

**Table 3  
Sidewall Soil Samples  
Complete Summary  
Laboratory Analytical Data  
Site 65, Burma Road, Jersey City, NJ  
Sampled by APTIM (f/k/a CB&I)**

Analyte	NJ Non-Residential Direct Contact Soil (NJAC 7:26D 9/17)	NJ Residential Direct Contact Soil (NJAC 7:26D 9/17)	NJ Default Impact to Groundwater Soil Screening (11/13)	Units	PPG63/65_SW03R		PPG63/65_SW03R2		PPG63/65_SW04		PPG 63/65_SW13		PPG63/65_SW14		PPG63/65_SW14R		PPG63/65_SW18		PPG63/65_DUP (SW 18)		PPG63/65_SW20		PPG 63/65_SW48		PPG 63/65_SW67		PPG63/65_SW68		
					R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R
Chromium, Hexavalent	20	-	-	mg/kg	241 NJ- / 97 NJ-	37.9 NJ / 21.4	0.45	21.1 NJ-	109 NJ- / 86.3 NJ+	89.8 NJ+	<0.47 NJ-	<0.48 NJ-	26.8 *NJ- / 55.2 NJ-	<0.48 NJ- / <0.48 NJ-	<0.46 NJ- / <0.46	116 *NJ+													
Chromium	120,000	-	-	mg/kg	4,290	580	40.4	1010 NJ+	9,360	285	70.5	57.9	1,740	22.4 EJ	144	14,700													
Antimony	450	31	6	mg/kg	12.5 NJ-	<2.3 NJ-	<2.1 NJ-	<2.1	<4.9 <sup>a</sup>	<2.3 NJ-	5.1 NJ-	8.6 NJ-	8.1 NJ-	<2.2 NJ-	<2.3 NJ-	18.2 NJ-													
Nickel	23,000	1,600	205*	mg/kg	24.1	19.4	12.5	14.5	15.6	17.6	22.3	36.3	21.8	17.7	36	23.7													
Thallium	-	-	3	mg/kg	<1.3	<1.1	<1.1	<1.0	<2.4 <sup>a</sup>	<1.2	<1.2	<1.2	<1.2	<1.1	<1.2	<4.1													
Vanadium	1,100	390**	NA	mg/kg	77.2 EJ	42.4	21.1	32.4	28.7 <sup>a</sup>	23.9	17.5	22.4	34.5	35.2	14.5	31.6													
Iron, Ferrous	-	-	-	%	-	-	-	-	-	-	-	-	-	0.79	-	-													
Redox Potential Vs H2	-	-	-	mV	229	327	376	243	201	301	272	239	435	-84.7	128	144													
Solids, Percent	-	-	-	%	80.8	89.2	90	83	85.1	83.6	84.8	83.4	82.4	83.1	86.7	71.1													
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE	-	-													
Total Organic Carbon	-	-	-	mg/kg	-	-	-	-	219,000 J	-	-	-	-	5,640	-	-													
pH	-	-	-	su	7.54	8.68	8.5	8.38	9.88	8.71	7.11	7.12	8.05	9.87	7.75	9.5													

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**Footnotes:**

SW108R, SW136, SW137- No data due to CCPW nodules at this location; Sample held at lab.

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

\*\*The use of the USEPA Regional Soil Screening Level of 390 mg/kg for vanadium is proposed as an alternative remediation standard for the site. Based on: <https://www.epa.gov/risk/regional-screening-levels-rsls-users-guide-november-2015>

- = No criteria or not analyzed
- <sup>a</sup> = Elevated detection limit due to dilution required for high interfering element
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- ft msl = feet mean sea level
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- CCPW = Chromate Chemical Processing Waste

**Result exceeded criteria**

For additional information regarding data qualifiers please review the provided Data Validation Reports.

The groundwater elevation used for the evaluation of the Impact to Ground Water (IGW) exposure pathway is 5.2 feet NAVD.

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					R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q
Chromium, Hexavalent	20	-	-	mg/kg	<0.48 NJ+	8.3 *NJ- / 7.4 *NJ- 293	3.1 NJ	256 *J	22.5 *NJ	16.3 *NJ- / 8.7 *NJ- 597	3.1 NJ- / 23	2 NJ- / 0.79 NJ- 1,960 *J	5.7 NJ- / 0.99 NJ- 8,680 *J	<0.51 *J	1.3 *NJ- / 0.52 NJ- 67.7	<0.44 *NJ- / 6.1 NJ- 122	7.4 *NJ- / 36.1 NJ- 1,300													
Chromium	120,000	-	-	mg/kg	6,420	13,600	6,150	1,120																						
Antimony	450	31	6	mg/kg	6.2 NJ-	<2.1 NJ-	19.8 <sup>a</sup> NJ-	<5.1 NJ-	<2.6 NJ-	<2.3 NJ-	<2.3 NJ-	<2.7 NJ-	<7.3 NJ- <sup>a</sup>	23.7 NJ-	<2.3 NJ-	<2.2 NJ-	<2.8 NJ-													
Nickel	23,000	1,600	205*	mg/kg	16.4	26.6	31.8	33.8	44.9	55	37.9	41.7	21.1	27.5	15.8	16.5	128													
Thallium	-	-	3	mg/kg	<2.3	<1.1	<3.7 <sup>a</sup>	<2.6	<1.3	<1.1	<1.1	<1.3	<3.7 <sup>a</sup>	<3.7	<1.2	<1.1	<1.4													
Vanadium	1,100	390**	NA	mg/kg	62.3	51.3	80.4 <sup>a</sup>	107	101	109	78.1	71.6	114	90.2	43.3	30.4	184													
Iron, Ferrous	-	-	-	%	-	-	-	-	-	-	-	-	-	-	0.79	-	-													
Redox Potential Vs H2	-	-	-	mV	61.4	285	340	306	342	289	335	354	254	276	301	279	314													
Solids, Percent	-	-	-	%	84	88.8	77.9	79.9	76.7	86.8	88.4	76.2	79	78.9	87.2	90.8	72.9													
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
Total Organic Carbon	-	-	-	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-													
pH	-	-	-	su	10.02	7.85	8.5	7.48	7.65	8.74	8.32	7.69	7.92	8.73	8.32	9.23	7.66													

