Ī	T	T		•	1		
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	1.9 / 2	0.99	1.6	1.8 J	4.1 J	0.83	16.8	5.4	0.21 J	4.3	4.1 J / 4.7	7 J / 4.2	2.5 J	3.8 J	0.41 J	13 J	12 R / 8.5	10.9 R / 13.2
Iron, Ferrous	-	%	-	-	-	0.86 ^b	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4 ^b	-
pН	-	su	-	-	-	8.01	9.12	9.84	9.29	8.93	9.39	10.27	9.84	8.09	8.08	8.47	8.66	8.69	8.49	8.71	10.2	11.25	11.27
Redox Potential Vs H2	-	mV	-	-	-	300	272	281	347	357	332	94.2	163	324	330	325	321	355	360	340	397	81.6	85.7
Solids, Percent	-	%	-	-	-	77.5	93.4	95	93.9	97.2	79.7	82.6	81.7	77.9	79.4	84.8	88.1	81.2	82.3	96.3	77.9	75.4	77.5
Sulfide Screen	-	-	-	-	-	NEGATIVE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	-
Total Organic Carbon	-	mg/kg	-	-	-	1520 ^d	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6420	-

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Client Sample ID:						20N-BOTTOM (3'BSG)	20N-BOTTOM DUP (3'BSG)	20N-BOTTOM (PPG016_B20-N)	200-BOTTOM (PPG016_B20-0)	20P-BOTTOM (2'BSG)	20PO(20P)- BOTTOM	20Q-BOTTOM (3'BSG)	20R-BOTTOM (3' BSG)	20T BOTTOM (3' BELOW SURFACE)	21M-BOTTOM	21N-BOTTOM (PPG016_B21-N)	21N-BOTTOM1 (PPG016_21N_ BOTTOM1)	210-BOTTOM (PPG016_21-O BOTTOM)	21P-BOTTOM (2'BSG)	21P-BOTTOM	21P-BOTTOM (PPG016_21P_ BOTTOM1)	21Q-BOTTOM (3'BSG)
Sample Depth (ft bgs):			NJ Non- Residential	NJ Residential	NJ Default Impact to	0.6-1.1	0.6-1.1	4.8-5.3	6.5-7	3.1-3.6	4.8-5.3	3.5-4	2.7-3.2	3.1-3.6	6.4-6.9	2.5-3	6.5-7	4.7-5.2	3.3-3.8	5.2-5.7	4.8-5.3	3.4-3.9
Sample Elevation (ft):	CAS#	Units	Direct	Direct	Groundwater Soil	5.0-5.5	5.0-5.5	3.7-4.2	2-2.5	4.1-4.6	3.7-4.2	4.2-4.7	5.3-5.8	5.8-6.3	2.7-3.2	6-6.5	2-2.5	3.8-4.3	5.2-5.7	3.3-3.8	3.7-4.2	5.1-5.6
Excavated:			Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening (NJAC 7:26D																	
Lab Sample ID:			6/12)	6/12)	11/13)	JB76592-1R	JB76592-2R	JB95354-2RT	JB95248-1R	JB76016-9R	JB95670-35A	JB76016-1R	JB75660-1A	JB74090-1A	JB96698-2A	JB95354-1R	JB97625-1RT	JB95453-1	JB76016-10R	JB95834-1RT	JB97625-2R	JB76016-1A
Date Sampled:						9/11/2014	9/11/2014	5/22/2015	5/21/2015	9/5/2014	5/27/2015	9/5/2014	9/4/2014	8/13/2014	6/10/2015	5/22/2015	6/23/2015	5/26/2015	9/5/2014	5/29/2015	6/23/2015	9/5/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis												•										
Antimony	7440-36-0	mg/kg	450	31	6	0.82 J	2.5 UJ	<2.4	<2.6	2.2 UJ	<2.4	-	2.1 U	2.2 U	<2.5	<2.2	<2.6 UJ	<2.5	2.2 UJ	<2.5	<2.3 UJ	2.4 UJ
Chromium	7440-47-3	mg/kg	120,000	-	-	8	8.6	47.8	114	36.2	17.3	-	50.8	7.7	427	160	244	163	24.5	37	12.4	398
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	8.9	8.5	8.9	7	11.1	7	-	12.9	9.1	7.2	9.8	7.4	9.1	9.8	8.5	8.3	9.1
Thallium	7440-28-0	mg/kg	NR	NR	NR	0.64 J	1.3 U	<1.2	<1.3	1.1 U	<1.2	-	0.43 J	1.1 U	<1.3	<1.1	<1.3	<1.3	1.1 U	<1.3	<1.2	1.2 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	10	10	9.2	8.4	14.6	7.1	-	20.8	8.8	10.4	10.6	11.9	18.9	11.2	10.1	11.1	14.7
General Chemistry					•								•									
Chromium, Hexavalent	18540-29-9	mg/kg	20	_	_	0.39 R / 0.28 J	0.51 R / 0.45 J	2 / 2.7 ^f J	3.8 J / 8	1.3 J / 0.73	0.73	8.4 J / 7.2	2.4	0.37 J	16.6 J	7.1 J / 7.1 ^f J	<0.51 UJ / 10.1 J	7.6 J	0.17 J / 0.84	2.4 J / 2.5 J	<0.48 UJ / 0.97 J	_
Iron, Ferrous	-	%	_	-	-	0.7 b	_	0.28 ^b	-	_	_	-	-	-	-	-	0.54	_	-	0.36 ^b	-	-
pH	-	su	_	-	_	9.46	9.38	8.17	7.22	8.84	8.61	8.29	9.14	10.64	8.52	8.15	8.11	7.94	9.11	8.86	8.59	_
Redox Potential Vs H2	-	mV	_	-	_	224	225	394	324	315	328	309	226	233	358	405	391	347	302	398	387	-
Solids, Percent	-	%	_	-	_	76.7	78.6	81.3	78.8	89.6	79.8	83.8	95.6	92.9	77.8	88.7	78.3	78.2	94.1	84.1	83.4	_
Sulfide Screen	-	-	_	-	_	NEGATIVE °	-	NEGATIVE °	-	-	-	-	-	-	-	-	NEGATIVE	-	-	NEGATIVE °	-	-
Total Organic Carbon	-	mg/kg	_	-	_	315	-	818	-	_	-	-	-	-	-	-	947	-	-	2380	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- J The postive result reported for this analyte is a quantitative estimate.
- ${\bf U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- UJ This compound/analyte was not detected in the sample. The actual

quantitation/detection limit may be higher than reported.

Notes:

- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
- ^g Analysis done out of holding time.

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ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

FBG= feet below grade

mg/kg = milligram per kilogram

- = Not Available
- -- = Not Available --- = Not Analyzed
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
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Base Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						21Q-BOTTOM (3' BSG)	22M-BOTTOM	22N-BOTTOM1	22N BOTTOM	22O-BOTTOM (PPG016_B22-0)	22O-BOTTOM1 (PPG016_22O_ BOTTOM1)	22P BOTTOM	23M-BOTTOM	23N-BOTTOM	24M-BOTTOM	PPG016_ SEWER LINE BOTTOM 1R	PPG016_DUP01	SEWERLINE BOTTOM 2	SEWER LINE BOTTOM 3
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default Impact to	3.4-3.9	6.3-6.8	5.5-5.6	3.4-3.9	1.9-2.4	5-5.5	3.7-4.2	5.8-6.3	11.3-11.8	4.8-5.3	8.1-8.6	8.1-8.6	6.8-7.3	6.2-6.7
Sample Elevation (ft):	CAS#	Units	Residential Direct	Residential Direct	Groundwater Soil	5.1-5.6	3-3.5	3.3-3.8	6.1-6.6	6.6-7.1	3.5-4	4.8-5.3	3.3-3.8	-2.2-(-2.7)	5.7-6.2	0.4-0.9	0.4-0.9	1.6-2.1	2.3-2.8
Excavated:			Contact Soil (NJAC 7:26D	Contact Soil (NJAC 7:26D	Screening (NJAC 7:26D														
Lab Sample ID:			6/12)	6/12)	11/13)	JB76204-1A	JB97054-1A	JB96451-1A	JB95670-4A	JB95248-2R	JB97625-3R	JB95670-3A	JB97238-1R	JB96773-1A	JB97356-1A	JB97489-1RT	JB97489-2R	JB96698-5A	JB96773-3A
Date Sampled:						9/10/2014	6/15/2015	6/8/2015	5/27/2015	5/21/2015	6/23/2015	5/27/2015	6/17/2015	6/11/2015	6/18/2015	6/19/2015	6/19/2015	6/10/2015	6/11/2015
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•	•			•			•	•			•		•		•	
Antimony	7440-36-0	mg/kg	450	31	6	2.2 UJ	<2.5	<2.6	<2.1	<2.5	<2.4 UJ	<2.4	<2.4 UJ	<2.5	<2.2 UJ	<2.5 UJ	<2.7 UJ	<2.6	<2.5
Chromium	7440-47-3	mg/kg	120,000	-	-	21.6	50.4	126	14.1	8.8	51	16	64.2	175	14.6	8.7	8.7	131	444
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	8.9	11	7.1	7.1	6.7	7.2	15.3	6.9	8.1	8.7	7.5	9	6.8	7.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.1 U	<1.3	<1.3	<1.0	<1.3	<1.2	<1.2	<1.2	<1.2	<1.1	<1.2	<1.3	<1.3	<1.3
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	22	12.3	8.4	6.7	9.6	10.2	10.5	13.2	25	9.2	9.6	9.3	7.7	9.5
General Chemistry																			
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.6 J	2.5	9.6 J	0.79 J	<0.51 UJ / <0.51	<0.49 UJ / <0.49 UJ	<0.51	3.8 J / 4.6	6.7	0.66	<0.49 R / <0.49 UJ	<0.53 R / <0.53 UJ	7.6 J	17.1
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	0.61 ^b	-	-	-
pН	-	su	-	-	-	8.52	10.19	8.48	9.05	7.63	8.2	9.12	8.8	8.1	8.64	7.65	7.97	8.44	9.43
Redox Potential Vs H2	-	mV	-	-	-	265	194	356	364	320	392	347	445	360	508	397	418	356	325
Solids, Percent	-	%	-	-	-	91.3	76.6	76.6	92.6	78.2	81	78	80.7	77	94.4	82.2	75.9	77.2	80.3
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	2140 ^d	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
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Notes:

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- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^e Sample received outside the holding time.
- ^f Total chromium for this sample is < 20 mg/kg, so no relog necessary due to client program specifications.
- ^g Analysis done out of holding time.

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mg/kg = milligram per kilogram

- = Not Available
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- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
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Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

	_																					
Client Sample ID:						1B-SW-NORTH (2.5' BSG)	1B-SW-WEST (3' BSG)	1C-SW-NORTH (3' BSG)	1D-SW-NORTH (2'BSG)	1E-SW-NORTH (2' BSG)	1F-SW-NORTH (2' BSG)	1G-SW-NORTH (3' BSG)	1H-SW-NORTH (2' BSG)	1I-SW-NORTH (2' BSG)	2B-SW-WEST (2' BSG)	2D-SW-SOUTH (2' BSG)	2E-SW-SOUTH (5' BSG)	2J-SW-NORTH (2' BSG)	2K-SW-NORTH (2' BSG)	2L-SW-NORTH (2.5' BSG)	2M-SW-NORTH (2' BSG)	2N-SW-NORTH (2' BSG)
Sample Depth (ft bgs):					NJ Default	2.1-2.6	2.1-2.6	2.8-3.3	1.8-2.3	1.9-2.4	1-1.5	1.3-1.8	1.7-2.2	1.2-1.7	1.7-2.2	2.5-3	5.1-5.6	1.4-1.9	1.7-2.2	3-3.5	2.1-2.6	2.3-2.8
Sample Elevations (ft):			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater	3.6-4.1	3.6-4.1	2.6-3.1	4.7-5.2	3.4-3.9	4.4-4.9	4.1-4.6	3.9-4.4	4.2-4.7	3.8-4.3	2.9-3.4	0.8-1.3	4.4-4.9	4.1-4.6	3.9-4.4	4.4-4.9	4.3-4.8
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 5/12)	Soil Screening (NJAC 7:26D																	
Lab Sample ID:			7:26D 5/12)	1.202 0.12,	11/13)	JB77324-4R	JB78861-2R	JB77658-3R	JB84205-1R	JB77658-9R	JB77660-1R	JB77660-6R	JB77883-2A	JB77884-2A	JB77324-2R	JB78862-2R	JB83888-5A	JB77884-11A	JB78117-1R	JB78116-4R	JB78116-5R	JB78118-5A
Date Sampled:						9/22/2014	10/8/2014	9/23/2014	12/13/2014	9/23/2014	9/24/2014	9/24/2014	9/25/2014	9/26/2014	9/22/2014	10/9/2014	12/10/2014	9/26/2014	9/29/2014	9/30/2014	9/30/2014	10/1/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•			•					-						•	•						<u>, </u>
Antimony	7440-36-0	mg/kg	450	31	6	1.3 J	0.35 J	2.3 UJ	0.55 J	0.47 J	1.9 J	1.9 J	0.36 J	0.48 J	2.0 UJ	2.2 U	3.2 U	0.68 J	0.80 J	1.8 J	0.87 J	0.55 J
Chromium	7440-47-3	mg/kg	120000	-	-	88.4	309 J	26.6	159	31.1	96.5	91.1	69.3	46.3 J	500	19.2	108	168 J	192	63.8	82.6	31.7
Nickel	7440-02-0	mg/kg	23000	1600	654**	41.3	13.5	20.9	39.7	21.7	52.5	39	11	18.7	15.8	13.9	37.1	31.1	27.6	27.6	28.4	15.1
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.0 U	1.2 U	1.2 U	1.2 U	1.2 U	1.1 U	1.1 U	1.2 U	1.1 U	1.0 U	1.1 U	1.6 U	1.2 U	1.1 U	1.2 U	1.1 U	1.0 U
Vanadium	7440-62-2	mg/kg	1100	390⁺	-	37.7	49.4	29.2	62.9	41.5	60.6	73.2	30	32.7	23.1	23.7	61.5	44.4	46.1	48.3	43.1	17.7
General Chemistry																						
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.3 J / 2.3 R	3.7 J / 12.2 R	0.75 / 0.76 J	0.33 J / 3 J	0.9 J / 0.85 J	1.2 R / 0.56 J	0.99 R / 1.5 J	4	2.4	5.6 R / 5.4 R	8.3 R / 5 J	0.67 U	5.6	2.3 J / 0.46 R	1.8 J / 2.5 R	1.3 J / 0.30 R	0.67 J
Iron, Ferrous	-	%	-	-	-	-	0.64 ^b	-	0.84 ^b	-	0.68 ^b	-	-	-	-	0.14 ^b J	-	-	1.5 ^b	-	2.4 ^b	-
pH	-	su	=	-	-	8.11	8.66	8.05	8.06	7.97	7.81	8.03	7.43	7.45	7.47	8.24	7.87	7.25	7.65	7.9	7.82	7.54
Redox Potential Vs H2	-	mV	-	-	-	289	241	203	311	210	314	218	296	370	276	237	66.6	513	338	331	338	387
Solids, Percent	-	%	-	-	-	95.2	83.5	87.1	83	85	91.5	89.4	84	89.4	93.9	85.6	59.8	83.3	87	87.7	90.5	91.6
Sulfide Screen	-	-	-	-	-	-	NEGATIVE °	-	NEGATIVE °	-	NEGATIVE °	-	-	-	-	NEGATIVE °	-	-	NEGATIVE °	-	NEGATIVE °	-
Total Organic Carbon	-	mg/kg	-	-	-	-	2780	-	22000	-	20900	-	-	-	-	3590 ^d	-	-	17700	-	14400	-

Analytical Data Qualifiers:

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Notes:

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- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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- ^h Analytical results in this location were not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
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ft = North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

