

**Table 3-3
CCPW Metals Analytical Results in the Unstaturated Soil Zone Compared to IGW Soil Screening Level and Soil Remediation Standards
Caven Point Avenue and Pacific Avenue Roadways
PPG, Jersey City, New Jersey**

Grid ID	Location ID	Sample ID	Lab SDG	Lab ID	Depth Interval (ft bgs)	Location Elevation (NAVD88)	Sample Start Elevation (NAVD88)	Sample End Elevation (NAVD88)	Collection Date	Validated	Analyte CAS RN Units DIGWSSL IGWRS-GAG		ANTIMONY 7440-36-0 mg/kg NA 62.7		CHROMIUM 7440-47-3 mg/kg NA NA		NICKEL 7440-02-0 mg/kg NA 170		THALLIUM 7440-28-0 mg/kg 3 NA		VANADIUM 7440-62-2 mg/kg NA NA	
											Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier		
AA40A	135-B14	135-B14A(0.8-1.3)J48979-3	J48979	J48979-3	0.8 - 1.3	10.5	9.7	9.2	12/12/2006	Yes	16	J	288		24.6		< 1.1	U	34.3			
AA40A	135-B14	135-B14B(2.9-3.4)J48979-4	J48979	J48979-4	2.9 - 3.4	10.5	7.6	7.1	12/12/2006	Yes	44.3	J	138		30.1		< 1.2	U	36.2			
AA40A	135-B14	135-B14C(3.4-3.8)J48979-5	J48979	J48979-5	3.4 - 3.8	10.5	7.1	6.7	12/12/2006	Yes	3.5	J	36.1		14.3		< 1.2	U	14.5			
AA40A	135-B14	135-B14D(4.6-5.0)J48979-6	J48979	J48979-6	4.6 - 5.0	10.5	5.9	5.5	12/12/2006	Yes	< 1.9	UJ	6.9		< 3.8	U	< 0.96	U	9.5			
AA46A	EF-98	EF-B98-2.5	460298521	460-29852-17	2.5 - 3.0	9.4	6.9	6.4	08/11/2011	Yes					27.4							
BB35A	135-BB35AR	135-BB35AR-1.0-1.5	JC14857A	JC14857-10A	1.0 - 1.5	11.5	10.5	10.0	02/25/2016	Yes	0.59	J	30.5		20.9		< 0.20	U	47.9			
BB35A	135-BB35AR	135-BB35AR-3.0-3.5	JC14857A	JC14857-15A	3.0 - 3.5	11.5	8.5	8.0	02/25/2016	Yes	4.9	J	45.1		22.2		0.60	J	31.3			
BB35A	135-BB35AR	135-BB35AR-5.0-5.5	JC14857A	JC14857-16A	5.0 - 5.5	11.5	6.5	6.0	02/25/2016	Yes	10.9	J	70.7		21.6		0.63	J	38.4			
BB36A	135-BB36A	135-BB36A-1.5-2.0	JC14857A	JC14857-20A	1.5 - 2.0	11.4	9.9	9.4	02/25/2016	Yes	1.8	J	36.2		19.2		0.38	J	31.5			
BB36A	135-BB36A	135-BB36A-3.5-4.0	JC14857A	JC14857-24A	3.5 - 4.0	11.4	7.9	7.4	02/25/2016	Yes	0.68	J	12.3		9.9		< 0.23	U	19.3			
BB36A	135-BB36A	135-BB36A-5.5-6.0	JC14857A	JC14857-25A	5.5 - 6.0	11.4	5.9	5.4	02/25/2016	Yes	0.76	J	20.2		15.5		< 0.22	U	39.5			
BB37A	135-B15	135-B15A(0.6-1.1)J48979-18	J48979	J48979-18	0.6 - 1.1	10.9	10.3	9.8	12/12/2006	Yes	50.3	J	53.7		28		< 1.1	U	50			
BB37A	135-B15	135-B15B(2.2-2.2)J48979-19	J48979	J48979-19	2.2 - 2.2	10.9	8.7	8.7	12/12/2006	Yes	< 2.6	UJ	18.9		14.1		< 1.3	U	21.1			
BB37A	135-B15	135-B15C(4.2-4.5)J48979-20	J48979	J48979-20	4.2 - 4.5	10.9	6.7	6.4	12/12/2006	Yes	3.9	J	23.1		21.9		< 1.6	U	29.7			
BB43A	EF-21	EF-B21-2.5	460254811	460-25481-3	2.5 - 3.0	10.0	7.5	7.0	04/18/2011	Yes	2.2	J	69.3		65.0		< 1.1	U	26.5			
