ATTACHMENT 12

COMPLIANCE AVERAGING DOCUMENTATION



MEMORANDUM

To:Crystal Leavey, LSRPFrom:Marshall E. King, P.E., LSRPProject:PPG, Site 63, 1 Burma Road, Jersey City, NJSubject:Compliance Averaging AnalysisReport Date:May 9, 2017

Pre-post excavation soil samples (from the 2013 design boring investigation) and post-excavation soil samples (including base and sidewall samples from the remedial action between 2014 and 2016) at Site 63 were collected that served as the post-remedial samples used to document the effectiveness and completeness of the soil remediation. These samples were collected at a frequency of at least one sample per 900 square feet (sf) of excavation bottom and/or one sample per every 30 linear feet (LF) of excavation sidewall and were evaluated for compliance with applicable soil remediation standards. Elevated detected concentrations and elevated reporting limits for antimony and thallium were reported in laboratory analytical results. In order to demonstrate compliance at the site with the soil remediation standards (SRS) and impact-to-groundwater soil screening levels (IGW SSL), these post-excavation results were evaluated using a compliance averaging analysis, specifically the "75 Percent / 10x Procedure."

Delineation

Based on the extensive data set of post-remedial sample locations (including both pre-postexcavation and post-excavation samples) combined with visual observations during excavation, the aerial extent of the onsite chromate chemical production waste (CCPW) impacted fill has been horizontally and vertically delineated. As the 2013 design boring program was implemented to obtain pre-post-excavation samples to demonstrate vertical delineation of CCPW-impacted fill, CB&I believes that it is technically appropriate to apply compliance averaging techniques to these vertical delineation sample results that are located within the delineated horizontal boundaries of the impacted area. The addition of fringe side-wall and base post-excavation samples from the perimeter of the excavation complete the horizontal delineation of the site.

Remedial Volume

The area for this analysis covers the remedial extents of the completed excavation which constitutes one continuous area of concern (AOC) and that covers ± 2.82 -acres. As per Appendix A4.0 of the *NJDEP Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria* (Version 1.0, September 2012), a minimum of 12 samples are required per 3,000 cy of material excavated/remediated. A total of 35,309 tons of material was excavated from the site. Assuming a density of 1.5 tons per cubic yard (cy) of material, this equates to approximately 23,500 cy of material. Therefore, a minimum of 188 post-remedial samples are required to apply the method. The following post-remedial sample location counts were collected during each phase of investigation at the site:

- 192 base and sidewall sample locations during remedial action (RA) from 2014-2015;
- 5 sample locations during the post-RA in 2016;

- 27 base and sidewall sample locations during the post-RA Supplemental Remedial Investigation in 2016;
- 58 pre-post-excavation locations during the design borings program in 2013;
- 60 pre-post excavation sample locations during the Remedial Investigation from 2011-2012;
- 13 sample locations during the Site Investigation in 2011; and
- 5 sample locations during after the Remedial Action that was performed from 1998-1999.

This is a total of 360 sample locations to define the limits of the excavation. Note that in some cases, multiple samples were collected at various depths at each location, but for the purposes of this analysis we are only considering the single uppermost sample per location as a compliance point. The vertical zone of CCPW-impacted materials ranged from 0 to 10.3 feet below ground surface (ft bgs), and all samples used for this analysis were present within this single zone.

Excluded Samples

The following detections for antimony were excluded from this analysis:

- o 063_C013A
 - 0 to 0.5 ft bgs (10.0 mg/kg)
 - 0.5 to 1 ft bgs (18.8 mg/kg)
 - 1.5 to 2 ft bgs (9.8 mg/kg)
 - 2.5 to 3 ft bgs (11.1 mg/kg)
 - 3.5 to 4 ft bgs (12.4 mg/kg)

There are multiple lines of evidence that indicate the antimony results in sample 063_C013A are not related to the CCPW that was identified on Site 63, but are instead related to the presence of non-CCPW fill material on the New Jersey Turnpike Authority property located to the northeast of Site 63. Antimony concentrations in soil were found to be in compliance at the site boundary of Site 63 in all samples collected in this area. In addition, CCPW was not identified in the soil at this boring location. Furthermore, antimony concentrations were not found to be within the range identified in sample 063_C013A on Site 63, even in locations where CCPW was positively identified. It can therefore be concluded that the antimony results in sample 063_C013A are not indicative of PPG-related contamination.

Remediation Standards and Criteria

The following table summarizes the applicable soil remediation standards and soil screening levels used in this compliance averaging analysis.

	NJ Non-Residential Direct Contact Soil	NJ Residential Direct Contact Soil	NJ Default Impact-to- Groundwater Soil Screening Level
	(NJAC 7:26D 5/12)	(NJAC 7:26D 5/12)	(11/2013)
Antimony (mg/kg)	450	31	6
Thallium (mg/kg)	79	5	3

Antimony (Sb)

For Antimony, either sample results were reported to be above the NJDEP SRS or elevated reporting limits (RLs) were documented. These samples were:

- BR003, 8.1 to 8.6 ft bgs (<6.8 NJ- mg/kg)
- PPG 63/65_B43R, -0.8 to -1.3 ft el (<6.9 NJ- mg/kg)
- BD008, 6 to 6.5 ft bgs (<11 NJ- mg/kg)
- o BD010, 6 to 6.5 ft bgs (93.4 mg/kg)
- SWR009, 1.0 to 1.5 ft bgs (30.3 NJ-)

These five sample locations constitute 1.4% of the post-remedial sample locations at the site, therefore 98.6% of the post-remedial sample locations are either non-detect or exhibit antimony concentrations less than the soil remediation standards (SRS) and/or impact-to-groundwater soil screening level (IGW SSL). This is above the 75% threshold for this analysis.

The exceedance of the IGW SSL for antimony in soil sample BD010 is located within the saturated zone and the IGW SSL does not apply. All remaining reporting limits and detections for antimony are less than 10 times the most stringent standard (IGW SSL) of 6 mg/kg (i.e., less than 60 mg/kg).

The detection in soil sample BD010 is in excess of the Residential SRS; however the result is less than 10 times the applicable residential soil remediation standard of 31 mg/kg (i.e., less than 310 mg/kg).

Thallium (TI)

For Thallium, the reporting limits (RLs) for four non-detect samples were reported to be above the NJDEP RDC Standard. These samples were:

- 065_A005, 5 to 5.5 ft bgs (<6.3 U mg/kg)
- 065_A006, 8.2 to 8.7 ft bgs (<5.6 U mg/kg)
- BD008, 6 to 6.5 ft bgs (<5.7 mg/kg)
- PPG 63/65_B29, 7.8 to 8.3 ft bgs (<6.3 mg/kg)

These reporting limits for thallium are less than 10 times the RDC Standard of 5 mg/kg (i.e., less than 50 mg/kg).

For Thallium, the RL for one non-detect sample was reported to be above the NJDEP Default IGW SSL. This sample was:

• PPG 63/65-SW33, 1.5 to 2 ft bgs (<3.1 mg/kg)

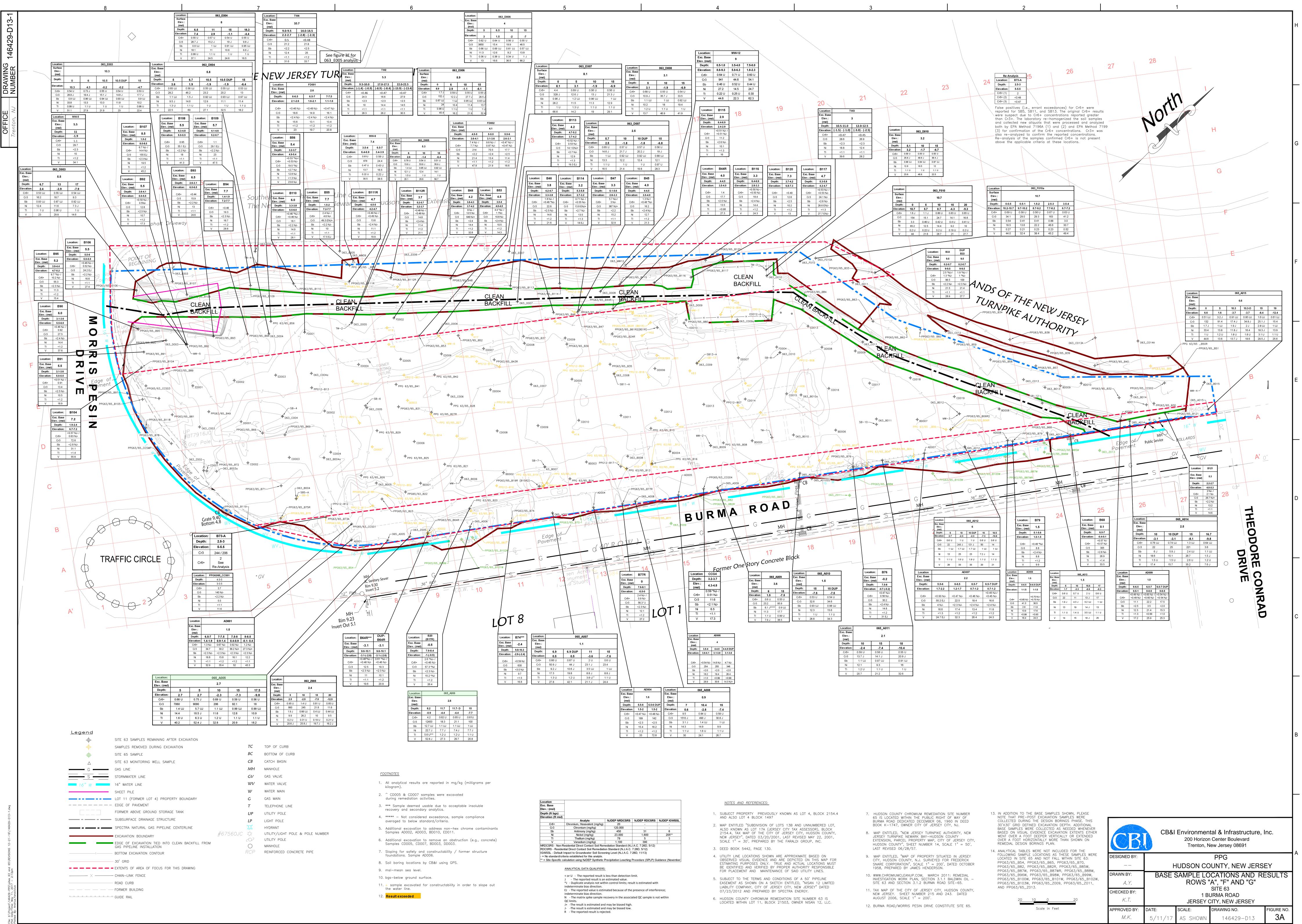
These five sample locations constitute 1.4% of the post-remedial sample locations at the site, therefore 98.6% of the post-remedial sample locations are either non-detect or in compliance below applicable standards and criteria. This is above the 75% threshold for this analysis. All reporting limits for thallium are less than 10 times the IGW SSL of 3 mg/kg (i.e., less than 30 mg/kg).

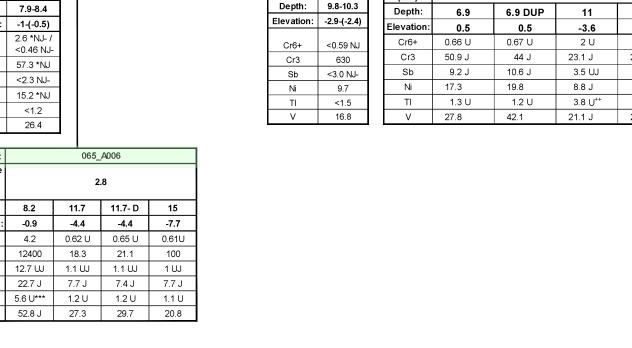
Conclusions

For antimony and thallium, greater than 75% of the post-remedial sample results were either nondetect or in compliance with the standards and criteria, and all reporting limits and contaminant detections were less than 10 times the applicable remediation standard or criteria. Based on these findings, the remediation of these contaminants in soil is deemed complete.

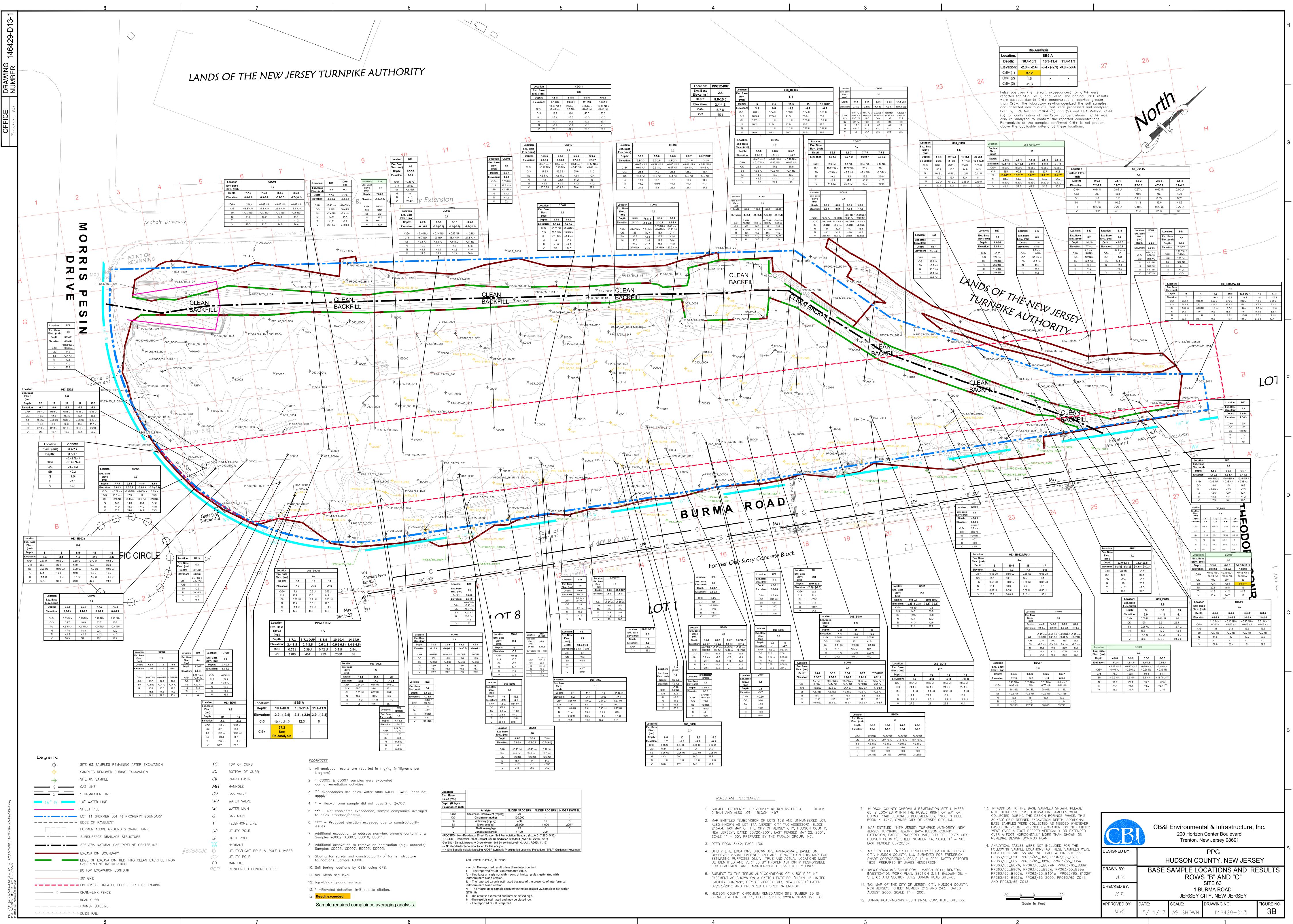
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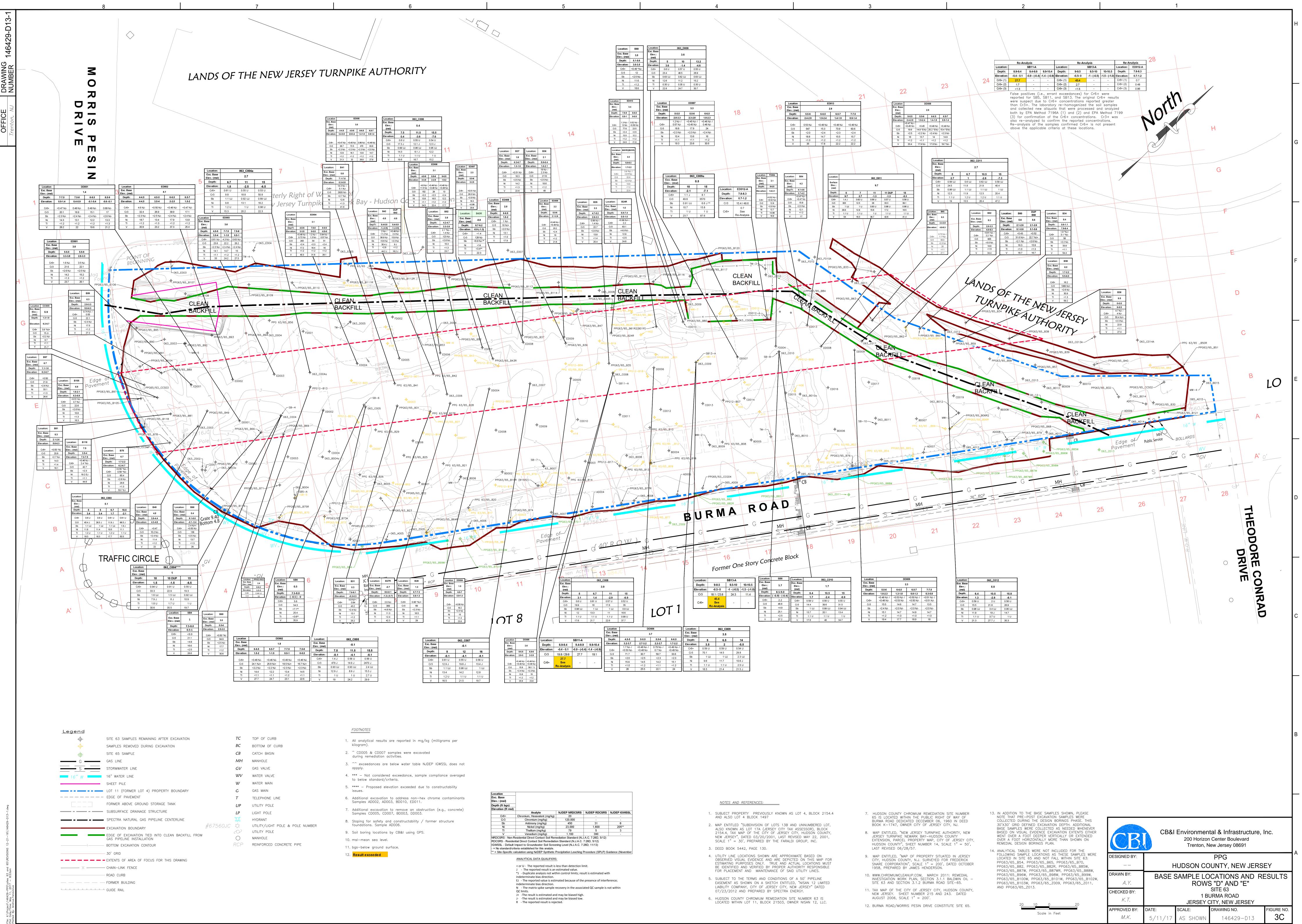
FIGURES

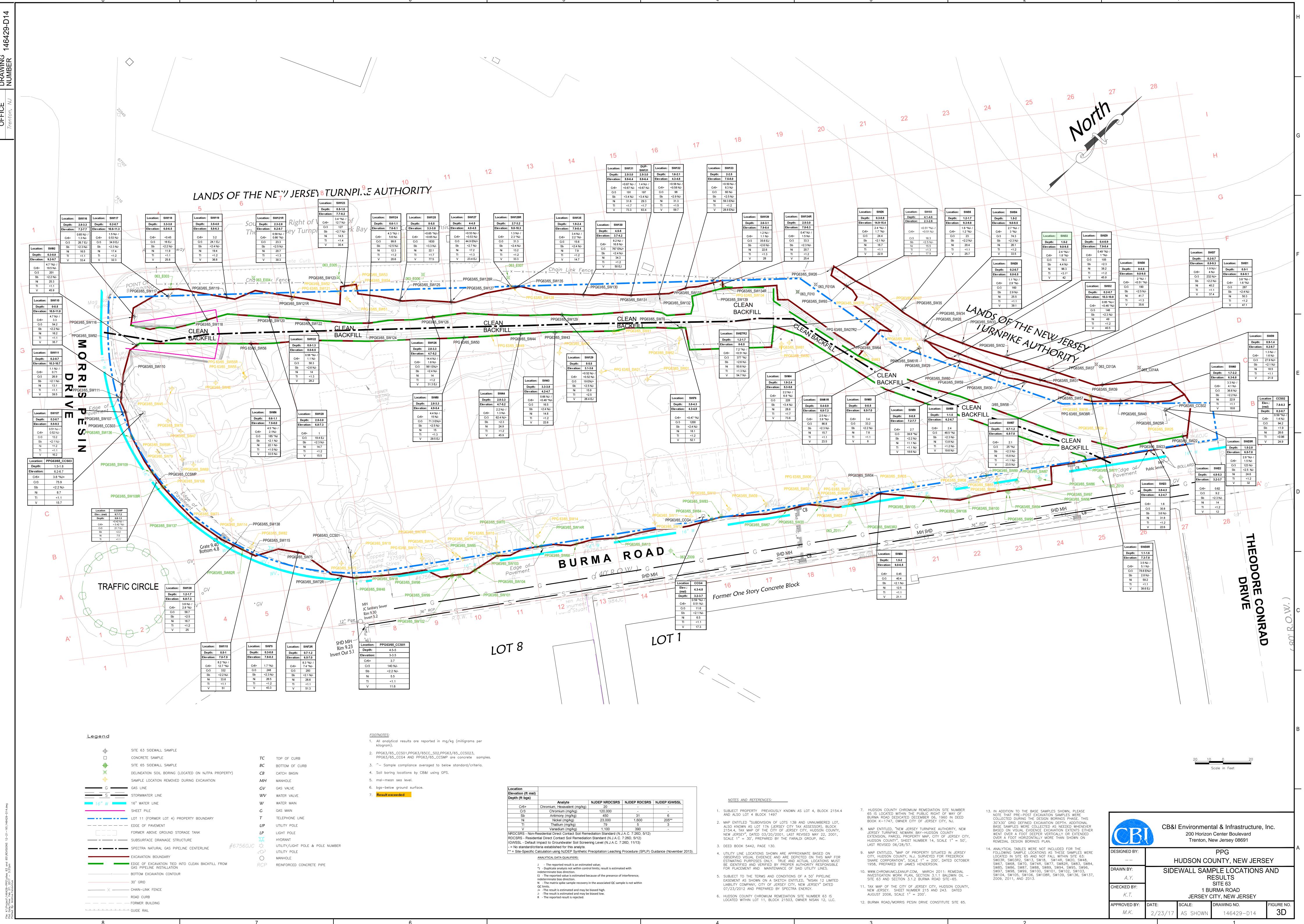




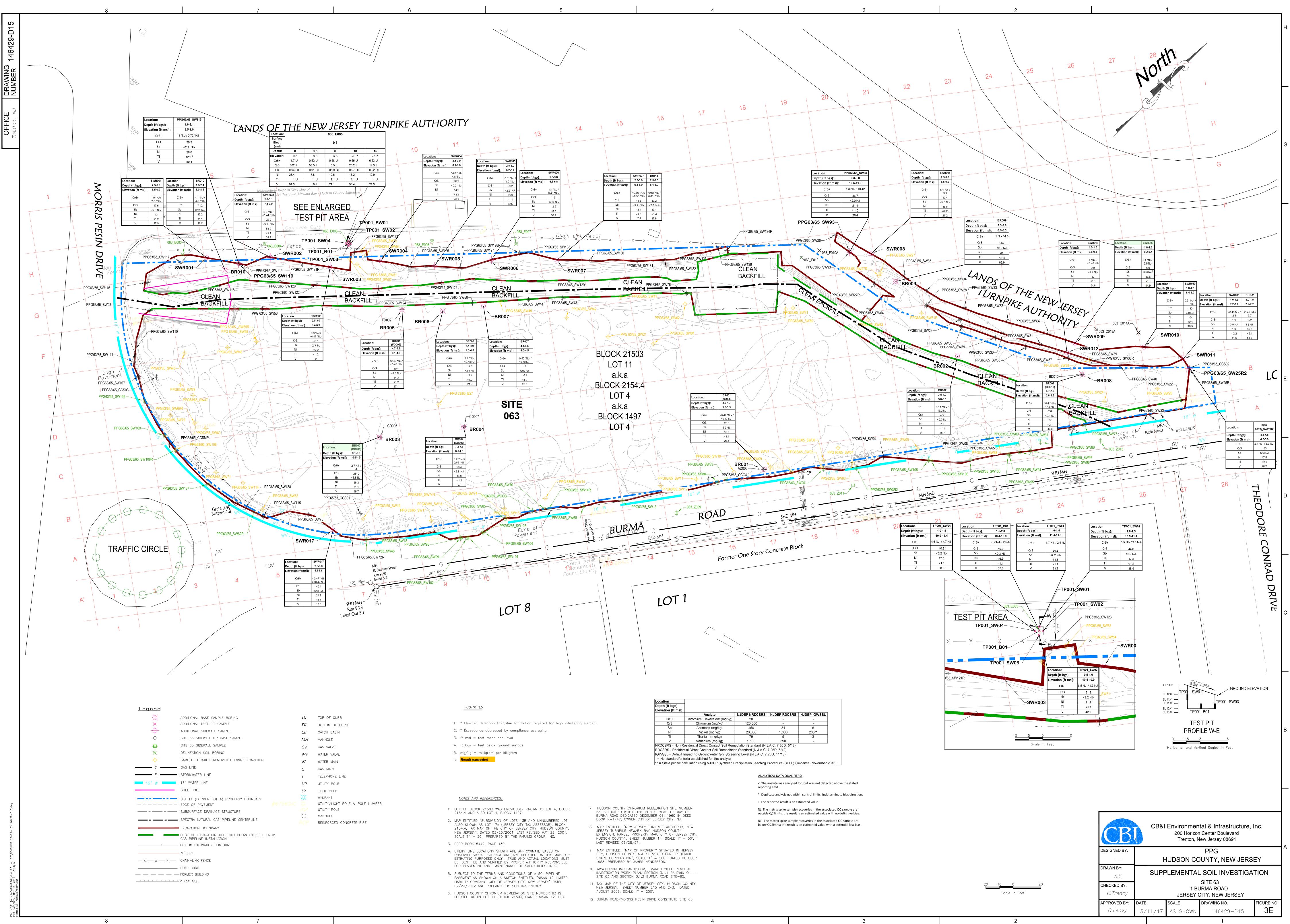
8.8 J				
1.1 U				
24.4	1			
	Location	AD	004	Location
	Exc. Base Elev.: (msl)	1	.6	Exc. Base Elev.: (msl)
	Depth:	5.5-6	5.5-6 DUP	Depth:
	Elevation:	1.5-2	1.5-2	Elevation
	Cr6+	<0.47 NJ-	<0.48 NJ-	Cr6+
	Cr3	189	142	Cr3
	Sb	<2.3	<2.5	Sb
	Ni	15.4	16.2	Ni
	TI	<1.2	<1.2	TI
	V	33	72.8	V







Depth (ft bgs)												
	Analyte	NJDEP NRDCSRS	NJDEP RDCSRS	NJDEP IGWS								
Cr6+	Chromium, Hexavalent (mg/kg)	20	-	-								
Cr3	Chromium (mg/kg)	120,000	-	-								
Sb	Antimony (mg/kg)	450	31	6								
Ni	vi Nickel (mg/kg) 23,000 1,600											
TI	li Nickel (mg/kg) 23,000 1,600 2 I Thallium (mg/kg) 79 5											
V	Vanadium (mg/kg)	1,100	390	-								
NRDCSRS - Non-R	esidential Direct Contact Soil Rem	nediation Standard (N.	J.A.C. 7:26D, 5/12)									
RDCSRS - Resider	tial Direct Contact Soil Remediation	on Standard (N.J.A.C.	7:26D, 5/12)									
IGWSSL - Default I	mpact to Groundwater Soil Scree	ning Level (N.J.A.C. 7:	26D, 11/13)									
- = No standard/crit	eria established for this analyte.											