BFB = below foundation bottom

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts
- = Not Available

Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						20-SW-NORTH (4' BSG)	2P-SW-NORTH (2.5' BSG)	2Q-SW-NORTH (3' BSG)	2R-SW-NORTH (3' BSG)	2V-SW-WEST (3'BSG)	2V-SW-NW (3' BSG)	2X-SW-WEST (2.5' BSG)	2X-SW-NORTH (5' BSG)	3B-SW-WEST (2' BSG)	3B-SW-SOUTH (3' BSG)	3C-SW-SOUTH (1' BSG)	3F-SW-SOUTH (1' BSG)	3G-SW-SOUTH (2' BSG)	3H-SW-EAST (1' BSG)
Sample Depth (ft bgs):					NJ Default	4.4-4.9	3.6-4.1	4.1-4.6	2.3-2.8	1.5-2	2.1-2.6	4.4-4.9	4.5-5	1.4-1.9	1.3-1.8	1.9-2.4	0.9-1.4	2.8-3.3	1.3-1.8
Sample Elevations (ft):			NJ Non- Residential	NJ Residential	Impact to	2.1-2.6	2.9-3.4	2.4-2.9	3.9-4.4	5-5.5	4.6-5.1	3.3-3.8	3-3.5	3.5-4	4-4.5	3.8-4.3	5.1-5.6	4.4-4.9	5.9-6.4
	CAS#	Units	Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening														
Excavated:			Soil (NJAC 7:26D 5/12)	7:26D 5/12)	(NJAC 7:26D														
Lab Sample ID:			,		11/13)	JB78376-1R	JB78376-3R	JB78376-5R	JB79897-2R	JB85408-3R	JB85972-1R	JB85138-1R	JB85408-2R	JB77324-1R	JB77658-1R	JB77658-5R	JB77660-4R	JB77660-7R	JB77883-5A
Date Sampled:						10/3/2014	10/3/2014	10/3/2014	10/22/2014	12/31/2014	1/8/2015	12/24/2014	12/31/2014	9/22/2014	9/23/2014	9/23/2014	9/24/2014	9/24/2014	9/25/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•			•													
Antimony	7440-36-0	mg/kg	450	31	6	1.0 J	0.76 J	0.44 J	2.4 UJ	0.69 J	0.94 J	2.6 U	2.5 U	0.66 J	0.46 J	0.55 J	0.41 J	0.42 J	0.59 J
Chromium	7440-47-3	mg/kg	120000	-	-	387	103	311	26.7	41.6	64.7	314	65.3	127	217	161	248	268	828
Nickel	7440-02-0	mg/kg	23000	1600	654**	15.1	14.3	14.4	10.9	20.4	32	27.1	12.8	20.3	35.8	30	35.6	30.5	113
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.3 U	1.2 U	1.2 U	1.2 U	1.2 U	0.74 J	1.3 U	1.2 U	1.3 U	1.2 U	1.3 U	1.1 U	1.1 U	1.2 U
Vanadium	7440-62-2	mg/kg	1100	390⁺	-	20.7	25.4	36.3	12.8	49.2	48.6	33.2	20.5	39.1	45.2	40.7	39.5	41.9	56.8
General Chemistry								•											
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	1.8 J / 8.1 J	3.9 J / 8.4 J	1.9 J / 12.2 J	0.96 J / 1.4 R	0.96 J / 0.79 J	0.49 R / 1.2 J	1.4 J / 0.53 R	3.6 J / 1.5 J	0.52 R / 0.52 R	3 J / 0.57 J	0.29 J / 0.32 J	2.2 R / 1.5 J	3.5 R / 3 J	13.5
Iron, Ferrous	-	%	-	-	-	-	0.83 ^b	-	0.77 ^b	1.5 ^b	1.3 ^b	0.95 ^b	-	1.4 ^b	-	-	-	-	-
pH	-	su	-	-	-	7.53	7.1	7.4	7.83	7.88	7.85	7.8	7	5.75	7.99	8.58	8.28	8.37	7.63
Redox Potential Vs H2	-	mV	-	-	-	209	317	328	221	199	331	255	194	282	235	138	275	316	282
Solids, Percent	-	%	-	-	-	75.4	82	82.6	82.1	84.8	87	75.6	79.8	76.6	82.2	77.4	90.2	90.1	85.3
Sulfide Screen	-	-	-	-	-	-	NEGATIVE ^c	-	NEGATIVE °	NEGATIVE ^c	NEGATIVE °	NEGATIVE ^c	-	NEGATIVE °	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	9110	-	12500	11900	16000	15600	-	8560	-	-	-	-	-

Analytical Data Qualifiers:

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- = Not Available

Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						3I-SW-SOUTH (2.5' BSG)	3I-SW-SOUTH DUP (2.5' BSG)	3L-SW-SOUTH (3' BSG)	3M-SW-SOUTH (5' BSG)	3N-SW-SOUTH (2' BSG)	3S-SW-NORTH (2.5' BSG)	3T-SW-NORTH (3'BSG) ^h	3T-SW-EAST (3' BSG)	3X-SW-EAST (3.5' BSG)	40-SW-SOUTH (2' BSG)	4W-SW-NORTH (6.5' BSG)	5N-SW-WEST (4.5' BELOW SURFACE)	50-SW-NORTH (4.5' BELOW SURFACE)	50-SW-NORTH DUP (4.5' BELOW SURFACE)	50-SW-WEST (4.5' BELOW SURFACE)
Sample Depth (ft bgs):			NJ Non-		NJ Default	3.5-4	3.5-4	1.6-2.1	2.4-2.9	2.4-2.9	2-2.5	2.5-3	2.2-2.7	0.4-0.9	2.5-3	6.1-6.6	4.1-4.6	3.7-4.2	3.7-4.2	3.4-3.9
Sample Elevations (ft):			Residential	NJ Residential Direct Contact	Impact to Groundwater	3.3-3.8	3.3-3.8	5.6-6.1	4.6-5.1	4.2-4.7	4-4.5	3.4-3.9	4.3-4.8	8.3-8.8	4.5-5	2.5-3	3-3.5	3.5-4	3.5-4	3.9-4.4
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC	Soil Screening															
Lab Sample ID:			7:26D 5/12)	7:26D 5/12)	(NJAC 7:26D 11/13)	JB77884-6A	JB77884-7A	JB78116-1R	JB82703-4R	JB78118-3A	JB78607-5R	JB82417-2R	JB87128-1R	JB85288-1R	JB78374-5R	JB84846-5R	JB74556-4R	JB74556-1R	JB74556-2R	JB74556-3R
Lab Sample ID:						JB//004-6A	JB//004-/A	JB/0116-1R	JB02/03-4R	JB/0110-3A	JB/000/-3K	JB02417-2R	JB0/120-1R	JB05200-1R	JB/03/4-5R	JB04046-3K	JB/4550-4K	JB/4556-1R	JB/4556-2R	JB/4556-3R
Date Sampled:						9/26/2014	9/26/2014	9/30/2014	11/25/2014	10/1/2014	10/6/2014	11/20/2014	1/26/2015	12/30/2014	10/2/2014	12/19/2014	8/20/2014	8/20/2014	8/20/2014	8/20/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•			•														
Antimony	7440-36-0	mg/kg	450	31	6	2.2 U	2.3 U	0.94 J	2.7 U	2.0 UJ	0.34 J	6.5	0.91 J	2.2 U	0.29 J	2.3 UJ	2.1 UJ	2.5 UJ	2.6 UJ	2.3 UJ
Chromium	7440-47-3	mg/kg	120000	-	-	63 J	335 J	202	460	12.8	572	396 J	195	26.2	17.3	82	10.5	29.6	25.2	12.6
Nickel	7440-02-0	mg/kg	23000	1600	654**	6.8	28.8	39.8	25.6	8.7	49.1	113	39.3	20.7	10	18.4	8.5	10.2	9.7	9.5
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.1 U	1.2 U	1.1 U	1.3 U	1.0 U	1.2 U	1.3 U	1.2 U	1.1 U	1.0 U	1.1 U	1.0 U	1.2 U	1.3 U	1.2 U
Vanadium	7440-62-2	mg/kg	1100	390⁺	-	9.4	33.7	55.9	46.6	10.2	60.2	59.4	43.6	31.7	11.6	22.8	11.5	12.1	11.6	9.7
General Chemistry				_											_					
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.7	5.8	3 J / 1.9 R	0.56 R / 10.7 J	0.34 J	14.2 J / 9.8 R	0.26 J / 0.29 J	0.50 R / 0.50 UJ	0.36 J / 0.79 J	0.65 J / 0.43 R	5.3 J / 3.4 J	0.44 UJ / 0.71 J	2.2 J / 1.6 J	2 J / 1 J	0.28 J / 0.43 J
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	0.99	0.79 ^b	0.64 ^b	-	-	0.38 ^b	-	-
pH	-	su	-	-	-	8.02	7.95	7.73	7.62	8.26	8.16	7.92	7.61	7.73	8.21	8.26	8.44	7.9	8.31	8.15
Redox Potential Vs H2	-	mV	-	-	-	315	338	291	143	331	288	186	322	363	296	291	288	281	284	277
Solids, Percent	-	%	-	-	-	90.3	86	89.6	71.5	94.5	83	73.6	80.8	89.3	93.7	85.7	91.9	78.9	78.9	82.7
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE	NEGATIVE °	NEGATIVE °	-	-	NEGATIVE °	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	21500	11900	4280	-	-	3360 ^d	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- R The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- ${\bf J}$ The postive result reported for this analyte is a quantitative estimate.
- ${f U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- **UJ** This compound/analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.

Notes:

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

- ^a Elevated detection limit due to dilution required for high interfering element.
- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^g Analysis done out of holding time.
- ^h Analytical results in this location were not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.

ft = North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

BFB = below foundation bottom

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts
- = Not Available

Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						5V-SW-EAST (5' BSG)	5W-SW-SOUTH (6.5' BSG)	5W-SW-EAST (7' BSG)	6L-SW-NORTH1 (3.5' BSG)	6L-SW-NORTH2 (4.5' BSG)	6L-SW-NORTH2 DUP (4.5' BSG)	6L-SW-NORTH3 (5.5' BSG)	6V-SW-EAST (5' BSG)	7U-SW-EAST (4.5' BELOW SURFACE)	7V-SW-EAST (5' BSG)	7V-SW-SOUTH (5' BSG)	8U SW-EAST (4' BELOW SURFACE)	9U-SW EAST	10L-SW-WEST (3' BSG)
Sample Depth (ft bgs):					NJ Default	3.5-4	5.8-6.3	6.8-7.3	3.5-4.0	4.5-5.0	4.5-5.0	5.5-6.0	4.9-5.4	3.8-4.3	4.9-5.4	4.8-5.3	3.1-3.6	4.1-4.6	2.1-2.6
Sample Elevations (ft):			NJ Non- Residential	NJ Residential		4.6-5.1	3.6-4.1	2.9-3.4	4.9-5.4	3.9-4.4	3.9-4.4	2.9-3.4	3.6-4.1	4.7-5.2	4-4.5	3.5-4	5.5-6.0	4.3-4.8	6.6-7.1
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Direct Contact Soil (NJAC	Groundwater Soil Screening														1
Excavated:			7:26D 5/12)	7:26D 5/12)	(NJAC 7:26D 11/13)														1
Lab Sample ID:					11/13)	JB84846-1R	JB84846-2R	JB84846-3R	JB82923-1A	JB82923-2A	JB82923-3A	JB82923-4A	JB84075-1A	JB73867-3A	JB84075-2A	JB84075-4A	JB73868-4A	JB70650-3RT	JB81089-1R
Date Sampled:						12/19/2014	12/19/2014	12/19/2014	11/26/2014	11/26/2014	11/26/2014	11/26/2014	12/11/2014	8/11/2014	12/11/2014	12/11/2014	8/8/2014	6/30/2014	10/31/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	'							ı		•									
Antimony	7440-36-0	mg/kg	450	31	6	1.2 J	0.42 J	0.33 J	4.3 ^a UJ	0.72 J	0.58 J	0.54 J	1.0 J	2.0 J	3.1	0.47 J	1.7 J	1.9 U	0.34 J
Chromium	7440-47-3	mg/kg	120000	-	-	76.7	187	56.8	34.3	23.8	19.7	95.9	20.5	116	57.3	125	55.9	10.5	23.6
Nickel	7440-02-0	mg/kg	23000	1600	654**	23.1	31.1	17.8	9.3	18.2	16.6	27.8	19.1	30.8	28.5	43.9	30.8	8.9	15.5
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.1 U	1.1 U	1.2 U	2.2 a U	0.72 J	0.56 J	1.3 U	1.1 U	1.1 U	1.1 U	1.1 U	0.50 J	0.94 U	1.1 U
Vanadium	7440-62-2	mg/kg	1100	390⁺	-	35.6	39.3	23.4	19.1	26	23.2	44	25.9	43.5	37.6	42	34.8	10.5	24.8
General Chemistry										_		T				1			
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.74 J / 1 J	0.20 J / 1.9 J	0.26 J / 1.1 J	0.37 J	0.82	0.95	4.2	0.47 U	2.8	2	1.4	0.40 J	0.40 J / 0.27 J	1.2 J / 0.88
Iron, Ferrous	-	%	-	-	-	-	1.1 ^b	-	-	-	-	-	-	-	-	-	-	0.65 ^b	0.18 ^b J
pH	-	su	-	-	-	7.75	8.29	8.19	11.59	12.06	12.07	10.01	7.93	7.96	8.29	8.41	8.33	8.19	8.65
Redox Potential Vs H2	-	mV	-	-	-	310	278	277	91.6	78.8	71.6	150	267	244	251	257 / 0	261	309	251
Solids, Percent	-	%	-	-	-	88.9	89.8	86.7	91.1	87.8	89.3	77.8	86	89.2	88.3	86.4	93.5	94.4	86.8
Sulfide Screen	-	-	-	-	-	-	NEGATIVE °	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	NEGATIVE °
Total Organic Carbon	-	mg/kg	-	-	-	-	6600	-	-	-	-	-	-	-	-	-	-	30500 ^g	9710 ^d

Analytical Data Qualifiers:

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- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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ft = North American Vertical Datum of 1988

ft bgs = feet below ground surface

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mg/kg = milligram per kilogram

su = standard unit mV = millivolts

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Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						10L SW- SOUTH (3' BELOW BLACKTOP)	10M SW- SOUTH (3' BELOW BLACKTOP)	10N SW- SOUTH (2' BELOW BLACKTOP)	10N SW WEST (1' BELOW BLACKTOP)	10T-SW EAST	11N SW WEST (1' BELOW BLACKTOP)	11T-SW EAST	12N SW WEST (1' BELOW BLACKTOP)	12S-SIDE WALL EAST	13S SIDEWALL (2-3' FBG)	13N SW WEST (1' BELOW BLACKTOP)	14S SW-EAST (1.5' BELOW BLACKTOP)	14N SW WEST (1' BELOW BLACKTOP)	140 SW SOUTH (1' BELOW BLACKTOP)	14P SW (4' BELOW BLACKTOP)
Sample Depth (ft bgs):			NII NI		NJ Default	3.7-4.2	3.4-3.9	2.4-2.9	2.4-2.9	3.2-3.7	1.7-2.2	3.6-4.1	1.9-2.4	3.8-4.3	2.2-2.7	1.6-2.1	1.5-2	1.4-1.9	1.1-1.6	3.3-3.8
Sample Elevations (ft):	CAS#	Units	NJ Non- Residential Direct Contact	NJ Residential Direct Contact	Impact to Groundwater	4.6-5.1	4.6-5.1	5.4-5.9	5.3-5.8	5.1-5.6	6-6.5	4.7-5.2	5.7-6.2	4.3-4.8	6.2-6.7	6-6.5	6.9-7.4	6.2-6.7	6.5-7.0	4.5-5
Excavated:	CAS#	Units	Soil (NJAC	Soil (NJAC 7:26D 5/12)	Soil Screening (NJAC 7:26D															
Lab Sample ID:			7:26D 5/12)	Í	11/13)	JB73136-8A	JB73136-6A	JB73136-4A	JB72919-2R	JB70649-1	JB72919-3R	JB70649-2	JB72919-4R	JB70989-5	JB71335-1A	JB72919-5R	JB72918-10A	JB72919-6R	JB72919-7R	JB73307-4R
Date Sampled:						7/31/2014	7/31/2014	7/31/2014	7/30/2014	7/1/2014	7/30/2014	7/1/2014	7/30/2014	7/2/2014	7/10/2014	7/30/2014	7/29/2014	7/30/2014	7/30/2014	8/5/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			_																	
Antimony	7440-36-0	mg/kg	450	31	6	0.57 J	0.41 J	0.61 J	1.8 U	1.5 J	0.39 J	2.1	1.8 U	2	1.8 J	1.2 J	1.4 J	2.0 U	3.4 U	2.1 U
Chromium	7440-47-3	mg/kg	120000	-	-	180	338	43.6	51.1	21.1	74.4	37.1	48.8	54 J	46.2	572	36.5	52.7	48.2	78.4
Nickel	7440-02-0	mg/kg	23000	1600	654**	67.1	48.3	35.6	29.9	21.6	33.4	36.6	27.4	29.3 J	28.2	113	31.5	49.6	62.9	9.6
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.0 U	0.98 U	0.93 U	0.74 J	0.98 J	1.1 U	0.87 J	0.92 U	1.0 U	0.83 J	0.91 U	0.88 U	0.99 U	1.7 U	1.1 U
Vanadium	7440-62-2	mg/kg	1100	390 ⁺	-	51	62.2	40	34.1 J	25.9	39.9 J	36.3	35 J	38.1 J	33.7	85.6 J	37	58.6 J	61.1 J	14.5
General Chemistry																				
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	1.7	3.9	0.52	1.5 J / 1.2 J	0.51	1.8 J / 1.8 J	0.56	0.88 J / 0.59 J	0.92	1.7	13.6 J / 12.8 J	0.53	1.6 J / 1.1 J	0.44 J / 0.60 J	5 J /4.7 J
Iron, Ferrous	-	%	-	-	-	-	-	-	1.8	-	-	-	-	-	-	-	-	-	-	-
pH	-	su	-	-	-	8.28	8.63	9.09	8.76	8.31	8.14	8.3	8.72	7.84	8.48	9.23	8.15	8.7	8.27	8.91
Redox Potential Vs H2	-	mV	-	-	-	318	297	272	322	408	340	397	325	380	300	292	292	320	336	246
Solids, Percent	-	%	-	-	-	90.7	93.2	94.8	95.5	88.7	90.1	88.4	99.2	86.9	93	97.7	96.6	98.8	57.8	91.7
Sulfide Screen	-	-	-	-	-	-	-	-	NEGATIVE	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	2080	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

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- R The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
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- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						15S-SW-EAST ^h	16P-SW-WEST (2' BSG)	16S-SW-EAST	17N-SW-SOUTH	17N-SW-NORTH	170-SW-NORTH	17P-SW-WEST (2' BSG)	17S-SW-EAST	17T-SW-EAST (0.5' BELOW SURFACE)	18P-SW-WEST (3' BSG)	18U-SW-EAST (1' BELOW SURFACE)	19U-SW-EAST (1' BELOW SURFACE)	19U-SW-EAST-CONC (1' BSG)	20R-SW-SOUTH (2' BSG)
Sample Depth (ft bgs):					NJ Default	1.3-1.8	0.7-1.3	0.3-0.8	4.3-4.8	3.7-4.2	4.4-4.9	1.3-1.8	1-1.5	1.5-2	1.9-2.4	0.6-1.1	1.4-1.9	0.5-1	2.1-2.6
Sample Elevations (ft):			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater	7.2-7.7	7.1-7.7	8.3-8.8	4.2-4.7	4.8-5.3	4.1-4.6	6.6-7.1	7.8-8.3	7.4-7.9	6.1-6.6	8.5-9	7.7-8.2	8.6-9.1	6.7-7.2
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC	Soil Screening														
Lab Sample ID:			7:26D 5/12)	7:26D 5/12)	(NJAC 7:26D 11/13)	JB74359-1A	JB76205-5R	JB74359-2A	JB96773-2A	JB96773-4A	JB96773-5A	JB76205-4R	JB74359-4A	JB74360-5A	JB76015-2R	JB74360-3A	JB74090-7A	JB74090-6A	JB75660-2A
Date Sampled:						8/18/2014	9/9/2014	8/18/2014	6/11/2015	6/11/2015	6/11/2015	9/9/2014	8/18/2014	8/15/2014	9/8/2014	8/15/2014	8/13/2014	8/13/2014	9/4/2014
Date Sampled.						6/16/2014	9/9/2014	6/16/2014	6/11/2015	6/11/2015	6/11/2015	9/9/2014	6/16/2014	6/15/2014	9/6/2014	6/15/2014	6/13/2014	6/13/2014	9/4/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis																			
Antimony	7440-36-0	mg/kg	450	31	6	6.1	0.55 J	2.3 U	<2.1	<2.2	<2.2	2.1 UJ	2.7 U	0.44 J	0.49 J	2.2 U	2.1 U	0.39 J	2.1 U
Chromium	7440-47-3	mg/kg	120000	-	-	32.6	30.2	37.1	17.8	177	59.9	39.6	101	32	35.8 J	31.9	15.7	31.3	38.8
Nickel	7440-02-0	mg/kg	23000	1600	654**	35.2	30.9	21.8	8.5	11.7	9.8	32.3	25.1	33	35.2	18.8	9.6	6.6	12.3
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.1 U	1.0 U	1.2 U	<1.0	<1.1	<1.1	1.0 U	1.4 U	1.1 U	0.66 J	1.1 U	1.0 U	1.1 U	1.0 U
Vanadium	7440-62-2	mg/kg	1100	390⁺	-	39	34.4	25.2	9.7	17.8	11.6	46.1	30.2	37.7	43.6	22.3	10.8	8	12.4
General Chemistry																			
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.29 J	0.43 J / 0.54	0.7	0.99	4.3	2.1	0.43 J / 0.31 J	1.5	1.1 J	0.26 J / 0.42 U	0.42 U	0.61	5	1.5
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH	-	su	-	-	-	7.95	10.29	8.16	8.66	8.47	8.75	10.56	8.54	8.4	8.84	8.19	8.89	11.5	8.24
Redox Potential Vs H2	-	mV	-	-	-	321	229	347	360	334	328	211	353	386	285	400	325	201	255
Solids, Percent	-	%	-	-	-	91.8	93.5	90.1	93.8	89.5	89	94.6	75.1	92.9	95.2	94.9	95.2	90.3	96
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- R The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- ${\bf J}$ The postive result reported for this analyte is a quantitative estimate.
- ${f U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
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Notes:

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

- ^a Elevated detection limit due to dilution required for high interfering element.
- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^g Analysis done out of holding time.
- ^h Analytical results in this location were not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.

ft = North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

BFB = below foundation bottom

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts
- = Not Available

Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						20S-SW-SOUTH TOP (0.5' BSG)	20S-SW-SOUTH BOTTOM (3' BSG)	20T-SW-SOUTH (1.5' BSG)	20T-SW-SOUTH- CONC (2' BSG)	20U-SW-SOUTH (2' BELOW SURFACE)	20U-SW-EAST- CONC (1.5' BSG)	21P-SW-TOP (1' BSG)	21P-SW-MIDDLE (2' BSG)	21P-SW-BOTTOM (3' BSG)	21Q-SW-TOP (1' BSG)	21Q-SW-MIDDLE (2.5' BSG)	21Q-SW- BOTTOM (3' BSG)	21Q-SW-TOP (1' BSG)
Sample Depth (ft bgs):					NJ Default	0.9-1.3	2.5-3	1.3-1.8	2.4-2.9	1.6-2.1	2.1-2.6	1.6-2.1	1.9-2.4	2.6-3.1	0.8-1.3	1.9-2.4	2.7-3.2	3-3.5
Sample Elevations (ft):			NJ Non- Residential	NJ Residential	Impact to	7.9-8.4	6.2-6.7	7.8-8.3	6.6-7.1	7.8-8.3	7.2-7.7	6.9-7.4	6.6-7.1	5.9-6.4	7.7-8.2	6.6-7.1	5.8-6.3	5.5-6
, , , , , , , , , , , , , , , , , , , ,	CAS#	Units	Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening										-			
Excavated:			Soil (NJAC 7:26D 5/12)	7:26D 5/12)	(NJAC 7:26D													
Lab Sample ID:					11/13)	JB75661-1A	JB75661-3A	JB74090-3A	JB74090-2A	JB74090-5A	JB74090-4A	JB76016-5R	JB76016-6R	JB76016-7R	JB76016-2R	JB76016-3R	JB76016-4R	JB76204-2A
Date Sampled:						9/3/2014	9/3/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	9/5/2014	9/5/2014	9/5/2014	9/5/2014	9/5/2014	9/5/2014	9/10/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis					•				•									
Antimony	7440-36-0	mg/kg	450	31	6	2.1 U	2.2 U	2.2 U	2.1 U	2.1 U	2.2 U	0.46 J	0.41 J	2.0 UJ	2.1 UJ	2.1 UJ	2.2 UJ	2.1 UJ
Chromium	7440-47-3	mg/kg	120000	-	-	28.8	8	12.9	4.8	41.1 ^a	6.2	175	47.7	19	18	440	28.2	11.4
Nickel	7440-02-0	mg/kg	23000	1600	654**	10	7.9	12.5	2.3 J	41	3.2 J	27.6	13.4	8.3	12.2	33.8	14.4	7.7
Thallium	7440-28-0	mg/kg	NA	NA	NA	0.47 J	1.1 U	1.1 U	1.0 U	2.1 ^a U	1.1 U	1.1 U	1.1 U	1.0 U	1.1 U	1.1 U	1.1 U	1.1 U
Vanadium	7440-62-2	mg/kg	1100	390 ⁺	-	15.8	8.6	14.8	4.6 J	31.4	5.6	31	18.3	11.9	19.4	39.5	22.2	9.7
General Chemistry			_										•					
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.75	0.42 U	0.34 J	0.31 J	0.9	0.46	2.2 J / 5.1	0.62 J / 4.7	0.42 UJ / 0.69	0.33 J / 0.44	1.3 J / 1.8	1.3 J / 0.73	0.47 J
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	8.8 ^b	-	-	-
pН	-	su	-	-	-	9.38	9.43	9.18	11.99	9.24	11.92	8.87	8.82	9.58	8.37	7.73	8.37	8.4
Redox Potential Vs H2	-	mV	-	-	-	204	224	281	149	242	175	319	326	300	310	317	327	295
Solids, Percent	-	%	-	-	-	92.5	94.4	90.5	97.9	95.1	88.4	93.3	92.5	95	94.2	90.3	94.9	95
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE °	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	1740	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- R The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- **J** The postive result reported for this analyte is a quantitative estimate.
- ${\bf U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
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Notes:

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- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^d Multiple injections indicate possible sample non-homogeneity.
- ^g Analysis done out of holding time.
- ^h Analytical results in this location were not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.

ft = North American Vertical Datum of 1988

ft bgs = feet below ground surface

BSG = below surface grade

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mg/kg = milligram per kilogram

su = standard unit

mV = millivolts
- = Not Available

Sidewall Post-Excavation Soil Samples (2014-2015) Final Post-Remedial Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						21Q-SW-SOUTH (2.0' BSG)	21R-SW-SOUTH (1.5' BSG)	22M-SW-NORTH (2' BSG)	22M-SW-EAST (2' BSG)	22M-SW-WEST (2.5' BSG)	22M-SW-WEST	22N-SW- NORTH	22P-SW- SOUTH	(3' BFB)	UP-1E-BOTTOM (6' BSG)	(3' BFB)	(4' BFB)
Sample Depth (ft bgs):			NJ Non-	NJ Residential	NJ Default	1.8-2.3	0.9-1.4	0.7-1.2	1.1-1.6	1.1-1.6	4.9-5.4	4.6-5.1	2.2-2.7	2.7-3.2	2.7-3.2	2.7-3.2	2.7-3.2
Sample Elevations (ft):	CAS#	11-14-	Residential	Direct Contact	Impact to Groundwater	6.9-7.4	8-8.5	4.8-5.3	4.2-4.7	4.5-5	4.3-4.8	4.3-4.8	7.3-7.8	5.7-6.2	5.7-6.2	5.7-6.2	5.7-6.2
Excavated:	CAS#	Units	Direct Contact Soil (NJAC 7:26D 5/12)	Soil (NJAC 7:26D 5/12)	Soil Screening (NJAC 7:26D												
Lab Sample ID:			7:260 5/12)		11/13)	JB79149-2A	JB79149-1A	JB82421-2A	JB82421-3A	JB82421-4A	JB96698-3A	JB96451-2A	JB95670-2A	JB82421-1A	JB82704-1A	JB81369-1A	JB81844-1R
Date Sampled:						10/14/2014	10/14/2014	11/18/2014	11/18/2014	11/18/2014	6/10/2015	6/8/2015	5/27/2015	11/18/2014	11/24/2014	11/6/2014	11/11/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis						•											
Antimony	7440-36-0	mg/kg	450	31	6	2.1 U	2.3 U	2.4 U	2.4 U	2.6 U	<2.2	<2.6	<2.4	2.7 U	2.5 U	2.4 U	2.6 U
Chromium	7440-47-3	mg/kg	120000	-	-	35.4	32.5	28	32.4	967	287	143	101	180	93.5	46.3	317
Nickel	7440-02-0	mg/kg	23000	1600	654**	12.3	12.8	7.8	7.2	72.2	25.2	11.5	67.4	16.1	11.3	16	21.9
Thallium	7440-28-0	mg/kg	NA	NA	NA	1.1 U	1.1 U	1.2 U	1.2 U	0.60 J	<1.1	<1.3	<1.2	1.3 U	1.2 U	1.2 U	1.3 U
Vanadium	7440-62-2	mg/kg	1100	390⁺	-	14.4	17.9	6.8	6.3	68	26.3	11.3	30.3	24.6	18.8	44.3	34.1
General Chemistry																	
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	1.1	1.3	2.7	3.4	7.6	6.2 J	2.8 J	1.9 J	5.4	2.3	1.2 J	4.5 J / 5.6 R
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.58 ^b
рH	-	su	-	-	-	8.64	9.57	9.14	9.21	9.66	10.82	9.26	9.01	9.34	8.42	8.69	8.41
Redox Potential Vs H2	-	mV	-	-	-	324	308	253	249	231	252	363	340	146	262	243	154
Solids, Percent	-	%	-	-	-	90.2	91	81	83.2	75.6	85.7	81.5	87.5	76.6	78.2	82.9	76.8
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE ^c
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3120

Analytical Data Qualifiers:

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Notes:

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- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
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- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
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ft = North American Vertical Datum of 1988

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mg/kg = milligram per kilogram

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- = Not Available

Table 2C

Generator Area Samples (2014)

Summary Laboratory Analytical Data for Remaining Samples PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014 Sampled by WCD and CB&I