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					R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q	R	Q
Chromium, Hexavalent	20	-	-	mg/kg	18.3 NJ / 21.2	3.8	<0.53	1.7	1.2	90.3 NJ- / 221 *NJ-	<0.57 NR/ 19.7 *NJ-	<0.52 NJ- / 22.8	<0.48 *NJ- / 12.6 NJ+	1.5 *NJ- / 101 NJ+	0.75 NJ+ / 10.5 *NJ+	38.9 NJ+ / 73.7 *NJ+	<0.53 NJ- / 16.2													
Chromium	120,000	-	-	mg/kg	314	83.7	54.7	35.5	17.8	12,900	8,500	22.8	12,100	11,000	783	2,930														
Antimony	450	31	6	mg/kg	<2.3 NJ-	<2.2 NJ-	24.4 NJ-	<2.1 NJ-	<2.6 NJ-	11.8 NJ-	26.2 NJ-	<2.5 NJ-	25.7	29.8	<2.6 NJ-	7.2 NJ-	<2.6 NJ-													
Nickel	23,000	1,600	205*	mg/kg	21.6	13	17	12.5	13.4	19.5	19.6	33.5	21.9	26.5	219	20.4	13.2													
Thallium	-	-	3	mg/kg	<1.1	<1.1	<1.3	<1.1	<1.3	<3.6	<2.9	<1.3	<3.5	<3.1	<1.3	<1.2	<1.3													
Vanadium	1,100	390**	NA	mg/kg	34.3	44.9	23.1	40.9	17.4	44.5	41.4	17	131	37.2	23.7	24.6	18													
Iron, Ferrous	-	-	-	%	-	-	-	-	-	-	-	-	0.2	-	-	-	-													
Redox Potential Vs H2	-	-	-	mV	505	339	70.1	235	125	230	103	150	202	129	164	139	325													
Solids, Percent	-	-	-	%	87.5	90.7	75.2	91.2	74.8	79.6	69.6	77.5	82.7	68.5	80.8	80.9	76.1													
Sulfide Screen	-	-	-	-	-	-	-	-	-	-	-	-	NEGATIVE	-	-	-	-													
Total Organic Carbon	-	-	-	mg/kg	-	-	-	-	-	-	-	-	346,000 J	-	-	-	-													
pH	-	-	-	su	7.76	8.67	8.01	8.15	8.19	8.86	10.87	8.2	8.71	10.65	9.1	10.71	7.66													

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Client Sample ID:	PPG63/65_SW106	PPG63/65_SW108	PPG63/65_SW109	PPG63/65_SW115	PPG63/65_WCCG
Sample Elevation (ft msl)	1.3-1.8	6-6.5	9.9.5	7-7.5	6.2-6.7
Sample Depth (ft bgs)	5.8-6.3	2.8-3.3	0.5-1	0.5-1	0.8-1.3
Excavated:		EXCAVATED			
Lab Sample ID:	JB88725-3	JB88913-1A	JB88913-2	JB89093-2	JB85013-6
Date Sampled:	2/22/2015	2/26/2015	2/26/2015	2/27/2015	12/23/2014
Matrix:	Soil	Soil	Soil	Soil	Soil

Analyte	NJ Non-Residential Direct Contact Soil (NJAC 7:26D 9/17)	NJ Residential Direct Contact Soil (NJAC 7:26D 9/17)	NJ Default Impact to Groundwater Soil Screening (11/13)	Units	PPG63/65_SW106		PPG63/65_SW108		PPG63/65_SW109		PPG63/65_SW115		PPG63/65_WCCG	
					R	Q	R	Q	R	Q	R	Q		
Chromium, Hexavalent	20	-	-	mg/kg	<0.54 NJ- /		59.6 NJ- /		3.9 NJ- /		8.2 *NJ- /		432 *NJ- /	
Chromium	120,000	-	-	mg/kg	<0.54 NR	25.5	65.7	1,220	8.4	242	12.7 *NJ-	332	103 NJ-	54,600
Antimony	450	31	6	mg/kg	3.1 NJ-		<2.3 NJ-		<2.4 NJ-		<2.2 NJ-		<35 <sup>b</sup> NJ-	
Nickel	23,000	1,600	205*	mg/kg	17.9		40.7		32		33.6		69.7	
Thallium	-	-	3	mg/kg	<1.4		<1.1		<1.2		<1.1		<18 <sup>b</sup>	
Vanadium	1,100	390**	NA	mg/kg	22		77.7		39.5		51		337	
Iron, Ferrous	-	-	-	%	-		-		-		-		-	
Redox Potential Vs H2	-	-	-	mV	123		307		300		327		214	
Solids, Percent	-	-	-	%	73.4		89.5		88.2		85.8		58.6	
Sulfide Screen	-	-	-		-		-		-		-		-	
Total Organic Carbon	-	-	-	mg/kg	-		-		-		-		-	
pH	-	-	-	su	7.86		8.05		8.35		7.96		7.69	

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