Attachment 1

Compliance Averaging Input Data

Client Sample ID:		NJ	NJ	NJ Default				PPG63/65_B16 (B09R2/B12R)	PPG63/65_B10	=		PPG63/65_B19R (B15R2)
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	5.8-6.3	4.8-5.3	4.7-5.2	7.6-8.1	5.2-5.7	6.7-7.2	6-6.5	9.3-9.8
Sample Elevation (ft msl)):	Direct Contact	Direct	Groundwater	1.7-2.2	3-3.5	3-3.5	0-0.5	2.5-3	1-1.5	1-1.5	-2.8 - (-2.3)
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)								
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB85013-3	JB86481-1	JB72034-6	JB74072-1	JB73044-2	JB73863-2	JB73940-1	JB88436-1
Date Sampled:					12/22/2014	1/14/2015	7/18/2014	8/14/2014	7/31/2014	8/12/2014	8/13/2014	2/18/2015
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis			1			T					1	
Antimony	malka	450	21	6	-2.5	-2.6 N I	-0.1	-2.2 N I	-0.0 N I	-2.5	-2 E N I	- F 4 N I
Antimony	mg/kg		31	6	<2.5	<2.6 NJ-	<2.1	<2.3 NJ-	<2.3 NJ-	<2.5	<2.5 NJ-	<5.4 NJ-
Chromium	mg/kg	120,000	-	-	22.6	89.6 *J	285 NJ+	21.6	136	30.2	318	23.6
Nickel	mg/kg	23,000	1,600	205**	14.8	<5.2	18.7	16 NJ-	17.5	12.9	16.3	16.5
Thallium	mg/kg	79	5	3	<1.2	<1.3	<1.1	<1.1	<1.1	<1.3	<1.2	<2.7
Vanadium	mg/kg	1,100	390	NA	22.9	<6.5	34.9	30.6	32.2	23.2	42	32.9
General Chemistry												
Chromium, Hexavalent	mg/kg	20	-	-	3.8 / <0.51	2.4 NJ- / 3.7 NJ-	1.3 NJ-	0.76 *NJ- / 0.48 *NJ-	3.4 *J	<0.51 / 5.5 *NJ-	6.3 NJ- / 2.1 *NJ-	<1.1 NJ- / <1.1 NJ-
Iron, Ferrous	%	-	-	-	1.6	0.45	-	-	-	-	-	1.4
рН	su	-	-	-	8.65	8.2	7.77	8.8	8.25	8.99	10.23	8.48
Redox Potential Vs H2	mv	-	-	-	180	193	259	241	265	165	-98.1	255
Solids, Percent	%	-	-	-	78.4	77.6	86	88.3	84.6	78	82.2	37.3
Sulfide Screen		-	-	-	NEGATIVE	NEGATIVE	-	-	-	-	-	NEGATIVE
Total Organic Carbon	mg/kg	-	-	-	6,260	26,000	-	-	-	-	-	116,000

Analytical Data Qualifiers:

- The analyte was not detected at the stated reporting limit.

* - Duplicate analysis not within control limits; indeterminate bias direction.

J - The reported result is an estimated value.

*J - Duplicate analysis not within control limits; result is estimated with indeterminate bias direction.

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.

R - The reported result is rejected.

Notes:

**- Nickel site specific impact due to groundwater screen level method

calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

^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 - Multiple injections indicate possible sample non-homogeneity.

^d - 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.

= Sample deemed usable due to acceptable insoluble recovery and secondary analytics.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Sample included in compliance averaging analysis.

Client Sample ID:		NJ	NJ	NJ Default		PPG63/65_B23 (B18R2)						PPG 63/65_DUP-B26		
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	7.9-8.4	6.1-6.6	6.4-6.9	6.1-6.6	6.9-7.4	6.7-7.2	7-7.5	7-7.5	8.6-9.1	6.7-7.2
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	-1-(-0.5)	1-1.5	0.5-1	1-1.5	0.5-1.0	0-0.5	-0.3 - 0.2	-0.3-0.2	-1.2 - (-0.7)	0.8-1.3
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)										
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB74503-3	JB75142-2	JB74503-4	JB75142-1	JB79265-2	JB76736-1	JB76736-2	JB76736-3	JB77761-2	JB77329-2
Date Sampled:					8/20/2014	8/27/2014	8/20/2014	8/27/2014	10/15/2014	9/16/2014	9/16/2014	9/16/2014	9/25/2014	9/23/2014
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis														
														1
Antimony	mg/kg	450	31	6	<2.3 NJ-	<2.3	<2.3 NJ-	<2.2	<4.9 NJ-	<2.3 NJ-	<2.4 NJ-	<2.4 NJ-	<4.8 NJ-	<2.3 NJ-
Chromium	mg/kg	120,000	-	-	57.3 *NJ	1260	15.7 *NJ	34	63.1	21 EJ	19.2 EJ	20.4 EJ	389	69
Nickel	mg/kg	23,000	1,600	205**	15.2 *NJ	14.4 NJ-	13.9 *NJ	14.6 NJ-	12.9	18.1	14.7	13.6	11.3	16.5
Thallium	mg/kg	79	5	3	<1.2	<1.2	<1.1	<1.1	<2.5	<1.2	<1.2	<1.2	<2.4	<1.1
Vanadium	mg/kg	1,100	390	NA	26.4	36.3 NJ-	22	33.1 NJ-	24.8	27.4 EJ	25.1 EJ	24.8 EJ	42.3	29
General Chemistry														
General Onemistry														
Chromium, Hexavalent	mg/kg	20	-	-	2.6 *NJ- / <0.46 NJ-	0.79 NJ- / 7.2 NJ-	0.69 *NJ- / <0.46 NJ-	1.5 NJ- / 0.8 NJ-	<0.99 NJ+ / 2.2	<0.46 NJ-	<0.48 NJ-	<0.47 NJ-	2.0 NJ-	0.95 *NJ+
Iron, Ferrous	%	-	-	-	-	0.97	-	-	-	-	-	-	-	-
рН	su	-	-	-	9.58	10.48	8.56	9.8	8.5	7.85	8.26	7.93	8.88	9.16
Redox Potential Vs H2	mv	-	-	-	13.6	-95.4	96.7	143	185	201	190	168	41.5	196
Solids, Percent	%	-	-	-	87.1	82.2	86.9	87.8	40.6	86.6	83.5	84.9	40	90
Sulfide Screen		-	-	-	-	NEGATIVE	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- The analyte was not detected at the stated reporting limit.

* - Duplicate analysis not within control limits; indeterminate bias direction.

J - The reported result is an estimated value.

*J - Duplicate analysis not within control limits; result is estimated with indeterminate bias direction.

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.

R - The reported result is rejected.

Notes:

**- Nickel site specific impact due to groundwater screen level method

calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

^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 - Multiple injections indicate possible sample non-homogeneity.

^d - 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.

= Sample deemed usable due to acceptable insoluble recovery and secondary analytics.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Client Sample ID:		NJ	NJ	NJ Default	PPG 63/65_B29		PPG 63/65_B31		PPG 63/65-B33	PPG 63/65-DUP-B33	PPG 63/65-B34	PPG 63/65_B35		PPG 63/65_B37	
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	7.8-8.3	5.2-5.8	7.6-8.1	4.8-5.3	0.2-0.7	0.2-0.7	0.6-1.1	4.7-5.2	5.9-6.4	6.2-6.7	0-0.5
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	-0.8 - (-0.3)	2.7-3.3	-0.2-0.3	3.2-3.7	9-9.5	9-9.5	7.9-8.4	2.8-3.3	1.6-2.1	1.3-1.8	9-9.5
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)											
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB77761-1	JB79068-1	JB79265-1	JB79265-3	JB79649-3	JB79649-13	JB79649-6	JB80083-1	JB80083-2	JB80083-3	JB80262-2
Date Sampled:					9/25/2014	10/13/2014	10/15/2014	10/15/2014	10/20/2014	10/20/2014	10/20/2014	10/24/2014	10/24/2014	10/24/2014	10/28/2014
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis															
Antimony	ma/ka	450	31	6	2.9	<2.3 NJ-	<2.4 NJ-	<2.4 NJ-	<2.2 NJ-	<2.3 NJ-	<2.2 NJ-	<2.8 NJ-	<2.5 NJ-	<2.5 NJ-	<2.3 NJ-
	mg/kg		-	8	-										
Chromium	mg/kg	120,000	-	-	3640	120	43.2	148	96.5	109	56	22.7	2110	18.3	55.4 NJ+
Nickel	mg/kg	23,000	1,600	205**	12.7	11.2	13.1	14.1	21.5	21.4	33.9	13.8	18.6	14.2	22.9
Thallium	mg/kg	79	5	3	<6.3 ª	<1.1	<1.2	<1.2	<1.1	<1.1	<1.1	<1.4	<1.2	<1.3	<1.1
Vanadium	mg/kg	1,100	390	NA	62.9	19	25.2	13.5	28.9	27.7	54.4	20.4	48	22.6	27.4
General Chemistry															
Chromium, Hexavalent	mg/kg	20	-	-	0.6 NJ-	5.6	4.9 NJ+ / 0.84	14.4 NJ+ / 13	2.5 *NJ- / 1.3 *NJ-	1.9 *NJ- / 1 *NJ-	1.9 *NJ- / 3.1 *NJ-	0.56 NJ- / 1.4 NJ-	19 NJ- / 2.3 NJ-	<0.51 NJ-	4.7 NJ- / 4 NJ-
Iron, Ferrous	%	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-
рН	su	-	-	-	9.72	7.93	9.61	7.91	7.54	6.91	7.64	8.46	9.32	8.41	7.7
Redox Potential Vs H2	mv	-	-	-	-86.7	255	137	278	616	547	522	231	152	183	298
Solids, Percent	%	-	-	-	78.5	86.9	82.6	81.2	89.5	90.4	93.5	73.2	81.5	78.2	89.4
Sulfide Screen		-	-	-	-	-	-	-	-	-	-	NEGATIVE	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	11,700	-	-	-

Analytical Data Qualifiers:

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ft msl = feet mean sea level ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65_B39	PPG63/65_B40	PPG 63/65_B41	PPG 63/65_B42	PPG 63/65_DUP-B42	PPG 63/65_B43R	PPG63/65_B44R	PPG 63/65_B45	PPG 63/65_B46	PPG 63/65_B47	PPG 63/65_B48
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	1-1.5	1.4-1.9	7.1-7.6	8.4-8.9	8.4-8.9	8.7-9.2	4-4.5	4-4.5	4.2-4.7	5.1-5.6	3.8-4.3
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	8-8.5	7.7-8.2	0.3-0.8	-1-(-0.5)	-1-(-0.5)	-0.8 - (-1.3)	3.5-4	3.5-4	3.3-3.8	2.8-3.3	3.7-4.2
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)											
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB80262-3	JB80262-5	JB80445-2	JB80445-3	JB80445-5	JB80851-5	JB82305-1	JB80538-4	JB80538-6	JB80640-1	JB80640-3
Date Sampled:					10/28/2014	10/28/2014	10/29/2014	10/29/2014	10/29/2014	11/4/2014	11/19/2014	10/30/2014	10/30/2014	10/31/2014	10/31/2014
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis															
Antimony	mg/kg	450	31	6	<2.1 NJ-	<2.1 NJ-	<2.7 NJ-	<5.6 NJ-	<2.3 NJ-	<6.9 NJ- ^a	<2.0 NJ-	<2.4 NJ-	<2.5 NJ-	<2.2	<2.4
Chromium	mg/kg	120,000	-	-	95.1 NJ+	122 NJ+	2920 NJ-	56.9 NJ-	15.9 NJ-	128 NJ-	17.7	16.2	22.6	367 NJ+	649 NJ+
Nickel	mg/kg	23,000	1,600	205**	46.5	50.8	12.6	30.4 J	9 J	<14	13.5	12.7	14.6	15.2	14.4
Thallium	mg/kg	79	5	3	<1.1	<1.0	<1.3	<2.8	<1.2	<3.4 ª	<0.98	<1.2	<1.2	<1.1	<1.2
Vanadium	mg/kg	1,100	390	NA	41.8	43.7	41.8	44.2 J	16.2 J	22.3	27.3	21.3	21.6	32.9	32.8
General Chemistry			-	·											
Chromium, Hexavalent	mg/kg	20	-	-	2.6 NJ- / 1.6 NJ-	4.5 NJ- / 3.8 NJ-	14.3 NJ- / 5.1 NJ-	2 NJ- / <1.2 NJ-	<0.49 NJ- / 2.4 NJ-	<1.4	1.4	1.3 NJ / <0.48 *NJ-	1.8 NJ- / <0.48 *NJ-	5.7 NJ-/ 3 NJ-	8 NJ- / 12.5 NJ-
Iron, Ferrous	%	-	-	-	0.52	-	-	-	-	-	-	-	-	-	-
pН	su	-	-	-	7.48	7.76	9.67	8.8	8.54	7.74	8.2	7.88	7.95	8.62	8.01
Redox Potential Vs H2	mv	-	-	-	290	301	52.9	93.3	184	259	167	141	139	166	97.7
Solids, Percent	%	-	-	-	92	91.2	74.6	34.4	81.2	28.2	73.4	82.9	83.3	84.9	81.6
Sulfide Screen		-	-	-	NEGATIVE	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	32,800	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

- The analyte was not detected at the stated reporting limit.

* - Duplicate analysis not within control limits; indeterminate bias direction.

J - The reported result is an estimated value.

*J - Duplicate analysis not within control limits; result is estimated with indeterminate bias direction.

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.

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Notes:

**- Nickel site specific impact due to groundwater screen level method

calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

^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 - Multiple injections indicate possible sample non-homogeneity.

^d - 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.

= Sample deemed usable due to acceptable insoluble recovery and secondary analytics.

ft msl = feet mean sea level ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts Result exceeded criteria

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Client Sample ID:		NJ	NJ	NJ Default	PPG 63/65_B49	PPG 63/65_B50R	PPG 63/65_B51	PPG 63/65_B52	PPG 63/65_B53	PPG 63/65_B55	PPG 63/65_B56	PPG 63/65_B57	PPG 63/65_B58	PPG 63/65_B59	PPG 63/65_B60
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	3.9-4.4	2-2.5	0-0.5	4.2-4.7	3.5-4	1.5-2	3.2-3.7	1.9-2.4	0.5-1	1.7-2.2	2.1-2.6
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	4.3-4.8	6-6.5	7.2-7.7	3.3-3.8	4-4.5	7.2-7.7	4.9-5.4	5.3-5.8	6.7-7.2	5.5-6.0	5.1-5.6
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)											
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB80851-4	JB81729-5	JB80992-4	JB80992-5	JB80992-6	JB81497-1	JB81729-3	JB82085-4	JB82085-5	JB82617-2	JB82617-3
Date Sampled:					11/4/2014	11/13/2014	11/5/2014	11/5/2014	11/5/2014	11/10/2014	11/12/2014	11/18/2014	11/18/2014	11/24/2014	11/24/2014
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
										•					
Metals Analysis			I	T			1	1	T	1			1		
Antimony	mg/kg	450	31	6	<2.4 NJ-	<2.2 NJ-	<2.5 NJ-	<2.6 NJ-	<2.4 NJ-	<2.2 NJ-	<2.7 NJ-	<2.6 NJ-	<2.2 NJ-	<2.6 NJ-	<2.1 NJ-
Chromium	mg/kg	120,000		-	15.2 NJ-	99.5 *NJ	124 NJ-	123 NJ-	10.8 NJ-	49.3 ENJ+	19.5 *NJ	129 *NJ	99.9 *NJ	1060 NJ+	31.6 NJ+
Nickel	mg/kg	23,000	1,600	205**	11.4	59.2 NJ-	57	15.3	10.5	10	12.8 NJ-	26.2 NJ-	13.3 NJ-	30.9	16.3
			1,600	205			01								
Thallium	mg/kg	79	5	3	<1.2	<1.1 NJ-	<1.2	<1.3	<1.2	<1.1	<1.3 NJ-	<1.3 NJ-	<1.1 NJ-	<1.3	<1.0
Vanadium	mg/kg	1,100	390	NA	22	25.7 NJ-	42.3	23.7	14.3	17.5 EJ	23.6 NJ-	35.6 NJ-	20.6 NJ-	59.2	18.7
General Chemistry															
Chromium, Hexavalent	mg/kg	20	-	-	<0.47	0.94 *NJ- / 0.88 NJ-	0.49 *NJ- / 2.4 NJ-	2.1 *NJ- / 1.4 NJ-	4.4 *NJ- / 1.1NJ-	2.4 NJ- / 4.6 NJ-	<0.53 *NJ-/ <0.53 NJ-	<0.53	8.5	16.2	<0.43
Iron, Ferrous	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
рН	su	-	-	-	7.89	8.6	8.24	8.3	8.29	9.22	7.24	8.59	9.02	8.44	7.56
Redox Potential Vs H2	mv	-	-	-	233	272	277	107	121	286	119	338	276	288	284
Solids, Percent	%	-	-	-	85.2	93.2	84.3	77	82.3	89.3	76	75.3	88	74.8	93.6
Sulfide Screen		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

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= Sample deemed usable due to acceptable insoluble recovery and secondary analytics.

ft msl = feet mean sea level ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts

Client Sample ID:		NJ	NJ	NJ Default	PPG 63/65 DUP-B60	PPG63/65 B61R2 (B01R)	PPG63/65 B62	PPG63/65 B63	PPG63/65 B64R#	PPG63/65 DUP-B64R	PPG 63/65 B66	PPG 63/65 B68	PPG63/65 B69
Sample Depth (ft bgs):	_	Non-Residential	Residential	Impact to	2.1-2.6	5.8-6.3	2.8-3.3	2.4-2.9	9.6-10.1	9.6-10.1	8.1-8.6	6.5-7	5.5-6
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	5.1-5.6	1.7-2.2	4.8-5.3	4.8-5.3	-3.1 - (-2.6)	-3.1 - (-2.6)	0.4- (-0.1)	0.1-(-0.4)	2.5-3
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)					0.1 (2.0)				
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)	,	JB82617-4	JB85013-3	JB83152-5	JB83152-7	JB85013-4	JB85013-5	JB84204-2	JB84204-3	JB84487-2
Date Sampled:		,	í í		11/24/2014	12/22/2014	12/3/2014	12/3/2014	12/23/2014	12/23/2014	12/12/2014	12/12/2014	12/17/2014
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis										-			
Antimony	mg/kg	450	31	6	<2.6 NJ-	<2.5 NJ-	<3.0 NJ-	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.5 NJ-	<2.8 NJ-	<2.5 NJ-
Chromium	mg/kg	120,000	-	-	22.7 NJ+	22.6	905	68.9	12.5	19.3	138	305	84.9
Nickel	mg/kg	23,000	1,600	205**	15.9	14.8	18.6	20	11	10.1	13.7	26.9	17.7
Thallium	mg/kg	79	5	3	<1.3	<1.2	<1.5	<1.1	<1.1	<1.2	<1.3	<1.4	<1.2
Vanadium	mg/kg	1,100	390	NA	16.7	22.9	34.4	27.1	19.6	20.8	28	33.5	30.6
General Chemistry													
Chromium, Hexavalent	mg/kg	20	-	-	<0.52	3.8 *NJ- / <0.51 NJ-	<0.61 NJ- / 2.2 *NJ-	0.72 NJ- / 1.1 *NJ-	<0.46*NJ- / <0.46 NJ-	0.61 *NJ- / <0.46	2.4 NJ+/ <0.50 NJ-	<0.57 N / <0.57 NJ-	<0.50 *NJ
Iron, Ferrous	%	-	-	-	-	1.6	-	-	-	-	-	-	-
рН	su	-	-	-	7.52	8.65	7.43	7.13	8.54	7.63	7.31	8.42	7.37
Redox Potential Vs H2	mv	-	-	-	282	180	251	205	174	183	250	266	65.9
Solids, Percent	%	-	-	-	76.4	78.4	66.1	84	86.8	86.3	80.8	70.2	80.5
Sulfide Screen		-	-	-	-	NEGATIVE	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	6,260	-	-	-	-	-	-	-

Analytical Data Qualifiers:

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Notes:

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= Sample deemed usable due to acceptable insoluble recovery and secondary analytics.

ft msl = feet mean sea level ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65 B71	PPG63/65_B72	PPG63/65 B74#	PPG63/65 B75R	PPG63/65 B76	PPG63/65 B77R	PPG63/65 B78	PPG63/65 B79	PPG63/65 B80	PPG63/65 B81
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	4.2-4.7	3.7-4.2	9.8-10.3	2.4-2.9	7.5-8	7.6-8.1	1.7-2.2	5.1-5.6	5.1-5.6	2.1-2.6
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	3.9-4.4	4.3-4.8	-2.9-(-2.4)	5.7-6.2	-0.7-(-0.2)	-0.5-0.0	6.2-6.7	1-1.5	3-3.5	5.8-6.3
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)			- \ /		- (- /					
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)	3(1),	JB85013-1	JB85013-2	JB85287-1	JB86000-2	JB85756-1	JB86481-2	JB85840-2	JB86000-3	JB86000-4	JB86141-5
Date Sampled:		,	í í		12/22/2014	12/22/2014	12/30/2014	1/8/2015	1/5/2015	1/14/2015	1/7/2015	1/9/2015	1/9/2015	1/12/2015
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
				-		•	•	•	•	•	•			
Metals Analysis														
Antimony	mg/kg	450	31	6	<2.2 NJ-	<2.4 NJ-	<3.0 NJ-	<2.6 NJ-	<2.4 NJ-	<2.3 NJ-	<2.6 NJ-	<2.4 NJ-	<2.5 NJ-	<2.7 NJ-
Chromium	mg/kg	120,000	-	-	29.8	14.8	630	24.4	30.2	56.3 *J	65.4	8.8	12	20.8
Nickel	mg/kg	23,000	1,600	205**	14.2	12.8	9.7	15.5	14.8	12.1	28.8	8.8	11.6	14.3
Thallium	mg/kg	79	5	3	<1.1	<1.2	<1.5	<1.3	<1.2	<1.2	<1.3	<1.2	<1.2	<1.4
Vanadium	mg/kg	1,100	390	NA	29	22.9	16.8	33.9	31 EJ	27.2	53.7 EJ	9.9	18.6	16.1
General Chemistry														
Chromium, Hexavalent	mg/kg	20	-	-	0.73 *NJ- / <0.47 NJ-	<0.50 *NJ-/ <0.50NJ-	<0.59 NJ	<0.51NJ-	<0.47 NJ- / 0.56 NJ-	2.4 NJ- / 0.9 NJ-	<0.55 *NJ- / 0.58 *NJ-	<0.48 *NJ-	<0.49 *NJ-	<0.55 *NJ
Iron, Ferrous	%	-	-	-	-	-	-	-	1.4 ^c	-	-	-	-	-
рН	su	-	-	-	7.5	8.15	8.33	8.46	7.74	8.79	7.41	7.92	7.82	7.65
Redox Potential Vs H2	mv	-	-	-	184	216	308	202	159	166	245	231	183	344
Solids, Percent	%	-	-	-	84.8	80.5	67.4	79.1	84.9	88	72.6	83.1	82	73.2
Sulfide Screen		-	-	-	-	-	-	-	NEGATIVE ^a	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	933	-	-	-	-	-

Analytical Data Qualifiers:

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ft msl = feet mean sea level ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts Result exceeded criteria

Client Sample ID:		NJ	NJ	NJ Default	PPG 63/65_B84		PPG63/65_B90		PPG63/65_B92	PPG63/65_B93	PPG63/65_B94		PPG63/65_B97	PPG63/65_B104	PPG63/65_B105
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	4.1-4.6	2.8-3.3	3.1-3.6	3.1-3.6	3.6-4.1	2.6-3.1	1.4-1.9	3.9-4.4	1.1-1.6	1.9-2.4	1.6-2.1
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	3.7-4.2	5.8-6.3	5.5-6.0	5-5.5	5-5.5	6-6.5	7.2-7.7	4.7-5.2	6.2-6.7	6.7-7.2	6.3-6.8
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)											
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB86669-1	JB87496-1	JB87496-2	JB87496-3	JB87595-1	JB87701-1	JB87701-2	JB87890-1	JB87981-4	JB88725-4	JB88785-2
Date Sampled:					1/16/2015	2/2/2015	2/3/2015	2/3/2015	2/4/2015	2/5/2015	2/5/2015	2/6/2015	2/10/2015	2/24/2015	2/25/2015
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis						1	1		1						
Antimony	mg/kg	450	31	6	<2.3 NJ-	<2.3 NJ-	<2.4 NJ-	<2.5 NJ-	<2.5 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.6 NJ-	<2.8 NJ-	<2.6 NJ-
Chromium	mg/kg	120,000	-	-	15.9	22.1	27.5	13.4	12.8	15.9	19.3	55.3	21.9	72.6	22.6
Nickel	mg/kg	23,000	1,600	205**	12.1	17.5	14.4	10.5	10.7	13	16.7	11.3	33.1	31.1	10.8
Thallium	mg/kg	79	5	3	<1.2	<1.2	<1.2	<1.2	<1.2	<1.1	<1.2	<1.2	<1.3	<1.4	<1.3
Vanadium	mg/kg	1,100	390	NA	17	27.2	37.6	18.9	17.3	24.6	28.6	15.4	26.6	55.6	18.3
General Chemistry															
Chromium, Hexavalent	mg/kg	20	-	-	<0.47 NJ- / <0.47 NJ-	0.74 NJ- / 0.55	<0.46 NJ- / 0.92	<0.51 NJ- / 0.91	<0.50 NJ- / 0.5NJ-	<0.44	<0.46	6.7 *NJ- / 10.2 NJ-	<0.50	<0.57 NJ- / 0.63 NJ-	<0.51 NJ- / 4.7 NJ-
Iron, Ferrous	%	-	-	-	0.57	-	-	-	0.87	-	-	-	-	0.72	-
рН	su	-	-	-	8	7.22	8.18	7.21	7.13	7.89	7.86	7.9	7.03	8.04	8.09
Redox Potential Vs H2	mv	-	-	-	356	222	230	207	205	350	203	419	203	365	223
Solids, Percent	%	-	-	-	84.7	82.9	87.4	78.8	79.4	90.3	86.4	82.6	80.3	69.8	78.6
Sulfide Screen		-	-	-	NEGATIVE	-	-	-	NEGATIVE	-	-	-	-	NEGATIVE	-
Total Organic Carbon	mg/kg	-	-	-	4,050	-	-	-	20,600	-	-	-	-	125,000	-

Analytical Data Qualifiers:

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calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

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= Sample deemed usable due to acceptable insoluble recovery and secondary analytics.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft msl): Excavated: Lab Sample ID: Date Sampled: Matrix:		NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Residential Direct Soil (NJAC 7:26D 5/12)	NJ Default Impact to Groundwater Soil Screening (11/13)	PPG63/65_B106 5.5-6 5-5.5 JB92520-1 4/15/2015 Soil	PPG63/65_B107 1.5-2 8-8.5 JB92520-2 4/15/2015 Soil	PPG 63/65_B108 4.3-4.8 5-5.5 JB92632-1 4/16/2015 Soil	PPG 63/65_B109 4.1-4.6 5.2-5.7 JB92632-4 4/16/2015 Soil	PPG63/65_B110 3.3-3.8 5.5-6 JB92766-1 4/17/2015 Soil	PPG63/65_B111R 4.5-5 4.2-4.7 JB93212-1 4/24/2015 Soil	PPG63/65_B112R 5.2-5.7 3.2-3.7 JB93212-2 4/24/2015 Soil	PPG63/65_B113 4.7-5.2 3.7-4.2 JB92858-4 4/21/2015 Soil	PPG63/65_B114 5.3-5.8 2.7-3.2 JB92858-7 4/21/2015 Soil	PPG63/65_B115 6.4-6.9 2.4-2.9 JB93021-2 4/22/2015 Soil
Metals Analysis														
Antimony Chromium Nickel Thallium Vanadium	mg/kg mg/kg mg/kg mg/kg mg/kg	450 120,000 23,000 79 1,100	31 - 1,600 5 390	6 - 205** 3 NA	<2.2 NJ- 24.2 EJ 16.6 <1.1 27.4	<2.3 NJ- 155 EJ 19.5 <1.2 45.2	<2.2 NJ- 35.1 EJ 18 <1.1 41.3	<2.2 NJ- 29.1 EJ 23 <1.1 47.5	<2.2 NJ- 18.1 14.9 <1.1 28.1	<2.4 NJ- 13.6 11.1 <1.2 19.9	<2.4 NJ- 14.8 11.4 <1.2 21.1	<2.7 NJ- 14.1 ENJ+ 12.9 <1.3 19.3 EJ	<2.7 NJ- 13.8 ENJ+ 13.5 <1.3 18 EJ	<2.6 NJ- 11.2 10.1 <1.3 16
General Chemistry														
Chromium, Hexavalent Iron, Ferrous pH	mg/kg % su	20	- - -	- - -	<0.46 NJ- / 0.52 NJ- - 8.27	6.7 NJ- / 14.4 NJ- - 8.08	0.95 - 6.87	1.1 - 6.71	<0.46 *NJ- / <0.46 NJ- - 7.93	<0.49 NJ- / <0.49 NJ- - 7.66	<0.49 NJ- / <0.49 NJ- 0.9 7.61	<0.52 NJ- / 0.53 NJ- - 7.21	0.71 NJ- / <0.55 NJ- - 6.85	<0.51NJ- / <0.51 NJ- 0.81 7
Redox Potential Vs H2	mv	-	-	-	225	273	258	233	325	226	219	198	236	195
Solids, Percent Sulfide Screen Total Organic Carbon	% mg/kg	-	-	- -	-	85.9	85.4	85.5	-	82	81.7 NEGATIVE 1.440	77.5	72.9	78.8 NEGATIVE 4,960