							1	1									
Client Sample ID:						GA-CURB-SVL1 (0.5'BSG)	GA-CURB-SVL2 (1.5'BSG)	GA-CURB-SVL3 (2.0'BSG)	GA-CURB-SVL4 (0.5'BSG)	GA-CURB-SVL5 (2.0'BSG)	GA-CURB-SVL6 (2.5'BSG)	GA-SOIL- BOTTOM	GA-FW-WEST	GA-STAIRS- NORTH	GA-STAIRS- EAST	GA-STAIRS- SOUTH	GA-BOTTOM- CONC
Sample Depth (ft bgs):			NJ Non-	NJ	NJ Default	1.3-1.8	2.1-2.6	3.2-3.7	1.1-1.6	2.2-2.7	3.1-3.6	3.5-4.0	3.0-3.5	1.7-2.2	2.4-2.9	2-2.5	3.5-4.0
Sample Elevation (ft):			Residential Direct	Residential Direct	Impact to Groundwater	8.8-9.3	8-8.5	6.7-7.2	8.6-9.1	7.5-8	6.6-7.1	5.4-5.9	6.5-7.0	7.1-7.6	6.4-6.9	6.8-7.3	5.7-6.2
Excavated:	CAS#	Units	Contact Soil	Contact Soil	Soil Screening												
Lab Sample ID:			(NJAC 7:26D 6/12)	(NJAC 7:26D 6/12)	(NJAC 7:26D 11/13)	JB79147-1A	JB79147-2A	JB79147-3A	JB79147-4A	JB79147-5A	JB79147-6A	JB70991-3	JB71234-1	JB71234-2	JB71234-3	JB71234-4	JB71234-5
Date Sampled:					11/10)	10/13/2014	10/13/2014	10/13/2014	10/13/2014	10/13/2014	10/13/2014	7/2/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014	7/9/2014
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Solid	Solid	Solid	Solid	Solid
Metals Analysis																	
Antimony	7440-36-0	mg/kg	450	31	6	0.47 J	4.6	2.0 U	2.0 U	1.2 J	0.40 J	0.28 U	2.0 U	0.33 J	2.0 U	2.0 U	2.0 U
Chromium	7440-47-3	mg/kg	120,000	-	-	45.9	545	17.3	14.3	589	46.7	15.7 J	12.1	9.2	20.2	18.4	20.8
Nickel	7440-02-0	mg/kg	23,000	1600	654**	17.9	99.3	8.8	9.2	59.2	11.6	9.7 J	7.4	3.2 J	4.5	3.3 J	8.3
Thallium	7440-28-0	mg/kg	NR	NR	NR	1.1 U	1.1 U	1.0 U	1.0 U	1.1 U	1.1 U	1.0 U	1.5 ^a J	2.0 ^a J	2.0 ^a J	2.0 ^a J	1.5 ^a J
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	13.1	81.7	12.4	10.3	70.9	12.9	12.8 J	33.7	10.8	11.6	9.4	40.2
General Chemistry																	
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.95 J	13.8 J	1.2 J	0.41 U	14.6 J	1.4 J	0.23 J	0.64	0.31 J	2.2	0.77	0.40 J
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redox Potential Vs H2	-	mV	-	-	-	296	296	286	295	310	325	-	94.8	92.2	119	68.7	102
Solids, Percent	-	%	-	-	-	91.4	90.8	96.1	98	92.3	96.5	-	96.4	92.6	93.9	91.4	94.5
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
рH	-	su	-	-	-	9.47	9.51	9.7	9.6	8.91	9.34	-	12.16	11.81	12.04	11.53	12.15

Analytical Data Qualifiers:

- **J** The postive result reported for this analyte is a quantitative estimate.
- **U** This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.

Notes:

^a Elevated detection limit due to dilution required for high interfering element.

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- = Not Available
- --- = Not Analyzed
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.

^{**} Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.

Historical Site Investigation Borings (1992-1993) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 1992-1993 Sampled by ICF Kaiser Engineers, Inc.

Client Sample ID:								PPG4-B56	;		PPG4-B58	PPG	4-B59		PPG4-B61	
Sample Depth (ft bgs):						8-9	12-14	16-18	18-19	19-20	4-5	4-6	4-6	4-4.7	4.7-5.4	5.4-5.8
Sample Elevation (ft):			NJ Non- Residential	NJ Residential	NJ Default Impact to	-0.81- 0.19	-5.81- (-3.81)	-9.81- (-7.81)	-10.81- (-9.81)	-11.81- (-10.81)	3.05-4.05	2.17-4.17	2.17-4.17	2.47-3.17	1.77-2.47	1.37-1.77
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Direct Contact Soil (NJAC	Groundwater Soil Screening											
Lab Sample ID/Number:			7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	0160B56006	0160B56008	0160B56010	0160B56011	0160B56012	0160B58004	0160B59005	0160B59005	0160B61004	0160B61006	0160B61007
Date Sampled:						8/21/1992	8/21/1992	8/21/1992	8/21/1992	8/21/1992	8/21/1992	8/20/1992	8/20/1992	8/20/1992	8/20/1992	8/20/1992
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis																
Antimony	7440-36-0	mg/kg	450	31	6											
Chromium	7440-47-3	mg/kg	120,000	-	-	25.9 J	25.3 J	21.6 J	22.5 J	22.3 J	405 J	442	160	139	13.1	94.1
Nickel	7440-02-0	mg/kg	23,000	1,600	654**											
Thallium	7440-28-0	mg/kg	NR	NR	NR											
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-											
General Chemistry																
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	6.2 U	8.0 U	7.5 U	8.4 U	13.7 U	6.0 U	6.5 UJ	6.3 UJ	7.2 UJ	6.4 UJ	8.4 UJ
Iron, Ferrous	-	%	-	-	-											
рН	-	su	-	-	-											
Redox Potential Vs H2	-	mV	-	-	-											
Solids, Percent	-	%	-	-	-											
Sulfide Screen	-	-	-	-	-											
Total Organic Carbon	-	mg/kg	-	-	-											

Analytical Data Qualifiers:

- **J** The postive result reported for this analyte is a quantitative estimate.
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Notes:

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ft bgs = feet below ground surface

mg/kg = milligram per kilogram

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- mV = millivolts
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Historical Site Investigation Borings (1992-1993) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 1992-1993 Sampled by ICF Kaiser Engineers, Inc.

Client Sample ID:						PPG4-B62	PPG ²	4-B63		PPG4-B74		PPG ²	I-B79	PPG4-B80			PPG4-B81		
Sample Depth (ft bgs):						4.5-5	6-8	8-9	2-4	2-4	6-8	2.50-3	4-5.20	4-5	8-9	12-13.1	13.1-13.6	16-16.8	20-21
Sample Elevation (ft):			NJ Non-	NJ Residential	NJ Default Impact to	1.8-2.3	-0.46-1.54	-1.46-(-0.46)	5.24-7.24	5.24-7.24	1.24-3.24	6.55-7.05	4.35-5.55	3.91-4.91	0.41-1.41	-3.69- (-2.59)	-4.19- (-3.69)	-7.39- (-6.59)	-11.59- (-10.59)
Excavated:	CAS#	Units	Residential Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening														
Lab Sample ID/Number:			Soil (NJAC 7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	0160B62005	0160B63003	0160B63004	0160B74001	0160B74003	0160B74101	0160B79002	0160B79003	0160B80004	0160B81005	0160B81007	0160B81008	0160B81010	0160B81012
Date Sampled:					11/10/	8/20/1992	8/19/1992	8/19/1992	8/19/1992	8/19/1992	8/19/1992	8/25/1992	8/25/1992	8/25/1992	8/26/1992	8/26/1992	8/26/1992	8/26/1992	8/26/1992
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	1	•	-				•		•	•							•		
Antimony	7440-36-0	mg/kg	450	31	6														
Chromium	7440-47-3	mg/kg	120,000	-	-	85.3	31.2 J	11.5 J	18.2 J	18.7 J	6.03 J	2740 J	139 J	128 J	38.7	18.4	5.67	23.4	20.3
Nickel	7440-02-0	mg/kg	23,000	1,600	654**														
Thallium	7440-28-0	mg/kg	NR	NR	NR														
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-														
General Chemistry																			
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	6.60 UJ	6.40 U	6.40 U	5.5 U	5.5 U	6.2 U	16.4	5.70 U	5.7 U	5.9 UJ	7.2 UJ	6.3 UJ	7.5 UJ	8.1 UJ
Iron, Ferrous	-	%	-	-	-														
pH	-	su	-	-	-										8.23	8.08	8.16	8	7.61
Redox Potential Vs H2	-	mV	-	-	-														
Solids, Percent	-	%	-	-	-														
Sulfide Screen	-	-	-	-	-														
Total Organic Carbon	-	mg/kg	-	-	-														15,700

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Historical Site Investigation Borings (1992-1993) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 1992-1993 Sampled by ICF Kaiser Engineers, Inc.

Client Sample ID:						PPG4-B82	PPG4-B89		PPG4-B90		PPG4-BD2	PPG4-BD4	PPG4-BD8	PPG4-BD9
Sample Depth (ft bgs):						4-6	4-5	4-5	12-12.4	12.4-13.5	0.4-1.1	8.2-9.2	5.5-6.7	5.2-6.2
Sample Elevation (ft):			NJ Non- Residential	NJ Residential	NJ Default Impact to	3.23-5.23	4.5-5.5	2.35-3.35	-5.05- (-4.65)	-6.15- (-5.05)	6.07-6.77	1.04-2.04	0.71-1.91	3.02-4.02
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Direct Contact Soil (NJAC	Groundwater Soil Screening									
Lab Sample ID/Number:			7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	0160B82004	0160B89004	0160B90003	0160B90006	0160B90007	0160BD2001	0160BD4009	0160BD8006	0160BD9006
Date Sampled:						8/26/1992	9/10/1992	9/8/1992	9/8/1992	9/8/1992	4/19/1993	4/20/1993	4/21/1993	4/20/1993
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis														
Antimony	7440-36-0	mg/kg	450	31	6									
Chromium	7440-47-3	mg/kg	120,000	-	-	29.9	140 J	199	14.6	37.8	280	42.8	227	102
Nickel	7440-02-0	mg/kg	23,000	1,600	654**									
Thallium	7440-28-0	mg/kg	NR	NR	NR									
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-									
General Chemistry														
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	5.9 UJ	8.2 J	10.1	6.8 U	8.4 U	5.7 U	6.10 U	10.7	7.1 J
Iron, Ferrous	-	%	-	-	-									
рН	-	su	-	-	-									
Redox Potential Vs H2	-	mV	-	-	-									
Solids, Percent	-	%	-	-	-									
Sulfide Screen	-	-	-	-	-									
Total Organic Carbon	-	mg/kg	-	-	-									

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Historical Site Investigation Borings (1992-1993) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 1992-1993 Sampled by ICF Kaiser Engineers, Inc.

Client Sample ID:							PPG	4-MW2		PPG4-MW13	PPG4	-MW14
Sample Depth (ft bgs):						4-6	6-8	10-12	14-16	8-9	4-5	6.4-7.4
Sample Elevation (ft):			NJ Non- Residential	NJ Residential	NJ Default Impact to	2.48-4.48	0.48-2.48	-3.52- (-1.52)	-7.52- (-5.52)	0.58-1.58	1.88-2.88	-0.52-0.48
Excavated:	CAS#	Units	Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening							
Lab Sample ID/Number:			Soil (NJAC 7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	0160W02003	0160W02004	0160W02006	0160W02008	0160B88009	0160B57004	0160B57005
Date Sampled:					,	1/14/1992	1/14/1992	1/14/1992	1/14/1992	8/27/1992	8/29/1992	8/30/1992
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis		1	•			1						
Antimony	7440-36-0	mg/kg	450	31	6							
Chromium	7440-47-3	mg/kg	120,000	-	-	224 J	15.3 J	8.19 J	21.3 J	8.39	90 J	18
Nickel	7440-02-0	mg/kg	23,000	1,600	654**							
Thallium	7440-28-0	mg/kg	NR	NR	NR							
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-							
General Chemistry												
Chromium, Hexavalent	18540-29-9	mg/kg	20	=	-					5.7 UJ	7.1 U	6.3 UJ
Iron, Ferrous	-	%	-	-	-							
рН	-	su	-	-	-					6.89		
Redox Potential Vs H2	-	mV	-	-	-							
Solids, Percent	-	%	-	-	-							
Sulfide Screen	-	-	-	-	-							
Total Organic Carbon	-	mg/kg	-	-	-			2130				

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Pre-Post-Excavation Remedial Investigation Borings (2011) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2011 Sampled by Tetra Tech

Client Sample ID:								016_D005 ^h					016_F005				016_J005 ^h		
Sample Depth (ft bgs):						7-7.5	10-10.5	14-14.5	17.8-18.3	25-25.5	5-5.5	10-10.5	14-14.5	20-20.5	23-23.5	10-10.5	15-15.5	20-20.5	5-5.5
Sample Elevation (ft):			NJ Non- Residential	NJ Residential	NJ Default Impact to	-1.5-(-1)	4.5-(-4)	-8.5-(-8)	-12.3-(-11.8)	-19.5-(-19)	0.8-1.3	-4.2-(-3.7)	-8.2-(-7.7)	-14.2-(-13.7)	-17.2-(-16.7)	-2.8-(-2.3)	-7.8-(-7.3)	-12.8-(-12.3)	1.3-1.8
Excavated:	CAS#	Units	Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening														
Lab Sample ID:			Soil (NJAC 7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	460-28584-28	460-28584-29	460-28584-30	460-28584-31	460-28584-32	460-28584-18	460-28584-19	460-28584-20	460-28584-21	460-28584-22	460-28584-34	460-28584-12	460-28584-13	460-29778-8
Date Sampled:					,	7/12/2011	7/13/2011	7/14/2011	7/15/2011	7/16/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	8/9/2011
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•		-	•		•			•		•				•		•		
Antimony	7440-36-0	mg/kg	450	31	6	19.5 UJ	23.6 UJ	26.1 UJ	50.4 UJ	15.6 UJ	15.1 UJ	21.7 UJ	22.7 UJ	20.2 UJ	16.7 UJ	17.5 UJ	20.4 UJ	33.6 UJ	2.4 UJ
Chromium	7440-47-3	mg/kg	120,000	-	=	9.8	79.6	41	12.7	9.2	497	36.4	22	21.9	12.7	7.2	22.3	30.1	233 J
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9.4	26	37.4	12.6 J	9.3	8.6	23.1	20.9	17.6	13.2	4.9 J	19.1	16.2	7.8 J
Thallium	7440-28-0	mg/kg	NS	NS	NS	7.8 U	9.4 U	10.4 U	20.2 U	6.2 U	6 U	8.7 U	9.1 U	8.1 U	6.7 U	7 U	8.2 U	13.4 U	2.4 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	9.1	31.8	31.1	20.9	12.7	19.6	28	23.6	30.6	17	8.9	23	27.1	10.5 J
General Chemistry																			
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	=	2.4 U	3 U	3.3 U	6.7 U	2.1 U	2.3	2.8 U	3.2 U	2.6 U	2.2 U	2.4 U	0.73 J	4.2 U	2.3 UJ
Iron, Ferrous	-	%	NS	NS	NS														
рН	-	su	NS	NS	NS	8.43	8.08	7.92	7.16	9.29	9.38	9.27	7.83	7.44	8.89	8.39	8.07	7.27	8.29
Redox Potential Vs H2	-	mV	NS	NS	NS	369	360	356	374	328	286	298	388	389	363	356	318	343	403
Solids, Percent	-	%	NS	NS	NS														
Sulfide Screen	-	-	NS	NS	NS														
Total Organic Carbon	-	mg/kg	NS	NS	NS														

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- ^ The drilling of this boring was a Tetratech error. This boring is located within the Site 112A boundary and not in site 16.

[#]Location resampled during supplemental investigation.