CC31A	135-SI-DD31A	135-SI-DD31A-0.5-1.0	JC3898	JC3898-1	0.5 - 1.0	10.9	10.4	9.9	09/15/2015	Yes	1.3	J	340		27.8		< 0.63	U	78.7			
CC31A	135-SI-DD31A	135-SI-DD31A-2.6-3.1	JC3898	JC3898-2	2.6 - 3.1	10.9	8.3	7.8	09/15/2015	Yes	1.1	J	23.0		21.9		< 0.26	U	26.4			
CC33A	EF-19	EF-B19-2.5	460255501	460-25550-33	2.5 - 3.0	10.3	7.8	7.3	04/19/2011	Yes	< 1.0	UJ	12.3		15.5		< 1.2	U	13.9			
CC39A	EF-20	EF-B20-2.5	460254811	460-25481-7	2.5 - 3.0	10.7	8.2	7.7	04/18/2011	Yes	< 0.99	UJ	76.8		19.3		< 1.1	U	23.4			
CC39A	PAC-CC39A	PAC-CC39A-0.7-1.2	JC70997	JC70997-1	0.7 - 1.2	11.0	10.3	9.8	07/31/2018	Yes	0.90	J										
CC39A	PAC-CC39A	PAC-CC39A-0.7-1.2X	JC70997	JC70997-2	0.7 - 1.2	11.0	10.3	9.8	07/31/2018	Yes	< 0.46	UJ										
CC39A	PAC-CC39A	PAC-CC39A-3.4-3.9	JC70997	JC70997-3	3.4 - 3.9	11.0	7.6	7.1	07/31/2018	Yes	11.2	J										
CC39A	PAC-CC39A	PAC-CC39A-5.4-5.9	JC71060	JC71060-8	5.4 - 5.9	11.0	5.6	5.1	08/01/2018	Yes	< 0.44	U										
CC40A	EF-97	EF-B97-2.5	460298521	460-29852-16	2.5 - 3.0	10.7	8.2	7.7	08/11/2011	Yes					17.1							
DD31A	135-B16	135-B16A(0.7-1.2)J49116-2	J49116	J49116-2	0.7 - 1.2	9.9	9.2	8.7	12/13/2006	Yes	5.1	J	64.1		31.3		< 2.6	U	30.4			
DD31A	135-B16	135-B16B(2.0-2.4)J49116-3	J49116	J49116-3	2.0 - 2.4	9.9	7.9	7.5	12/13/2006	Yes	< 2.3	UJ	81.2		17.4		< 1.2	U	18.4			
DD31A	135-B16	135-B16C(4.2-4.6)J49116-4	J49116	J49116-4	4.2 - 4.6	9.9	5.7	5.3	12/13/2006	Yes	< 2.4	UJ	170		16.6		< 1.2	U	23.7			
EE28A	135-B17	135-B17A(0.9-1.4)J49116-5	J49116	J49116-5	0.9 - 1.4	9.8	8.9	8.4	12/13/2006	Yes	3.2	J	19.7		11.5		< 1.1	U	21.3			
EE28A	135-B17	135-B17B(2.4-2.9)J49116-6	J49116	J49116-6	2.4 - 2.9	9.8	7.4	6.9	12/13/2006	Yes	< 2.4	UJ	12.7		9.5		< 1.2	U	17.5			
EE28A	135-B17	135-B17C(4.0-4.5)J49116-7	J49116	J49116-7	4.0 - 4.5	9.8	5.8	5.3	12/13/2006	Yes	< 3	UJ	23.5		23.7		< 1.5	U	32.8			
FF23A	135-FF23A	135-FF23A-1.0-1.5	JC3801A	JC3801-1A	1.0 - 1.5	8.7	7.7	7.2	09/14/2015	Yes	20.4	J	28.2		40.8		< 0.24	U	18.5			
FF23A	135-FF23A	135-FF23A-3.0-3.5	JC3801A	JC3801-2A	3.0 - 3.5	8.7	5.7	5.2	09/14/2015	Yes	2.9	J	24.5		22.2		< 0.27	U	21.4			
FF25A	135-B18	135-B18A(0.6-1.1)J49116-10	J49116	J49116-10	0.6 - 1.1	9.0	8.4	7.9	12/13/2006	Yes	3.6	J	192		27.1		< 1.1	U	42			
FF25A	135-B18	135-B18B(2.8-3.3)J49116-11	J49116	J49116-11	2.8 - 3.3	9.0	6.2	5.7	12/13/2006	Yes	< 2.6	UJ	46.3		16.3		< 1.3	U	19.3			
FF31A	EF-124	EF-B124-0.6-1.1	JB15380	JB15380-8	0.6 - 1.1	10.9	10.3	9.8	09/04/2012	Yes					12.4							
GG27A	EF-18	EF-B18-2.5	460254811	460-25481-11	2.5 - 3.0	10.0	7.5	7.0	04/18/2011	Yes	5.8	J	75.9		36.9		< 1.1	U	13.7			