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ft msl = feet mean sea level ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65_B116	PPG 63/65_B117	PPG63/65_B118	PPG63/65_B119	PPG63/65_B120	PPG63/65_B121
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	6.4-6.9	5.3-5.8	3.5-4	3.7-4.2	3.7-4.2	2.2-2.7
Sample Elevation (ft msl):		Direct Contact	Direct	Groundwater	2.8-3.3	4.2-4.7	7-7.5	5.8-6.3	6.8-7.3	4.8-5.3
Excavated:		Soil (NJAC	Soil (NJAC	Soil Screening (11/13)						
Lab Sample ID:		7:26D 5/12)	7:26D 5/12)		JB93021-4	JB93163-3	JB93547-2	JB93547-6	JB95015-2	JC15057-1
Date Sampled:					4/22/2015	4/23/2015	4/29/2015	4/29/2015	5/19/2015	2/29/2016
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil
Metals Analysis				-				-		
Antimony	mg/kg	450	31	6	<2.4 NJ-	<2.6 NJ-	<2.3	<2.5	<2.5	<2.2 NJ-
Chromium	mg/kg	120,000	-	-	18.4	24.1 NJ-	42.7	111	12.6	26.7 NJ+
Nickel	mg/kg	23,000	1,600	205**	14.4	26.6 ENJ-	19.2 EJ	20.3 EJ	10.2	13.2
Thallium	mg/kg	79	5	3	<1.2	<1.3	<1.1	<1.3	<1.2	<1.1
Vanadium	mg/kg	1,100	390	NA	24.3	27.7 ENJ-	44.6	30.6	13	14.6
General Chemistry										
Chromium, Hexavalent	mg/kg	20	-	-	<0.50 NJ- / <0.50 NJ-	<0.53 NJ- / <0.53 NJ-	<0.46 NJ- / 2.4 *NJ-	0.77 NJ- / 0.49 *NJ-	<0.49	2 NJ- / 2.1 NJ-
Iron, Ferrous	%	-	-	-	-	-	0.76	-	12.6	0.76 ^D
рН	su	-	-	-	7.17	7.82	7.82	7.94	7.91	7.72
Redox Potential Vs H2	mv	-	-	-	195	177	289	250	321	343
Solids, Percent	%	-	-	-	80.5	75.2	86.3	82.4	82.3	87.8
Sulfide Screen		-	-	-	-	-	NEGATIVE	-	-	NEGATIVE
Total Organic Carbon	mg/kg	-	-	-	-	-	30,000 J	-	-	3,970 ^c

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Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft msl): Lab Sample ID: Date Sampled: Matrix:		NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Default Impact to Groundwater Soil Screening (11/13)	PPG63/65_SW04 1.5-2 6-6.5 JB69910-8 6/19/2014 Soil	PPG 63/65_SW22 4.8-5.3 3.2-3.7 JB79068-2 10/13/2014 Soil	PPG 63/65_SW23 3.8-4.3 4.2-4.7 JB79068-3 10/13/2014 Soil	PPG 63/65_SW25R 1.5-2.0 6.5-7 JB80992-2 11/5/2014 Soil	PPG 63/65-SW26 0.3-0.8 14.9-15.4 JB79649-1 10/20/2014 Soil	PPG 63/65_SW27R2 1.2-1.7 8-8.5 JB81729-6 11/13/2014 Soil	PPG 63/65-SW28 0.2-0.7 8-8.5 JB79649-4 10/20/2014 Soil
	-	•						•			
Metals Analysis											
Antimony	mg/kg	450	31	6	<2.1 NJ-	<2.3 NJ-	3.6 NJ-	<2.5 NJ-	<2.1 NJ-	<2.6 NJ-	2.9 NJ-
Chromium	mg/kg	120,000	-	-	40.4	9.2	30.8	123 NJ-	24.4	377 *NJ	160
Nickel	mg/kg	23,000	1,600	205**	12.5	14	31.8	24.6	16.7	50.6 NJ-	25.5
Thallium	mg/kg	79	5	3	<1.1	<1.2	<1.2	<1.2	<1.1	<1.3 NJ-	<1.1
Vanadium	mg/kg	1,100	390	NA	21.1	12	22.6	32	22.9	54.7 NJ-	39.1
General Chemistry											
Chromium, Hexavalent	mg/kg	20	-	-	0.45	0.62	1.6	2.8 *NJ- / 1.5 NJ-	2.4 *NJ- / 1.7 *NJ-	7.2 *NJ- / <0.51 NJ-	1.1 *NJ- / 2.9 *NJ-
Iron, Ferrous	%	-	-	-	-	-	-	1.1	-	-	-
рН	su	-	-	-	8.5	7.51	8.17	8.16	7.94	7.73	7.75
Redox Potential Vs H2	mv	-	-	-	376	351	315	289	509	260	652
Solids, Percent	%	-	-	-	90	86	82.8	81.9	93.2	78.9	89.3
Sulfide Screen		-	-	-	-	-	-	NEGATIVE	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	53,400	-	-	-

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Result exceeded criteria

Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft msl): Lab Sample ID: Date Sampled: Matrix:		NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Default Impact to Groundwater Soil Screening (11/13)	PPG 63/65-SW29 0.4-0.9 7.9-8.4 JB79649-5 10/20/2014 Soil	PPG 63/65-SW30 0-0.5 9-9.5 JB79649-7 10/20/2014 Soil	PPG 63/65-SW31 0.5-1 8.6-9.1 JB79649-8 10/20/2014 Soil	PPG 63/65-SW32 0.2-0.7 10.3-10.8 JB79649-9 10/20/2014 Soil	PPG 63/65-SW33 1.5-2 9-9.5 JB79649-10 10/20/2014 Soil	PPG 63/65-SW34 1.5-2 9-9.5 JB79649-11 10/20/2014 Soil	PPG 63/65-SW35 1.2-1.7 9.3-9.8 JB79649-12 10/20/2014 Soil
Metals Analysis											
Antimony	mg/kg	450	31	6	<2.3	<2.5 NJ-	<2.4 NJ-	<2.3 NJ-	4.4 NJ-	<2.3 NJ-	<2.2 NJ-
Chromium	mg/kg	120,000	-	-	105	190	287	146	79.3	74.3	23
Nickel	mg/kg	23,000	1,600	205**	38.2	41.7	50.3	49	96.3	26.1	20.4
Thallium	mg/kg	79	5	3	<1.2	<1.3	<1.2	<1.2	<3.1ª	<1.2	<1.1
Vanadium	mg/kg	1,100	390	NA	45.9	35.6	47.1	40.5	42	33.5	25.7
General Chemistry											
Chromium, Hexavalent	mg/kg	20	-	-	0.49 *NJ- / 1 *NJ-	2.0 *NJ- / <0.51 *NJ-	3.6 *NJ- / 1.6 *NJ-	0.85 *NJ- / <0.46 *NJ-	2.4 *NJ- / 1.8 *NJ-	2.7 *NJ- / 3 *NJ-	1.6 *NJ-/ 1.2 *NJ-
Iron, Ferrous	%	-	-	-	-	-	-	-	-	-	-
рН	su	-	-	-	7.39	6.9	7.61	6.93	7.64	7.11	7.17
Redox Potential Vs H2	mv	-	-	-	562	551	482	559	563	524	514
Solids, Percent	%	-	-	-	86	78.4	84.8	86.7	93	83.8	91.4
Sulfide Screen		-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	-	-

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su = standard unit

mv = millivolts

Result exceeded criteria

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65_SW37	PPG 63/65_SW38R	PPG63/65_SW39	PPG 63/65_SW40	PPG 63/65_SW43	PPG 63/65_SW44	PPG 63/65_SW50
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	0.2-0.7	1.1-1.6	0.9-1.4	1.7-2.2	3.3-3.8	2.8-3.3	2.8-3.3
Sample Elevation (ft msl)	:	Direct Contact	Direct Contact	Groundwater	8.8-9.3	7.3-7.8	8.2-8.7	6.3-6.8	4.2-4.7	4.7-5.2	4.9-5.4
Lab Sample ID:		Soil (NJAC	Soil (NJAC	Soil Screening	JB80262-4	JB81368-1	JB80262-7	JB80445-1	JB80538-7	JB80640-2	JB81368-3
Date Sampled:		7:26D 5/12)	7:26D 5/12)	(11/13)	10/28/2014	11/10/2014	10/28/2014	10/29/2014	10/30/2014	10/31/2014	11/10/2014
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil
	-	-	-			-			-		
Metals Analysis											
Antimony	mg/kg	450	31	6	<2.2 NJ-	2.8 NJ-	<2.1 NJ-	<2.2 NJ-	<2.4 NJ-	<2.3	<2.5 NJ-
Chromium	mg/kg	120,000	-	-	232 NJ+	78.6 ENJ+	27.9 NJ+	36.6 NJ-	16.5	62.4 NJ+	71.3 ENJ+
Nickel	mg/kg	23,000	1,600	205**	40.2	59.2	18.5	22.9	14.8	24.9	15
Thallium	mg/kg	79	5	3	<1.1	<1.1	<1.1	<1.1	<1.2	<1.2	<1.3
Vanadium	mg/kg	1,100	390	NA	37.4	38.6 EJ	21.9	18.6	22.6	45.9	29.5 EJ
General Chemistry											
Chromium, Hexavalent	mg/kg	20	-	-	1.9 NJ-/ 4 NJ-	3.5 NJ- / 5.1 NJ-	1.3 NJ- / 1.6 NJ-	3.3 NJ- / 4.1 NJ-	0.66 NJ- / <0.48 *NJ-	2.2 NJ- / 1.3 NJ-	4.4 NJ- / 15 NJ-
Iron, Ferrous	%	-	-	-	-	-	-	-	-	-	0.31
рН	su	-	-	-	7.53	8.16	7.52	8.38	7.63	8.67	9.25
Redox Potential Vs H2	mv	-	-	-	307	336	302	368	178	198	227
Solids, Percent	%	-	-	-	84.9	90.1	90.1	89.5	83.2	87.7	77
Sulfide Screen		-	-	-	-	-	-	-	-	-	NEGATIVE
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	-	9,400

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Result exceeded criteria

Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft msl): Lab Sample ID: Date Sampled: Matrix:		NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Default Impact to Groundwater Soil Screening (11/13)	PPG 63/65_SW56 0.6-1.1 7.5-8.0 JB81729-2 11/12/2014 Soil	PPG 63/65_SW57 0.7-1.2 6.5-7 JB82085-1 11/18/2014 Soil	PPG63/65_SW58 1-1.5 6.2-6.7 JB82085-2 11/18/2014 Soil	PPG63/65_SW59 0-0.5 7.2-7.7 JB82085-3 11/18/2014 Soil	PPG63/65_SW60 0-0.5 6.5-7 JB82305-2 11/20/2014 Soil	PPG63/65_SW61R 0.4-0.9 6.8-7.3 JB83152-6 12/3/2014 Soil	PPG63/65_SW64 1.9-2.4 5.3-5.8 JB83152-4 12/3/2014 Soil
Metals Analysis	·										
					-						
Antimony	mg/kg	450	31	6	<2.1 NJ-	<2.3 NJ-	<2.3 NJ-	<2.2 NJ-	<2.2 NJ-	<2.3 NJ-	<3.4 NJ-
Chromium	mg/kg	120,000	-	-	185 *NJ	25 *NJ	48.5 *NJ	39.8 *NJ	33.2	86.8	228
Nickel	mg/kg	23,000	1,600	205**	22.1 NJ-	15.8 NJ-	13.8 NJ-	11.1 NJ-	7.8	15.7	28.6
Thallium	mg/kg	79	5	3	<1.0 NJ-	<1.1 NJ-	<1.2 NJ-	<1.1 NJ-	<1.1	<1.1	<1.7
Vanadium	mg/kg	1,100	390	NA	33.5 NJ-	23.5 NJ-	19.6 NJ-	18.6 NJ-	8	23.5	73.6
General Chemistry											
Chromium, Hexavalent	mg/kg	20	-	-	4.5 *NJ- / 2.1NJ-	2.1	2.4	2.7	3.4	2.5 NJ- / 3.9 *NJ-	2.2 NJ- / 6.8 *NJ-
Iron, Ferrous	%	-	-	-	-	-	-	-	-	2	-
рН	su	-	-	-	8.4	8.16	8.66	8.54	8.68	7.49	7.18
Redox Potential Vs H2	mv	-	-	-	248	115	318	319	269	303	281
Solids, Percent	%	-	-	-	91.9	86.3	83.6	88.7	89.9	85	61
Sulfide Screen		-	-	-	-	-	-	-	-	NEGATIVE	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-	42,000	-

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mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65_SW72R	PPG63/65_SW75	PPG63/65_SW76	PPG63/65_SW92	PPG63/65_SW93	PPG63/65_SW107	PPG63/65_SW110	PPG63/65_SW111
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	0.7-1.2	0.3-0.8	3.8-4.3	0.3-0.8	4.1-4.6	0.2-0.7	0-0.5	0.2-0.7
Sample Elevation (ft msl):		Direct Contact	Direct Contact	Groundwater	6.5-7.0	7.8-8.3	4.3-4.8	9.2-9.7	2.3-2.8	8.8-9.3	10.5-11	10.3-10.7
Lab Sample ID:		Soil (NJAC	Soil (NJAC	Soil Screening	JB86243-1	JB86000-1	JB86141-1	JB87890-2	JB87890-4	JB88785-1	JB88913-3	JB88913-4
Date Sampled:		7:26D 5/12)	7:26D 5/12)	(11/13)	1/13/2015	1/8/2015	1/9/2015	2/6/2015	2/9/2015	2/25/2015	2/26/2015	2/26/2015
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	-			-	-			-		-	-	
Metals Analysis												
	-			-						-		
Antimony	mg/kg	450	31	6	<2.1 NJ-	<2.3 NJ-	<2.4 NJ-	<2.2 NJ-	<2.5 NJ-	<2.1 NJ-	<2.2 NJ-	<2.1 NJ-
Chromium	mg/kg	120,000	-	-	293	248	1,200	201	16.3	13.2	54.2	26.9
Nickel	mg/kg	23,000	1,600	205**	26.6	26.5	18.1	25.3	15.5	11.2	16.2	13.1
Thallium	mg/kg	79	5	3	<1.1	<1.2	<1.2	<1.1	<1.3	<1.1	<1.1	<1.1
Vanadium	mg/kg	1,100	390	NA	51.3	43.3	52.1	45.9	17.9	16.2	35.7	39.5
General Chemistry												
	4		•									
Chromium, Hexavalent	mg/kg	20	-	-	8.3 *NJ- / 7.4 *NJ-	1.7 *NJ-	<0.47 *NJ	4.7 *NJ- / 19.5 NJ-	<0.51 *NJ- / <0.51 NJ-		4.7 NJ- / 3.3	1.1 NJ- / 0.71
Iron, Ferrous	%	-	-	-	-	-	-	0.56	-	0.55	-	-
рН	su	-	-	-	7.85	7.02	9.09	7.6	8.06	8.14	7.02	8.81
Redox Potential Vs H2	mv	-	-	-	285	305	318	460	231	204	414	339
Solids, Percent	%	-	-	-	88.8	83.5	84.6	88.4	79	94.2	87.2	91.3
Sulfide Screen		-	-	-	-	-	-	NEGATIVE	-	NEGATIVE	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	43,100	-	7,280	-	-

Analytical Data Qualifiers:

< - The analyte was not detected at the stated reporting limit.

* - Duplicate analysis not within control limits; indeterminate bias direction.

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.

R - The reported result is rejected .

Notes:

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65_SW115	PPG63/65_SW116	PPG63/65_SW117	PPG63/65_SW118	PPG63/65_SW119	PPG63/65_SW120	PPG63/65_SW121R	PPG63/65_SW122
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	0.5-1	2.8-3.3	0.2-0.7	3.3-3.8	3.5-4.0	2.5-3.0	2.3-2.8	0.8-1.3
Sample Elevation (ft msl):		Direct Contact	Direct Contact	Groundwater	7-7.5	7.2-7.7	10.8-11.3	6-6.5	5.8-6.3	6.8-7.3	8.2-8.7	8-8.5
Lab Sample ID:		Soil (NJAC	Soil (NJAC	Soil Screening	JB89093-2	JB92520-3	JB92520-4	JB92632-2	JB92632-3	JB92632-5	JB93363-1	JB92766-3
Date Sampled:		7:26D 5/12)	7:26D 5/12)	(11/13)	2/27/2015	4/15/2015	4/15/2015	4/16/2015	4/16/2015	4/16/2015	4/27/2015	4/17/2015
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	-		-	-			-		-			
Metals Analysis												
Antimony	mg/kg	450	31	6	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.2 NJ-	<2.4 NJ-	<2.3 NJ-	<2.5 NJ-	<2.6 NJ-
Chromium	mg/kg	120,000	-	-	332	26.7 EJ	34.9 EJ	16 EJ	24.1 EJ	19.4 EJ	23.3	58.3
Nickel	mg/kg	23,000	1,600	205**	33.6	16.5	17.4	11.9	19.4	14.7	20.7	14
Thallium	mg/kg	79	5	3	<1.1	<1.1	<1.2	<1.1	<1.2	<1.2	<1.3	<1.3
Vanadium	mg/kg	1,100	390	NA	51	33.4	32.3	25.8	36.8	15.5	30.3	28.2
General Chemistry												
Chromium, Hexavalent	mg/kg	20	-	-	8.2 *NJ- / 12.7 *NJ-	0.65 NJ- / 1.3 NJ-	1.5 NJ- / 0.53 NJ-	<0.45	3.2	1	0.58 NJ- / 0.66 *NJ-	0.58 *NJ- / 1.1 NJ-
Iron, Ferrous	%	-	-	-	-	-	0.27	-	-	-	-	-
рН	su	-	-	-	7.96	7.37	7.79	7.11	6.86	7.66	8.85	7.74
Redox Potential Vs H2	mv	-	-	-	327	280	517	304	259	264	309	363
Solids, Percent	%	-	-	-	85.8	87.6	85.3	88.4	87.1	89.6	81.4	76.4
Sulfide Screen		-	-	-	-	-	NEGATIVE	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	102,000	-	-	-	-	-

Analytical Data Qualifiers:

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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.

R - The reported result is rejected .

Notes:

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft msl): Lab Sample ID: Date Sampled: Matrix:	-	NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Default Impact to Groundwater Soil Screening (11/13)	PPG63/65_SW123 0.5-1.0 7.7-8.2 JB92766-4 4/17/2015 Soil	PPG63/65_SW124 0.6-1.1 7.6-8.1 JB92766-5 4/17/2015 Soil	PPG63/65_SW125 5-5.5 3.3-3.8 JB92766-7 4/17/2015 Soil	PPG63/65_SW126 2.8-3.3 4.7-5.2 JB92858-1 4/20/2015 Soil	PPG63/65_SW127 4.5-5 4-4.5 JB92858-2 4/20/2015 Soil	PPG63/65_SW128R 2.7-3.2 9.8-10.3 JB93363-2 4/27/2015 Soil	PPG63/65_SW129 5-5.5 3.1-3.6 JB92858-5 4/21/2015 Soil
Metals Analysis											
Antimony	mg/kg	450	31	6	<2.7 NJ-	<2.5 NJ-	<3.3 NJ-	<2.4 NJ-	<2.7 NJ-	<2.4 NJ-	<2.5 NJ-
Chromium Nickel	mg/kg mg/kg	120,000 23,000	- 1,600	- 205**	127 14.5	99.8 12.3	1,630 22.1	561 ENJ+ 14	44.9 ENJ+ 17.2	31.3 13.2	19 ENJ+ 15.9
Thallium	mg/kg	79	5	3	<1.4	<1.2	<1.7	<1.2	<1.3	<1.2	<2.5
Vanadium	mg/kg	1,100	390	NA	30.4	20.6	77.5	31.3 EJ	23.4 EJ	33.3	26.4 EJ
General Chemistry											
Chromium, Hexavalent	mg/kg	20	-	-	3.4 *NJ- / 12.7 NJ-	4.3 *NJ- / 5.6 NJ-	<0.65 *NJ- / <0.65 NJ-	14.4 NJ- / 1.6 NJ-	<0.53 NJ- / <0.53 NJ-	1.3 NJ- / 2.3 *NJ-	<0.52 NJ- / <0.52 NJ-
Iron, Ferrous	%	-	-	-	-	0.6	-	-	-	0.34	-
рН	su	-	-	-	7.98	8.29	7.63	7.65	7.02	7.75	6.86
Redox Potential Vs H2	mv	-	-	-	366	322	179	215	221	341	182
Solids, Percent	%	-	-	-	75.9	78.3	61.1	84.1	76.1	81.2	77.1
Sulfide Screen		-	-	-	-	NEGATIVE	-	-	-	NEGATIVE	-
Total Organic Carbon	mg/kg	-	-	-	-	215,000	-	-	-	14,400 J	-

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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.

R - The reported result is rejected .

Notes:

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

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ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Client Sample ID: Sample Depth (ft bgs): Sample Elevation (ft msl): Lab Sample ID: Date Sampled: Matrix:		NJ Non-Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Residential Direct Contact Soil (NJAC 7:26D 5/12)	NJ Default Impact to Groundwater Soil Screening (11/13)	PPG63/65_SW130 4.5-5 3.7-4.2 JB92858-6 4/21/2015 Soil	PPG63/65_SW131 2.5-3.0 5.9-6.4 JB93021-1 4/22/2015 Soil	PPG63-65_DUP- SW131 2.5-3.0 5.9-6.4 JB93021-5 4/22/2015 Soil	PPG63/65_SW132 1.6-2.1 4.3-4.8 JB93021-3 4/22/2015 Soil	PPG63/65_SW133 2-2.5 7.5-8.0 JB93163-1 4/23/2015 Soil	PPG63/65_SW134R 2.5-3.0 7.8-8.3 JB95015-1 5/19/2015 Soil	PPG63/65_SW135 1.9-2.4 7.9-8.4 JB93363-3 4/27/2015 Soil
Metals Analysis											
Antimony	mg/kg	450	31	6	<2.4 NJ-	<3.4 NJ-	<3.4 NJ-	<2.9 NJ-	<2.5 NJ-	<2.3 NJ-	<2.4 NJ-
Chromium	mg/kg	120,000	-	-	767 ENJ+	191	197	98	60 NJ-	33.3	15.6
Nickel	mg/kg	23,000	1,600	205**	34.3	31.6	29.3	31.3	59.3 ENJ-	20.7	7.9
Thallium	mg/kg	79	5	3	<1.2	<1.7	<1.7	<1.5	<1.2	<1.2	<1.2
Vanadium	mg/kg	1,100	390	NA	50 EJ	73.3	63.4	59.7	28.8 ENJ-	25.4	14.7
General Chemistry											
Chromium, Hexavalent	mg/kg	20	-	-	8.2 NJ- / 16.8 NJ-	<0.67 NJ- / <0.67 NJ-	1.4 NJ- / <0.67	<0.58 NJ- / <0.58 NJ-	<0.50 NJ- / 8.3 NJ-	0.47 NJ- / 1.5 NJ-	3.4 NJ- / 2.2 *NJ-
Iron, Ferrous	%	-	-	-	0.7	-	-	-	-	32.8	-
рН	su	-	-	-	8.22	7.94	7.91	7.13	7.59	7.44	8.36
Redox Potential Vs H2	mv	-	-	-	214	124	206	202	322	335	372
Solids, Percent	%	-	-	-	83	59.6	59.3	69.5	80.5	85.2	82.4
Sulfide Screen		-	-	-	NEGATIVE	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	38,400	-	-	-	-	-	-

Analytical Data Qualifiers:

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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.

R - The reported result is rejected .

Notes:

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Client Sample ID:		NJ	NJ	NJ Default	PPG63/65_SW138	PPG63/65_SW139
Sample Depth (ft bgs):		Non-Residential	Residential	Impact to	1.2-1.7	2.6-3.1
Sample Elevation (ft msl):		Direct Contact	Direct Contact	Groundwater	6.8-7.3	7.9-8.4
Lab Sample ID:		Soil (NJAC	Soil (NJAC	Soil Screening	JB93547-7	JB95015-3
Date Sampled:		7:26D 5/12)	7:26D 5/12)	(11/13)	4/29/2015	5/19/2015
Matrix:					Soil	Soil
	-		-			
Metals Analysis						
Antimony	mg/kg	450	31	6	<2.5	<2.6 NJ-
Chromium	mg/kg	120,000	-	-	58.7	35.6 EJ
Nickel	mg/kg	23,000	1,600	205**	16.7	22.6
Thallium	mg/kg	79	5	3	<1.2	<1.3
Vanadium	mg/kg	1,100	390	NA	25	28
General Chemistry						
Chromium, Hexavalent	mg/kg	20	-	-	3.6 NJ- / 2.8 *NJ-	1.2 NJ / 1.1 NJ-
Iron, Ferrous	%	-	-	-	-	34.4
рН	su	-	-	-	9.51	7.76
Redox Potential Vs H2	mv	-	-	-	241	343
Solids, Percent	%	-	-	-	84.2	79.5
Sulfide Screen		-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-

Analytical Data Qualifiers:

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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.

R - The reported result is rejected .

Notes:

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure.

^a - Analytical result in this location was not considered an exceedance because analyte of concern was compliance averaged below soil remediation standard.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded criteria

Table 2C

Concrete Post-Excavation Samples (2014-2015)

Final Post-Remedial Summary Laboratory Analytical Data for Remaining Concrete

PPG Site 63, 1 Burma Road

Jersey City, NJ Sampled by CB&I

Client Sample ID:	NJ	NJ	NJ Default	PPG63/65_CCS01	PPG 63/65_CCS02	PPG63/65_CCS03	PPG63/65_CCG4	PPG63/65_CCSMP
Sample Depths (ft. bgs)	Non-Residential	Residential	Impact to	4.5 - 5	0.2-0.7	1.3 -1.8	3.2 - 3.7	0.8 - 1.3
Sample Elevations (ft. msl)	Direct Contact	Direct	Groundwater	3 -3.5	7.8-8.3	6.2 - 6.7	4.3 - 4.8	6.7-7.2
Lab Sample ID:	Soil (NJAC	Soil (NJAC	Soil (11/13)	JB74992-1	JB80992-1	JB84487-1	JB92766-9	JB93547-3
Date Sampled:	7:26D 5/12)	7:26D 5/12)		8/26/2014	11/5/2014	12/16/2014	4/17/2015	4/29/2015
Matrix:				Concrete/Solid	Concrete/Solid	Concrete/Solid	Concrete/Solid	Concrete/Solid

Metals Analysis									
Antimony	mg/kg	450	31	6	<2.2 NJ-	<1.9	<2.2 NJ-	<2.1 NJ-	<2.2
Chromium	mg/kg	120000	-	-	140 NJ-	94.2	75.9	11.6	21.7 EJ
Nickel	mg/kg	23000	1600	205**	5.5	28.6	8.7	6.5	7.5
Thallium	mg/kg	79	5	3	<1.1	<0.96	<1.1	<1.1	<1.1
Vanadium	mg/kg	1100	390	NA	11.6	24.9	15.7	17.3	12.1

General Chemistry									
Chromium, Hexavalent	mg/kg	20	-	-	3.7	0.59 *NJ- / 1.4 NJ-	3.8 *NJ+	0.59 *NJ- / 0.51 NJ-	<0.42 NJ- / < 0.42 *NJ
Iron, Ferrous	%	-	-	-	-	-	-	-	-
рН	su	-	-	-	10.82	9.24	11.61	12.13	11.59
Redox Potential Vs H2	mv	-	-	-	148	267	104	124	123
Solids, Percent	%	-	-	-	95	99.2	95	95	94.6
Sulfide Screen		-	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	-

Analytical Data Qualifiers:

< - The analyte was not detected at the stated reporting limit.

* - Duplicate analysis not within control limits; indeterminate bias direction.

J - The reported result is an estimated value.

*J - Duplicate analysis not within control limits; result is estimated with

EJ - The reported value is estimated because of the presence of interference;

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

J+ - The result is estimated and may be biased high.

J- - The result is estimated and may be biased low.