Pre-Post-Excavation Remedial Investigation Borings (2011) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2011 Sampled by Tetra Tech

Client Sample ID:						016_	_J014				016_K007		
Sample Depth (ft bgs):						15-15.5	20-20.5	23.3-23.8	5-5.5	11.4-11.9	15-15.5	20-20.5	25-25.5
Sample Elevation (ft):			NJ Non- Residential	NJ Residential	NJ Default Impact to	-8.7-(-8.2)	-13.7-(-13.2)	-17-(-16.5)	2-2.5	-4.4-(-3.9)	-8-(-7.5)	-13-(-12.5)	-18-(-17.5)
Excavated:	CAS#	Units	Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening								
Lab Sample ID:			Soil (NJAC 7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	460-29778-9	460-29778-10	460-29778-11	460-29552-22	460-29552-23	460-29552-24	460-29552-25	460-29552-26
Date Sampled:					,	8/9/2011	8/9/2011	8/9/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			!	•			•					.1	
Antimony	7440-36-0	mg/kg	450	31	6	3.7 UJ	3.5 UJ	2.2 UJ	1.1 J	2.2 UJ	2.7 UJ	3.4 UJ	2.3 UJ
Chromium	7440-47-3	mg/kg	120,000	-	=	53.1 J	9.8 J	8.3 J	546	6.8	19.3	32.9	10
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	39.4	5.8 J	11.8	10	8.6 J	17.6	28.1	13.7
Thallium	7440-28-0	mg/kg	NS	NS	NS	3.7 U	3.5 U	2.2 U	2.2 U	2.2 U	2.7 U	3.4 U	2.3 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	ī	32.6	9.4 J	12.2	53.6	8.5 J	20.1	37.2	11.7
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	=	4 UJ	3.4 UJ	2.3 UJ	9.9	2.4 U	2.8 U	3.7 U	2.4 U
Iron, Ferrous	-	%	NS	NS	NS								
рН	-	su	NS	NS	NS	8.43	7.6	4.47	8.65	8.33	8.09	7.49	8.2
Redox Potential Vs H2	-	mV	NS	NS	NS	134	422	478	368	361	332	356	401
Solids, Percent	-	%	NS	NS	NS								
Sulfide Screen	-	-	NS	NS	NS								
Total Organic Carbon	-	mg/kg	NS	NS	NS								

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Client Sample ID:								016	5_K009				016_	K013		016_L005
Sample Depth (ft bgs):						2.4-2.9	7-7.5	10.7-11.2	16-16.5	20-20.5	25-25.5	6-6.5	11.3-11.8	20-20.5	25-25.5	25-25.5
Sample Elevation (ft):			NJ Non-	NJ Residential	NJ Default Impact to	4.8-5.3	0.2-0.7	-3.5-(-3)	-8.8-(-8.3)	-12.8-(-12.3)	-17.8-(-17.3)	2.1-2.5	-3.2-(-2.7)	-11.9-(-11.4)	-16.9-(-16.4)	-18.2-(-17.7)
Excavated:	CAS#	Units	Residential Direct Contact	Direct Contact Soil (NJAC	Groundwater Soil Screening											
Lab Sample ID:			Soil (NJAC 7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	460-28592-8	460-28592-7	460-28592-3	460-28592-4	460-28592-2	460-28592-1	460-29552-3	460-29552-4	460-29552-5	460-29552-6	460-28584-6
Date Sampled:					11/10/	7/8/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	7/8/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	7/8/2011
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	ļ.				!						·L	ļ	l	l	l	
Antimony	7440-36-0	mg/kg	450	31	6	2.2 UJ	2.3 UJ	2.4 UJ	3.2 UJ	3.2 UJ	2.3 UJ	2.4 UJ	2.2 UJ	3.3 UJ	2.4 UJ	19.1 UJ
Chromium	7440-47-3	mg/kg	120,000	-	-	11.1	12.5	8.8	43.3	28.9	11.3	101	8.4	35	19.3	11.7
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	6.2 J	7 J	9.9	38.3	25.6	14.7	8.1 J	9.4	21.7	25.5	15.2
Thallium	7440-28-0	mg/kg	NS	NS	NS	2.2 U	2.3 U	2.4 U	3.2 U	3.2 U	2.3 U	2.4 U	2.2 U	3.3 U	2.4 U	7.6 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	10.5 J	7 J	11 J	34.2	32.9	13.2	8.1 J	10.5 J	26.9	23.9	14.7 J
General Chemistry						_										
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.2 U	2.3 U	2.4 U	3.2 U	4.6	2.3 U	2.4 UJ	2.4 UJ	3.3 UJ	2.5 UJ	2.3 U
Iron, Ferrous	-	%	NS	NS	NS											
pН	-	su	NS	NS	NS	8.76	8.43	349	8.15	7.56	8.28	8.53	8.43	8.05	7.84	7.14
Redox Potential Vs H2	-	mV	NS	NS	NS	355	349	8.32	275	334	382	384	365	336	347	316
Solids, Percent	-	%	NS	NS	NS											
Sulfide Screen	-	-	NS	NS	NS											
Total Organic Carbon	-	mg/kg	NS	NS	NS											

Analytical Data Qualifiers:

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ft bgs = feet below ground surface

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su = standard unit

mV = millivolts
--- = Not Analyzed

- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ^ The drilling of this boring was a Tetratech error. This boring is located within the Site 112A boundary and not in site 16.

[#]Location resampled during supplemental investigation.

Pre-Post-Excavation Remedial Investigation Borings (2011) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2011 Sampled by Tetra Tech

Client Sample ID:										016_L010				
Sample Depth (ft bgs):						0-0.5	1.6-2.1	2.1-2.6	2.6-3.1	5-5.5	10-10.5	16-16.5	20-20.5	25-25.5
Sample Elevation (ft):			NJ Non- Residential	NJ Residential	NJ Default Impact to	8.3-8.8	6.7-7.2	6.2-6.7	5.7-6.2	3.3-3.8	-1.7-(-1.2)	-7.7-(-7.2)	-11.7-(-11.2)	-16.7-(-16.2)
Excavated:	CAS#	Units	Direct Contact Soil (NJAC	Direct Contact Soil (NJAC	Groundwater Soil Screening									
Lab Sample ID:			7:26D 6/12)	7:26D 6/12)	(NJAC 7:26D 11/13)	460-29552-7	460-29552-8	460-29552-9	460-29552-10	460-29552-11	460-29552-13	460-29552-14	460-29552-15	460-29552-16
Date Sampled:					·	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011	8/3/2011
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•													
Antimony	7440-36-0	mg/kg	450	31	6	0.9 J	2.7 J	10.4 J	2.1 UJ	1.4 J	2.4 UJ	2.2 UJ	3.1 UJ	2.5 UJ
Chromium	7440-47-3	mg/kg	120,000	-	-	41.1	530	4650	66.5	453	8.1	11.7	24.9	15.7
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	30.3	56.4	503	15.3	57.1	7.3 J	10.2	21.4	20.8
Thallium	7440-28-0	mg/kg	NS	NS	NS	2 U	2.1 U	2.3 U	2.1 U	2.1 U	2.4 U	2.2 U	3.1 U	2.5 U
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	46	70.1	870	22.2	84.6	7 J	9.7 J	26.5	20.6
General Chemistry														
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2.1 UJ	12.1 J	169 J	11.2 J	9.1 J	0.86 J	2.5 U	3.1 U	2.6 U
Iron, Ferrous	-	%	NS	NS	NS									
pH	-	su	NS	NS	NS	9.18	10.7	9.66	10.1	10.4	8.65	8.59	7.95	7.96
Redox Potential Vs H2	-	mV	NS	NS	NS	316	248	305	343	305	362	337	343	343
Solids, Percent	-	%	NS	NS	NS									
Sulfide Screen	-	-	NS	NS	NS									
Total Organic Carbon	-	mg/kg	NS	NS	NS									

Analytical Data Qualifiers:

- J The postive result reported for this analyte is a quantitative estimate.
- U This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- UJ This compound/analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.

Notes:

^h Analytical results in this location were not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

NS = No Standard as per N.J.A.C. 7:26D Implementation of Updated Soil Remediation Standards, September 18, 2017.

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts
--- = Not Analyzed

- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ^ The drilling of this boring was a Tetratech error. This boring is located within the Site 112A boundary and not in site 16.

[#]Location resampled during supplemental investigation.

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							CD001		DUP 14		С	DD001		DUP 15
Sample Depth (ft bgs):						4-4.5	4.5-5	5-5.5	5-5.5	4.5-5	5-5.5	5.5-6	6-6.5	6-6.5
Sample Elevation (ft):			NUMBER		NJ Default	2.1-2.6	1.6-2.1	1.1-1.6	1.1-1.6	1-1.5	0.5-1	0-0.5	(-0.5-0)	(-0.5-0)
Excavated:	CAS#	11	NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater									
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	CD001 4-4.5	CD001 4.5-5	CD001 5-5.5	DUP 14	DD001 4.5-5	DD001 5-5.5	DD001 5.5-6	* DD001 6-6.5	DUP 15
Lab Sample ID:			7:26D 6/12)		11/13)	JB46565-11	JB46565-12	JB46565-13	JB46565-14	JB46565-15	JB46565-16	JB46565-17	JB46565-18	JB46565-23
Date Sampled:						9/4/2013	9/4/2013	9/4/2013	9/4/2013	9/4/2013	9/4/2013	9/4/2013	9/4/2013	9/4/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•	•	•			•	•	•				
Antimony	7440-36-0	mg/kg	450	31	6	<2.2 NJ-	<2.2 NJ-	<2.3 NJ-	<2.4 NJ-	<2.0 NJ-	<2.0 NJ-	<2.4 NJ-	<2.0 NJ-	<2.3 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	81.2 NJ+	130 NJ+	302 NJ+	530 NJ+	304 NJ+	107 NJ+	127 NJ+	85.1 NJ+	18.5 J
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	6.9	7.2	9.9	9.7	31.9	33.8 J	44.6	21.4	9.7 J
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.1	<1.1	<1.2	<1.0	<1.0	<1.2	<1.0	<1.1
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	11.5	9.8	10.6	12	62.3	41.3 J	51	32.8	13.3 J
General Chemistry														
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	2	4.4	7.9	11.8	0.82	0.9	0.87	1.4 NJ- / 0.96 NJ-***	0.91 NJ- / 1.6 NJ-
Redox Potential Vs H2	-	mV	-	-	-	313	319	324	315	179	167	149	245	238
Solids, Percent (%)	-	-	-	-	-	91.1	90.4	86.2	85.7	66.6	64.9	54.8	52.3	92.1
рН		su	-	-		8.85	8.57	8.44	8.7	7.8	7.92	7.88	7.96	8.94

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- N The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
- NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

---- = Not Analyzed

- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:						DD002	ED001	DUP 16	ED	002	FD	001	DUP 17
Sample Depth (ft bgs):						4.5-5	5-5.5	5-5.5	5.5-6	6-6.5	4-4.5	4.5-5	4.5-5
Sample Elevation (ft):			NI INI		NJ Default	1.6-2.1	1.2-1.7	1.2-1.7	0.9-1.4	0.4-0.9	3.5-4	3.5-4	3.5-4
Excavated:	0.00 #		NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	DD002 4.5-5	ED001 5-5.5	DUP 16	ED002 5.5-6	ED002 6-6.5	FD001 4-4.5	FD001 4.5-5	DUP 17
Lab Sample ID:			7:26D 6/12)	,	` 11/13)	JB46565-22	JB46565-27	JB46565-28	JB46565-31	JB46565-32	JB46565-35	JB46565-36	JB46565-51
Date Sampled:						9/4/2013	9/5/2013	9/5/2013	9/5/2013	9/5/2013	9/5/2013	9/5/2013	9/5/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•		•			•	•	•					
Antimony	7440-36-0	mg/kg	450	31	6	<2.1 NJ-	<2.0 NJ-	<2.0 NJ-	<2.3 NJ-	<2.2 NJ-	<2.4 NJ-	<2.1 NJ-	<2.1 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	14	101 J	40.2 J	215	146	47.9	22.3	26.6
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9	37.8 J	18 J	9.4	9.4	21	30.5	33.2
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.0	<1.0	<1.0	<1.1	<1.1	<1.2	<1.1	<1.0
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	11.4	42.7 J	14.7 J	52.8	71.1	32.3	31.2	27
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	=	<0.43 NJ- / 0.9 NJ-	<0.69 NJ- / <0.69 NJ-	<0.65 NJ- / <0.65 NJ-	7.2 NJ- / 4.7 NJ-	2.8 NJ- / 6 NJ-	<0.49	<0.42	<0.42
Redox Potential Vs H2	-	mV	-	-	-	228	149	154	140	122	217	231	211
Solids, Percent (%)	-	-	-	-	-	93	57.6	61.6	85.7	87.3	81.4	95.2	95.4
рН	-	su	-	-	-	9.34	8.29	8.44	10.35	10	7.83	8.22	9.03

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- N The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
- NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

---- = Not Analyzed

- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							FD002		GD001	DUP 18		GD002	
Sample Depth (ft bgs):						5-5.5	5.5-6	6-6.5	5-5.5	5-5.5	4-4.5	4.5-5	5-5.5
Sample Elevation (ft):					NJ Default	1.5-2	1-1.5	0.5-1	1.5-2	1.5-2	2.5-3	2-2.5	1.5-2
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	FD002 5-5.5	FD002 5.5-6	FD002 6-6.5	GD001 5-5.5	DUP 18	GD002 4-4.5	GD002 4.5-5	GD002 5-5.5
Lab Sample ID:			7:26D 6/12)	,	11/13)	JB46565-38	JB46565-39	JB46565-40	JB46565-44	JB46565-45	JB45810-33	JB45810-18	JB45810-19
Date Sampled:						9/5/2013	9/5/2013	9/5/2013	9/5/2013	9/5/2013	8/27/2013	8/27/2013	8/27/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Solid	Solid	Solid
Metals Analysis				•									
Antimony	7440-36-0	mg/kg	450	31	6	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.0 NJ-	<2.0 NJ-	<2.4	<2.3	<2.2
Chromium	7440-47-3	mg/kg	120,000	-	-	212	196	1040	28.7	35	10.9 *J	57.6 *J	60.2 *J
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	15.6	8.8	10.4	16.6	22.3	10.4 NJ-	12.3 NJ-	8.1 NJ-
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.2	<1.2	<1.0	<1.0	<1.2	<1.1	<1.1
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	19.5	12.5	27.3	16.1	18.9	10.1 NJ-	27.9 NJ-	17.9 NJ-
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	5.4	<0.45	13.4	<0.55	<0.52	<0.47 NJ- / <0.47 NJ-	1.1 *J	0.91 *J
Redox Potential Vs H2	-	mV	-	-	-	179	265	280	207	202	233	113	204
Solids, Percent (%)	-	-	-	-	=	90.4	88	86.7	72.3	76.9	84.9	89.1	87.1
рН	-	su	-	-	-	10.39	8.56	8.29	7.86	7.85	8.32	9.25	8.87

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- ${\bf N}$ The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
- NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

---- = Not Analyzed

- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							HD	001		HD002
Sample Depth (ft bgs):						6-6.5	6.5-7	6.5-7	7-7.5	5.5-6
Sample Elevation (ft):					NJ Default	0.5-1	0-0.5	0-0.5	(-0.5-0)	1-1.5
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater					
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC 7:26D 6/12)	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	HD001 6-6.5	HD001 6.5-7	DUP 9	HD001 7-7.5	HD002 5.5-6
Lab Sample ID:			7.200 0/12)		11/13)	JB45810-2	JB45810-3	JB45810-13	JB45810-4	JB46565-49
Date Sampled:						8/27/2013	8/27/2013	8/27/2013	8/27/2013	9/5/2013
Matrix:						Solid	Solid	Solid	Solid	Soil
Metals Analysis			•							
Antimony	7440-36-0	mg/kg	450	31	6	<2.3	<2.3	<2.1 NJ-	<2.3 NJ-	<2.4 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	7.1	8.4	15.1 J	6.6	433
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	5.7	7	14.5	7	38.2
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.2	<1.2	<1.0	<1.1	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	9.1	13.8	18.7	7.6	46.9
General Chemistry										
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	<0.47	<0.50	<0.51	<0.48	<0.48
Redox Potential Vs H2	-	mV	-	-	-	215	343	265	249	214
Solids, Percent (%)	-	-	-	-	-	84.8	80.6	79	83.8	82.8
рН	-	su	-	-		8.24	8.32	8.16	8.32	8.17

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- N The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
- NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

---- = Not Analyzed

- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							ID001		DUP 8		JD002	DUP 5
Sample Depth (ft bgs):						5-5.5	5.5-6	6-6.5	6-6.5	6-6.5	6.5-7	6.5-7
Sample Elevation (ft):					NJ Default	1.5-2	1-1.5	0.5-1	0.5-1	0.5-1	0-0.5	0-0.5
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater							
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC 7:26D 6/12)	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	ID001 5-5.5	ID001 5.5-6	ID001 6-6.5	DUP 8	JD002 6-6.5	JD002 6.5-7	DUP 5
Lab Sample ID:			7.200 0/12)		11/13)	JB45810-29	JB45810-30	JB45810-31	JB45810-17	JB45740-19	JB45740-20	JB45740-35
Date Sampled:						8/26/2013	8/26/2013	8/26/2013	8/26/2013	8/26/2013	8/26/2013	8/26/2013
Matrix:						Solid	Solid	Solid	Solid	Soil	Soil	Soil
Metals Analysis							•				•	-
Antimony	7440-36-0	mg/kg	450	31	6	<2.0	<2.0	<2.4	<2.5	<2.4 NJ-	<2.4 NJ-	<2.5 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	21.7 *J	32.2 *J	7.4 *J	9 *J	24.3	11.6	10.4
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	12.8 NJ-	20.7 NJ-	6.1 NJ-	7.1 NJ-	10.7	9	8.5
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.0	<0.99	<1.2	<1.2	<1.2	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	12.3 NJ-	22.3 NJ-	8.2 NJ-	9.1 NJ-	13.4	11.2	10.1
General Chemistry												
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	<0.53 NJ- / <0.53 NJ-	<0.58 NJ- / 0.79 NJ-	<0.49 NJ- / <0.49 NJ-	<0.50 *J	0.63 NJ- / <0.49 NJ-	<0.48 NJ- /<0.48 NJ- ***	<0.48 NJ- / <0.48 NJ-
Redox Potential Vs H2	-	mV	-	-	-	93.5	140	240	308	215	279	291
Solids, Percent (%)	-	-	-	-	-	76	68.6	82.2	80.3	82.3	83.6	83.8
рН	-	su	-	-	=	8.18	7.79	8.27	8.2	8.07	8.38	8.5

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- J The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- N The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
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---- = Not Analyzed

- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:						JE	0005	KD	001	KD	002
Sample Depth (ft bgs):						5.5-6	6-6.5	6-6.5	6.5-7	5.5-6	6-6.5
Sample Elevation (ft):					NJ Default	1.2-1.7	0.7-1.2	0.5-1	0-0.5	1-1.5	0.5-1
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater						
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	JD005 5.5-6	JD005 6-6.5	KD001 6-6.5	KD001 6.5-7	KD002 5.5-6	KD002 6-6.5
Lab Sample ID:			7:26D 6/12)		11/13)	JB45364-23	JB45364-24	JB45631-31	JB45631-32	JB45364-11	JB45364-12
Date Sampled:						8/21/2013	8/21/2013	8/22/2013	8/22/2013	8/21/2013	8/21/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis											
Antimony	7440-36-0	mg/kg	450	31	6	<2.2	<2.3	<2.4	<2.4	<2.3	<2.4
Chromium	7440-47-3	mg/kg	120,000	-	-	47.3	8.6	274	133	39.8	11.3
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	7.2	7.9	9.1	8.1	6.4	9.3
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.2	<1.2	<1.2	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	9.7	9.1	19.7	12.4	9.8	10.1
General Chemistry											
Chromium, Hexavalent	18540-29-9	mg/kg	20	=	-	0.66 *NJ- / 2 NJ+	<0.48 *NJ-/ <0.48 N	5 NJ- / 2.9 NJ-	1.2 NJ- / 3.1 NJ-	<0.48 *J	<0.48 *J
Redox Potential Vs H2	-	mV	-	-	-	292	297	279	265	335	340
Solids, Percent (%)	-	-	-	-	-	88	84.1	82.9	81.9	83.3	82.8
рН	-	su	-	-	-	8.68	8.68	8.41	8.38	8.44	8.46

Analytical Data Qualifiers:

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Notes:

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mg/kg = milligram per kilogram

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mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							KD003		KD	004		KD005	
Sample Depth (ft bgs):						5-5.5	5.5-6	6-6.5	5-5.5	5.5-6	5-5.5	5.5-6	6-6.5
Sample Elevation (ft):					NJ Default	1.5-2	1-1.5	0.5-1	1.5-2	1-1.5	1.6-2.1	1.1-1.6	0.6-1.1
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	KD003 5-5.5	KD003 5.5-6	KD003 6-6.5	KD004 5-5.5	KD004 5.5-6	KD005 5-5.5	KD005 5.5-6	KD005 6-6.5
Lab Sample ID:			7:26D 6/12)	ŕ	11/13)	JB45364-18	JB45364-19	JB45364-20	JB45364-15	JB45364-16	JB45364-42	JB45364-43	JB45364-44
Date Sampled:						8/21/2013	8/21/2013	8/21/2013	8/21/2013	8/21/2013	8/20/2013	8/20/2013	8/20/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•		•				•				•		
Antimony	7440-36-0	mg/kg	450	31	6	<2.4	<2.0	<2.5	<2.4	<2.3	<2.4 NJ-	<2.0 NJ-	<1.9 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	112	166	10.3	102	17.4	324 ENJ-	512 ENJ-	41.2 ENJ-
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	6.3	9.8	9.5	7	9.3	6.2	14.4	8.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.2	<0.98	<1.2	<1.2	<1.1	<1.2	<1.0	<0.97
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	40.2	46.9	11.5	10.8	12.7	23.5 EJ	29.2 EJ	20 EJ
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	=	=	3.8 *J	<0.51 *NJ- / 2.1 NJ+	<0.49 *NJ- / <0.49N	3.3 *J	2 *J	10.1 *NJ- / 11.4 NJ+	16.5 *NJ- / 18.7 NJ+	0.59 *NJ- / <0.52 N
Redox Potential Vs H2	-	mV	-	-	-	212	255	335	327	325	282	282	279
Solids, Percent (%)	-	-	-	-	-	86.4	77.9	81.9	88.5	86.3	84.4	57.1	77.4
рН	-	su	-	-	=	8.74	8.53	8.63	8.78	8.75	8.47	8.97	8.46

Analytical Data Qualifiers:

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mV = millivolts

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							KD006			KD	007	
Sample Depth (ft bgs):						5.5-6	6-6.5	6.5-7	4.5-5	5-5.5	5.5-6	6-6.5
Sample Elevation (ft):					NJ Default	1.1-1.6	0.6-1.1	0.1-0.6	2.6-3.1	2.1-2.6	1.6-2.1	1.1-1.6
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater							
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	KD006 5.5-6	KD006 6-6.5	KD006 6.5-7	KD007 4.5-5	KD007 5-5.5	KD007 5.5-6	KD007 6-6.5
Lab Sample ID:			7:26D 6/12)		11/13)	JB45364-46	JB45364-47	JB45364-48	JB45364-1	JB45364-2	JB45364-3	JB45364-4
Date Sampled:						8/20/2013	8/20/2013	8/20/2013	8/21/2013	8/21/2013	8/21/2013	8/21/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis												
Antimony	7440-36-0	mg/kg	450	31	6	<2.1 NJ-	<2.1 NJ-	<2.2 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.5 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	148 ENJ-	215 ENJ-	145 ENJ-	458	121	188	146
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	6.9	8.2	8.1	5.9	6.8	7	9.2
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.0	<1.1	<1.1	<1.2	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	14.5 EJ	10.1 EJ	11.5 EJ	27.2	15	12.4	10.9
General Chemistry												
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	7.4 *NJ- / 6 NJ+	4.8 *NJ- / 7.1 NJ+	3.2 *NJ- / 6.5 NJ+	7 *J	3.3 *J	3.1 *J	3.6 *J
Redox Potential Vs H2	-	mV	-	-	-	29.5	299	295	336	275	285	288
Solids, Percent (%)	-	-	-	-	-	90	94.2	91.5	88.2	84.6	84.9	84.4
рН	-	su	-	-	-	8.63	8.55	8.65	8.84	8.46	8.59	8.57

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							KD	009			KD	010	
Sample Depth (ft bgs):						4-4.5	4.5-5	5-5.5	5.5-6	4-4.5	4.5-5	5-5.5	5.5-6
Sample Elevation (ft):					NJ Default	3.5-4	3-3.5	2.5-3	2-2.5	3.5-4	3-3.5	2.5-3	2-2.5
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	KD009 4-4.5	KD009 4.5-5	* KD009 5-5.5	KD009 5.5-6	KD010 4-4.5	KD010 4.5-5	KD010 5-5.5	KD010 5.5-6
Lab Sample ID:			7:26D 6/12)	,	11/13)	JB45631-5	JB45631-6	JB45631-7	JB45631-8	JB45631-9	JB45631-10	JB45631-11	JB45631-12
Date Sampled:						8/23/2013	8/23/2013	8/23/2013	8/23/2013	8/23/2013	8/23/2013	8/23/2013	8/23/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•							•			
Antimony	7440-36-0	mg/kg	450	31	6	<2.1 NJ-	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.1 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	11.3	35.5	303	178	9.7	15.7	154	171
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	8.2	7.4	10.4	7.8	7.1	6.7	9.9	8
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.2	<1.2	<1.2	<1.0	<1.1	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	9.8	11.3	15.2	16.3	10.8	12.3	16.3	13
General Chemistry	-												
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.63 NJ- / 0.69	2.4 NJ- / 3.4	4.1 / 10.5***	2.3 NJ- / 2.9	0.72 NJ- / 0.52	0.7 NJ- / 0.67	2 NJ- / 5.6	3.5 NJ- / 5.6
Redox Potential Vs H2	-	mV	-	-	-	342	348	338	329	337	331	337	328
Solids, Percent (%)	-	-	-	-	-	93.1	87.5	83	85.4	92.6	91.4	84.4	88.1
рН	-	su	-	-	-	8.99	8.57	8.68	8.7	8.84	8.7	8.48	8.58

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							KD	011			KD012		KD014
Sample Depth (ft bgs):						3.5-4	4-4.5	4.5-5	5-5.5	4-4.5	4.5-5	5-5.5	3.5-4
Sample Elevation (ft):					NJ Default	4.1-4.6	3.6-4.1	3.1-3.6	2.6-3.1	3.7-4.2	3.2-3.7	2.7-3.2	5-5.5
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	KD011 3.5-4	KD011 4-4.5	KD011 4.5-5	KD011 5-5.5	KD012 4-4.5	KD012 4.5-5	KD012 5-5.5	KD014 3.5-4
Lab Sample ID:			7:26D 6/12)	7.202 0.12,	11/13)	JB45224-29	JB45224-30	JB45224-31	JB45224-32	JB45224-14	JB45224-15	JB45224-16	JB45631-16
Date Sampled:						8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/20/2013	8/20/2013	8/20/2013	8/23/2013
Matrix:						Soil							
Metals Analysis			•										
Antimony	7440-36-0	mg/kg	450	31	6	<2.1 NJ-	<2.4 NJ-	<2.3 NJ-	<2.4 NJ-	<2.1	<2.3	<2.3	<2.2 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	11.7 EJ	14.8 EJ	21.6 EJ	105 EJ	13.6	12.8	112	19.5
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	17.1	7.9	9.1	8.8	7	6.2	9.9	9.1
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.2	<1.2	<1.2	<1.1	<1.2	<1.2	<1.1
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	9.4	9.3	12.8	13.2	11.1	10.1	24	10.6
General Chemistry	•		•								•		
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	<0.43	0.52	0.74	5.7	0.67	0.78	2.7	1.3 NJ- / 0.58
Redox Potential Vs H2	-	mV	-	-	-	251	315	324	324	352	355	351	372
Solids, Percent (%)	-	-	-	-	-	92.5	88.9	89.1	82.5	90.5	89.7	82.5	90.6
рН	-	su	-	-	-	8.85	8.75	8.83	8.42	8.83	8.87	8.42	8.66

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							KD016		DUP 11	KD	017	KD	018	DUP 13
Sample Depth (ft bgs):						3-3.5	3.5-4	4-4.5	4-4.5	4-4.5	4.5-5	4.5-5	5-5.5	5-5.5
Sample Elevation (ft): Excavated:			NJ Non- Residential	NJ Residential	NJ Default Impact to	6-6.5	5.5-6	5-5.5	5-5.5	5.4-5.9	4.9-5.4	4-4.5	3.5-4	3.5-4
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC 7:26D 6/12)	Direct Contact Soil (NJAC 7:26D 6/12)	Groundwater Soil Screening (NJAC 7:26D	KD016 3-3.5	KD016 3.5-4	KD016 4-4.5	DUP 11	KD017 4-4.5	KD017 4.5-5	KD018 4.5-5	KD018 5-5.5	DUP13
Lab Sample ID:			11202 0/12)		11/13)	JB45810-10	JB45810-11	JB45810-12	JB45810-15	JB45810-22	JB45810-23	JB46565-3	JB46565-4	JB46565-5
Date Sampled:						8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	8/27/2013	9/4/2013	9/4/2013	9/4/2013
Matrix:						Solid	Solid	Solid	Solid	Solid	Solid	Soil	Soil	Soil
Metals Analysis			•						•	•		•		
Antimony	7440-36-0	mg/kg	450	31	6	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.2 NJ-	<2.2	<2.4	<2.2 NJ-	<2.4 NJ-	<2.3 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	19.3	25.3	89.5 J	5.9 J	30 *J	204 *J	75.2 NJ+	187 NJ+	175 NJ+
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9.3	8.5	7.5	<4.5	7.9 NJ-	7.6 NJ-	7.7	8	7.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<1.1	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	9.4	9.5	9.7	15.3	17.5 NJ-	22 NJ-	10.7	8.9	9.4
General Chemistry														
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.85	1.2	3.7	3.6 *J	1.3 *J	6.7 *J	2.7	6.1	5.6
Redox Potential Vs H2	-	mV	=	-	-	273	292	309	322	295	312	212	236	252
Solids, Percent (%)	-	-	-	-	-	89.5	87.3	88.1	85.6	86.5	85.6	88.5	82.7	83
рН	-	su	=	-	-	8.66	8.67	8.53	8.31	9.12	9.04	9.22	8.56	8.58

Analytical Data Qualifiers:

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							KD019			KD020	
Sample Depth (ft bgs):						3.5-4	4-4.5	4.5-5	3.5-4	4-4.5	4.5-5
Sample Elevation (ft):					NJ Default	5-5.5	4.5-5	4-4.5	5-5.5	4.5-5	4-4.5
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater						
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	KD019 3.5-4	KD019 4-4.5	KD019 4.5-5	KD020 3.5-4	KD020 4-4.5	KD020 4.5-5
Lab Sample ID:			7:26D 6/12)	,	11/13)	JB45810-35	JB45810-36	JB45810-37	JB46565-7	JB46565-8	JB46565-9
Date Sampled:						8/27/2013	8/27/2013	8/27/2013	9/4/2013	9/4/2013	9/4/2013
Matrix:						Solid	Solid	Solid	Soil	Soil	Soil
Metals Analysis			•				•				
Antimony	7440-36-0	mg/kg	450	31	6	<2.2	<2.3	<2.5	<2.4 NJ-	<2.4 NJ-	<2.2 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	90.9 *J	82.5 *J	259 *J	446 NJ+	150 NJ+	145 NJ+
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9.3 NJ-	8.7 NJ-	7.1 NJ-	12.2	8.7	5.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.1	<1.2	<1.2	<1.2	<1.1
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	11.4 NJ-	24.6 NJ-	17.9 NJ-	18.1	11.6	6.4
General Chemistry											
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	5 NJ- / 5.9 NJ-	3.7 NJ- / 7 NJ-	9 NJ- / 16.8 NJ-	9.4	2.5	6.2
Redox Potential Vs H2	-	mV	-	-	-	281	293	357	230	234	242
Solids, Percent (%)	-	-	-	-	-	92.7	86.7	84.5	89.1	85.9	86.7
рН	-	su	-	-	-	9.59	9.15	8.37	9.14	8.99	8.87

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
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- ${\bf N}$ The matrix spike sample recovery in the associated QC sample is not within QC limits.
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- J- The result is estimated and may be biased low.
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Notes:

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- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
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mg/kg = milligram per kilogram

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mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