Notes:

**- Nickel site specific impact due to groundwater screen level method

calculated using SPLP laboratory methods; SPLP = Synthetic Precipitation Leaching Procedure. ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts



Sample Location:	NJ	NJ	NJ Default		AD	0001		AD	004		AD005				AD007				AD008	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	6.5-7	7-7.5	7.5-8	8-8.5	5.5-6	5.5-6	3.5-4	4-4.5	4-4.5	5.5-6	6-6.5	6.5-7	6.5-7	6.5-7	6-6.5	6-6.5	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	1.4-1.9	0.9-1.4	0.4-0.9	-0.1- 0.4	1.5-2	1.5-2	3.6-4.1	3.1-3.6	3.1-3.6	1.7-2.2	1.2-1.7	0.7-1.2	0.7-1.2	0.7-1.2	1-1.5	1-1.5	1-1.5
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	AD001 6.5-7	AD001 7-7.5	AD001 7.5-8	AD001 8-8.5	AD004 5.5-6	DUP 01	AD005 3.5-4	AD005 4-4.5	DUP 02	AD007 5.5-6	AD007 6-6.5	AD007 6.5-7	DUP 09	DUP 09	AD008 6-6.5	DUP 10	DUP 10
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11/10)	JB44205-1	JB44205-2	JB44205-3	JB44205-4	JB46800-4	JB46800-5	JB46800-8	JB46800-9	JB46800-10	JB46883-20	JB46883-21	JB46883-22	JB46883-23	JB46883-23R	JB46883-31	JB46883-32	JB46883-32
Date Sampled:				8/5/2013	8/5/2013	8/5/2013	8/5/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		-	•			•		•	•	•	•		•	•	•	•			•	
Antimony (mg/kg)	450	31	6	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.3	<2.5	<2.0	<2.0	<2.0	4 NJ-	<2.3 NJ-	<2.4 NJ-	<2.4 NJ-		2.6	<1.9	
Chromium (mg/kg)	120,000	-	-	34.7	30.2	36.2 NJ+	27.3 NJ+	189	142	254	255	346	55.2 EJ	22.5	18.4	16.6		41.3	30.5	
Nickel (mg/kg)	23,000	1,600	205**	16.8	15.8	16.1	12.2	15.4	16.2	18.2	19.4	26.4	16.6	17.4	13.4	11.8		13.9	17.6	
Thallium (mg/kg)	79	5	3	<1.1	<1.2	<1.2	<1.1	<1.2	<1.2	<1.0	<0.99	<0.99	<1.3	<1.2	<1.2	<1.2		<0.99	<0.93	
Vanadium (mg/kg)	1,100	390	-	32.9	35.4	52	43.3	33	72.8	28.9	30.6	14.3 NJ+	24.7 EJ	32.3	26.4	24.3		18.4	24.3	
			•		1	•	1	•	•	•	•		•	•	•	•	•	ł	•	4
Chromium, Hexavalent (mg/kg)	20	-	-	1.3 NJ-	0.67 NJ-	0.92 NJ-	1.2 NJ-	<0.47 NJ-	<0.48 NJ-	<0.54 NJ-	14.8 NJ-	4.7 NJ-	<0.50 NJ-	<0.47 NJ-	<0.46 NJ-	<0.45 NJ-	<0.45 NJ-	<0.65 NJ-	<0.70 NJ-	<0.70 NJ-
рН	-	-	-	9.84	9.53	9.37	9.26	9.99	10.14	7.92	7.76	8.18	7.74	8.09	8.38	8.47		7.66	7.66	
Redox Potential Vs H2 (mV)	-	-	-	213	151	160	169	16.7	-12.5	128	138	230	281	259	256	263		209	158	
Solids, Percent (%)	-	-	-	86.1	87.6	89.1	89.4	85.3	84.2	74.4	76.4	79.1	80	84.9	86.8	88.3		61.3	57.5	

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Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
- ft bgs = feet below ground surface
- mg/kg = milligram per kilogram

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standards/criteria.

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Result exceeded criteria

Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

Sample Location:	NJ	NJ	NJ Default			AD	0009		AD011								
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	6-6.5	6-6.5	6.5-7	6.5-7	6.5-7	6.5-7	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7		
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	0.5-1	0.5-1	0-0.5	0-0.5	0-0.5	0-0.5	1.7-2.2	1.7-2.2	1.2-1.7	1.2-1.7	0.7-1.2	0.7-1.2		
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	AD009 6-6.5	AD009 6-6.5	AD009 6.5-7	AD009 6.5-7	DUP 12	DUP 12	AD011 5.5-6	AD011 5.5-6	AD011 6-6.5	AD011 6-6.5	AD011 6.5-7	AD011 6.5-7		
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB47183-7	JB47183-7R	JB47183-8	JB47183-8R	JB47183-9	JB47183-9R	JB47087-2	JB47087-2R	JB47087-3	JB47087-3R	JB47087-4	JB47087-4R		
Date Sampled:				9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013		
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
					•		•		•	•	•						
Antimony (mg/kg)	450	31	6	<2.5		3.5		<2.0		<2.4 NJ-		<2.3		<2.5			
Chromium (mg/kg)	120,000	-	-	11.1		22.2		17.5		18.4		15		16.7			
Nickel (mg/kg)	23,000	1,600	205**	12.3		21.4		15.3		14.3		14.7		14.6			
Thallium (mg/kg)	79	5	3	<1.3		<0.99		<1.0		<1.2		<1.1		<1.2			
Vanadium (mg/kg)	1,100	390	-	17.2		25.9		25.3		17.5		18.1		19.6			
	•				•	•	1					•	1	•	1		
Chromium, Hexavalent (mg/kg)	20	-	-	<0.49 NJ-	<0.49 NJ-	<0.60 NJ-	<0.60 NJ-	<0.54 NJ-	<0.54 NJ-	<0.49 NJ-	<0.49 NJ-	<0.48 NJ-	<0.48 NJ-	<0.48 NJ-	<0.48 NJ-		
рН	-	-	-	8.16		8.91		9.56		8.02		8.57		8.16			
Redox Potential Vs H2 (mV)	-	-	-	285		280		270		268		289		264			
Solids, Percent (%)	-	-	-	81.5		66.3		74.7		81.9		84		82.7			

< - The analyte was not detected at the stated reporting limit.

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

Page 2 of 19

Sample Location:	NJ	NJ	NJ Default		BD	001			BD002			BD003					BE	0004			
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	7-7.5	7.5-8	8-8.5	8.5-9	6.5-7	7-7.5	7.5-8	5.5-6	5.5-6	5.5-6	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7	6.5-7	6.5-7
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	-0.1 - 0.4	-0.1- (-0.6)	-0.6 - (- 1.1)	-1.1 - (- 1.6)	0.3-0.8	-0.2 - 0.3	-0.7 - (- 0.2)	1.8-2.3	1.8-2.3	1.8-2.3	2.2-2.7	2.2-2.7	1.7-2.3	1.7-2.3	1.2-1.7	1.2-1.7	1.2-1.7	1.2-1.7
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	BD001 7-7.5	BD001 7.5-8	BD001 8-8.5	BD001 8.5-9	BD002 6.5-7	BD002 7-7.5	BD002 7.5-8	BD003 5.5-6	DUP 07	DUP 07	BD004 5.5-6	BD004 5.5-6	BD004 6-6.5	BD004 6-6.5	BD004 6.5-7	BD004 6.5-7	DUP 06	DUP 06
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11/10)	JB44205-5	JB44205-6	JB44205-7	JB44205-8	JB43880-49A	JB43880-50A	JB43880-51A	JB46883-8R	JB46883-9	JB46883-9R	JB46800-38	JB46800-38R	JB46800-39	JB46800-39R	JB46800-40	JB46800-40R	JB46800-41	JB46800-41R
Date Sampled:				8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/2/2013	8/2/2013	8/2/2013	9/10/2013	9/10/2013	9/10/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
					•		•				•			•	•			•		•	
Antimony (mg/kg)	450	31	6	<2.2 NJ-	<2.4 NJ-	<2.5 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-		<2.4		3.2 NJ-		<2.2		<2.2		<2.4	
Chromium (mg/kg)	120,000	-	-	181	18.5	18.8	19.3	65.7 NJ+	23.8 NJ+	17.7 NJ+		15.5		31.4		33.5		15.5		23.5	
Nickel (mg/kg)	23,000	1,600	205**	12.9	13.7	14.6	13.7	15.1	14	14.3		15.1		21.4		18.8		14.5		19.1	
Fhallium (mg/kg)	79	5	3	<1.1	<1.2	<1.2	<1.1	<1.2	<1.1	<2.3 ^a		<1.2		<1.2		<1.1		<1.1		<1.2	
/anadium (mg/kg)	1,100	390	-	22.7	20.7	17.3	26.2	24.5	35.7	24.2		20.8		22.4		32.6		24		33.3	
						•	•	•			•			ł		•	•	1			•
Chromium, Hexavalent (mg/kg)	20	-	-	0.95 NJ-	<0.46 NJ-	0.87 NJ-	0.67 NJ-	<0.46 NJ-	<0.46 NJ-	0.47 NJ-	<0.48 NJ-	<0.49 NJ-	<0.49 NJ-	<0.47 NJ-	0.59 NJ-	<0.46 NJ-	0.7 NJ-	<0.45 NJ-	<0.45 NJ-	<0.47 NJ-	<0.47 NJ-
рН	-	-	-	10.33	10.06	9.54	9.64	9.52	9.36	9.16		8.51		8.14		8.35		8.13		8.23	
Redox Potential Vs H2 (mV)	-	-	-	128	116	129	148	147	155	156		179		220		202		201		201	
Solids, Percent (%)	-	-	-	90.5	87.2	83	88.4	87.1	87.7	89.3		81.7		85.2		86.9		88.4		85.7	

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Result exceeded criteria

Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

Sample Location:	NJ	NJ	NJ Default				BD006										
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7	7-7.5	7-7.5	7-7.5	7-7.5	6-6.5	6.5-7	7-7.5	7.5-8
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.2-2.7	2.2-2.7	1.7-2.3	1.7-2.3	1.2-1.7	1.2-1.7	0.7-1.2	0.7-1.2	0.7-1.2	0.7-1.2	1.5-2	1-1.5	0.5-1	0-0.5
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	BD005 5.5-6	BD005 5.5-6	BD005 6-6.5	BD005 6-6.5	BD005 6.5-7	BD005 6.5-7	BD005 7-7.5	BD005 7-7.5	DUP 08	DUP 08	BD006 6-6.5	BD006 6.5-7	BD006 7-7.5	BD006 7.5-8
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11,10)	JB46883-10	JB46883-10R	JB46883-11	JB46883-11R	JB46883-12	JB46883-12R	JB46883-13	JB46883-13R	JB46883-14	JB46883-14R	JB44447-13	JB44447-14	JB44447-15	JB44447-16
Date Sampled:				9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil							
					•				•						•		•
Antimony (mg/kg)	450	31	6	<2.3 NJ-		<2.3 NJ-		<2.3 NJ-		<2.3 NJ-		<2.5 NJ-		<2.3 NJ-	<2.4 NJ-	<2.5 NJ-	<2.4 NJ-
Chromium (mg/kg)	120,000	-	-	43.2 EJ		22.5 EJ		24.4 EJ		19.9 EJ		17.9 EJ		25 *ENJ-	29.4 *ENJ-	21.6 *ENJ-	18.4 *ENJ-
Nickel (mg/kg)	23,000	1,600	205**	15.7		16.1		16.3		16.4		15.8		12.5	14.4	15.6	13.1
Thallium (mg/kg)	79	5	3	<1.2		<1.2		<1.2		<1.2		<1.3		<1.2	<1.2	<1.3	<1.2
Vanadium (mg/kg)	1,100	390	-	53.5 EJ		25.5 EJ		31 EJ		26.6 EJ		23.5 EJ		28.3 NJ-	28.1 NJ-	26.5 NJ-	21.2 NJ-
		•			•	•	ł	•	•	•			•	•	•	ł	•
Chromium, Hexavalent (mg/kg)	20	-	-	1.2 NJ-	2.7 NJ-	<0.47 NJ-	<0.47 NJ-	<0.47 NJ-	<0.47 NJ-	<0.49 NJ-	<0.49 NJ-	<0.50 NJ-	0.54 NJ-	0.49 NJ-	<0.49 NJ-	<0.49 NJ-	<0.49 NJ-
рН	-	-	-	7.83		7.45		7.6		7.82		7.8		8.14	7.49	7.11	7.4
Redox Potential Vs H2 (mV)	-	-	-	276		260		270		271		270		255	257	229	235
Solids, Percent (%)	-	-	-	86		84.3		84.5		82.3		80.2		90.4	82.2	81.2	81.6

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default				BD	007							BD	8008			
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7	4.5-5	4.5-5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2-2.5	2-2.5	1.5-2	1.5-2	1-1.5	1-1.5	0.5-1	0.5-1	2.4-2.9	2.4-2.9	1.9-2.4	1.9-2.4	1.4-1.9	1.4-1.9	0.9-1.4	0.9-1.4
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	BD007 5-5.5	BD007 5-5.5	BD007 5.5-6	BD007 5.5-6	BD007 6-6.5	BD007 6-6.5	BD007 6.5-7	BD007 6.5-7	BD008 4.5-5	BD008 4.5-5	BD008 5-5.5	BD008 5-5.5	BD008 5.5-6	BD008 5.5-6	BD008 6-6.5	BD008 6-6.5
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB46883-15	JB46883-15R	JB46883-16	JB46883-16R	JB46883-17	JB46883-17R	JB46883-18	JB46883-18R	JB46883-24	JB46883-24R	JB46883-25	JB46883-25R	JB46883-26	JB46883-26R	JB46883-27	JB46883-27R
Date Sampled:				9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013
Matrix:				Soil	Soil														
			•			•	•	•	•	•		•					•		
ntimony (mg/kg)	450	31	6	<2.3 NJ-		<2.3 NJ-		<2.3 NJ-		<2.1 NJ-		<2.2 NJ-		3.8 NJ-		3.9 NJ-		<11 ^ª NJ-***	
Chromium (mg/kg)	120,000	-	-	38.3 EJ		29.1 EJ		28.9 EJ		31.1 EJ		73.2		238		69.3		64.1	
lickel (mg/kg)	23,000	1,600	205**	18.5		15		16.1		17.9		14.5		23.4		16.7		22.5	
hallium (mg/kg)	79	5	3	<1.2		<1.2		<1.1		<1.0		<1.1		<1.1		<1.0		<5.7 ^a ***	
/anadium (mg/kg)	1,100	390	-	38.5 EJ		27.2 EJ		36.8 EJ		39.7 EJ		16.9		34.7		18.1		21.5	
						1	1	1	1	1	1	1		1	1	1	•	1	
Chromium, Hexavalent (mg/kg)	20	-	-	0.45 NJ-	0.98 NJ-	0.63 NJ-	1 NJ-	0.81 NJ-	0.75 NJ-	0.6 NJ-	0.64 NJ-	<0.46 NJ-	<0.46 NJ-	<0.50 NJ-	<0.50 NJ-	<0.58 NJ-	<0.58 NJ-	<0.49 NJ-	<0.49 NJ-
Н	-	-	-	7.97		7.94		8.05		7.86		7.68		7.8		7.73		7.78	
edox Potential Vs H2 (mV)	-	-	-	269		271		277		250		273		26.6		273		217	
Solids, Percent (%)	-	-	-	88.2		86.7		89.9		73.4		87.4		79.4		68.4		81.4	

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

Page 5 of 19

Sample Location:	NJ	NJ	NJ Default				BD	009						BD	010		
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	4.5-5	4.5-5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5	5.5-6	5.5-6	6-6.5	6-6.5	6-6.5	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	3.4-3.9	3.4-3.9	2.9-3.4	2.9-3.4	2.4-2.9	2.4-2.9	1.9-2.4	1.9-2.4	2.3-2.8	2.3-2.8	1.8-2.3	1.8-2.3	1.8-2.3	1.8-2.3
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	BD009 4.5-5	BD009 4.5-5	BD009 5-5.5	BD009 5-5.5	BD009 5.5-6	BD009 5.5-6	BD009 6-6.5	BD009 6-6.5	BD010 5.5-6	BD010 5.5-6	BD010 6-6.5	BD010 6-6.5	DUP11	DUP11
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11,10)	JB47087-10	JB47087-10R	JB47087-11	JB47087-11R	JB47087-12	JB47087-12R	JB47087-13	JB47087-13R	JB47087-7	JB47087-7R	JB47087-8	JB47087-8R	JB47087-9	JB47087-9R
Date Sampled:				9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013	9/11/2013
Matrix:				Soil	Soil	Soil											
		-	-					•				•	•				•
Antimony (mg/kg)	450	31	6	<2.3 NJ-		<2.2 NJ-		<2.2 NJ-		<2.2 NJ-		<2.4		<2.4		93.4 ***	
Chromium (mg/kg)	120,000	-	-	181		21.8		19.5		49.6		490		30.1		16	
Nickel (mg/kg)	23,000	1,600	205**	14.8		17		13.7		23.3		22.5		18.8		19	
Thallium (mg/kg)	79	5	3	<1.1		<1.1		<1.1		<1.1		<1.2		<1.2		<1.2	
Vanadium (mg/kg)	1,100	390	-	38.9		32.4		31		39.8		15.4		14.7		17	
								•				•	•				•
Chromium, Hexavalent (mg/kg)	20	-	-	11.2 NJ-	8.3 NJ-	<0.45 NJ-	<0.45 NJ-	<0.45 NJ-	<0.45 NJ-	0.61 NJ-	<0.46 NJ-	<0.49 NJ-	<0.49 NJ-	<0.49 NJ-	<0.49 NJ-	<0.48 NJ-	<0.48 NJ-
pН	-	-	-	7.86		7.98		7.96		7.96		8.08		8.12		8.22	
Redox Potential Vs H2 (mV)	-	-	-	301		300		311		317		296		291		290	
Solids, Percent (%)	-	-	-	86.5		89.2		88.8		87.6		81.5		82.4		83	

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J+ - The result is estimated and may be biased high.

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R - The reported result is rejected.

Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
- ft bgs = feet below ground surface
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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default		CD	001			CD	002			CD003	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	7-7.5	7.5-8	8-8.5	8.5-9	6-6.5	6.5-7	7-7.5	7.5-8	6.5-7	7-7.5	7.5-8
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	0.8-1.3	0.3-0.8	-0.2 - 0.3	-0.7 - (- 0.2)	1.9-2.4	1.3-1.8	0.8-1.3	0.3-0.8	1.5-2	1-1.5	0.5-1
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD001 7-7.5	CD001 7.5-8	CD001 8-8.5	CD001 8.5-9	CD002 6-6.5	CD002 6.5-7	CD002 7-7.5	CD002 7.5-8	CD003 6.5-7	CD003 7-7.5	CD003 7.5-8
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB43880-35A	JB43880-1A	JB43880-2A	JB43880-3A	JB43880-4A	JB43880-5A	JB43880-6A	JB43880-7A	JB43880-30A	JB43880-31A	JB43880-32A
Date Sampled:				7/31/2013	7/31/2013	7/31/2013	7/31/2013	7/30/2013	7/30/2013	7/30/2013	7/30/2013	7/31/2013	7/31/2013	7/31/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
			•			•		•	•	•		•	•	
Antimony (mg/kg)	450	31	6	<2.0 NJ-	<2.4 NJ-	<2.4 NJ-	<2.0 NJ-	<2.3 NJ-	<2.3 NJ-	<2.4 NJ-				
Chromium (mg/kg)	120,000	-	-	15.3 NJ+	17.9	17	15.9	25.7	18.9	32.7	15.6	37.7	32.9	17.5
Nickel (mg/kg)	23,000	1,600	205**	13.1	14.3	14.4	17.2	17.5	14.3	22.7	12.2	16.8	16.5	12.9
Thallium (mg/kg)	79	5	3	<1.0	<1.2	<1.2	<1.0	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
Vanadium (mg/kg)	1,100	390	-	22.2	24.4	24.2	23.3	35.5	30.1	49.1	22.7	31.2	29.3	25.4
					•	•	•	•	•		I	•	•	1
Chromium, Hexavalent (mg/kg)	20	-	-	<0.52 NJ-	<0.48 NJ-	<0.47 NJ-	5.3 NJ-	0.69 NJ-	0.76 NJ-	0.48 NJ-	0.98 NJ-	<0.47 NJ-	<0.46 NJ-	<0.46 NJ-
pН	-	-	-	6.98	7.13	7.37	6.77	6.88	7.24	6.98	6.72	7.24	7.1	7.21
Redox Potential Vs H2 (mV)	-	-	-	197	310	248	276	241	242	232	239	236	212	213
Solids, Percent (%)	-	-	-	77.2	82.9	84.5	43.6	86.5	86.1	86.6	84.4	85.9	86.6	86.9

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Notes:

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default		CD	004			CD	006		CD008	CD	009
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	7-7.5	7.5-8	8-8.5	8.5-9	7-7.5	7.5-8	8-8.5	8.5-9	6.5-7	5.5-6	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	0.8-1.3	0.3-0.8	-0.2 - 0.3	-0.7 - (-0.2)	-0.1 - (0.4)	-0.6 - (- 0.1)	-1.1 - (-0.6)	-1.6 - (1.1)	0.5-1	1.7-2.2	1.2-1.7
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD004 7-7.5	CD004 7.5-8	CD004 8-8.5	CD004 8.5-9	CD006 7-7.5	CD006 7.5-8	CD006 8-8.5	CD006 8.5-9	CD008 6.5-7	CD009 5.5-6	CD009 6-6.5
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(1.1.0)	JB44205-25	JB44205-26	JB44205-27	JB44205-28	JB44205-33	JB44205-34	JB44205-35	JB44205-36	JB43880-43A	JB43880-46A	JB43880-47A
Date Sampled:				8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/2/2013	8/2/2013	8/2/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
			-					•	•	•		•		
Antimony (mg/kg)	450	31	6	<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.5 NJ-	<2.3 NJ-	<2.2 NJ-	<2.4 NJ-	<2.1 NJ-	<2.3 NJ-	<2.1 NJ-	<2.4 NJ-
Chromium (mg/kg)	120,000	-	-	46.3 NJ+	34.3 NJ+	22.4 NJ+	18.4 NJ+	46.7 NJ+	29 NJ+	18.4 NJ+	24.3 NJ+	39.5 NJ+	30.3 NJ+	19.5 NJ+
Nickel (mg/kg)	23,000	1,600	205**	11.9	16.9	13.5	14.1	12.2	17	14	17.6	13.2	14.1	15.1
Thallium (mg/kg)	79	5	3	<1.1	<1.1	<1.1	<1.2	<1.1	<1.1	<1.2	<1.0	<1.2	<1.0	<1.2
Vanadium (mg/kg)	1,100	390	-	28.5	41.2	24.6	24.4	24.5	25.8	31.3	30.9	22	32.1	24.5
	•		•	•	•	•	•	•	•	I	•	•	1	
Chromium, Hexavalent (mg/kg)	20	-	-	1.2 NJ-	<0.47 NJ-	<0.46 NJ-	<0.49 NJ-	<0.44 NJ-	<0.44 NJ-	<0.46 NJ-	<1.2 NJ-	0.55 NJ-	<0.50 NJ-	<0.46 NJ-
ЪΗ	-	-	-	6.95	8.76	7.9	7.36	9.31	9.31	8.73	7.37	7.77	7.16	7.34
Redox Potential Vs H2 (mV)	-	-	-	290	279	256	214	224	229	149	233	211	222	225
Solids, Percent (%)	-	-	-	88.9	85.5	87.9	82.4	91	90.4	87.6	33.5	83.6	79.9	87.4

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Notes:

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default				C	0010							CD	0011			
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	4.5-5 ⁺	4.5-5 ⁺	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5	4.5-5	4.5-5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.7-3.2	2.7-3.2	2.2-2.7	2.2-2.7	1.7-2.2	1.7-2.2	1.2-1.7	1.2-1.7	3.1-3.6	3.1-3.6	2.6-3.1	2.6-3.1	2.1-2.6	2.1-2.6	1.6-2.1	1.6-2.1
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD010 4.5-5	CD010 4.5-5	CD010 5-5.5	CD010 5-5.5	CD010 5.5-6	CD010 5.5-6	CD010 6-6.5	CD010 6-6.5	CD011 4.5-5	CD011 4.5-5	CD011 5-5.5	CD011 5-5.5	CD011 5.5-6	CD011 5.5-6	CD011 6-6.5	CD011 6-6.5
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB46883-1	JB46883-1R	JB46883-2	JB46883-2R	JB46883-3	JB46883-3R	JB46883-4	JB46883-4R	JB46800-42	JB46800-42R	JB46800-43	JB46800-43R	JB46800-44	JB46800-44R	JB46800-45	JB46800-45R
Date Sampled:				9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/10/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
			-		•							•	•	•					
ntimony (mg/kg)	450	31	6	<2.3 NJ-		<2.3 NJ-		<2.4		<2.4		<2.4		<2.3		<2.3		<2.2	
Chromium (mg/kg)	120,000	-	-	17 EJ		58.8 EJ		35.8		41.2		19.7		461		48.6		25.3	
lickel (mg/kg)	23,000	1,600	205**	12		22.2		14.2		16		14.4		14.6		12.3		13.1	
hallium (mg/kg)	79	5	3	<1.1		<1.1		<1.2		<1.2		<1.2		<1.2		<1.1		<1.1	
′anadium (mg/kg)	1,100	390	-	20.3 EJ		45.1 EJ		29.4		27.8		25.8		34.2		20.8		25.9	
			1		1	1	1	1	1	1	1	1	1	1	1	1	I	1	1
Chromium, Hexavalent (mg/kg)	20	-	-	<0.47 NJ-	<0.47NJ-	0.55 NJ-	0.49 NJ-	0.54 NJ-	<0.46 NJ-	<0.47 NJ-	<0.47 NJ-	<0.48 NJ-	<0.48 NJ-	2.5 NJ-	3.5 NJ-	0.65 NJ-	<0.46 NJ-	<0.46 NJ-	<0.46 NJ-
H	-	-	-	8.84		8.84		8.61		8.18		8.65		9.05		8.77		8.44	
edox Potential Vs H2 (mV)		-	-	258		229		244		251		178		169		218		212	
olids, Percent (%)	-	-	-	84.8		88.7		86.1		85.2		82.5		86.5		87.1		86.6	

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default				CD012								CE	013				
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5-5.5	5.5-6 ⁺	5.5-6	5.5-6	5.5-6	6-6.5	6-6.5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7	6.5-7	6.5-7
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.8-3.3	2.3-2.8	2.3-2.8	2.3-2.8	2.3-2.8	1.8-2.3	1.8-2.3	2.8-3.3	2.8-3.3	2.3-2.8	2.3-2.8	1.8-2.3	1.8-2.3	1.3-1.8	1.3-1.8	1.3-1.8	1.3-1.8
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD012 5-5.5	CD012 5.5-6	CD012 5.5-6	DUP 04	DUP 04	CD012 6-6.5	CD012 6-6.5	CD013 5-5.5	CD013 5-5.5	CD013 5.5-6	CD013 5.5-6	CD013 6-6.5	CD013 6-6.5	CD013 6.5-7	CD013 6.5-7	DUP 05	DUP 05
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11,10)	JB46800-17	JB46800-18	JB46800-18R	JB46800-20	JB46800-20R	JB46800-19	JB46800-19R	JB46800-21	JB46800-21R	JB46800-22	JB46800-22R	JB46800-23	JB46800-23R	JB46800-24	JB46800-24R	JB46800-36	JB46800-36R
Date Sampled:				9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013	9/9/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
									•				•		•	•				
ntimony (mg/kg)	450	31	6	<2.3	<2.3		<2.2		<2.4		<2.3 NJ-		<2.0 NJ-		<2.1 NJ-		<2.2 NJ-		<2.2 NJ-	
Chromium (mg/kg)	120,000	-	-	26	16.7		18.4		21.1		23.3		17.9		26.8		25.9		18.4	
lickel (mg/kg)	23,000	1,600	205**	13.7	12.6		14.9		14.4		13.9		13.7		15.3		17.2		14.7	
hallium (mg/kg)	79	5	3	<1.2	<1.2		<1.1		<1.2		<1.2		<0.99		<1.1		<1.1		<1.1	
/anadium (mg/kg)	1,100	390	-	20.8 NJ+	21.6		26.3 NJ+		23.6 NJ+		21.2		19.1		23.4		27.4		27.8	
			I	•	1	•	•	•	•		•	•	•	1	•		•	•	•	
Chromium, Hexavalent (mg/kg)	20	-	-	<0.47 NJ-	0.61 NJ-	<0.46 NJ-	0.59 NJ-	<0.46 NJ-	0.46 NJ-	<0.46 NJ-	<0.47 NJ-	0.61 NJ-	<0.51 NJ-	<0.51 NJ-	<0.45 NJ-	0.47 NJ-	<0.44 NJ-	<0.44 NJ-	<0.44 NJ-	<0.44 NJ-
Н	-	-	-	8.32	8.3		8.06		8.49		7.53		7.23		7.29		7.86		8.43	
Redox Potential Vs H2 (mV)	-	-	-	154	147		251		204		201		189		173		166		297	
Solids, Percent (%)	-	-	-	84.5	87.8		87.7		86.7		84.4		79.2		88.8		90.3		91.4	

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Sample Location:	NJ	NJ	NJ Default				CD	014						CD	015		
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	8-8.5	8-8.5	8.5-9 ⁺	8.5-9	9-9.5	9-9.5	9.5-10	9.5-10	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	-0.1 - 0.4	-0.1 - 0.4	-0.6 - (-0.1)	-0.6 - (-0.1)	-1.1 - (- 0.6)	-1.1 - (- 0.6)	-1.6 - (- 1.1)	-1.6 - (- 1.1)	2.2-2.7	2.2-2.7	1.7-2.2	1.7-2.2	1.2-1.7	1.2-1.7
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD014 8-8.5	CD014 8-8.5	CD014 8.5-9	CD014 8.5-9	CD014 9-9.5	CD014 9-9.5	CD014 9.5-10	CD014 9.5-10	CD015 5.5-6	CD015 5.5-6	CD015 6-6.5	CD015 6-6.5	CD015 6.5-7	CD015 6.5-7
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11110)	JB44447-33	JB44447-33R	JB44447-34	JB44447-34R	JB44447-35	JB44447-35R	JB44447-36	JB44447-36R	JB44447-30	JB44447-30R	JB44447-31	JB44447-31R	JB44447-32	JB44447-32R
Date Sampled:				8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		•			•	•	•	•					•	•	•		-
Antimony (mg/kg)	450	31	6	<2.0 NJ-		<2.5		<2.0 NJ-		<2.0 NJ-		<2.3 NJ-		<2.3 NJ-		<2.4 NJ-	
Chromium (mg/kg)	120,000	-	-	483		36.3		15		29.7		28.4		162		35.9	
Nickel (mg/kg)	23,000	1,600	205**	19.5		15.3		14.5		16.3		11.6		16.2		13.7	
Thallium (mg/kg)	79	5	3	<1.0		<1.2		<1.0		<0.99		<1.2		<1.1		<1.2	
Vanadium (mg/kg)	1,100	390	-	41.1		20.8		17		25.4		18.3		24.1		26	
						-	-					-			-	-	-
Chromium, Hexavalent (mg/kg)	20	-	-	3.6 NJ-	10.2 NJ-	<0.48 NJ-	<0.48 NJ-	<0.50 NJ-	<0.50 NJ-	<0.94 NJ-	<0.94 NJ-	<0.47 NJ-	<0.47 NJ-	<0.47 NJ-	0.96 NJ-	<0.48 NJ-	<0.48 NJ-
pH	-	-	-	8.7		7.76		8.02		7.69		7.91		8.11		8.03	
Redox Potential Vs H2 (mV)	-	-	-	159		180		183		171		155		160		168	
Solids, Percent (%)	-	-	-	78.1		83.2		79.8		42.5		85		85.8		84.1	

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J+ - The result is estimated and may be biased high.