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- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD001			LD002	
Sample Depth (ft bgs):						5.5-6	6-6.5	6.5-7	4.5-5	5-5.5	5.5-6
Sample Elevation (ft):					NJ Default	1.8-2.3	1.3-1.8	0.8-1.3	2-2.5	1.5-2	1-1.5
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater						
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	LD001 5.5-6	* LD001 6-6.5	LD001 6.5-7	LD002 4.5-5	LD002 5-5.5	LD002 5.5-6
Lab Sample ID:			7:26D 6/12)	,	11/13)	JB45631-35	JB45631-36	JB45631-37	JB45631-18	JB45631-19	JB45631-20
Date Sampled:						8/23/2013	8/23/2013	8/23/2013	8/23/2013	8/23/2013	8/23/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•								
Antimony	7440-36-0	mg/kg	450	31	6	<2.0	<2.3	<2.5	<2.2 NJ-	<2.5 NJ-	<2.3 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	41.2	71	10.1	1680	10.9	78.5
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	32.3	10.3	9.4	11.2	8.5	7.2
Thallium	7440-28-0	mg/kg	NR	NR	NR	<0.98	<1.1	<1.3	<1.1	<1.3	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	43.2	17.1	10.5	33.1	10.4	10.8
General Chemistry											
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	<0.61 NJ- / <0.61 NJ-	<0.47 NJ- / <0.47 NJ-***	<0.49 NJ- / <0.49 NJ-	17.2 NJ- / 14.5	<0.48 NJ- / <0.48	5.4 NJ- / 3.4 NJ-
Redox Potential Vs H2	-	mV	-	-	-	253	264	260	217	217	228
Solids, Percent (%)	-	-	-	-	-	65.6	84.7	81.6	86.8	82.7	84.1
рН	-	su	-	=	=	8.59	8.54	8.45	9.96	8.8	9.07

Analytical Data Qualifiers:

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD003			LD	004	
Sample Depth (ft bgs):						5-5.5	5.5-6	6-6.5	4.5-5	5-5.5	5.5-6	6-6.5
Sample Elevation (ft):					NJ Default	1.5-2	1-1.5	0.5-1	3.3-3.8	2.8-3.3	2.3-2.8	1.8-2.3
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater							
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	LD003 5-5.5	LD003 5.5-6	LD003 6-6.5	LD004 4.5-5	LD004 5-5.5	LD004 5.5-6	LD004 6-6.5
Lab Sample ID:			7:26D 6/12)	1.202 0/12/	11/13)	JB45631-22	JB45631-23	JB45631-24	JB45224-9	JB45224-10	JB45224-11	JB45224-12
Date Sampled:						8/23/2013	8/23/2013	8/23/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis												
Antimony	7440-36-0	mg/kg	450	31	6	<2.5	<2.0	<2.4	<2.3	<2.4	<2.4	<2.5
Chromium	7440-47-3	mg/kg	120,000	-	-	73.6	44.5	10.9	20.8	64.9	226	265
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	7.4	27.1	10.3	7.7	9.4	10.7	8.7
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.2	<1.0	<1.2	<1.1	<1.2	<1.2	<1.3
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	48	43.9	14.1	9.6	10.7	15.3	12.9
General Chemistry			•									
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	3.8 NJ- / 1.6 NJ-	0.59 NJ- / <0.52 NJ-	<0.48 NJ- / <0.48 NJ-	0.84	1.7	4	5.5
Redox Potential Vs H2	-	mV	-	-	-	283	182	263	369	329	336	323
Solids, Percent (%)	-	-	-	-	-	84.5	76.3	83.3	87.4	82.7	86.4	78.7
рН	-	su	-	-	-	8.73	8.79	8.8	8.64	8.05	8.47	8.34

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD	005			LD	006	
Sample Depth (ft bgs):						4-4.5	4.5-5	5-5.5	5.5-6	3.5-4	4-4.5	4.5-5	5-5.5
Sample Elevation (ft):					NJ Default	3.5-4	3-3.5	2.5-3	2-2.5	4.9-5.4	4.4-4.9	3.9-4.4	3.4-3.9
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	LD005 4-4.5	LD005 4.5-5	LD005 5-5.5	LD005 5.5-6	LD006 3.5-4	LD006 4-4.5	LD006 4.5-5	LD006 5-5.5
Lab Sample ID:			7:26D 6/12)	7.202 07.12)	11/13)	JB45224-25	JB45224-26	JB45224-27	JB45224-28	JB45224-1	JB45224-2	JB45224-3	JB45224-4
Date Sampled:						8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013
Matrix:						Soil							
Metals Analysis													
Antimony	7440-36-0	mg/kg	450	31	6	<2.2	<2.2	<2.3 NJ-	<2.5 NJ-	<2.0 NJ-	<2.3 NJ-	<2.4 NJ-	<2.3 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	16.4	27.4	177 EJ	297 EJ	15.8	15.1	15	27.3
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	7.7	8.8	7.2	9.5	7	6.8	6.5	10.4
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.1	<1.1	<1.3	<1.0	<1.1	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	12.8	12.3	12.4	11.7	13.3	12.9	10.9	13.6
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	<0.45	2	9.4	8.2	0.66	0.66	0.7	1.5
Redox Potential Vs H2	-	mV	-	-	-	344	345	332	331	330	298	308	331
Solids, Percent (%)	-	-	-	-	-	88.2	88.4	87.7	83.9	93.8	90.3	88.4	83.1
рН	-	su	-	-	-	8.72	8.47	8.68	8.41	8.89	8.76	8.63	8.66

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Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD	007			LD	008	
Sample Depth (ft bgs):						3.5-4	4-4.5	4.5-5	5-5.5	4-4.5	4.5-5	5-5.5	5.5-6
Sample Elevation (ft):					NJ Default	4.6-5.1	4.1-4.6	3.6-4.1	3.1-3.6	3.9-4.4	3.4-3.9	2.9-3.4	2.4-2.9
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	LD007 3.5-4	LD007 4-4.5	LD007 4.5-5	LD007 5-5.5	LD008 4-4.5	LD008 4.5-5	LD008 5-5.5	LD008 5.5-6
Lab Sample ID:			7:26D 6/12)	7.200 0/12)	11/13)	JB45224-5	JB45224-6	JB45224-7	JB45224-8	JB45224-33	JB45224-34	JB45224-35	JB45224-36
Date Sampled:						8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013	8/19/2013
Matrix:						Soil							
Metals Analysis													
Antimony	7440-36-0	mg/kg	450	31	6	<2.0 NJ-	<2.3 NJ-	<2.3	<2.5	<2.3 NJ-	<2.2 NJ-	<2.4 NJ-	<2.5 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	13.6	13.2	10.6	62	9.5 EJ	40 EJ	69.6 EJ	43.2 EJ
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	7.3	8.6	5.8	10.9	8.5	13.8	9.1	17.3
Thallium	7440-28-0	mg/kg	NR	NR	NR	<0.98	<1.2	<1.1	<1.2	<1.1	<1.1	<1.2	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	9.7	11	7.5	20.4	10.6	12.6	19.2	29.2
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.76	<0.45	<0.45	2.7	<0.44	1.9	3.5	2.5
Redox Potential Vs H2	-	mV	-	-	-	353	342	353	354	334	363	356	353
Solids, Percent (%)	=	-	-	-	-	96.3	89.2	88.1	83.6	90.3	89.3	84	83.4
рН	=	su	-	-	-	9.08	8.84	8.95	8.7	8.88	8.7	8.67	8.93

Analytical Data Qualifiers:

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Table 2F Pre-Post-Excavation Design Borings (2013)

Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD	009			LD)11	
Sample Depth (ft bgs):						4-4.5	4.5-5	5-5.5	5.5-6	3.5-4	4-4.5	4.5-5	5-5.5
Sample Elevation (ft):					NJ Default	4.2-4.7	3.7-4.2	3.2-3.7	2.7-3.2	5.3-5.8	4.8-5.3	4.3-4.8	3.8-4.3
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC		Soil Screening (NJAC 7:26D	LD009 4-4.5	LD009 4.5-5	LD009 5-5.5	LD009 5.5-6	LD011 3.5-4	LD011 4-4.5	LD011 4.5-5	LD011 5-5.5
Lab Sample ID:			7:26D 6/12)		11/13)	JB45224-17	JB45224-18	JB45224-19	JB45224-20	JB45364-37	JB45364-38	JB45364-39	JB45364-40
Date Sampled:						8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013	8/20/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis	•		•		•		•		•	•	•		
Antimony	7440-36-0	mg/kg	450	31	6	<2.1	<2.1	<2.5	<2.3	<2.0	<2.1	<2.1	<2.2
Chromium	7440-47-3	mg/kg	120,000	-	-	10.3	9.9	18.1	57.5	11	9.8	12	20.2
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	7.3	7	8.2	8	6.7	6.7	6.8	9.9
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.0	<1.1	<1.2	<1.2	<1.0	<1.1	<1.1	<1.1
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	11	11.9	15.4	14.6	9.5	9.1	8.3	10.6
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	<0.43	1.1	0.74	3.9	<0.42 *NJ- / <0.42 N	<0.43 *NJ- / <0.43N	0.69 *NJ- / 0.68 NJ+	0.72 *NJ- / 0.52 NJ+
Redox Potential Vs H2	-	mV	-	-	-	343	259	296	322	302	311	324	338
Solids, Percent (%)	-	-	-	-	-	93.9	92.6	84.2	85.3	94.8	93.4	90.5	88.9
рН	-	su	-	-	-	9.18	8.96	8.77	8.59	9.18	9.12	8.91	8.65

Analytical Data Qualifiers:

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- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD	012		DUP 1		LD013	
Sample Depth (ft bgs):						5-5.5	5.5-6	6-6.5	6.5-7	6.5-7	3.5-4	4-4.5	4.5-5
Sample Elevation (ft):			NJ Non-		NJ Default	3.5-4	3-3.5	2.5-3	2-2.5	2-2.5	5-5.5	4.5-5	4-4.5
Excavated:	CAS#	Units	Residential	NJ Residential Direct Contact	Impact to Groundwater								
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	LD012 5-5.5	LD012 5.5-6	LD012 6-6.5	LD012 6.5-7	DUP 1	LD013 3.5-4	LD013 4-4.5	LD013 4.5-5
Lab Sample ID:			7:26D 6/12)	·	11/13)	JB45740-25	JB45740-26	JB45740-27	JB45740-28	JB45740-31	JB45447-6	JB45447-7	JB45447-8
Date Sampled:						8/26/2013	8/26/2013	8/26/2013	8/26/2013	8/26/2013	8/21/2013	8/21/2013	8/21/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis													
Antimony	7440-36-0	mg/kg	450	31	6	<2.3 NJ-	<2.4 NJ-	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	132	923	382	172	221	11.4	14.2	20.6
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	16.6	52.4	8.1	7.9	6.4	8.2	9	9.4
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.2	<1.2	<1.2	<1.2	<1.2	<1.1	<1.1	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	=	19.9	56.1	14.8	8.1	12.3	9.7	12.4	13.1
General Chemistry													
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	=	<0.46 NJ- / 2.5 NJ-	3.3 NJ- / 4.5 NJ-	5.7 NJ- / 10.9 NJ-	1.7 NJ- / 7.2 NJ-	5.1 NJ-	<0.43 NJ-	0.48 NJ-	0.89 NJ-
Redox Potential Vs H2	-	mV	-	-	-	337	321	3340	326	295	401	415	423
Solids, Percent (%)	-	-	-	-	-	87.9	86.8	86.7	83.6	86	93.8	89.7	89.1
рН	-	su	-		=	8.34	8.3	8.48	8.8	8.6	9.09	8.87	8.57

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- N The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
- NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

---- = Not Analyzed

- Not Available

Pre-Post-Excavation Design Borings (2013) Summary Laboratory Analytical Data for Remaining Soil PPG Site 16, 45 Linden Ave East, Jersey City, NJ 2013 Sampled by CB&I

Client Sample ID:							LD	014		LD	018
Sample Depth (ft bgs):						3.5-4	4-4.5	4.5-5	5-5.5	3-3.5	3.5-4
Sample Elevation (ft):					NJ Default	5.7-6.2	5.2-5.7	4.7-5.2	4.2-4.7	5.9-6.4	5.4-5.9
Excavated:			NJ Non- Residential	NJ Residential Direct Contact	Impact to Groundwater						
Client Sample ID:	CAS#	Units	Direct Contact Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D	LD014 3.5-4	LD014 4-4.5	LD014 4.5-5	LD014 5-5.5	LD018 3-3.5	LD018 3.5-4
Lab Sample ID:			7:26D 6/12)	,	11/13)	JB45631-1	JB45631-2	JB45631-3	JB45631-4	JB50367-7	JB50367-8
Date Sampled:						8/23/2013	8/23/2013	8/23/2013	8/23/2013	10/16/2013	10/16/2013
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			•						•		
Antimony	7440-36-0	mg/kg	450	31	6	<2.1 NJ-	<2.3 NJ-	<2.2 NJ-	<2.2 NJ-	<1.1 NJ-	<1.2 NJ-
Chromium	7440-47-3	mg/kg	120,000	-	-	32.8	34.2	39	90.8	105 EJ	21.9 EJ
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9.2	8.2	7.9	88.2	10.3 EJ	7.3 EJ
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.1	<1.1	<1.1	<1.1	<0.54	<0.62
Vanadium	7440-62-2	mg/kg	1,100	390 ⁺	-	15.9	9.3	11.3	13.3	11.8	10.6
General Chemistry											
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	1.4 NJ- / 1.6	1.6 NJ- / 2	2 NJ- / 3.9	4.5 NJ- / 4.6	7.8	6.1
Redox Potential Vs H2	-	mV	-	-	-	334	331	358	374	277	305
Solids, Percent (%)	-	-	-	-	-	93.9	89.5	89.2	86.8	76.7	76.5
рН	-	su	-	-	-	8.48	8.45	8.28	8.23	8.37	8.73

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **J** The reported result is an estimated value.
- **EJ** The reported value is estimated because of the presence of interference; indeterminate bias direction.
- ${\bf N}$ The matrix spike sample recovery in the associated QC sample is not within QC limits.
- J+ The result is estimated and may be biased high.
- J- The result is estimated and may be biased low.
- E Exceeds calibration range.
- *J -The duplicate analysis result is outside QC limits and the reported sample value is estimated with an indeterminate bias direction.

Notes:

- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- *** Sample did not pass 2nd QA & QC. See Table 2F-A for additional information.
- NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

---- = Not Analyzed

- Not Available

Table 2F-A
Pre-Post Excavation
Design Borings (2013)
Soil Analytical
Summary Table for Chromium Rerun Samples
PPG Site 16,
45 Linden Avenue East, Jersey City, NJ
2013 sampled by CB&I

Sample Location:	DD001	ID001	JD002	JD003	JD005	KD009	LD001	
Sample Depth (ft bgs):	6-6.5	4.5-5	6.5-7	6.5-7	4.5-5	5-5.5	6-6.5	
Client Sample ID:	DD001 6-6.5	ID001 4.5-5	JD002 6.5-7	JD003 6.5-7	JD005 4.5-5	KD009 5-5.5	LD001 6-6.5	
Lab Sample ID:	JB46565-18RT	JB45810-28RT	JB45740-20RT	JB45740-12TR	JB45364-21RT	JB45631-7RT	JB45631-36TU	
Date Sampled:	9/4/2013	8/26/2013	8/26/2013	8/26/2013	8/21/2013	8/23/2013	8/23/2013	
Matrix:	Soil	Solid	Soil	Soil	Soil	Soil	Soil	
Iron, Ferrous (%)	1.2 ^a	1.1 ^a	0.75 ^a	0.57 ^a	0.71 ^a	0.59 ^a	0.63 ^a	
Sulfide Screen	NEGATIVE b	NEGATIVE ^b	NEGATIVE b	NEGATIVE ^b	NEGATIVE ^b	NEGATIVE ^b	NEGATIVE b	
Total Organic Carbon (mg/kg)	49800	17100 °	2560 ^c	2270	2220	393 °	30400	

Footnotes:

Notes:

ft bgs = feet below ground surface mg/kg = milligram per kilogram

^a The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

^b The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

^c Analysis done out of holding time.