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R - The reported result is rejected.

Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
- ft bgs = feet below ground surface
- mg/kg = milligram per kilogram

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default			CD	016				CD	017	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5-5.5	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7	6-6.5	6.5-7	7-7.5	7.5-8
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.5-3	2-2.5	1.5-2	1.5-2	1-1.5	1-1.5	1.2-1.7	0.7-1.2	0.2-0.7	-0.3 - 0.2
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD016 5-5.5	CD016 5.5-6	CD016 6-6.5	CD016 6-6.5	CD016 6.5-7	CD016 6.5-7	CD017 6-6.5	CD017 6.5-7	CD017 7-7.5	CD017 7.5-8
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB44447-17	JB44447-18	JB44447-19	JB44447-19R	JB44447-20	JB44447-20R	JB44447-1	JB44447-2	JB44447-3	JB44447-4
Date Sampled:				8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013
Matrix:				Soil									
		•	•		•		•			•		•	•
Antimony (mg/kg)	450	31	6	<2.4 NJ-	<2.4 NJ-	<2.0 NJ-		<2.0 NJ-		<2.3 NJ-	<2.2 NJ-	<2.4 NJ-	<2.5 NJ-
Chromium (mg/kg)	120,000	-	-	25.6 *ENJ-	12.7 *ENJ-	19.8 *ENJ-		14 *ENJ-		168 *ENJ-	42 *ENJ-	25.4	18.1
Nickel (mg/kg)	23,000	1,600	205**	14.6	12.4	15.3		15.3		19.2	14.1	16.6	15.8
Thallium (mg/kg)	79	5	3	<1.2	<1.2	<1.0		<1.0		<1.1	<1.1	<1.2	<1.2
Vanadium (mg/kg)	1,100	390	-	23.5 NJ-	18.7 NJ-	22 NJ-		18.1 NJ-		44.5 NJ-	25.2 NJ-	20.2	19.9
	1	1	1	1	1	1	1	1	1	1	1	1	
Chromium, Hexavalent (mg/kg)	20	-	-	<0.47 NJ-	<0.48 NJ-	<0.51 NJ-	<0.51 NJ-	<0.50 NJ-	<0.50 NJ-	2.6 NJ-	1.1 NJ-	0.58 NJ-	0.49 NJ-
pН	-	-	-	8.67	8.56	8.34		8.36		8.33	8.38	7.88	7.58
Redox Potential Vs H2 (mV)	-	-	-	193	180	182		258		296	217	241	264
Solids, Percent (%)	-	-	-	84.6	82.7	78.4		79.7		89.7	89.4	84.1	83.1

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Notes:

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default					CD	018								CI	D019			
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	4.5-5	4.5-5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5	6-6.5	6-6.5	4-4.5	4-4.5	4.5-5 ⁺	4.5-5 ⁺	5-5.5	5-5.5	5.5-6	5.5-6
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.7-3.2	2.7-3.2	2.2-2.7	2.2-2.7	1.7-2.2	1.7-2.2	1.2-1.7	1.2-1.7	1.2-1.7	1.2-1.7	3.3-3.8	3.3-3.8	2.8-3.3	2.8-3.3	2.3-2.8	2.3-2.8	1.8-2.3	1.8-2.3
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	CD018 4.5-5	CD018 4.5-5	CD018 5-5.5	CD018 5-5.5	CD018 5.5-6	CD018 5.5-6	CD018 6-6.5	CD018 6-6.5	DUP 13	DUP 13	CD019 4-4.5	CD019 4-4.5	CD019 4.5-5	CD019 4.5-5	CD019 5-5.5	CD019 5-5.5	CD019 5.5-6	CD019 5.5-6
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11/10)	JB47185-2	JB47185-2R	JB47185-3	JB47185-3R	JB47185-4	JB47185-4R	JB47185-5	JB47185-5R	JB47185-6	JB47185-6R	JB47183-1	JB47183-1R	JB47183-2	JB47183-2R	JB47183-3	JB47183-3R	JB47183-4	JB47183-4R
Date Sampled:				9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		-				•			•		•	•			•						
Antimony (mg/kg)	450	31	6	<2.1 NJ-		<2.4		<2.4		<2.5		<2.4		<2.3 NJ-		<2.4 NJ-		3.4 NJ-		<2.3 NJ-	
Chromium (mg/kg)	120,000	-	-	69.0 ^a *J		18.8		34.4		19.2		22.7		216		70.3		160		25.9	
lickel (mg/kg)	23,000	1,600	205**	12.7 ^a		11.2		16.8		16.9		17		11.3		16.6		22.9		17.1	
Fhallium (mg/kg)	79	5	3	<2.1 ^a		<1.2		<1.2		<1.3		<1.2		<1.1		<1.2		<0.99		<1.2	
/anadium (mg/kg)	1,100	390	-	28		21.4		28.3		24.5		23.9		24.1		15.6		29.3		36.7	
									•		•	•		•							•
Chromium, Hexavalent (mg/kg)	20	-	-	<0.44 NJ-	0.49 NJ-	<0.47 NJ-	0.89 NJ-	0.56 NJ-	<0.48 NJ-	<0.50 NJ-	<0.50 NJ-	<0.49 NJ-	<0.49 NJ-	<0.45 NJ-	<0.45 NJ-	<0.48 NJ-	0.51 NJ-	<0.55 NJ-	<0.55 NJ-	<0.47 NJ-	<0.47 NJ-
ЪН	-	-	-	7.92		7.97		7.66		8		7.79		8.01		7.99		7.7		7.73	
Redox Potential Vs H2 (mV)	-	-	-	275		276		273		290		271		284		289		292		256	
Solids, Percent (%)	-	-	-	90.2		85.3		83.6		79.3		81.8		89.6		84.2		72.1		84.3	

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Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

Sample Location:	NJ	NJ	NJ Default		DD	0001			DD	002		DD004		DD	005	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	7-7.5	7.5-8	8-8.5	8.5-9	6-6.5	6.5-7	7-7.5	7.5-8	6.5-7	5-5.5	5-5.5	5.5-6	5.5-6
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	0.9-1.4	0.4-0.9	-0.1 - (0.4)	-0.6 - (-0.1)	1.5-2	1-1.5	0.5-1	0-0.5	0.9-1.4	2.5-3	2.5-3	2-2.5	2-2.5
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	DD001 7-7.5	DD001 7.5-8	DD001 8-8.5	DD001 8.5-9	DD002 6-6.5	DD002 6.5-7	DD002 7-7.5	DD002 7.5-8	DD004 6.5-7	DD005 5-5.5	DD005 5-5.5	DD005 5.5-6	DD005 5.5-6
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB43880-8A	JB43880-9A	JB43880-10A	JB43880-11A	JB44205-29	JB44205-30	JB44205-31	JB44205-32	JB43880-23A	JB47183-12	JB47183-12R	JB47185-1	JB47185-1R
Date Sampled:				7/31/2013	7/31/2013	7/31/2013	7/31/2013	8/5/2013	8/5/2013	8/5/2013	8/5/2013	8/1/2013	9/12/2013	9/12/2013	9/12/2013	9/12/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
							•	•						•	•	•
Antimony (mg/kg)	450	31	6	<2.3 NJ-	<2.4 NJ-	<2.4 NJ-	<2.6 NJ-	<2.2 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.5 NJ-	<2.4 NJ-		<2.3 NJ-	
Chromium (mg/kg)	120,000	-	-	20.1	16.9	15.1	17	24.1 NJ+	25.8 NJ+	19.5 NJ+	16.7 NJ+	19.2	15.9		58.1 *J	
Nickel (mg/kg)	23,000	1,600	205**	14.3	13.1	12.2	13.3	14.4	12.2	13.4	14.5	15	13.8		15	
Thallium (mg/kg)	79	5	3	<1.2	<1.2	<1.2	<1.3	<1.1	<1.1	<1.2	<1.1	<1.3	<1.2		<1.2	
Vanadium (mg/kg)	1,100	390	-	28.2	22	19.6	21.2	27.7	24.7	23.1	22.6	23.8	20.9		23.8	
		1	1	1		•		•		1	1				1	
Chromium, Hexavalent (mg/kg)	20	-	-	<0.47 NJ-	0.49 NJ-	0.49 NJ-	0.69 NJ-	<0.46 NJ-	<0.46 NJ-	<0.46 NJ-	<0.46 NJ-	<0.50 NJ-	<0.48 NJ-	<0.48 NJ-	<0.49 NJ-	<0.49 NJ-
рН	-	-	-	7.81	7.72	6.98	7.26	8.46	8.72	8.56	8.44	7.54	8.8		8.6	
Redox Potential Vs H2 (mV)	-	-	-	216	226	309	317	214	206	229	235	237	173		269	
Solids, Percent (%)	-	-	-	85.4	84.2	83.4	80.7	86.4	86.5	86.9	87.6	80.6	82.6		81.4	

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default				DD	006						DD	0007		
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	4.5-5	4.5-5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	3.2-3.7	3.2-3.7	2.7-3.2	2.7-3.2	2.2-2.7	2.2-2.7	1.7-2.2	1.7-2.2	2.8-3.3	2.8-3.3	2.3-2.8	2.3-2.8	1.8-2.3	1.8-2.3
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	DD006 4.5-5	DD006 4.5-5	DD006 5-5.5	DD006 5-5.5	DD006 5.5-6	DD006 5.5-6	DD006 6-6.5	DD006 6-6.5	DD007 5-5.5	DD007 5-5.5	DD007 5.5-6	DD007 5.5-6	DD007 6-6.5	DD007 6-6.5
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11110)	JB44447-65	JB44447-65R	JB44447-66	JB44447-66R	JB44447-67	JB44447-67R	JB44447-68	JB44447-68R	JB44447-38	JB44447-38R	JB44447-39	JB44447-39R	JB44447-40	JB44447-40R
Date Sampled:				8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013
Matrix:				Soil													
		-	-					•			•	•	•	•		•	
Antimony (mg/kg)	450	31	6	<2.0		<2.5		<2.3		<2.3		<2.3 NJ-		<2.3 NJ-		<2.4 NJ-	
Chromium (mg/kg)	120,000	-	-	71.7		30.7		59.7		33.6		18.8		17.9		24	
Nickel (mg/kg)	23,000	1,600	205**	15.6		14.5		14.2		15.1		10.4		13.6		16	
Thallium (mg/kg)	79	5	3	<1.0		<1.2		<1.1		<1.2		<1.1		<1.1		<1.2	
Vanadium (mg/kg)	1,100	390	-	28		25.5		22.1		24		19.3		23.8		30.6	
	•						•	•				•	•	•		•	
Chromium, Hexavalent (mg/kg)	20	-	-	1.7 NJ-	<0.53 NJ-	<0.48 NJ-	<0.48 NJ-	0.79 NJ-	0.7 NJ-	<0.49 NJ-	<0.49 NJ-	1.2 NJ-	0.57 NJ-	<0.45 NJ-	<0.45 NJ-	<0.46 NJ-	0.46 NJ-
pН	-	-	-	8.47		8.62		8.37		8.1		8.9		8.61		8.34	
Redox Potential Vs H2 (mV)	-	-	-	134		163		184		193		217		220		237	
Solids, Percent (%)	-	-	-	75.8		83.4		84.4		82.1		88.9		88.5		87.5	

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default		DD	008					DD	009				ED	001
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5-5.5	5.5-6	6-6.5	6.5-7	5.5-6	5.5-6	6-6.5	6-6.5	6.5-7	6.5-7	7-7.5	7-7.5	5-5.5	5.5-6
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.4-2.9	1.9-2.4	1.4-1.9	0.9-1.4	1.8-2.3	1.8-2.3	1.3-1.8	1.3-1.8	0.8-1.3	0.8-1.3	0.3-0.8	0.3-0.8	3.3-3.8	2.8-3.3
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	DD008 5-5.5	DD008 5.5-6	DD008 6-6.5	DD008 6.5-7	DD009 5.5-6	DD009 5.5-6	DD009 6-6.5	DD009 6-6.5	DD009 6.5-7	DD009 6.5-7	DD009 7-7.5	DD009 7-7.5	ED001 5-5.5	ED001 5.5-6
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11110)	JB44447-9	JB44447-10	JB44447-11	JB44447-12	JB44447-21	JB44447-21R	JB44447-22	JB44447-22R	JB44447-23	JB44447-23R	JB44447-24	JB44447-24R	JB43880-14A	JB43880-15A
Date Sampled:				8/9/2013	8/9/2013	8/9/2013	8/9/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	8/8/2013	7/31/2013	7/31/2013
Matrix:				Soil													
		-	-					•				•	•	•	•	•	•
Antimony (mg/kg)	450	31	6	<2.5	<2.2 NJ-	<2.4 NJ-	<2.3 NJ-	<2.4 NJ-		<2.0 NJ-		<2.0 NJ-		<2.0 NJ-		<2.6 NJ-	<2.5 NJ-
Chromium (mg/kg)	120,000	-	-	19.9	14.9 *ENJ-	20.2 *ENJ-	15.4 *ENJ-	15.5		14.6		14.7		13.5		21.6	22.1
Nickel (mg/kg)	23,000	1,600	205**	16	13.7	14	14.9	15.1		14.7		14.9		14.7		14.2	15.2
Thallium (mg/kg)	79	5	3	<1.2	<1.1	<1.2	<1.2	<1.2		<1.0		<1.0		<1.0		<1.3	<1.2
Vanadium (mg/kg)	1,100	390	-	20.4	17.9 NJ-	17.8 NJ-	19.7 NJ-	19.4		17.7		18.9		18		23.7	26.1
		1			1	•	I	1		1				1	1	1	
Chromium, Hexavalent (mg/kg)	20	-	-	<0.47 NJ-	<0.45 NJ-	<0.48 NJ-	<0.49 NJ-	<0.48 NJ-	<0.48 NJ-	<0.53 NJ-	<0.53 NJ-	<0.50 NJ-	<0.50 NJ-	<0.51 NJ-	<0.51 NJ-	1.6 NJ-	3.5 NJ-
pН	-	-	-	8.38	7.9	7.81	7.97	7.89		7.4		7.84		7.71		7.07	7.24
Redox Potential Vs H2 (mV)	-	-	-	141	238	221	238	238		222		223		213		276	273
Solids, Percent (%)	-	-	-	85.4	89.1	83.4	81.7	83.3		75.8		79.7		78.9		80.1	83.2

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J- The result is estimated and may be biased low.

R - The reported result is rejected.

Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
- ft bgs = feet below ground surface
- mg/kg = milligram per kilogram

mV = millivolts

standards/criteria.

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

⁺ Hex Chrome Sample did not pass 2nd QA & QC. See Table 2D-2 for secondary analyses.

**Site-specific impact to groundwater criteria developed using SPLP methodology for Nickel; SPLP = Synthetic Precipitation Leaching Procedure.

***Located below water table so IGW SSL does not apply, and compliance averaged to below

Result exceeded criteria

Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default		ED	002			ED003				EC	0004				ED	005	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	4-4.5	4.5-5	6-6.5	6.5-7	4.5-5	7-7.5	7.5-8	4.5-5	4.5-5	7.5-8	7.5-8	8-8.5	8-8.5	4-4.5	4.5-5	6-6.5	6.5-7
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	4-4.5	3.5-4	2-2.5	1.5-2	3.5-4	1-1.5	0.5-1	3-3.5	3-3.5	0-0.5	0-0.5	-0.5 - 0	-0.5 - 0	3.4-3.9	2.9-3.4	1.4-1.9	0.9-1.4
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	ED002 4-4.5	ED002 4.5-5	ED002 6-6.5	ED002 6.5-7	ED003 4.5-5	ED003 7-7.5	ED003 7.5-8	ED004 4.5-5	ED004 4.5-5	ED004 7.5-8	ED004 7.5-8	ED004 8-8.5	ED004 8-8.5	ED005 4-4.5	ED005 4.5-5	ED005 6-6.5	ED005 6.5-7
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(11,10)	JB43880-24A	JB43880-25A	JB43880-26A	JB43880-27A	JB43880-17A	JB43880-18A	JB43880-19A	JB44447-50	JB44447-50R	JB44447-51	JB44447-51R	JB44447-52	JB44447-52R	JB44205-45	JB44205-46	JB44205-47	JB44205-48
Date Sampled:				7/29/2013	7/29/2013	7/30/2013	7/30/2013	8/1/2013	8/1/2013	8/1/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013
Matrix:				Soil																
			•				•	•	•	•	•	•	•	•	•	•				-
ntimony (mg/kg)	450	31	6	<2.3 NJ-	<2.5 NJ-	<2.4 NJ-	<2.4 NJ-	<2.3 NJ-	<2.4 NJ-	<2.4 NJ-	<2.4		<2.3		<2.4		<2.3 NJ-	<2.3 NJ-	<2.3 NJ-	<2.5 NJ-
hromium (mg/kg)	120,000	-	-	32.4	26.9	39.9	17.1	23.8	22.2	28.2	283		54		51		38.7	72.5	470	83.6
ickel (mg/kg)	23,000	1,600	205**	18.7	13.4	17.9	13.9	14.1	14.7	15	17.2		16.4		16		12.6	16.1	13.6	14.7
hallium (mg/kg)	79	5	3	<1.2	<1.3	<1.2	<1.2	<1.1	<1.2	<1.2	<1.2		<1.2		<1.2		<1.2	<1.2	<1.2	<1.2
anadium (mg/kg)	1,100	390	-	30.9	23.2	37.3	25.4	33	24.2	27.5	40.3		31.6		29.1		21.3	32	26.9	27.9
				•		•		•	•			•	•	•	•		•		•	-
hromium, Hexavalent (mg/kg)	20	-	-	<0.47 NJ-	<0.50 NJ-	<0.46 NJ-	<0.47 NJ-	0.61 NJ-	4.3 NJ-	0.63 NJ-	<0.46 NJ-	0.72 NJ-	1.2 NJ-	1.3 NJ-	0.94 NJ-	0.57 NJ-	<0.47 NJ-	<0.45 NJ-	0.86 NJ-	<0.49 NJ-
Н	-	-	-	8.32	7.96	8.41	7.88	8.68	7.64	7.93	10.28		9.06		9.42		10.07	9.84	9.48	8.79
edox Potential Vs H2 (mV)	-	-	-	224	164	171	192	255	222	214	53		95.3		112		84	90.2	142	167
olids, Percent (%)	-	-	-	84.4	80.6	87.6	84.4	89.2	84.1	87.6	87.1		85.3		88.1		86	89.4	87.7	81.1

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J - The reported result is an estimated value.

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Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
- ft bgs = feet below ground surface

mg/kg = milligram per kilogram

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default			ED	0006			ED007	ED008	ED	009		ED	010	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	4.5-5 ⁺	4.5-5 ⁺	5.5-6	5.5-6	6-6.5	6-6.5	5.5-6	6-6.5	5.5-6	5.5-6	7.5-8	7.5-8	8-8.5	8-8.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	3-3.5	3-3.5	2-2.5	2-2.5	1.5-2	1.5-2	2-2.5	1.5-2	2.1-2.6	2.1-2.6	0.5-1	0.5-1	0-0.5	0-0.5
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	ED006 4.5-5	ED006 4.5-5	ED006 5.5-6	ED006 5.5-6	ED006 6-6.5	ED006 6-6.5	ED007 5.5-6	ED008 6-6.5	ED009 5.5-6	ED009 5.5-6	ED010 7.5-8	ED010 7.5-8	ED010 8-8.5	ED010 8-8.5
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)	(1	JB44447-62	JB44447-62R	JB44447-63	JB44447-63R	JB44447-64	JB44447-64R	JB44205-40	JB44205-24	JB44447-56	JB44447-56R	JB44447-71	JB44447-71R	JB44447-72	JB44447-72R
Date Sampled:				8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/7/2013	8/7/2013	8/7/2013	8/7/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		-						•	•	•	•			•			
Antimony (mg/kg)	450	31	6	<2.2		<2.3		<2.4		<2.0 NJ-	<2.0 NJ-	<2.4		<2.4		<2.5	
Chromium (mg/kg)	120,000	-	-	152		29		13		29.5 NJ+	18 NJ+	20.2		77.6		23.5	
Nickel (mg/kg)	23,000	1,600	205**	13.8		16.5		12.2		16.3	13.1	16		13.5		12.2	
Thallium (mg/kg)	79	5	3	<1.1		<1.2		<1.2		<0.99	<1.0	<1.2		<1.2		<1.2	
Vanadium (mg/kg)	1,100	390	-	24.5		22.4		17.7		20.6	17.9	21.6		24.6		21.6	
	1	I	1	1	1		1	1	1	1	1	1	I		1	1	1
Chromium, Hexavalent (mg/kg)	20	-	-	4.6 NJ-	11.5 NJ-	<0.49 NJ-	<0.49 NJ-	<0.48 NJ-	<0.48 NJ-	<0.51 NJ-	1 NJ-	<0.49 NJ-	<0.49 NJ-	1.3 NJ-	13 NJ-	0.52 NJ-	<0.50 NJ-
рН	-	-	-	9.57		8.76		8.59		7.76	8.8	8.48		8.63		8.49	
Redox Potential Vs H2 (mV)	-	-	-	131		149		161		292	329	156		165		157	
Solids, Percent (%)	-	-	-	88.5		82.3		83		77.9	77.3	81.4		82.9		80.2	

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Notes:

CCPW = Chromate Chemical Production Waste

- ft msl = feet mean sea level
- ft bgs = feet below ground surface

mg/kg = milligram per kilogram

mV = millivolts

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

⁺ Hex Chrome Sample did not pass 2nd QA & QC. See Table 2D-2 for secondary analyses.

**Site-specific impact to groundwater criteria developed using SPLP methodology for Nickel; SPLP = Synthetic Precipitation Leaching Procedure.

***Located below water table so IGW SSL does not apply, and compliance averaged to below

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Sample Location:	NJ	NJ	NJ Default		ED	013			FD001				FD	002			FD	0004
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5.5-6	6-6.5	6.5-7	7-7.5	6-6.5	6.5-7	7-7.5	4.5-5	4.5-5	5-5.5	5-5.5	5.5-6	5.5-6	6-6.5	6-6.5
Elevations (ft msl)	Direct Contact	Direct Contact	Groundwater	2.4-2.9	1.9-2.4	1.4-1.9	0.9-1.4	2.1-2.6	1.6-2.1	1.1-1.6	3.6-4.1	3.6-4.1	3.1-3.6	3.1-3.6	2.6-3.1	2.6-3.1	1.6-2.1	1.6-2.1
Client Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	ED013 5.5-6	ED013 6-6.5	ED013 6.5-7	ED013 7-7.5	FD001 6-6.5	FD001 6.5-7	FD001 7-7.5	FD002 4.5-5	FD002 4.5-5	FD002 5-5.5	FD002 5-5.5	FD002 5.5-6	FD002 5.5-6	FD004 6-6.5	FD004 6-6.5
Lab Sample ID:	7:26D 5/12)	7:26D 5/12)		JB44447-5	JB44447-6	JB44447-7	JB44447-8	JB44205-42	JB44205-43	JB44205-44	JB44447-58	JB44447-58R	JB44447-59	JB44447-59R	JB44447-60	JB44447-60R	JB44447-28	JB44447-28R
Date Sampled:				8/9/2013	8/9/2013	8/9/2013	8/9/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/6/2013	8/8/2013	8/8/2013
Matrix:				Soil														
						-		-			-	-		-				-
ntimony (mg/kg)	450	31	6	<2.0	<2.4	<2.3	<2.4	<2.4 NJ-	<2.4 NJ-	<2.4 NJ-	<2.2		<2.4		<2.5		<2.0 NJ-	
hromium (mg/kg)	120,000	-	-	647	15.3	70.9	60.6	18.6	14.9	16.1	214		70.5		17.7		12.6	
ickel (mg/kg)	23,000	1,600	205**	18.8	14.7	15.5	15.7	15.6	13.1	13.4	21.4		13.4		11.4		12.7	
hallium (mg/kg)	79	5	3	<1.0	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.1		<1.2		<1.2		<0.99	
anadium (mg/kg)	1,100	390	-	35	17.8	22.2	22.2	23	19.7	20.8	47.8		21.9		16.6		16.9	
				•	•	•	•	•	•	•	•	•		•	1	1	•	1
hromium, Hexavalent (mg/kg)	20	-	-	0.53 NJ-	<0.49 NJ-	<0.48 NJ-	<0.49 NJ-	<0.46 NJ-	<0.49 NJ-	<0.47 NJ-	7.4	7.7	9.6	0.97	<0.47	<0.47	<0.52	<0.52
1	-	-	-	8.35	7.62	7.8	7.99	8.02	7.56	7.6	9.18		9.22		7.35		7.27	
edox Potential Vs H2 (mV)	-	-	-	127	123	131	147	284	282	281	176		177		179		200	
olids, Percent (%)	-	-	-	75	81.1	83.5	82.1	86.2	81.8	85.8	88.1		84.3		84.9		77.2	

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Notes:

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Table 2D Historical Soil Samples - Pre-Post-Excavation – Design Borings (2013) Laboratory Analytical Summary Data for Remaining Soil PPG Site 63 1 Burma Road Jersey City, New Jersey 2013- Sampled by CB&I

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Historical Soil Samples Remedial Investigation (2012-2013) Laboratory Analytical Data for Remaining Soil Remedial Investigation Report PPG Site 63 1 Burma Road Jersey City, New Jersey

Sample Location:	NJ	NJ	NJ Default		063_	C013				063_C013A		
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5-5.5	10-10.5	15-15.5	20-20.5	0-0.5	0.5-1	1.5-2	2.5-3	3.5-4
Sample Elevation (ft msl):	Direct Contact	Direct Contact	Groundwater	2-2.5	-2 - (-2.5)	-7 - (-7.5)	-12 - (-12.5)	10.5-11	10-10.5	9-9.5	8-8.5	7-7.5
Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	460-48605-17	460-48605-18	460-48605-19	460-48605-27	460-52992-6	460-52992-7	460-52992-8	460-52992-9	460-52992-10
Date:	7:26D 5/12)	7:26D 5/12)		12/17/2012	12/17/2012	12/17/2012	12/17/2012	03/25/2013	03/25/2013	03/25/2013	03/25/2013	03/25/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Antimony (mg/kg)	450	31	6	0.42 U	0.41 U	1.2 U	0.41 U	10.0*	18.8*	9.8*	11.1*	12.4*
Chromium (mg/kg)	120,000	N/A	N/A	86.7	16.5	14.9	14.3	295	60.5	192	127	94.5
Nickel (mg/kg)	23,000	1,600	205**	12.2	13.4	12.4	11	84.9	51.7	69.3	53.7	54.2
Thallium (mg/kg)	79	5	3	0.2 U	0.19 U	0.58 U	0.19 U	0.22 U	0.21 U	0.23 U	0.20 U	0.21 U
Vanadium (mg/kg)	1,100	390	N/A	20.6	20.6	20.1	22	41.4	37.5	49.6	34.7	30.6
Hexavalent Chromium (mg/kg)	20	N/A	N/A	0.85 U	0.85 U	2.4 U	0.83 U	0.63 U	0.59 U	0.66 U	0.56 U	0.58 U

U = NON DETECT

J = ESTIMATED

IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL

FT MSL = FEET MEAN SEA LEVEL FT BGS = FEET BELOW GROUND SURFACE

MG/KG= MILLIGRAM PER KILOGRAM

N/A= NOT AVAILABLE

* METAL EXCEEDANCE AT THIS LOCATION ARE NOT INDICATIVE OF CCPW RELATED CONTAMINATION ** SITE SPECIFIC - IGW SSL

FOR 063_F010, 063_Z002, 063_Z005, MW-9 AND MW-12 DEPTHS/ELEVATIONS PRESENTED IN THIS TABLE REPRESENT THE TOP OF THE SAMPLE INTERVAL OF 0.5-FT.

Historical Soil Samples Remedial Investigation (2012-2013) Laboratory Analytical Data for Remaining Soil Remedial Investigation Report PPG Site 63

1 Burma Road

Jersey City, New Jersey

Sample Location:	NJ	NJ	NJ Default		_	063_C014A					063_F010		
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	0-0.5	0.5-1	1.5-2	2.5-3	3.5-4	0	5	10	15	20
Sample Elevation (ft msl):	Direct Contact	Direct Contact	Groundwater	7.2-7.7	6.7-7.2	5.7-6.2	4.7-5.2	3.7-4.2	10.7	5.7	0.7	-4.3	-9.3
Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	460-52992-1	460-52992-2	460-52992-3	460-52992-4	460-52992-5	063_F010_0.0	063_F010_5.0	F010_10.0	063_F010_15.0	063_F010_20.0
Date:	7:26D 5/12)	7:26D 5/12)		03/25/2013	03/25/2013	03/25/2013	03/25/2013	03/25/2013	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/17/2012
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Antimony (mg/kg)	450	31	6	1.8	1.7	0.41 U	0.83	0.76	3.3	0.46 U	0.42 U	0.4 U	0.41 U
Chromium (mg/kg)	120,000	N/A	N/A	290	304	18.6	163	220	154	15.1	24.7	14.1	16.8
Nickel (mg/kg)	23,000	1,600	205**	71.5	91.3	11.1	35.6	41.6	65.2	12.5	14.4	9.2	10
Thallium (mg/kg)	79	5	3	0.22 U	0.23 U	0.19 U	0.20 U	0.20 U	0.2 U	0.22 U	0.2 U	0.19 U	0.2 U
Vanadium (mg/kg)	1,100	390	N/A	50.2	46.3	11.8	31.3	37.8	44	21.6	28.7	21	27.7
Hexavalent Chromium (mg/kg)	20	N/A	N/A	0.64 U	0.65 U	0.57 U	0.60 U	0.60 U	1.6 J	1.1 J	0.86 U	0.83 U	0.85 U

U = NON DETECT

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IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL

FT MSL = FEET MEAN SEA LEVEL FT BGS = FEET BELOW GROUND SURFACE

MG/KG= MILLIGRAM PER KILOGRAM

N/A= NOT AVAILABLE

* METAL EXCEEDANCE AT THIS LOCATION ARE NOT INDICATIVE OF CCPW RELATED CONTAMINATION ** SITE SPECIFIC - IGW SSL

FOR 063_F010, 063_Z002, 063_Z005, MW-9 AND MW-12 DEPTHS/ELEVATIONS PRESENTED IN THIS TABLE REPRESENT THE TOP OF THE SAMPLE INTERVAL OF 0.5-FT.

Historical Soil Samples Remedial Investigation (2012-2013) Laboratory Analytical Data for Remaining Soil Remedial Investigation Report PPG Site 63 1 Burma Road

Jersey City, New Jersey

Sample Location:	NJ	NJ	NJ Default			063_F010a					063_Z002		
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	0-0.5	0.5-1	1.5-2	2.5-3	3.5-4	8.5	12	12	12	16.5
Sample Elevation (ft msl):	Direct Contact	Direct Contact	Groundwater	10.2-10.7	9.7-10.2	8.7-9.2	7.7-8.2	6.7-7.2	-0.1	-3.6	-3.6	-3.6	-8.1
Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	460-53059-1	460-53059-2	460-53059-3	460-53059-4	460-53059-5	063_Z002_8.5	063_Z002_12.0	063_Z002_12.0	063_Z002_12.0-D	063_Z002_16.5
Date:	7:26D 5/12)	7:26D 5/12)		03/25/2013	03/25/2013	03/25/2013	03/25/2013	03/25/2013	12/19/2012	12/19/2012	12/19/2012	12/19/2012	12/19/2012
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Antimony (mg/kg)	450	31	6	0.54	0.41	0.41	0.88	3.0	0.4 UJ	0.38 UJ	0.38 U	0.38 UJ	0.42 U
Chromium (mg/kg)	120,000	N/A	N/A	34.1	29.0	29.3	163	41.2	15.2	14.5	15.45	16.4	15.5
Nickel (mg/kg)	23,000	1,600	205**	18.5	13.6	22.2	46.6	30.7	13.8	9.5	9.45	9.4	11.1 J
Thallium (mg/kg)	79	5	3	0.27	0.21	0.23	0.23	0.52	0.19 U	0.18 U	0.18 U	0.18 U	0.2 U
Vanadium (mg/kg)	1,100	390	N/A	44.0	32.4	38.4	45.2	49.4	22	18.7	17.9	17.1	23 J
Hexavalent Chromium (mg/kg)	20	N/A	N/A	0.69 U	0.58 U	0.56 U	0.67 U	0.63 U	0.87 U	0.85 U	0.83 U	0.81 U	0.83 U

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IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL

FT MSL = FEET MEAN SEA LEVEL FT BGS = FEET BELOW GROUND SURFACE

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* METAL EXCEEDANCE AT THIS LOCATION ARE NOT INDICATIVE OF CCPW RELATED CONTAMINATION ** SITE SPECIFIC - IGW SSL

FOR 063_F010, 063_Z002, 063_Z005, MW-9 AND MW-12 DEPTHS/ELEVATIONS PRESENTED IN THIS TABLE REPRESENT THE TOP OF THE SAMPLE INTERVAL OF 0.5-FT.

Historical Soil Samples Remedial Investigation (2012-2013) Laboratory Analytical Data for Remaining Soil Remedial Investigation Report PPG Site 63 1 Burma Road

Jersey City, New Jersey

Sample Location:	NJ	NJ	NJ Default		063	_Z005		MV	V-9		MW-12	
Sample Depth (ft bgs):	Non-Residential	Residential	Impact to	5	10	15	20	3.5-4	6.5-7	0.5-1	3.5-4	7.5-8
Sample Elevation (ft msl):	Direct Contact	Direct Contact	Groundwater	2.5	-2.5	-7.5	-12.5	6.4-6.9	3.4-3.9	8.8-9.3	5.8-6.3	1.8-2.3
Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening (11/13)	063_Z005_5.0	063_Z005_10.0	063_Z005_15.0	063_Z005_20.0	460-52992-13	460-53059-11	460-52992-15	460-52992-16	460-53059-13
Date:	7:26D 5/12)	7:26D 5/12)		12/21/2012	12/21/2012	12/21/2012	12/21/2012	03/25/2013	03/26/2013	03/25/2013	03/25/2013	03/26/2013
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Antimony (mg/kg)	450	31	6	1.9 J	0.66 UJ	0.4 UJ	0.44 UJ	0.47 U	0.43 U	0.46 U	0.52 U	0.44 U
Chromium (mg/kg)	120,000	N/A	N/A	860	245	21.8	11.6	678	24.4	941	44.6	54.1
Nickel (mg/kg)	23,000	1,600	205**	9.9	26.2	10	9.5	13.7	16.5	27.2	14.5	24.7
Thallium (mg/kg)	79	5	3	0.2 U	0.31 U	0.19 U	0.21 U	0.22 U	0.22 J	0.22 U	0.25 U	0.30
Vanadium (mg/kg)	1,100	390	N/A	20.6 J	25.8 J	19.7 J	16.2 J	30.5	38.5	44.6	22.3	62.3
Hexavalent Chromium (mg/kg)	20	N/A	N/A	0.95 U	1.4 U	0.81 U	0.85 U	0.61 U	0.58 U	0.64 U	0.71 U	0.60 U

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* METAL EXCEEDANCE AT THIS LOCATION ARE NOT INDICATIVE OF CCPW RELATED CONTAMINATION ** SITE SPECIFIC - IGW SSL

FOR 063_F010, 063_Z002, 063_Z005, MW-9 AND MW-12 DEPTHS/ELEVATIONS PRESENTED IN THIS TABLE REPRESENT THE TOP OF THE SAMPLE INTERVAL OF 0.5-FT.

SAMPLE LOCATION	NJ	NJ	NJ Default			063 B003a			063	B004		063 B004a	
SAMPLE ID	Non-Residential	Residential	Impact to	063_B003a_5.0	063_B003a_5.0-D	063_B003a_6.9	063_B003a_11.0	063_B003a_15.0		063_B004_15.0	063_B004a_8.1	—	063_B004a_16.0
LABORATORY ID				460-29144-15	460-29144-16	460-29144-17	460-29144-18	460-29144-19	460-29057-3	460-29057-4	460-29144-6	460-29144-7	460-29144-8
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	5	6.9	11	15	10	15	8.1	12	16
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	3.4	3.4	1.5	-2.6	-6.6	-1.4	-6.4	0.4	-3.5	-7.5
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/22/2011	7/22/2011	7/22/2011	7/22/2011	7/22/2011	7/21/2011	7/21/2011	7/22/2011	7/22/2011	7/22/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)													
ANTIMONY	450	31	6	0.96 UJ	0.92 UJ	0.98 UJ	1.2 UJ	0.96 UJ	2.2 UJ	0.95 UJ	0.99 UJ	1.1 UJ	0.93 UJ
CHROMIUM	120,000	N/A	N/A	36.7	32.1	14.9	17.7	26.3	207	15.1	12.9	16.3	14.9
NICKEL	23,000	1,600	205**	17.1	16.3	12.6	4.3 J	13.5	20 J	11.5	10.4	5.5 J	12.3
THALLIUM	79	5	3	1.1 U	1 U	1.1 U	1.3 U	1.1 U	2.5 U	1 U	1.1 U	1.2 U	1 U
VANADIUM	1,100	390	N/A	37.8	31.6	23.6	42.4	24.9	30.7	22.6	17.7	46.3	19.3
Miscellaneous Parameters (mg/kg)	-	-					-			-			
HEXAVALENT CHROMIUM	20	N/A	N/A	0.57 U	0.55 U	0.58 U	0.72 U	0.54 U	1.3 U	0.54 U	7.1	0.6 U	0.56 U
Miscellaneous Parameters (mv)	-	-											
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	405	412	410	427	478	346	375	392	334	372
Miscellaneous Parameters (s.u.)	·	-	·					<u>-</u>		-			
PH	N/A	N/A	N/A	8.14	8.02	7.85	7.31	7.96	7.55	8.01	8.43	7.58	8.1

U = NON DETECT J = ESTIMATED ft msl = FEET MEAN SEA LEVEL ft bgs = FEET BELOW GROUND SURFACE mg/kg = MILLIGRAMS PER KILOGRAM mv = millivolts s.u. = standard units N/A = Not Applicable ** SITE SPECIFIC IGW SSL = DEFAULT IMPACT TO ODOLUDINATED COLL CORFERENCE I FUEL

TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY

EXCEEDS MINIMUM STANDARD/SCREENING CRITERIA

NON-DETECTION EXCEEDS MINIMUM STANDARD/SCREENING CRITERIA

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SAMPLE LOCATION	NJ	NJ	NJ Default		063 B005		063	B006		063	B007	
SAMPLE ID	Non-Residential	Residential	Impact to	063_B005_11.4	063_B005_15.5	063_B005_20.0	063_B006_10.0	063_B006_12.2	063_B007_7.1	063_B007_11.1	063_B007_15.0	063_B007_15.0-D
LABORATORY ID				460-28939-9	460-28939-10	460-28939-11	460-28862-5	460-28862-6	460-28939-3	460-28939-4	460-28939-5	460-28939-6
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	11.4	15.5	20	10	12.2	7.1	11.1	15	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	-3.8	-7.9	-12.4	-2.9	-5.1	0.4	-3.6	-7.5	-7.5
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/19/2011	7/19/2011	7/19/2011	7/15/2011	7/15/2011	7/19/2011	7/19/2011	7/19/2011	7/19/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	0.93 UJ	0.97 UJ	0.94 UJ	2.6 UJ	1.1 UJ	0.9 UJ	3.3 UJ	0.95 UJ	0.97 UJ
CHROMIUM	120,000	N/A	N/A	29.3	14.4	33.1	932 J	13.1 J	11.8	14.2	14	16.7
NICKEL	23,000	1,600	205**	13.2	6.2 J	12.5	20.6 J	8.4 J	11.4	13.3 J	6.2 J	6.6 J
THALLIUM	79	5	3	1 U	1.1 U	1 U	2.8 U	1.3 U	0.99 U	3.6 U	1 U	1.1 U
VANADIUM	1,100	390	N/A	25	15.5	23.1	20.6 J	22.6	15.6	18 J	15.3	17.1
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.54 UJ	0.55 UJ	0.54 UJ	1.5 UJ	0.64 UJ	0.55 UJ	1.9 UJ	0.57 UJ	0.57 UJ
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	338	450	448	384	513	445	391	388	394
Miscellaneous Parameters (s.u.)												
PH	N/A	N/A	N/A	9.03	8.36	8.57	8.09	8.01	8.78	7.61	8.79	8.64

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063	B008		063	B009		063 B010	
SAMPLE ID	Non-Residential	Residential	Impact to	063_B008_6.5	063_B008_10.0	063_B008_12.8	063_B008_16.5	 063_B009_9.3	063_B009_13.0	063_B010_7.3	063_B010_11.0	063_B010_15.0
LABORATORY ID				460-29032-13	460-29032-14	460-29032-15	460-29032-16	460-28645-9	460-28645-10	460-29336-5	460-29336-6	460-29336-7
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	6.5	10	12.8	16.5	9.3	13	7.3	11	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	1.7	-1.8	-4.6	-8.3	-1	-4.7	1.1	-2.6	-6.6
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/11/2011	7/11/2011	7/28/2011	7/28/2011	7/28/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	0.95 UJ	0.96 UJ	0.97 UJ	0.95 UJ	0.67 UJ	0.65 UJ	0.91 UJ	2.9 UJ	0.9 UJ
CHROMIUM	120,000	N/A	N/A	15.9	27.2	21	34.7	22.3	27.8	13.5	13	41.8
NICKEL	23,000	1,600	205**	13.3	20.2	14.2	19.9	16.9	15.9	11.1	13.7 J	12.1
THALLIUM	79	5	3	1 U	1.1 U	1.1 U	1 U	0.37 U	0.36 U	1 U	3.2 U	0.99 U
VANADIUM	1,100	390	N/A	20.8	27.1	24.1	48.2	33 J	43.1 J	28.2	19.8 J	44.2
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.55 U	0.54 U	0.56 U	0.52 U	0.6 UJ	0.57 UJ	0.54 U	1.6 U	0.55 U
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	347	369	395	399	433	472	346	382	379
Miscellaneous Parameters (s.u.)												
PH	N/A	N/A	N/A	9.27	8.69	7.99	8.22	8.82	8.27	9.4	7.54	8.35

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

CRITERIA NON-DETECTION EXCEEDS MINIMUM

SAMPLE LOCATION	NJ	NJ	NJ Default			063 B010a				063	B011	
SAMPLE ID	Non-Residential	Residential	Impact to	063_B010a_5.0	063_B010a_7.5		063_B010a_15.0	063_B010a_15.0-D	063_B011_5.0		063_B011_15.0	063_B011_18.0
LABORATORY ID				460-29302-15	460-29302-16	460-29302-17	460-29302-18	460-29302-19	460-29355-14	460-29355-15	460-29355-16	460-29355-17
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	7.5	11.5	15	15	5	10	15	18
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	3.3	0.8	-3.2	-6.7	-6.7	2.7	-2.3	-7.3	-10.3
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	0.97 UJ	1 UJ	1.1 UJ	0.88 UJ	0.9 UJ	1 UJ	1.4 UJ	0.97 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	28.9 J	12.5 J	21.5	38.9	33.9	74.1 J	32.1 J	21.6 J	25.1 J
NICKEL	23,000	1,600	205**	10.2	11.9	12.8	16.7	17.3	14.1	24.4	13.2	13.7
THALLIUM	79	5	3	1.1 U	1.1 U	1.2 U	0.97 U	0.99 U	1.1 U	1.5 U	1.1 U	1.1 U
VANADIUM	1,100	390	N/A	16.9	15.2	29.7	36.5	39.5	27.6	29	28.9	34.4
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.6 U	0.64 U	0.66 U	0.54 U	0.55 U	0.57 U	0.82 U	0.58 U	0.56 U
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	434	433	438	412	423	417	420	427	407
Miscellaneous Parameters (s.u.)												
PH	N/A	N/A	N/A	8.4	7.66	7.47	9.18	8.87	8.4	8.04	7.59	8.99

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063 B0	12/MW3			063 B013	
SAMPLE ID	Non-Residential	Residential	Impact to	063 B012 5.0	063 B012 10.5	063 B012 15.0	063 B012 17.0	063 B013 5.0	063 B013 10.0	063 B013 15.0
LABORATORY ID				460-28645-2	460-28645-3	460-28645-4	460-28645-5	460-29336-22	460-29336-23	460-29336-24
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	10.5	15	17	5	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	2.2	-3.3	-7.8	-9.8	3.9	-1.1	-6.1
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/11/2011	7/11/2011	7/11/2011	7/11/2011	7/28/2011	7/28/2011	7/28/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)							1			
ANTIMONY	450	31	6	0.58 UJ	0.6 UJ	0.66 UJ	0.63 UJ	0.98 UJ	2.2 J	2.7 UJ
CHROMIUM	120,000	N/A	N/A	14.7	18.1	12.7	17.4	155	9.6	22.4
NICKEL	23,000	1,600	205**	13.1	16.3	7.7	12.6	16.6	10 J	12 J
THALLIUM	79	5	3	0.32 U	0.33 U	0.37 U	0.35 U	1.1 U	1.2 U	3 U
VANADIUM	1,100	390	N/A	23.2 J	24.8 J	21.3 J	33 J	30.3	10.8 J	24.5 J
Miscellaneous Parameters (mg/kg)					-		-		-	
HEXAVALENT CHROMIUM	20	N/A	N/A	0.55 UJ	0.56 UJ	0.58 UJ	0.55 UJ	0.56 UJ	0.64 UJ	1.6 UJ
Miscellaneous Parameters (mv)										
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	455	455	435	429	439	413	399
Miscellaneous Parameters (s.u.)										
PH	N/A	N/A	N/A	8.2	8.13	7.47	8.16	8.12	8.16	7.84

U = NON DETECT J = ESTIMATED ft msl = FEET MEAN SEA LEVEL ft bgs = FEET BELOW GROUND SURFACE mg/kg = MILLIGRAMS PER KILOGRAM mv = millivolts s.u. = standard units N/A = Not Applicable ** SITE SPECIFIC IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL

*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063_B	014					063_B015/MV	N4		
SAMPLE ID	Non-Residential	Residential	Impact to	063_B014_7.0	063_B014_11.2	063_B014_15.0	063_B014_20.0	063_B015_0.0	063_B015_4.0	063_B015_7.3	063_B015_10.5	063_B015_10.5-D	063_B015_15.0	063_B015_17.3
LABORATORY ID]			460-29195-20	460-29195-21	460-29195-22	460-29195-23	460-28783-1	460-28783-2	460-28783-3	460-28783-4	460-28783-5	460-28783-6	460-28783-7
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	7	11.2	15	20	0	4	7.3	10.5	10.5	15	17.3
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	1.5	-2.7	-6.5	-11.5	7	3	-0.3	-3.5	-3.5	-8	-10.3
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/14/2011	7/14/2011	7/14/2011	7/14/2011	7/14/2011	7/14/2011	7/14/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	ABOVE	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)														
ANTIMONY	450	31	6	1 UJ	2.1 J	2.2 UJ	0.9 UJ	0.91 UJ	0.95 UJ	1.1 UJ	8.7 J	4.8 J	2.5 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	16	14.1	26.3	20.1	51.4 J	15.1 J	13.4 J	45.2 J	26.4 J	208 J	8.1 J
NICKEL	23,000	1,600	205**	18	12.6	15.7 J	11.4	24.9	14.6	16.3	18.6	17.5	16.1 J	5.6 J
THALLIUM	79	5	3	1.1 U	1.4 U	2.4 U	0.99 U	1 U	1 U	1.2 U	1.5 U	1.5 U	2.8 U	1.1 U
VANADIUM	1,100	390	N/A	12.3	19.3	25.3	23.4	50.9	22.7	15.5	15 J	13.5 J	24.5 J	12.7
Miscellaneous Parameters (mg/kg)														
HEXAVALENT CHROMIUM	20	N/A	N/A	0.66 J	0.74 UJ	1.3 UJ	0.54 UJ	0.52 J	0.55 U	0.67 U	0.75 U	0.82 J	1.5 U	0.62 U
Miscellaneous Parameters (mv)														
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	375	322	338	430	402	480	391	376	366	382	384
Miscellaneous Parameters (s.u.)														
PH	N/A	N/A	N/A	8.19	7.69	7.55	5.03	7.91	7.91	7.81	7.65	7.66	7.25	7.96

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063	C003			063 C004	
SAMPLE ID	Non-Residential	Residential	Impact to	063_C003_5.0	063_C003_5.0-D	063_C003_6.7	063_C003_10.5	063_C004_10.0	063_C004_10.0-D	063_C004_15.0
LABORATORY ID				460-29057-6	460-29057-7	460-29057-8	460-29057-9	460-29057-15	460-29057-16	460-29057-17
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	5	6.7	10.5	10	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	3.4	3.4	1.7	-2.1	-1.5	-1.5	-6.5
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/21/2011	7/21/2011	7/21/2011	7/21/2011	7/21/2011	7/21/2011	7/21/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)										
ANTIMONY	450	31	6	1.1 UJ	1 UJ	1.1 UJ	1.9 J	1.6 UJ	1.5 UJ	0.92 UJ
CHROMIUM	120,000	N/A	N/A	45.4 J	26.5 J	11.9 J	66.5 J	33.3	22.9	19.3
NICKEL	23,000	1,600	205**	11.8	11.4	10.5	11.1	7.9 J	8 J	10.9
THALLIUM	79	5	3	1.2 U	1.1 U	1.2 U	1.1 U	1.8 U	1.7 U	1 U
VANADIUM	1,100	390	N/A	19.3	18.3	17.7	50.5	30.6	35.5	19.7
Miscellaneous Parameters (mg/kg)										
HEXAVALENT CHROMIUM	20	N/A	N/A	0.6 U	0.6 U	0.61 U	0.61 U	0.94 U	0.91 U	0.55 U
Miscellaneous Parameters (mv)										
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	367	365	368	487	391	393	398
Miscellaneous Parameters (s.u.)										
PH	N/A	N/A	N/A	7.92	7.88	7.6	7.83	7.47	7.41	7.94

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*** COMPLIANCE AVERAGED BELOW STANDARD

^ SAMPLE IS BELOW WATER TABLE THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063 C004a			063 C005			063 C006	
SAMPLE ID	Non-Residential	Residential	Impact to	063_C004a_6.7		063_C004a_15.0	063_C005_7.5	063_C005_11.5	063_C005_15.5	063_C006_7.5	063_C006_11.5	063_C006_15.5
LABORATORY ID				460-29144-21	460-29144-11	460-29144-22	460-28742-9	460-28742-10	460-28742-11	460-28742-16	460-28742-17	460-28742-18
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	6.7	11	15	7.5	11.5	15.5	7.5	11.5	15.5
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	1.8	-2.5	-6.5	-0.1	-4.1	-8.1	0.4	-3.6	-7.6
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/22/2011	7/22/2011	7/22/2011	7/13/2011	7/13/2011	7/13/2011	7/13/2011	7/13/2011	7/13/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	1.1 UJ	0.92 UJ	0.89 UJ	0.93 UJ	0.93 UJ	2.4 UJ	0.99 UJ	0.96 UJ	0.95 UJ
CHROMIUM	120,000	N/A	N/A	9.8	18.8	50.8	479 J	14.9 J	2470 J	17.3 J	12.1 J	12.3 J
NICKEL	23,000	1,600	205**	9.8	13.1	16.2	12.9 J	8.9 J	15.3 J	14.3	6.1 J	12.2
THALLIUM	79	5	3	1.2 U	1 U	0.98 U	1 U	1 U	2.7 U	1.1 U	1.1 U	1 U
VANADIUM	1,100	390	N/A	15.3	20.2	22.3	19	24.2	29.9	19.6	16.7	15.2
Miscellaneous Parameters (mg/kg)			-									
HEXAVALENT CHROMIUM	20	N/A	N/A	0.61 U	0.55 U	0.53 U	1.4 J	0.56 U	0.56 U	0.6 U	0.55 U	0.54 U
Miscellaneous Parameters (mv)			-		-							
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	465	501	396	265	460	457	323	358	364
Miscellaneous Parameters (s.u.)			-									
PH	N/A	N/A	N/A	8.38	8.28	7.58	9.79	8.26	8.17	8.96	8.11	8.27

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063_C007			063_	C008			063_C009	
SAMPLE ID	Non-Residential	Residential	Impact to	063_C007_8.0	063_C007_12.0	063_C007_16.0	063_C008_5.0	063_C008_6.7	063_C008_11.0	063_C008_15.0	063_C009_5.0	063_C009_6.5	063_C009_14.0
LABORATORY ID	Ţ			460-28742-22	460-28742-23	460-28742-24	460-29032-6	460-29032-7	460-29032-8	460-29032-9	460-29032-2	460-29032-3	460-29032-4
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	8	12	16	5	6.7	11	15	5	6.5	14
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	-0.1	-4.1	-8.1	3.1	1.4	-2.9	-6.9	3.5	2	-5.5
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/13/2011	7/13/2011	7/13/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)													
ANTIMONY	450	31	6	1.1 UJ	0.98 UJ	1 UJ	0.98 UJ	1 UJ	1 UJ	0.9 UJ	1 UJ	1 UJ	2.3 UJ
CHROMIUM	120,000	N/A	N/A	12.9 J	19.6 J	13.4 J	19.9	16	17.8	35	70.1	14.5	29.8
NICKEL	23,000	1,600	205**	13.4	14.2	12.8	12	13.3	11	16.6	9.6	11.7	10.6 J
THALLIUM	79	5	3	1.2 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	0.99 U	1.1 U	1.1 U	2.5 U
VANADIUM	1,100	390	N/A	16.5	21.5	19.7	17.6	21.7	22.6	37.7	18.5	21.4	21.5 J
Miscellaneous Parameters (mg/kg)													
HEXAVALENT CHROMIUM	20	N/A	N/A	0.61 U	0.55 U	0.56 U	0.6 U	0.61 U	0.57 U	0.52 U	0.59 U	0.59 U	0.54 U
Miscellaneous Parameters (mv)													
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	375	391	414	361	374	400	488	433	449	292
Miscellaneous Parameters (s.u.)													
PH	N/A	N/A	N/A	8.2	8.44	7.87	9.05	8.02	7.82	8.42	9.13	8.29	7.14

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY

EXCEEDS MINIMUM STANDARD/SCREENING CRITERIA

SAMPLE LOCATION	NJ	NJ	NJ Default	063_	C009a		063_C010			063_	C011	
SAMPLE ID	Non-Residential	Residential	Impact to	063_C009a_10.0	063_C009a_15.0	063_C010_6.4	063_C010_10.5	063_C010_15.0	063_C011_5.0	063_C011_6.7	063_C011_10.5	063_C011_15.0
LABORATORY ID				460-29302-28	460-29302-29	460-29302-23	460-29302-24	460-29302-25	460-29195-12	460-29195-13	460-29195-14	460-29195-15
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	10	15	6.4	10.5	15	5	6.7	10.5	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	-2.1	-7.1	1.7	-2.4	-6.9	2.7	1	-2.8	-7.3
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/27/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	0.91 UJ	6.6 J^	1 UJ	0.99 UJ	0.94 UJ	0.98 UJ	1.1 UJ	1.1 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	49.6	3570	14.4	39.6	31.5	24.5	11.8	21.9	40.4
NICKEL	23,000	1,600	205**	10.7	15.8	13.7	20.1	13.4	12.3	11.9	12.3	20.4
THALLIUM	79	5	3	1 U	1 U	1.1 U	1.1 U	1 U	1.1 U	1.2 U	1.2 U	1.1 U
VANADIUM	1,100	390	N/A	23.7	87.6	17.8	48	34.7	19	15.5	26.4	47.2
Miscellaneous Parameters (mg/kg)			-									
HEXAVALENT CHROMIUM	20	N/A	N/A	1.1 J	8.1	0.59 U	0.56 U	0.55 U	0.56 UJ	0.6 UJ	0.62 UJ	0.58 UJ
Miscellaneous Parameters (mv)			-					-				
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	347	429	486	472	467	436	438	451	434
Miscellaneous Parameters (s.u.)			-									
PH	N/A	N/A	N/A	9.43	10.1	7.92	8.3	8.87	8.26	7.66	8.05	8.5