Table 2G

Concrete and Wood Post-Excavation Samples (2014-2015) Summary Laboratory Analytical Data for Remaining Samples PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						CC01	2H-CONCRETE (2'BSG)	2N-WOOD (4' BSG)	3J-SW- SOUTH (2'BSG)	3J-SW- SOUTH1 (3'BSG)	3J-SW- SOUTH2 (4'BSG)	3J-SW- SOUTH3 (5'BSG)	3K-SW- SOUTH1 (3'BSG)	3K-SW- SOUTH2 (4'BSG)	3K-SW- SOUTH3 (5'BSG)	6M-SW- NORTH1 (4' BSG)	6M-SW- NORTH2 (5' BSG)	6M-SW- NORTH3 (6' BSG)	6N-SW- NORTH 1 (4.5' BSG)	6N-SW- NORTH 2 (6' BSG)
Sample Depth (ft bgs):			NJ Non-		NJ Default	2.3-2.8	1.8-2.3	5.2-5.7	1.3-1.8	4.7-5.2	4-4.5	3.7-4.2	3.4-3.9	4.7-5.2	5.6-6.1	0.9-1.4	3.9-4.4	4.2-4.7	1.9-2.4	6.0-6.5
Sample Elevations (ft):	CAS#	Units	Residential Direct Contact	NJ Residential Direct Contact	Impact to Groundwater	6.2-6.7	5.1-5.6	1.3-1.8	5.4-5.9	2.6-3.1	3.3-3.8	3.6-4.1	4.1-4.6	2.8-3.3	1.9-2.4	7.1-7.6	4.1-4.6	3.8-4.3	5.5-6	1.4-1.9
Excavated:	CAS#	Onits	Soil (NJAC	Soil (NJAC 7:26D 6/12)	Soil Screening (NJAC 7:26D															
Lab Sample ID:			7:26D 6/12)	,	11/13)	JB95670-1A	JB77884-1A	JB78118-6A	JB77884-10A	JB83154-4R	JB83154-5R	JB83154-6R	JB83154-1R	JB83154-2R	JB83154-3R	JB81089-2R	JB81089-3R	JB81089-4R	JB82703-1R	JB82703-2R
Date Sampled:						5/27/2015	9/26/2014	10/1/2014	9/26/2014	12/2/2014	12/2/2014	12/2/2014	12/2/2014	12/2/2014	12/2/2014	11/5/2014	11/5/2014	11/5/2014	11/25/2014	11/25/2014
Matrix:						Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid
Metals Analysis	•	•					•	•		•			•							
Antimony	7440-36-0	mg/kg	450	31	6	<2.1	0.90 J	3.7 U	2.2 U	2.3 U	2.3 U	0.35 J	2.1 U	1.5 J	2.5 U	2.1 U	2.1 U	2.2 U	2.3 U	2.2 U
Chromium	7440-47-3	mg/kg	120,000	-	-	11.3	90.7 J	35.8	112 J	30.4	313	99.2	19.5	3060	85.1	93.5	54.8	121	159	145
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	6.2	33.1	37.3	24.1	6.2	28.7	9.9	2.9 J	293	12.4	11.6	9.1	12	22.5	13.8
Thallium	7440-28-0	mg/kg	NS	NS	NS	<1.0	1.1 U	1.8 U	1.1 U	1.1 U	1.2 U	1.2 U	1.0 U	1.2 U	1.2 U	2.1 ^a U	1.1 U	1.1 U	1.2 U	1.1 U
Vanadium	7440-62-2	mg/kg	1,100	390⁺	NA	9.9	9.6	2.3 J	25.9	12.2	43.1	17	5.0 J	424	22.6	20.4	13.5	20	33.3	26
General Chemistry																				
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	1.1 J	25.2	0.72 U	1.4	0.7 J / 0.28 J	0.88 J / 0.46 UJ	1.3 J / 1.4 J	0.56 J / 1.9 J	25.5 J / 11.8 J	2.3 J / 3.5 J	0.42 UJ / 3	0.42 UJ / 2.5	1.5 J / 3	4.4 R / 3.7 J	2.1 R / 2.3 J
Iron, Ferrous	-	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
рН	-	su	-	-	-	12.06	11.64	4.35	7.85	11.34	11.69	11.88	11.48	10.42	10.51	10.09	12.11	11.38	8.39	11.59
Redox Potential Vs H2	-	mv	-	-	-	130	105	418	276	93.3	27.5	52.9	78.6	164	166	209	76.1	117	268	109
Solids, Percent	-	%	-	-	-	96.5	92.5	55.7	88.9	88.8	86.2	82.2	91.5	82.1	81.1	95	94.2	86.8	83.3	86
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- J The postive result reported for this analyte is a quantitative estimate.
- ${\bf U}$ This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- **UJ** This compound/analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.

Notes:

- ^a Elevated detection limit due to dilution required for high interfering element.
- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

NS = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

ft = Feet North American Vertical Datum of 1988

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

BSG= below surface grade

FBG= feet below grade

mg/kg = milligram per kilogram

su = standard unit

mV = millivolts

- = Not Available--- = Not Analyzed
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.

Table 2G

Concrete and Wood Post-Excavation Samples (2014-2015) Summary Laboratory Analytical Data for Remaining Samples PPG Site 16, 45 Linden Avenue East, Jersey City, NJ 2014-2015 Sampled by WCD and CB&I

Client Sample ID:						6N-SW- NORTH 3 (6.5' BSG)	18M-SW- NORTH2 (3' BSG)	18M-SW- WEST1 (3' BSG)	18M-SW- WEST2 (4' BSG)	18M-SW- WEST3 (5' BSG)	19M-SW- WEST1 (2'BSG)	19M-SW- WEST2 (3'BSG)	19M-SW- WEST3 (4'BSG)	20M-OH- CONCRETE CLEAN (1.5'BSG)	20M-OH- CONCRETE COPR (1.5'BSG)	20R-CONC-PIPE (3' BSG)	20R-CONC- MANHOLE (3' BSG)	20S-SW- CONC (1.5' BSG)	22M-SW- WEST CONCRETE (1'BSG)	UP-1E-LOWER CONC FOOTING (4' BSG)	UP-4B-LOW FOOTER CONC (5' BSG)
Sample Depth (ft bgs):			NJ Non-		NJ Default	6.5-7.0	3.1-3.6	2-2.5	3.8-4.3	4.9-5.4	2.1-2.6	3.6-4.1	4.7-5.2	0.2-0.7	0.7-1.2	3.2-3.7	2-2.5	1.4-1.9	0.8-1.3	3.8-4.3	3.8-4.3
Sample Elevations (ft):	CAS#	Units	Residential Direct Contact	NJ Residential Direct Contact Soil (NJAC 7:26D 6/12)	Impact to	0.9-1.4	5.9-6.4	7.1-7.6	5.3-5.8	4.2-4.7	6.7-7.2	5.2-5.7	4.1-4.6	5.3-5.8	4.8-5.3	5.4-5.9	6.7-7.2	7.3-7.8	4.8-5.3	4.6-5.1	4.6-5.1
Excavated:			Soil (NJAC 7:26D 6/12)		Soil Screening (NJAC 7:26D																
Lab Sample ID:			7:260 6/12)		11/13)	JB82703-3R	JB80537-2R	JB80537-4TU	JB80537-5R	JB80537-6TU	JB80631-1R	JB80631-2A	JB80631-3R	JB82417-8R	JB82417-7R	JB75660-3A	JB75660-4A	JB75661-2A	JB82421-5A	JB82704-2A	JB82923-5A
Date Sampled:						11/25/2014	10/29/2014	10/29/2014	10/29/2014	10/29/2014	10/30/2014	10/30/2014	10/30/2014	11/20/2014	11/20/2014	9/4/2014	9/4/2014	9/3/2014	11/18/2014	11/24/2014	11/26/2014
Matrix:						Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Soil	Solid	Solid
Metals Analysis	1		•	•	•			•				1				•			•		
Antimony	7440-36-0	mg/kg	450	31	6	2.8 U	0.79 J	-	2.4 U	-	-	2.2 U	-	2.2 U	0.36 J	2.1 U	2.1 U	0.30 J	2.7 U	2.3 U	0.48 J
Chromium	7440-47-3	mg/kg	120,000	-	-	408	26.7	-	315	-	-	1050 J	-	38.6 J	205 J	8.4	31.6	16.1	198	764	24.1
Nickel	7440-02-0	mg/kg	23,000	1,600	654**	9.6	29.1	-	12.2	-	-	51.9	-	6.3	9.6	3.6 J	7.4	12.9	12.3	94.2	12.9
Thallium	7440-28-0	mg/kg	NS	NS	NS	1.4 U	1.1 U	-	1.2 U	-	-	0.51 J	-	1.1 U	1.1 U	1.1 U	1.0 U	1.0 U	1.3 U	0.57 J	0.46 J
Vanadium	7440-62-2	mg/kg	1,100	390⁺	NA	19	30.9	14.7	79	73.6	17.5	146	50.1	17.6	23.4	7.2	10.7	12.3	25.2	125	16
General Chemistry																					
Chromium, Hexavalent	18540-29-9	mg/kg	20	-	-	0.86 R / 1.5 J	0.34 R / 0.46 U	1.1 J / 1.2 J	17.8 R / 21.6	174 J / 208 J	1.6	242	37.1	2.8 R / 0.96	4.7 R / 5.2	0.24 J	2.9	0.29 J	5.3	10.9	1.1
Iron, Ferrous	-	%	-	-	-	0.63 ^b	-	0.070 ^b J	-	-	-	-	-	-	-	-	-	-	-	-	-
рН	-	su	-	-	-	8.06	8.33	9.78	11.7	11.9	11.27	11.37	11.42	11.98	11.81	11.85	11.83	11.8	11.5	11.11	12.22
Redox Potential Vs H2	-	mv	-	-	-	212	207	180	95.9	75.7	82.9	87.2	89	95.3	101	93.6	99.3	111	130	163	77.4
Solids, Percent	-	%	-	-	-	71.8	87	86.7	86.9	90.5	90.3	92	84.1	89.4	90.4	94.5	93.5	93.9	73.9	83.9	89.9
Sulfide Screen	-	-	-	-	-	NEGATIVE °	-	NEGATIVE °	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	-	mg/kg	-	-	-	14500	-	372	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- < The analyte was not detected at the stated reporting limit.
- **R** The result for this compound/analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.
- J The postive result reported for this analyte is a quantitative estimate.
- **U** This compound/analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
- **UJ** This compound/analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.

Notes:

- ^a Elevated detection limit due to dilution required for high interfering element.
- ^b The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^c The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.

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mV = millivolts

- = Not Available--- = Not Analyzed
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.

Table 2H Supplemental Soil Samples (2017, 2019)

PPG Site 16, 45 Linden Avenue East, Jersey City, NJ NJDEP Program Interest ID G000008644

Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft): Excavated: Lab Sample ID: Date Sampled:	CAS#	Units	NJ Non- Residential Direct Contact Soil (NJAC 7: 26D 9/18/17)	NJ Residential Direct Contact Soil (NJAC 7: 26D 9/18/17)	NJ Default Impact to Groundwater Soil Screening (NJAC 7:26D 11/13)	3.3-3.8 2.0-2.5 JC56998-2 12/8/2017	PPG016-2B- BOTTOM-4.5-5.0 (DUP 01) 3.3-3.8 2.0-2.5 JC56998-3 12/8/2017	3.0-3.5 2.0-2.5 JC56998-4 12/8/2017	6.0-6.5 2.2-2.7 JC56865-2 12/7/2017	3.5-4.0 3.2-3.7 JC56998-6 12/8/2017	PPG016_016- L005-19.5-20 19.5-20.0 (-12.6) - (-13.1) JC56865-4 12/7/2017	PPG016_2U-SW-NORTH-1-1.5 1.0-1.5 5.0-5.5 JC56865-3 12/7/2017	PPG016-150-SW-WEST-1-1.5 1.0-1.5 6.7-7.2 JC56998-5 12/8/2017	PPG016-17/18U- SW-EAST-1.0-1.5 1.0-1.5 8.0-8.5 JC56998-1 12/8/2017	KD008 6-6.5 1.7-1.2 JC86279-1 4/12/2019
Matrix:						Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis				•	•										
Antimony	7440-36-0	mg/kg	450	31	6	<2.4 NJ-	<3.0 NJ-	<2.6 NJ-	<2.2 NJ-	<2.2 NJ-	<2.0 NJ-	<2.3 NJ-	<2.1 NJ-	<2.2 NJ-	<2.4
Chromium	7440-47-3	mg/kg	120,000	-	-	29.7	28.9	42.2	48.9	34.8	11.8	51.1	29	41.4	121
Nickel	7440-02-0	mg/kg	23,000	1,600	650**	20.8	20.2	27.1	7.8	9.2	10.5	32.8	40.6	39.7	10.2
Thallium	7440-28-0	mg/kg	NR	NR	NR	<1.2	<1.5	<1.3	<1.1	<1.1	<1.0	<1.1	<3.1 °	<2.2 °	<1.2
Vanadium	7440-62-2	mg/kg	1,100	390⁺	-	31.2	29.4	38.4	12.6	13.9	30.9	38.3	48.3	52.8	15.1
General Chemistry															
Chromium, Hexavalent	18540-29-9	mg/kg	-	-	-	<0.48 NJ- / <0.48 NJ-	<0.63 NJ-/ <0.63 NJ-	<0.54 NJ- / <0.54 NJ-	0.56	5.4 NJ- / 2 NJ-	<1.5	1.5	<0.44 NJ- / <0.44 NJ-		5.3 NJ-
Chromium, Trivalent		mg/kg	-	-	-	29.7 ^a	28.9 ^a	42.2 ^a	48.3 ^a	29.4 ^a	11.8 ^a	49.6 ^a	29.0 ^a	40.8 ^a	-
Iron, Ferrous		%	-	-	-	-	-	2.0 ^d	-	-	-	-	-	-	-
Redox Potential Vs H2		mv	-	-	-	217	38.6	128	628	265	582	591	274	302	569
Solids, Percent		%	-	-	-	83.4	63.3	74.6	89.9	89.6	26.9	87.4	91.9	89.1	80.3
Sulfide Screen			-	-	-	-	-	NEGATIVE ^e	-	-	-	-	-	-	-
Total Organic Carbon		mg/kg	-	-	-	-	-	13200 ^f J	-	-	-	-	-	-	-
рН		su	-	-	-	8.47	8.32	7.46	8.17	9.05	7.64	7.74	8.9	8.05	7.35

Analytical Data Qualifiers:

N -The matrix spike sample recovery in the associated QC sample is not within QC limits.

- J- The result is estimated and may be biased low.
- J The positive result reported for this analyte is a quantitative estimate.

- ^a Calculated as: (Chromium) (Chromium, Hexavalent)
- ^c Elevated detection limit due to dilution required for high interfering element.
- ^d The ferrous iron test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6
- ^e The sulfide screen test was analyzed after completion of Cr6 testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr6 recoveries.
- ^f Analysis done out of holding time.
- ** = Site specific calculation using NJDEP synthetic precipitation leaching procedures (SPLP) guidance (November 2013). Approved by NJDEP on May 29, 2020.
- + = Alternative remediation standard applied based on NJDEP correspondence issued July 2016. Approved by NJDEP on May 29, 2020.
- = Not Applicable

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards, September 18, 2017.

ft bgs = feet below ground surface ft = Feet North American Vertical Datum of 1988

mg/kg = milligram per kilogram

su = standard unit mV = millivolts

NR = Not Regulated as per N.J.A.C. 7:26D Implementation of updated Soil Remediation Standards,

September 18,2017.

PPG016_2B-BOTTOM-4.5-5.0 and PPG016_3B-BOTTOM-4.8-5.3 were misidentified during field collection PPG016_2B-BOTTOM-4.5-5.0 original surface elevation is 5.8 amsl. The sample was collected at a depth of 3.3-3.8 feet bgs at an elevation of 2.0-2.5 amsl. The surface elevation for PPG016_3B-BOTTOM-4.8-5.3 is 5.5 feet amsl. The sample was collected from a depth of 3.0-3.5 feet bgs at an elevation of 2.0-2.5 amsl. The correct depths and elevations are shown on Table 1A in Attachment 1, Table 2H in Attachment 2, and Figure 8 in Attachment 3.