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063_C012			063_D003/MW5	
SAMPLE ID	Non-Residential	Residential	Impact to	063_C012_6.4	063_C012_10.5	063_C012_15.8	063_D003_6.7	063_D003_13.0	063_D003_17.0
LABORATORY ID]			460-29336-16	460-29336-17	460-29336-18	460-28742-3	460-28742-4	460-28742-5
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	6.4	10.5	15.8	6.7	13	17
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	1.3	-2.8	-8.1	2.4	-3.9	-7.9
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/28/2011	7/28/2011	7/28/2011	7/13/2011	7/13/2011	7/13/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)									
ANTIMONY	450	31	6	0.98 UJ	3.4 UJ	0.95 UJ	0.93 UJ	0.87 UJ	0.92 UJ
CHROMIUM	120,000	N/A	N/A	15.5	21.8	26.9	16.2	18.7	9.3
NICKEL	23,000	1,600	205**	11.9	19 J	14.7	12.4	11.6	7.3 J
THALLIUM	79	5	3	1.1 U	3.7 U	1 U	1 U	0.96 U	1 U
VANADIUM	1,100	390	N/A	21.3	27.7 J	35.3	23	29.8	14.6
Miscellaneous Parameters (mg/kg)									
HEXAVALENT CHROMIUM	20	N/A	N/A	0.59 U	2 U	0.56 U	0.53 UJ	0.55 UJ	0.54 UJ
Miscellaneous Parameters (mv)									
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	440	433	457	375	389	404
Miscellaneous Parameters (s.u.)									
PH	N/A	N/A	N/A	8.16	8.08	7.78	9.33	9.11	8.85

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default			063 D004				063 D005	
SAMPLE ID	Non-Residential	Residential	Impact to	063 D004 5.0	063 D004 6.7		063 D004 10.5-D	063 D004 15.0	063 D005 6.0	063 D005 10.0	063 D005 15.0
LABORATORY ID				460-29195-5	460-29195-4	460-29195-6	460-29195-7	460-29195-8	460-28783-12	460-28783-13	460-28783-14
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	6.7	10.5	10.5	15	6	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	3.6	1.9	-1.9	-1.9	-6.4	2.6	-1.4	-6.4
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/25/2011	7/14/2011	7/14/2011	7/14/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)											
ANTIMONY	450	31	6	1.1 UJ	1.5 J	0.92 UJ	0.93 UJ	0.97 UJ	1.4 UJ	0.95 UJ	0.92 UJ
CHROMIUM	120,000	N/A	N/A	28.2	46.2	23.2	20.2	13	13.8 J	53.8 J	35.9 J
NICKEL	23,000	1,600	205**	9.5 J	14.6	12.9	11.1	11.4	12.1 J	12.4	14.1
THALLIUM	79	5	3	1.3 U	1.1 U	1 U	1 U	1.1 U	1.5 U	1 U	1 U
VANADIUM	1,100	390	N/A	22.5	60	27.1	32.5	18.2	20.1	28.8	56.7
Miscellaneous Parameters (mg/kg)											
HEXAVALENT CHROMIUM	20	N/A	N/A	0.65 UJ	0.56 UJ	0.55 UJ	0.55 UJ	0.53 UJ	0.78 U	0.54 U	0.51 U
Miscellaneous Parameters (mv)											
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	438	438	429	429	433	413	404	428
Miscellaneous Parameters (s.u.)											
PH	N/A	N/A	N/A	7.81	8.18	8.65	8.76	8.66	6.95	8	8.76

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

CRITERIA

SAMPLE LOCATION	NJ	NJ	NJ Default		063 D0	06/MW6			063	D007	
SAMPLE ID	Non-Residential	Residential	Impact to	063 D006 5.0	063 D006 6.5	063 D006 10.0	063 D006 15.0	063 D007 5.7	063 D007 10.0	063 D007 10.0-D	063 D007 15.0
LABORATORY ID				460-28661-6	460-28661-7	460-28661-8	460-28661-9	460-29302-6	460-29302-7	460-29302-8	460-29302-9
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	6.5	10	15	5.7	10	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	3	1.5	-2	-7	2.5	-1.8	-1.8	-6.8
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/12/2011	7/12/2011	7/12/2011	7/12/2011	7/27/2011	7/27/2011	7/27/2011	7/27/2011
ABOVE/BELOW GW TABLE]			BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)											
ANTIMONY	450	31	6	0.66 UJ	0.69 UJ	0.61 UJ	0.57 UJ	1 UJ	0.92 UJ	0.92 UJ	0.88 UJ
CHROMIUM	120,000	N/A	N/A	3850	15.4	19.9	46.5	14.6 J	21.7 J	20.2 J	19 J
NICKEL	23,000	1,600	205**	11.3	12.6	8.2	13.8	13.3	12.2	12.4	12.1
THALLIUM	79	5	3	0.36 U	0.38 U	0.34 U	1 J	1.1 U	1 U	1 U	0.97 U
VANADIUM	1,100	390	N/A	13	16.6	36.5	86.2	16.5	21.4	19.8	28.3
Miscellaneous Parameters (mg/kg)											
HEXAVALENT CHROMIUM	20	N/A	N/A	0.62 U	0.64 U	0.56 U	0.55 U	0.65 U	0.57 U	0.57 U	0.56 U
Miscellaneous Parameters (mv)											
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	229	292	322	334	344	367	389	528
Miscellaneous Parameters (s.u.)											
PH	N/A	N/A	N/A	8.83	7.98	8.09	8.94	7.16	8.13	8.13	8

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default		063_D008			063_D009/MW7			063_D010	
SAMPLE ID	Non-Residential	Residential	Impact to	063_D008_5.0	063_D008_10.0	063_D008_15.0	063_D009_5.0	063_D009_10.0	063_D009_13.2	063_D010_5.1	063_D010_10.0	063_D010_15.0
LABORATORY ID				460-29302-11	460-29302-12	460-29302-13	460-28661-2	460-28661-3	460-28661-4	460-29233-24	460-29233-25	460-29233-26
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	10	15	5	10	13.2	5.1	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	3.1	-1.9	-6.9	3.6	-1.4	-4.6	3.2	-1.7	-6.7
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/27/2011	7/27/2011	7/27/2011	7/12/2011	7/12/2011	7/12/2011	7/26/2011	7/26/2011	7/26/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	1.1 UJ	1 UJ	0.92 UJ	0.63 UJ	0.62 UJ	0.63 UJ	0.99 UJ	0.94 UJ	0.97 UJ
CHROMIUM	120,000	N/A	N/A	10.9 J	35.7 J	33.5	23.4	46.5	26.9	25.6 J	49.9 J	39.4 J
NICKEL	23,000	1,600	205**	10.2	18	19.4	12.6	11.2	15.2	12.8	18.5	12
THALLIUM	79	5	3	1.2 U	1.1 U	1 U	0.35 U	0.35 U	0.35 U	1.1 U	1 U	1.1 U
VANADIUM	1,100	390	N/A	13.7	46.9	41.9	22.8	24.7	30.7	23.6	46.8	22.5
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.68 U	0.55 U	0.54 U	0.6 U	0.57 U	0.55 U	0.58 U	0.55 U	0.55 U
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	461	467	485	288	351	362	498	471	501
Miscellaneous Parameters (s.u.)												
РН	N/A	N/A	N/A	7.65	8	8.34	8.63	8.38	8.4	8.28	8.92	8.81

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default			063 D011					063 E003		
SAMPLE ID	Non-Residential	Residential	Impact to	063_D011_0.0	063_D011_7.0		063_D011_11.0-D	063_D011_15.0	063_E003_0.0	063_E003_6.0	—	063_E003_10.5-D	063_E003_15.0
LABORATORY ID				460-29336-10	460-29336-11	460-29336-12	460-29336-13	460-29336-14	460-29233-1	460-29233-2	460-29233-3	460-29233-4	460-29233-5
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	0	7	11	11	15	0	6	10.5	10.5	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	9.7	2.7	-1.3	-1.3	-5.3	10.3	4.3	-0.2	-0.2	-4.7
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/28/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011
ABOVE/BELOW GW TABLE				ABOVE	BELOW	BELOW	BELOW	BELOW	ABOVE	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)													
ANTIMONY	450	31	6	1 UJ	1 U	0.93 U	0.98 U	0.98 U	0.9 UJ	0.96 UJ	0.94 UJ	0.93 UJ	0.9 UJ
CHROMIUM	120,000	N/A	N/A	303	12.5	28	33.3	39.1	28.9 J	19.4 J	15.1 J	14.8 J	17.7 J
NICKEL	23,000	1,600	205**	29.8	12.9	15.6	17.2	16.5	33.8	13.3	13.3	11.8	10.2
THALLIUM	79	5	3	1.1 U	1.1 U	1 U	1.1 U	1.1 U	0.99 U	1.1 U	1 U	1 U	0.98 U
VANADIUM	1,100	390	N/A	54	16.3	38.7	42.6	41.4	51.1	27.9	21.9	23	22.4
Miscellaneous Parameters (mg/kg)													
HEXAVALENT CHROMIUM	20	N/A	N/A	1.4 J	0.62 U	0.56 U	0.57 U	0.56 U	0.54 U	0.73 J	0.55 U	0.54 U	0.53 U
Miscellaneous Parameters (mv)													
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	459	450	426	427	429	518	456	461	462	468
Miscellaneous Parameters (s.u.)													
PH	N/A	N/A	N/A	7.67	7.38	8.86	8.99	8.72	8.03	9.12	9.05	8.89	8.71

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*** COMPLIANCE AVERAGED BELOW STANDARD

^ SAMPLE IS BELOW WATER TABLE THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

CRITERIA NON-DETECTION EXCEEDS MINIMUM

SAMPLE LOCATION	NJ	NJ	NJ Default		063	E004				063 E005		
SAMPLE ID	Non-Residential	Residential	Impact to	063_E004_6.5	063_E004_11.0	063_E004_15.0	063_E004_18.3	063_E005_0.0	063_E005_0.5	063_E005_6.0	063_E005_10.0	063_E005_15.0
LABORATORY ID				460-29233-7	460-29233-8	460-29233-9	460-29233-10	460-29233-11	460-29233-12	460-29233-13	460-29233-14	460-29233-15
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	6.5	11	15	18.3	0	0.5	6	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	7.4	2.9	-1.1	-4.4	9.3	8.8	3.3	-0.7	-5.7
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/26/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	ABOVE	ABOVE	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	0.9 UJ	1 UJ	0.91 UJ	0.95 UJ	0.94 UJ	0.91 UJ	0.99 UJ	0.97 UJ	0.92 UJ
CHROMIUM	120,000	N/A	N/A	28.7 J	15.2 J	19 J	9.8 J	302 J	53.5 J	13.5 J	26.2 J	14.3 J
NICKEL	23,000	1,600	205**	18.1	11	10.6	6.6 J	28.4	7.8 J	10.6	16.2	10.9
THALLIUM	79	5	3	0.99 U	1.1 U	1 U	1 U	1 U	1 U	1.1 U	1.1 U	1 U
VANADIUM	1,100	390	N/A	37.1	24.5	24.6	16.5	61.3	9 J	21.1	38.4	21.3
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.55 U	0.57 U	0.54 U	0.55 U	1.7 J	0.52 U	0.58 U	0.55 U	0.53 U
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	451	456	481	475	499	507	455	460	474
Miscellaneous Parameters (s.u.)												
PH	N/A	N/A	N/A	9.03	8.81	8.6	8.08	8.12	8.52	8.23	8.31	8.7

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default	063_E006				063_E007			
SAMPLE ID	Non-Residential	Residential	Impact to	063_E006_0.0	063_E006_6.0	063_E006_10.0	063_E006_15.0	063_E007_0.0	063_E007_5.0	063_E007_10.0	063_E007_15.0
LABORATORY ID				460-29233-18	460-29233-19	460-29233-20	460-29233-21	460-29302-1	460-29302-2	460-29302-3	460-29302-4
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	0	6	10	15	0	5	10	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	8.9	2.9	-1.1	-6.1	8.1	3.1	-1.9	-6.9
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/26/2011	7/26/2011	7/26/2011	7/26/2011	7/27/2011	7/27/2011	7/27/2011	7/27/2011
ABOVE/BELOW GW TABLE				ABOVE	BELOW	BELOW	BELOW	ABOVE	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)											
ANTIMONY	450	31	6	0.87 UJ	1 UJ	0.95 UJ	0.93 UJ	0.96 J	1.2 UJ	0.96 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	152 J	12.2 J	27.7 J	28.5 J	328 J	12.6 J	13 J	21.3 J
NICKEL	23,000	1,600	205**	24	10.4	11.4	13.7	28.2	11.5	11.3	12.9
THALLIUM	79	5	3	0.96 U	1.1 U	1 U	1 U	1 U	1.3 U	1.1 U	1.1 U
VANADIUM	1,100	390	N/A	45.4	16.2	21.9	32.4	66.6	14.2	19	29.1
Miscellaneous Parameters (mg/kg)					-						
HEXAVALENT CHROMIUM	20	N/A	N/A	1.7 J	0.59 U	0.55 U	0.55 U	4.4	0.69 U	0.56 U	0.56 U
Miscellaneous Parameters (mv)					-						
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	351	366	369	505	493	407	408	419
Miscellaneous Parameters (s.u.)											
PH	N/A	N/A	N/A	8.11	7.55	8.05	8.21	8.15	7.36	8.12	8.17

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*** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default			065 A005				065	A006	
SAMPLE ID	Non-Residential	Residential	Impact to	065_A005_5.0	065_A005_5.0-D	065_A005_10.0	065_A005_15.0	065_A005_17.5	065_A006_8.2	065_A006_11.7	065_A006_11.7-D	065_A006_15.0
LABORATORY ID				460-29456-20	460-29456-21	460-29456-22	460-29456-23	460-29456-24	460-29456-15	460-29456-14	460-29456-16	460-29456-18
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	5	10	15	17.5	8.2	11.7	11.7	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	2.7	2.7	-2.3	-7.3	-9.8	-0.9	-4.4	-4.4	-7.7
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011
ABOVE/BELOW GW TABLE]			BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	1.4 UJ	5.7 UJ	1.1 UJ	0.99 UJ	0.99 UJ	12.7 UJ	1.1 UJ	1.1 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	7060	9090	206	92.1	18	12400	18.3	21.1	100
NICKEL	23,000	1,600	205**	14.4	18.5 J	11.6	12.6	10.9	22.7 J	7.7 J	7.4 J	7.7 J
THALLIUM	79	5	3	1.6 U	6.3 U***	1.2 U	1.1 U	1.1 U	5.6 U***	1.2 U	1.2 U	1.1 U
VANADIUM	1,100	390	N/A	40.2	52.4 J	32.8	20.9	18.2	52.8 J	27.3	29.7	20.8
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.66 U	0.75 J	0.69 U	0.59 U	0.56 U	4.2	0.62 U	0.65 U	0.61 U
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	201	213	338	381	481	214	332	337	344
Miscellaneous Parameters (s.u.)												
PH	N/A	N/A	N/A	10.4	10.3	8.92	8.26	7.99	11.7	7.75	7.73	7.91

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TO GROUNDWATER SOIL SCREENING LEVE *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

CRITERIA NON-DETECTION EXCEEDS MINIMUM

SAMPLE LOCATION	NJ	NJ	NJ Default		065	A007			065_A008		065	A009
SAMPLE ID	Non-Residential	Residential	Impact to	065_A007_6.9	065_A007_6.9-D	065_A007_11.0	065_A007_15.0	065_A008_7.0	065_A008_10.4	065_A008_15.0	065_A009_6.0	065_A009_15.0
LABORATORY ID				460-29456-9	460-29456-10	460-29456-11	460-29456-12	460-29456-4	460-29456-5	460-29456-6	460-29456-34	460-29456-35
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	6.9	6.9	11	15	7	10.4	15	6	15
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	0.5	0.5	-3.6	-7.6	0.6	-2.8	-7.4	1.5	-7.5
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)												
ANTIMONY	450	31	6	9.2 J	10.6 J	3.5 UJ	1 UJ	3.1 J	1.4 UJ	1 UJ	6.1 J	0.9 UJ
CHROMIUM	120,000	N/A	N/A	50.9 J	44 J	23.1 J	23.4	1510 J	490 J	30.8 J	23.2	95.9
NICKEL	23,000	1,600	205**	17.3	19.8	8.8 J	8.8 J	14.3	14.9	9.9	11.3	17.7
THALLIUM	79	5	3	1.3 U	1.2 U	3.8 U^	1.1 U	1.1 U	1.6 U	1.1 U	1.1 U	0.99 U
VANADIUM	1,100	390	N/A	27.8	42.1	21.1 J	24.4	30	24.1	26.7	7.9 J	38.5
Miscellaneous Parameters (mg/kg)												
HEXAVALENT CHROMIUM	20	N/A	N/A	0.66 U	0.67 U	2 U	0.6 U	9.5	0.84 U	0.58 U	0.6 U	0.55 U
Miscellaneous Parameters (mv)												
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	218	137	454	428	340	387	450	410	398
Miscellaneous Parameters (s.u.)												
PH	N/A	N/A	N/A	9.57	9.65	7.96	8.38	10	8.37	7.94	8.01	8.75

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TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY

EXCEEDS MINIMUM STANDARD/SCREENING CRITERIA

SAMPLE LOCATION	NJ	NJ	NJ Default	065_	A010		065_A011				065_A012		
SAMPLE ID	Non-Residential	Residential	Impact to	065_A010_15.0	065_A010_15.0-D	065_A011_10.0	065_A011_15.0	065_A011_18.0	065_A012_5.0	065_A012_10.0	065_A012_10.0-D	065_A012_15.0	065_A012_18.5
LABORATORY ID				460-29456-38	460-29456-39	460-29355-9	460-29355-10	460-29355-11	460-29456-26	460-29456-27	460-29456-28	460-29456-29	460-29456-30
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	15	15	10	15	18	5	10	10	15	18.5
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	-7.5	-7.5	-2.4	-7.4	-10.4	2.7	-2.3	-2.3	-7.3	-10.8
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	8/1/2011	8/1/2011	7/28/2011	7/28/2011	7/28/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011
ABOVE/BELOW GW TABLE				BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)													
ANTIMONY	450	31	6	0.93 UJ	0.98 UJ	1.1 UJ	0.97 UJ	0.91 UJ	0.99 UJ	1.7 UJ	1.7 UJ	0.99 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	32.6	34.6	13.7 J	14.1 J	20.9 J	21.8	243 J	121 J	50.1	14.2
NICKEL	23,000	1,600	205**	12.3	15.6	12.1	9.3	16	13.1	24.7	23.1	7.2 J	13.7
THALLIUM	79	5	3	1 U	1.1 U	1.2 U	1.1 U	1 U	1.1 U	1.8 U	1.9 U	1.1 U	1.1 U
VANADIUM	1,100	390	N/A	28.8	34.3	20.7	21.2	32.6	28.3	33.2	33.1	19.7	20.5
Miscellaneous Parameters (mg/kg)													
HEXAVALENT CHROMIUM	20	N/A	N/A	0.53 U	0.54 U	0.59 U	0.58 U	0.55 U	0.55 U	0.99 U	1 U	0.58 U	0.59 U
Miscellaneous Parameters (mv)													
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	382	390	449	428	430	449	452	442	433	428
Miscellaneous Parameters (s.u.)													
PH	N/A	N/A	N/A	9.16	9.04	7.29	8.32	8.97	8.32	7.79	7.83	7.84	8.49

U = NON DETECT J = ESTIMATED ft msl = FEET MEAN SEA LEVEL ft bgs = FEET BELOW GROUND SURFACE mg/kg = MILLIGRAMS PER KILOGRAM mv = millivolts s.u. = standard units N/A = Not Applicable ** SITE SPECIFIC IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL

TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY

EXCEEDS MINIMUM STANDARD/SCREENING CRITERIA

SAMPLE LOCATION	NJ	NJ	NJ Default		065	A013			065 /	\014	
SAMPLE ID	Non-Residential	Residential	Impact to	065_A013_5.0	065_A013_10.0	065_A013_15.5	065_A013_17.0	065_A014_10.0	 065_A014_10.0-D	065_A014_15.0	065_A014_16.7
LABORATORY ID				460-29355-3	460-29355-4	460-29355-5	460-29355-6	460-29469-5	460-29469-6	460-29469-7	460-29469-8
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	5	10	15.5	17	10	10	15	16.7
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	1.7	-3.3	-8.8	-9.3	-3.1	-3.1	-8.1	-9.8
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	7/28/2011	7/28/2011	7/28/2011	7/28/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011
ABOVE/BELOW GW TABLE]			BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)						-	-				
ANTIMONY	450	31	6	1.9 J	4.3 J	3.2 UJ	0.96 UJ	6 J	5.9 J	2.4 UJ	1.1 UJ
CHROMIUM	120,000	N/A	N/A	22.3	11.3	13.3 J	17.1	22	25	221	3.6
NICKEL	23,000	1,600	205**	12.5	19.1	13.9 J	13.2	18.6	15.1	26.7	1.5 J
THALLIUM	79	5	3	1.1 U	1.4 U	3.5 UJ	1.1 U	1.5 U	1.5 U	2.6 U	1.2 U
VANADIUM	1,100	390	N/A	14.4	14.5	18.4 J	24.8	17.4	15.7	35.2	7.6 J
Miscellaneous Parameters (mg/kg)											
HEXAVALENT CHROMIUM	20	N/A	N/A	0.59 U	0.72 U	2 U	0.57 U	0.76 UJ	0.74 UJ	1.3 UJ	0.64 UJ
Miscellaneous Parameters (mv)	-			-	-	-	-				
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	479	411	374	404	348	351	347	368
Miscellaneous Parameters (s.u.)			·								
PH	N/A	N/A	N/A	8.3	8.01	7.76	7.03	7.75	7.71	7.71	7.2

U = NON DETECT J = ESTIMATED ft msl = FEET MEAN SEA LEVEL ft bgs = FEET BELOW GROUND SURFACE mg/kg = MILLIGRAMS PER KILOGRAM mv = millivolts s.u. = standard units N/A = Not Applicable ** SITE SPECIFIC IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOU

TO GROUNDWATER SOIL SCREENING LEVEL *** COMPLIANCE AVERAGED BELOW STANDARD ^ SAMPLE IS BELOW WATER TABLE

THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

SAMPLE LOCATION	NJ	NJ	NJ Default			065	A015		
SAMPLE ID	Non-Residential	Residential	Impact to	065_A015_0.0	065_A015_5.0	065_A015_10.3	065_A015_10.3-D	065_A015_15.0	065_A015_19.0
LABORATORY ID				460-29469-9	460-29469-10	460-29469-11	460-29469-12	460-29469-13	460-29469-14
TOP OF SAMPLE (ft bgs)	Direct Contact	Direct Contact	Groundwater	0	5	10.3	10.3	15	19
TOP OF SAMPLE ELEV. (ft msl)	Soil (NJAC	Soil (NJAC	Soil Screening	6.6	1.6	-3.7	-3.7	-8.4	-12.4
SAMPLE_DATE	7:26D 5/12)	7:26D 5/12)	(11/13)	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011	8/1/2011
ABOVE/BELOW GW TABLE				ABOVE	BELOW	BELOW	BELOW	BELOW	BELOW
MATRIX				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Metals (mg/kg)									
ANTIMONY	450	31	6	1.7 J	1 UJ	1.9 J	2 J	2.8 UJ	1 UJ
CHROMIUM	120,000	N/A	N/A	132	91.4	17.4 J	34.8 J	25.1 J	15.4
NICKEL	23,000	1,600	205**	33.4	13.8	11.8 J	16.4	18.3 J	13.9
THALLIUM	79	5	3	1 U	1.2 U	1.8 U	1.8 U	3.1 U^	1.1 U
VANADIUM	1,100	390	N/A	44.6	13.6	13.7 J	18.6	29.5 J	25.6
Miscellaneous Parameters (mg/kg)									
HEXAVALENT CHROMIUM	20	N/A	N/A	0.51 UJ	3.2 J	0.91 UJ	0.95 UJ	1.6 UJ	0.61 UJ
Miscellaneous Parameters (mv)									
OXIDATION REDUCTION POTENTIAL	N/A	N/A	N/A	363	439	391	371	457	355
Miscellaneous Parameters (s.u.)									
PH	N/A	N/A	N/A	8.67	8.03	7.63	7.6	7.67	7.76

U = NON DETECT J = ESTIMATED ft msl = FEET MEAN SEA LEVEL ft bgs = FEET BELOW GROUND SURFACE mg/kg = MILLIGRAMS PER KILOGRAM mv = millivolts s.u. = standard units N/A = Not Applicable ** SITE SPECIFIC IGW SSL = DEFAULT IMPACT TO GROUNDWATER SOIL SCREENING LEVEL

*** COMPLIANCE AVERAGED BELOW STANDARD

^ SAMPLE IS BELOW WATER TABLE THEREFORE NJDEP IGWSSL DOES NOT

APPLY EXCEEDS MINIMUM STANDARD/SCREENING

CRITERIA NON-DETECTION EXCEEDS MINIMUM

Table 2H

Historical Soil Samples Site Investigation Borings (2011) Complete Laboratory Analytical Summary Table PPG Site 63 1 Burma Road Jersey City, NJ 2011- Sampled by TRC

Sample Location:				SB 4	SB 6	SB 7	SB 8	S	B 10
Sample Depth (ft bgs):	NJ	NJ	NJ Default	7.5-8.0	7.5-8.0	10.5-11.0	8.5-9.0	9.0-9.5	10.0-10.5
Sample Elevation (ft msl):	Non-Residential	Residential	Impact to	0.5-1	-0.5-0	-3.5-(-3)	-0.9-(-0.4)	-1.8-(-1.3)	-2.8-(-2.3)
Client Sample ID:	Direct Contact	Direct Contact	Groundwater	SB4/7.5-8.0	SB6/7.5-8.0	SB07/10.5-11.0	SB-8/8.5-9.0	SB10/9.0-9.5	SB10/10.0-10.5
Lab Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening	JA81086-6A	JA80694-2A	JA80694-11A	JA80919-8A	JA80783-5	JA80783-6
Date Sampled:	7:26D 5/12)	7:26D 5/12)	(11/13)	07/15/11	07/12/11	07/12/11	07/14/11	07/13/11	07/13/11
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil
Excavation Status:									
Antimony (mg/kg)	450	31	6	<4.9	<7.1***	<5.4	<4.9	<2.5	<5.6
Chromium (mg/kg)	120,000	N/A	N/A	21.1	54.3	46.3	46.6	14.5	33.9
Nickel (mg/kg)	23,000	1,600	205**	16.6	25.4	21.1	25.1	13.1	13.9
Thallium (mg/kg)	79	5	3	<2.5	<3.6***	<2.7	<2.5	<1.3	<2.8
Vanadium (mg/kg)	1,100	390	N/A	28.6	35.9	32.2	37.2	21.1	22.2
Hexavalent Chromium (mg/kg)	20	N/A	N/A	<9.9	3.6	1.5	2.2	<0.49	1.3

NOTES:

< - The analyte was not detected at the stated reporting limit.

** = Site-specific impact to groundwater criteria developed using SPLP methodology for Nickel;

SPLP = Synthetic Precipitation Leaching Procedure.

*** = Soil sample collected entirely below the water table; therefore, the IGWSSL does not apply.;

IGWSSL = Default Impact To Groundwater Soil Screening Level.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

Additional chrome data reported in Tables 2J and 4J.

Result exceeded criteria

Table 2H

Historical Soil Samples Site Investigation Borings (2011) Complete Laboratory Analytical Summary Table PPG Site 63 1 Burma Road Jersey City, NJ 2011- Sampled by TRC

Sample Location:				SE	3 12	TW 1		TW 2	
Sample Depth (ft bgs):	NJ	NJ	NJ Default	12.0-12.5	13.0-13.5	10.0-10.5	9.5-10.0	17.0-17.5	22.0-22.5
Sample Elevation (ft msl):	Non-Residential	Residential	Impact to	-3.6-(-3.1)	-4.6-(-4.1)	-2.2-(-1.7)	-1.4-(-0.9)	-8.9-(-8.4)	-13.9-(-13.4)
Client Sample ID:	Direct Contact	Direct Contact	Groundwater	SB12/12.0-12.5	SB12/13.0-13.5	TW1/10.0-10.5	TW2/9.5-10.0	TW2/17.0-17.5	TW2/22.0-22.5
Lab Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening	JA81086-8A	JA81086-9A	JA80919-3A	JA80783-8A	JA80783-9A	JA80783-10A
Date Sampled:	7:26D 5/12)	7:26D 5/12)	(11/13)	07/15/11	07/15/11	07/14/11	07/13/11	07/13/11	07/13/11
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil
Excavation Status:									
Antimony (mg/kg)	450	31	6	<2.4	<5.0	<7.3***	<2.3	<2.3	<2.3
Chromium (mg/kg)	120,000	N/A	N/A	17.8	32.1	21.4	24.3	16.6	27.9
Nickel (mg/kg)	23,000	1,600	205**	16	25.9	<15	10	14.4	14.5
Thallium (mg/kg)	79	5	3	<1.2	<2.5	<3.6***	<1.1	<1.1	<1.1
Vanadium (mg/kg)	1,100	390	N/A	19.8	37.6	24.5	28.3	26.2	30.3
Hexavalent Chromium (mg/kg)	20	N/A	N/A	<0.50	<10	8.3	<0.46	<0.47	<0.47

NOTES:

< - The analyte was not detected at the stated reporting limit.

** = Site-specific impact to groundwater criteria developed using SPLP methodology for Nickel;

SPLP = Synthetic Precipitation Leaching Procedure.

*** = Soil sample collected entirely below the water table; therefore, the IGWSSL does not apply.;

IGWSSL = Default Impact To Groundwater Soil Screening Level.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

Additional chrome data reported in Tables 2J and 4J.

Result exceeded criteria

Table 2H

Historical Soil Samples Site Investigation Borings (2011) Complete Laboratory Analytical Summary Table PPG Site 63 1 Burma Road Jersey City, NJ 2011- Sampled by TRC

Sample Location:				TV	V 3	Т	W 4	MW 1	MW 2	MW 5/063_D003
Sample Depth (ft bgs):	NJ	NJ	NJ Default	10.5-11.0	12.0-12.5	9.0-9.5	14.0-14.5	8	12	11
Sample Elevation (ft msl):	Non-Residential	Residential	Impact to	-1.5-(-1)	-3-(-2.5)	2.2-2.7	-2.8-(-2.3)	-0.9	-3.7	-1.9
Client Sample ID:	Direct Contact	Direct Contact	Groundwater	TW3/10.5-11.0	TW3/12.0-12.5	TW4/9.0-9.5	TW4/14.0-14.5	MW-1/8	MW-2/12	MW-5/11
Lab Sample ID:	Soil (NJAC	Soil (NJAC	Soil Screening	JA80783-2A	JA80783-3A	JA80919-10A	JA80919-11A	JA81094-2A	JA80569-2	JA80782-2A
Date Sampled:	7:26D 5/12)	7:26D 5/12)	(11/13)	07/13/11	07/13/11	07/14/11	07/14/11	07/15/11	07/11/11	07/13/11
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil
Excavation Status:										
Antimony (mg/kg)	450	31	6	<2.3	<2.3	<2.2	<2.5	<2.3	<2.5	<2.3
Chromium (mg/kg)	120,000	N/A	N/A	28.6	26.9	21.2	21.8	15.6	30.4	29.7
Nickel (mg/kg)	23,000	1,600	205**	18.8	12.4	12.4	25	14.5	16.2	15
Thallium (mg/kg)	79	5	3	<1.1	<1.1	<1.1	<1.2	<1.2	<1.2	<1.2
Vanadium (mg/kg)	1,100	390	N/A	39.6	28.2	31.6	33.7	22.3	40.5	34.1
Hexavalent Chromium (mg/kg)	20	N/A	N/A	<0.47	<0.45	0.5	<0.48	<0.48	<0.50	1.1

NOTES:

< - The analyte was not detected at the stated reporting limit.

** = Site-specific impact to groundwater criteria developed using SPLP methodology for Nickel;

SPLP = Synthetic Precipitation Leaching Procedure.

*** = Soil sample collected entirely below the water table; therefore, the IGWSSL does not apply.;

IGWSSL = Default Impact To Groundwater Soil Screening Level.

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

Additional chrome data reported in Tables 2J and 4J.

Result exceeded criteria

TABLE 2I Historical Soil Samples Interim Remedial Action Report (1998-2000) Analytical Laboratory Results for Remaining Soil TEST BORING SOIL SAMPLE RESULTS GROUP 12 PPG Site 63, 1 Burma Road Jersey City, New Jersey Sampled by ICF Kaiser/IT Corporation

SAMPLE ID	Ground Surface Elevation (ft msl)	SAMPLE DEPTH (ft bgs)	SAMPLE ELEVATION (ft msl)	LOCATION	DATE	Chromium, Hexavalent (mg/kg)	Chromium, Total (mg/kg)
630807007	12.9	8.80-10.50	2.4-4.1	PPG12-B07	9/21/1998	5.7 U	55 J
630811006	12.8	14.00-14.20	-1.4-(-1.2)	PPG12-B11	1/7/1999	1.1 J	552
630812004	9.5	6.00-7.10	2.4-3.5	PPG12-B12	1/11/1999	0.79 J	1780
630812104	9.5	6.00-7.10	2.4-3.5	PPG12-B12	1/11/1999	0.39 U	464
630812005	9.5	8.00-8.90	0.6-1.5	PPG12-B12	1/11/1999	0.42 U	299
630812006	9.5	10.00-10.40	-0.9-(-0.5)	PPG12-B12	1/11/1999	0.5 U	2030
630812007	9.5	14.00-14.90	-5.4-(-4.5)	PPG12-B12	1/11/1999	0.84 J	39
630813005	10.0	8.00-8.50	1.5-2	PPG12-B13	1/8/1999	0.44 UJ	16
630817006	13.2	12.00-12.00*	1.2*	PPG12-B17	1/7/1999	1.6 J	152

Notes:

mg/kg= milligram/kilogram

ft msl = feet mean sea level

ft bgs= feet below ground surface

J = estimated value

U = not detected

* Sample Depth typo in original report, exact sample interval unknown.

Table 2J Site Investigation Borings (2016) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 63

1 Burma Road, Jersey City, NJ Sampled by CB&I

Sample Location:				ED012-A		SB11-A			SB13-A		B73-A		SB5-A	
Sample Depth (ft bgs):	NJ Non-	NJ Residential	NJ Default	7.8-8.3	8.9-9.4	9.4-9.9	9.9-10.4	9-9.5	9.5-10	10-10.5	2.5-3	10.4-10.9	10.9-11.4	11.4-11.9
Sample Elevation (ft msl):	Residential	Direct Contact	Impact to	0.7-1.2	-0.4 - 0.1	-0.9 - (-0.4)	-1.4 - (-0.9)	-0.5- 0	-1 - (-0.5)	-1.5 - (-1.0)	5-5.5	-2.9 - (-2.4)	-3.4 - (-2.9)	-3.9 - (-3.4)
Client Sample ID:	Direct Contact	Soil (NJAC 7:	Groundwater	ED012-A_7.8-8.3	SB11-A_8.9-9.4	SB11-A_9.4-9.9	SB11-A_9.9-10.4	SB13-A_9-9.5	SB13-A_9.5-10	SB13-A_10-10.5	B73-A_2.5-3.0	SB5-A_10.4-10.9	SB5-A_10.9-11.4	SB5-A_11.4-11.9
Lab Sample ID:	Soil (NJAC 7:	26D 5/12) ¹	Soil Screening	JC16626-1RA	JC16626-4RA	JC16626-5A	JC16626-6A	JC16626-7RA	JC16626-8A	JC16626-9A	JC16626-10RA	JC16626-13RA	JC16626-14A	JC16626-15A
Date Sampled:	26D 5/12) ¹		(11/13)	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016	3/18/2016
Matrix:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Excavation Status:														
Metals Analysis														
	120,000				40.0 / 00.0	27.7	40.4	404/000	24.3	44.4	244 / 206	40.4/04.0	12.3	6
Chromium (mg/kg)	120,000	-	-	15.4 / 48.6	19.8 / 29.6	21.1	19.1	18.1 / 23.8	24.3	11.4	244 / 206	19.4 / 21.9	12.3	0
General Chemistry														
Chromium, Hexavalent (mg/kg) ^C	20	-	-	0.7	27.7 ^E	-	-	45.4 ^E	-	-	2	37.2 ^E	-	-
Chromium, Hexavalent (mg/kg) ^C	20			0.48	1.7	-	-	2.7	-	-	<0.48	1.6	-	-
Chromium, Hexavalent (mg/kg) ^D	20	-	-	0.86	<1.3	-	-	<1.5	-	-	<0.47	<1.3	-	-
pH (su)	-	-	-	9.08	6.94	-	-	7.46	-	-	7.76	7.6	-	-
Redox Potential Vs H2 (mv)	-	-	-	310	296	-	-	276	-	-	336	340	-	-
Solids, Percent (%)	-	-	-	90.8	32.1	-	-	26.5	-	-	84	30	-	-

Analytical Data Qualifiers:

< - The analyte was not detected at the stated reporting limit.

* - Duplicate analysis not within control limits; indeterminate bias direction.

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

R - The reported result is rejected.

J- The result is estimated and may be biased low.

Footnotes:

^c 7196A sample methodology

^D 7199 sample methodology (Sample was homogenized before being run)

^E False positives (i.e., errant exceedances) for Cr6+ were reported for SB5, SB11, and SB13. The original Cr6+ results were suspect due to Cr6+ concentrations reported greater than total chrome. The laboratory re-homogenized the soil samples and collected new aliquots that were processed and analyzed both by EPA Method 7196A and EPA Method 7199 for confirmation of the Cr6+ concentrations. Total chrome was also re-analyzed to confirm the reported concentrations. Re-analysis of the samples confirmed Cr6+ is not present above the applicable criteria at these locations.

¹ NOTE: Soil Remediation Standards from June 2008 were incorporated in the May 2012 rule without change. ft bgs = feet below ground surface mg/kg = milligram per kilogram su = standard unit mv = millivolts Result exceeded criteria

Table 2K Supplemental Soil Investigation Sample Summary Table (2016) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil

PPG Site 63, 1 Burma Road,

Jersey City, NJ

	Sampled by CB&I													
Client Sample ID:	NJ Non-	NJ Residential	NJ Default	SWR001_2.5-3.0	SWR002_2.6-3.1	SWR003_2.5-3.0	SWR004_2.5-3.0	SWR005_2.5-3.0	SWR006_2.5-3.0	SWR007_2.5-3.0	DUP-1	SWR008_2.5-3.0	SWR009_1.0-1.5	SW010_1.0-1.5
Sample Depth (ft bgs):	Residential	Direct Contact	Impact to	2.5-3.0	2.6-3.1	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	2.5-3.0	1.0-1.5	1.0-1.5
Sample Elevation (ft msl):	Direct Contact	Soil (NJAC 7:	Groundwater	8.5-9.0	7.4-7.9	6.4-6.9	6.1-6.6	6.2-6.7	6.3-6.8	6.4-6.9	6.4-6.9	8.5-9.0	9.2-9.7	8.4-8.9
Excavated	Soil (NJAC 7:	26D 5/12) ¹	Soil											
Lab Sample ID:	26D 5/12) ¹		(11/13)	JC31406-1/1A/1R	JC31406-4/4A/4R	JC31406-5/5A/5R	JC31406-7/7A/7R	JC31406-6/6A/6R	JC31406-8/8A/8R	JC31406-9/9A/9R	JC31406-11/11A/11R	JC31527-8/8A/8T	JC31607-8/8A/8R	JC31527- 10/1A/10T
Date Sampled:				11/9/2016	11/9/2016	11/9/2016	11/9/2016	11/9/2016	11/9/2016	11/9/2016	11/9/2016	11/10/2016	11/11/2016	11/10/2016
Matrix:				Soil	Soil	Soil	Soil							
Metele Anchesia			-											

letals Analysis

							-			-		-			-
Antimony	mg/kg	450	31	6	<2.3 NJ-	<2.2 NJ-	<2.3 NJ-	<2.2 NJ-	<2.2 NJ-	<2.3 NJ-	<2.7 NJ-	<2.7 NJ-	<2.0 NJ-	30.3 NJ- ^f	4.8 NJ-
Chromium	mg/kg	120,000	-	-	47.6	22.9	56.1	96.2	59.2	19	13.8	13.2	33.4	124	130
Nickel	mg/kg	23,000	1,600	205**	13	51.9	22.2	14.2	23.6	12.9	13.4	13.1	16.5	83.6	104
Thallium	mg/kg	79	5	3	<1.2	<1.1	<1.2	<1.1	<1.1	<1.1	<1.3	<1.4	<0.98	<1.1	<2.1
Vanadium	mg/kg	1,100	390	0	27.9	24.2	34	32.3	39.5	26.7	17.7	17.6	28.2	44.9	46.5

mg/kg	20	-	-	1.0 *NJ / 2.0 *NJ-	2.2 *NJ / <0.44 *NJ-	0.6 *NJ / <0.47 *NJ-	14.6 *NJ / 4.8 *NJ-	0.51 *NJ / 1.2 *NJ-	1.1 *NJ / 0.46 *NJ-	<0.55 *NJ / <0.55 *NJ-	<0.56 *NJ / 0.63 *NJ-	5.1 NJ- / 3.9	8.1 *NJ- / 2.6 NJ-	0.51 NJ- / 0.53
%	-	-	-	-	-	-	-	-	-	-	-	-	-	-
su	-	-	-	8.2	8.29	7.72	8.51	7.96	8.26	7.95	7.59	7.98	7.67	8.05
mv	-	-	-	508	524	517	538	515	550	561	568	526	539	528
%	-	-	-	86	89.9	85.4	87	88.2	87.3	73.3	71.8	97	91.6	94.4
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	mg/kg % su mv % % mg/kg	% - su - mv - % - % - - -	% - - SU - - mv - - % - - - - - - - -	% - - - su - - - mv - - - % - - - - - - - % - - - - - - -	% - - - su - - - mv - - 8.2 mv - - 508 % - - 86 - - - -	% - - - - su - - - 8.2 8.29 mv - - 508 524 % - - 86 89.9 - - - - -	% - - - - su - - 8.2 8.29 7.72 mv - - 508 524 517 % - - 86 89.9 85.4 - - - - - -	% - - - - - su - - 8.2 8.29 7.72 8.51 mv - - 508 524 517 538 % - - 86 89.9 85.4 87 - - - - - - -	% - - - - - - - - su - - 8.2 8.29 7.72 8.51 7.96 mv - - 508 524 517 538 515 % - - 86 89.9 85.4 87 88.2 4 - - - - - - - -	% - - - - - - - - su - - - 8.2 8.29 7.72 8.51 7.96 8.26 mv - - 508 524 517 538 515 550 % - - 86 89.9 85.4 87 88.2 87.3 u - - - - - - - - -	% - - - - - - - - - su - - - 8.2 8.29 7.72 8.51 7.96 8.26 7.95 mv - - 508 524 517 538 515 550 561 % - - 86 89.9 85.4 87 88.2 87.3 73.3 u - - - - - - - - -	No. -	No. -	No. -

Analytical Data Qualifiers:

< The analyte was analyzed for, but was not detected above the stated reporting limit.

* Duplicate analysis not within control limits; indeterminate bias direction.

J The reported result is an estimated value.

- NJ The matrix spike sample recoveries in the associated QC sample are outside QC limits; the result is an estimated value with no definitive bias.
- NJ- The matrix spike sample recoveries in the associated QC sample are below QC limits; the result is an estimated value with a potential low bias.

Footnotes:

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

^c The ferrous iron test was analyzed after completion of Cr⁺⁶ testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr⁺⁶ recoveries.

^d The sulfide screen test was analyzed after completion of Cr⁺⁶ testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr⁺⁶ recoveries.

^e Analysis done out of holding time.

^f Exceedance of Default Impact to Groundwater Soil Screening Level addressed by

compliance averaging.

^g Detection limit in excess of Default Impact to Groundwater Soil Screening Level; however the sample was collected within the saturated zone.

¹ NOTE: Soil Remediation Standards from June 2008 were incorporated in the May 2012 rule without change.

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded the most stringent criteria

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Table 2K Supplemental Soil Investigation Sample Summary Table (2016) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil

PPG Site 63, 1 Burma Road, Jersey City, NJ

							<u> </u>	Sampled by CB	&I				
Client Sample ID:		NJ Non-	NJ Residential	NJ Default	SWR011_1.0-1.5	DUP-2	SWR013_1.0-1.5	SWR017_2.5-3.0	PPG63/65_SW25R2_4.3-4.8	PPG63/65_SW93_0.3-0.8	PPG63/65_SW119_1.6-2.1	BR001_4.2-4.7 (AD006)	BR002_3.5-4
Sample Depth (ft bgs):		Residential	Direct Contact	Impact to	1.0-1.5	1.0-1.5	1.0-1.5	2.5-3.0	4.3-4.8	0.3-0.8	1.6-2.1	4.2-4.7	3.5-4.0
Sample Elevation (ft msl)	:	Direct Contact	Soil (NJAC 7:	Groundwater	7.2-7.7	7.2-7.7	8.8-9.3	5.3-5.8	4.5-5.0	10.5-11.0	8.5-9.0	3.0-3.5	5.0-5.5
Excavated		Soil (NJAC 7:	26D 5/12) ¹	Soil									
Lab Sample ID:		26D 5/12) ¹		(11/13)	JC31527- 11/11A/11T	JC31527- 12/12A/12T	JC31607-9/9A/9R	JC31607-4/4A/4R	JC32217-1/1A/1R	JC31527-9/9A/9T	JC31406-3/3A/3R	JC31607-2/2A/2R	JC31607-1/1A
Date Sampled:					11/10/2016	11/10/2016	11/11/2016	11/11/2016	11/22/2016	11/10/2016	11/9/2016	11/11/2016	11/11/2016
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
ntimony	mg/kg	450	31	6	3.9 NJ-	3.8 NJ-	<2.2 NJ-	<2.3 NJ-	<2.3 NJ-	<2.0 NJ-	<2.2 NJ-	5.9 NJ-	<2.3 NJ-
nromium	mg/kg	120,000	-	-	174	122	305	40.1	185	36.7	30.3	25.8	467
ckel	mg/kg	23,000	1,600	205**	104	65.3	57	24.3	47.5	21.4	28.6	16.5	7.9
allium	mg/kg	79	5	3	<2.2	<2.1	<1.1	<1.1	<2.3	<1.0	<2.2 ^b	<1.1	<1.1
anadium	mg/kg	1,100	390	0	51.5	51.3	54.8	18.8	48.2	28.4	50.4	26.5	15.7
eneral Chemistry								0.47 *NUL / 0.47 NUL					

Chromium, Hexavalent	mg/kg	20	-	-	<0.45 NJ- / 2.3	<0.45 NJ- / 3.7	1 *NJ- / <0.46 NJ-	<0.47 *NJ- / <0.47 NJ-	2.4 NJ - / 8.3 NJ-	1.3 NJ- / <0.42	1 *NJ / 0.72 *NJ-	<0.47 *NJ- / <0.47 NJ-	16.1 *NJ- / 15.2 NJ-
Iron, Ferrous	%	-	-	-	-	-	-	-	-	-	-	-	-
рН	su	-	-	-	7.94	8.09	7.87	7.58	8.11	7.95	7.65	8.17	7.5
Redox Potential Vs H2	mv	-	-	-	540	540	541	531	520	530	514	536	534
Solids, Percent	%	-	-	-	88.4	89.7	87.1	85.6	83.9	95.9	86.1	84.4	84.8
Sulfide Screen		-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	-	135,000 J	-	-	-	-

Analytical Data Qualifiers:

< The analyte was analyzed for, but was not detected above the stated reporting limit

* Duplicate analysis not within control limits; indeterminate bias direction.

J The reported result is an estimated value.

- NJ The matrix spike sample recoveries in the associated QC sample are outside QC limits; the result is an estimated value with no definitive bias.
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Footnotes:

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^c The ferrous iron test was analyzed after completion of Cr⁺⁶ testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr⁺⁶ recoveries.

^d The sulfide screen test was analyzed after completion of Cr⁺⁶ testing (outside of normal hold times for this parameter) in order to provide more information about the possible

impact of the sample matrix on Cr⁺⁶ recoveries. ^e Analysis done out of holding time.

^f Exceedance of Default Impact to Groundwater Soil Screening Level addressed by compliance averaging.

^g Detection limit in excess of Default Impact to Groundwater Soil Screening Level; however the sample was collected within the saturated zone.

¹ NOTE: Soil Remediation Standards from June 2008 were incorporated in the May 2012 rule without change.

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded the most stringent criteria

Table 2K Supplemental Soil Investigation Sample Summary Table (2016) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil

PPG Site 63, 1 Burma Road,

Jersey City, NJ

								Sampled by CB&I							
Client Sample ID:		NJ Non-	NJ Residential	NJ Default	BR003_8.1-8.6 (CD005)	BR004_7.3-7.8 (CD007)	BR005_4.7-5.2 (FD002)	BR006_4.4-4.9	BR007_4.1-4.6	BR008_6.7-7.2 (BD010)	BR009_3.3-3.8	BR010_1.9-2.4	TP001_B01	TP001_SW01	TP001_SW02
Sample Depth (ft bgs):	- F	Residential	Direct Contact	Impact to	8.1-8.6	7.3-7.8	4.7-5.2	4.4-4.9	4.1-4.6	6.7-7.2	3.3-3.8	1.9-2.4	1.5-2.0	1.0-1.5	1.0-1.5
Sample Elevation (ft msl):	Di	rect Contact	Soil (NJAC 7:	Groundwater	-0.5 - 0	0.5-1.0	4.1-4.6	4.0-4.5	4.0-4.5	2.8-3.3	6.0-6.5	8.0-8.5	10.4-10.9	11.4-11.9	10.9-11.4
Excavated	S	oil (NJAC 7:	26D 5/12) ¹	Soil											
Lab Sample ID:		26D 5/12) ¹	·	(11/13)	JC31527-1/1A/1T	JC31406-10/10A/10R	JC31607-6/6A/6R	JC31607-5/5A/5R	JC31607-3/3A/3R	JC31607-7/7A/7R	JC31527-7/7A/7T	JC31406- 2/2A/2R/2T	JC31527- 2/2A/2R	JC31527-3/3A/3R	JC31527-4/4A/4R
Date Sampled:					11/10/2016	11/9/2016	11/11/2016	11/11/2016	11/11/2016	11/11/2016	11/10/2016	11/9/2016	11/10/2016	11/10/2016	11/10/2016
Matrix:					Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil

Metals Analysis

				-									-		
Antimony	mg/kg	450	31	6	<6.8 NJ- ^g	<2.3 NJ-	<2.3 NJ-	<2.4 NJ-	<2.5 NJ-	<2.1 NJ-	<2.9 NJ-	<2.2 NJ-	<2.3 NJ-	<2.2 NJ-	<2.3 NJ-
Chromium	mg/kg	120,000	-	-	2610	26.4	19.1	19.8	17	354	262	71.2	40.9	30.5	44.6
Nickel	mg/kg	23,000	1,600	205**	16.3	14.9	14.3	14.4	16.1	32	34	15.2	16.9	18.3	17.5
Thallium	mg/kg	79	5	3	<1.1	<1.2	<1.2	<1.2	<1.2	<2.1	<1.4	<1.1	<1.1	<1.1	<1.2
Vanadium	mg/kg	1,100	390	0	48.7	27	27.1	21.3	25.8	46.6	65.9	19.7	37.3	33.6	38.9

General Chemistry															
Chromium Hovovalant	ma/ka	20			27.01./4	0.47 *N1 / 0.64 *N1	-0.49 *NII / -0.49 NII	1 7 *NI / 20 49 NI	<0.50 *NJ- / <0.50 NJ-	10 4 *NL / 17 6 NL	1 NJ- / 4.5	4.1 *NJ / 4.5 *NJ-	5 2 N L / 2 N L	17NI / 25NI	25 NI / 22 NI
Chromium, Hexavalent	mg/kg	20	-	-	2.7 NJ- / 4	0.47 NJ / 0.04 NJ-	<0.40 INJ-/ <0.40 INJ-	1.7 NJ-7<0.46 NJ-	<0.50 NJ-7<0.50 NJ-	10.4 NJ-/17.6 NJ-	1 NJ- / 4.3		5.2 INJ- / 2 INJ-	1.7 INJ-7 2.3 INJ-	3.3 NJ- / 2.3 N
ron, Ferrous	%	-	-	-	-	-	-	1.3 °	-	-	-	0.96 ^c	-	-	-
ЪН	su	-	-	-	9.58	8	8.14	8.18	7.88	8.17	7.62	8.45	8.39	8.78	8.6
Redox Potential Vs H2	mv	-	-	-	537	520	543	546	540	545	267	541	262	265	264
Solids, Percent	%	-	-	-	85.9	84.8	84.2	83.5	80.3	90.4	68.6	87.4	84.7	86.2	84.1
Sulfide Screen		-	-	-	-	-	-	NEGATIVE ^d	-	-	-	NEGATIVE ^d	-	-	-
Total Organic Carbon	mg/kg	-	-	-	-	-	-	11,800 ^e J	-	-	-	11,200 ^e J	-	-	-

Analytical Data Qualifiers:

< The analyte was analyzed for, but was not detected above the stated reporting limit.

* Duplicate analysis not within control limits; indeterminate bias direction.

J The reported result is an estimated value.

- NJ The matrix spike sample recoveries in the associated QC sample are outside QC limits; the result is an estimated value with no definitive bias.
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Footnotes:

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^c The ferrous iron test was analyzed after completion of Cr⁺⁶ testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr⁺⁶ recoveries.

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impact of the sample matrix on Cr⁺⁶ recoveries. ^e Analysis done out of holding time.

^f Exceedance of Default Impact to Groundwater Soil Screening Level addressed by compliance averaging.

^g Detection limit in excess of Default Impact to Groundwater Soil Screening Level; however the sample was collected within the saturated zone.

¹ NOTE: Soil Remediation Standards from June 2008 were incorporated in the May 2012 rule without change.

**- Nickel site specific impact due to groundwater screen level method calculated using SPLP laboratory methods

ft msl = feet mean sea level

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded the most stringent criteria

Table 2K Supplemental Soil Investigation Sample Summary Table (2016) Final Post-Remedial Summary Laboratory Analytical Data for Remaining Soil PPG Site 63, 1 Burma Road,

Jersey City, NJ

Sampled by CB&I

Client Sample ID:	_	NJ Non-	NJ Residential	NJ Default	TP001_SW03	TP001_SW04
Sample Depth (ft bgs):	-	Residential	Direct Contact	Impact to	0.5-1.0	1.0-1.5
Sample Elevation (ft msl):	-	Direct Contact	· ·	Groundwater	10.4-10.9	10.9-11.4
Excavated		Soil (NJAC 7:	26D 5/12) ¹	Soil		
Lab Sample ID:		26D 5/12) ¹		(11/13)	JC31527-5/5A/5R	JC31527- 6/6A/6R/6RT
Date Sampled:					11/10/2016	11/10/2016
Matrix:					Soil	Soil
Antimony	mg/kg	450	31	6	<2.2 NJ-	<2.2 NJ-
A		450		<u> </u>		
Chromium	mg/kg	120,000		0	<2.2 NJ- 51.9	40.3
Nickel		23,000	1,600	- 205**	21.2	40.3
	mg/kg	•	· ·			-
Thallium	mg/kg	79	5	3	<1.1	<1.1
Vanadium	mg/kg	1,100	390	0	42.9	38.3
General Chemistry						
Chromium, Hexavalent	mg/kg	20	-	-	6.5 NJ- / 4.3 NJ-	4.6 NJ- / 4.7 NJ-
Iron, Ferrous	%	-	-	-	-	0.59 ^c
рН	su	-	-	-	8.9	8.85
Redox Potential Vs H2	mv	-	-	-	269	276
Solids, Percent	%			-	86.3	86.8

Analytical Data Qualifiers:

Sulfide Screen

Total Organic Carbon

- < The analyte was analyzed for, but was not detected above the stated reporting limit
- * Duplicate analysis not within control limits; indeterminate bias direction.

mg/kg

- J The reported result is an estimated value.
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Footnotes:

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- ^c The ferrous iron test was analyzed after completion of Cr⁺⁶ testing (outside of normal hold times for this parameter) in order to provide more information about the possible impact of the sample matrix on Cr⁺⁶ recoveries.
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- impact of the sample matrix on Cr⁺⁶ recoveries.
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^f Exceedance of Default Impact to Groundwater Soil Screening Level addressed by compliance averaging.

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ft bgs = feet below ground surface

mg/kg = milligram per kilogram

su = standard unit

mv = millivolts

Result exceeded the most stringent criteria

NEGATIVE ^d

11,300^e J

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