M46A	133-P3B-M46A	133-P3B-M46A-1.0-1.5	JB64984A	JB64984-9A	1.0 - 1.5	12.0	11.0	10.5	04/17/2014	Yes	3.7	J	327	J	25.7		< 0.46	U	36.5			
M46A	133-P3B-M46A	133-P3B-M46A-3.0-3.5	JB64984A	JB64984-10A	3.0 - 3.5	12.0	9.0	8.5	04/17/2014	Yes	4.0	J	157	J	95.1		< 0.50	U	29.2			
M46A	133-P3B-M46A	133-P3B-M46A-5.0-5.5	JB64984A	JB64984-11A	5.0 - 5.5	12.0	7.0	6.5	04/17/2014	Yes	1.4	J	32.8	J	19.6		< 0.54	U	34.8			
W49A	135-B12	135-B12A(0.7-1.2)J48979-9	J48979	J48979-9	0.7 - 1.2	9.8	9.1	8.6	12/12/2006	Yes	< 2.1	UJ	41.2		14.7		< 1.1	U	27.9			
W49A	135-B12	135-B12B(1.5-2.0)J48979-10	J48979	J48979-10	1.5 - 2.0	9.8	8.3	7.8	12/12/2006	Yes	3.7	J	121		19.9		< 1.3	U	26.6			
W49A	135-B12	135-B12C(2.9-3.4)J48979-11	J48979	J48979-11	2.9 - 3.4	9.8	6.9	6.4	12/12/2006	Yes	< 2.2	UJ	26		9.7		< 1.1	U	24.4			
W49A	135-B12	135-B12D(3.7-4.2)J48979-12	J48979	J48979-12	3.7 - 4.2	9.8	6.1	5.6	12/12/2006	Yes	< 2.7	UJ	28.6		18.7		< 1.4	U	27.5			
W49A	ASM-W49A-SW-E1	ASM-W49A-SW-E-5.5-6.0	JC56973	JC56973-3	5.5 - 6.0	14.2	8.7	8.2	12/08/2017	Yes	2.3	J-										
W49A	ASM-W49A-SW-E1	ASM-W49A-SW-E-5.5-6.0X	JC56973	JC56973-4	5.5 - 6.0	14.2	8.7	8.2	12/08/2017	Yes	2.6	J-										
X45A	ASM-X45A-SW-E	ASM-X45A-SW-E-6.0-6.5	JC52320A	JC52320-5A	6.0 - 6.5	14.3	8.3	7.8	10/03/2017	Yes	1.7	J	114	J	22.8		< 0.46	U	27.1			
X45A	ASM-X45A-SW-E1	ASM-X45A-SW-E-6.3-6.8	JC53724A	JC53724-12A	6.3 - 6.8	14.3	8.0	7.5	10/23/2017	Yes	0.98	J	21.9	J	22.5		< 0.48	U	27.0			
X45A	ASM-X45A-SW-E1	ASM-X45A-SW-E-6.3-6.8X	JC53724A	JC53724-15A	6.3 - 6.8	14.3	8.0	7.5	10/23/2017	Yes	< 0.44	UJ	38.9	J	18.3		< 0.47	U	28.5			
X45A	ASM-X45A-SW-E2	ASM-X45A-SW-E-8.3-8.8	JC53724A	JC53724-13A	8.3 - 8.8	14.3	6.0	5.5	10/23/2017	Yes	1.6	J	38.1	J	20.7		< 0.53	U	34.7			
X47A	135-B13	135-B13A(0.0-0.5)J48979-14	J48979	J48979-14	0.0 - 0.5	9.9	9.9	9.4	12/12/2006	Yes	4.5	J	183		24.1		< 1.2	U	39.4			
X47A	135-B13	135-B13B(1.0-1.5)J48979-15	J48979	J48979-15	1.0 - 1.5	9.9	8.9	8.4	12/12/2006	Yes	6.3	J	27.2		20.7		< 1.2	U	25.6			
X47A	135-B13	135-B13C(3.7-4.1)J48979-16	J48979	J48979-16	3.7 - 4.1	9.9	6.2	5.8	12/12/2006	Yes	< 2.8	UJ	168		23.3		< 1.4	U	35.2			
Y45A	135-MW1C	PPG 1351CA(0.6-1.1)J49116-13	J49116	J49116-13	0.6 - 1.1	9.9	9.3	8.8	12/13/2006	Yes	2.8	J	32.9		24.8		< 1.2	U	23.1			
Y45A	135-MW1C	PPG 1351CB(1.8-2.3) DUPJ49116-15	J49116	J49116-15	1.8 - 2.3	9.9	8.1	7.6	12/13/2006	Yes	6.9	J	28		29.2		< 1.3	U	28.6			
Y45A	135-MW1C	PPG 1351CB(1.8-2.3)J49116-14	J49116	J49116-14	1.8 - 2.3	9.9	8.1	7.6	12/13/2006	Yes	6.5	J	24.9		20.8		< 1.3	U	26.5			
Y45A	135-MW1C	PPG 1351CC(4.5-5.0)J49116-16	J49116	J49116-16	4.5 - 5.0	9.9	5.4	4.9	12/13/2006	Yes	< 2.9	UJ	1140		61.1		< 1.4	U	38.1			
Z39A	135-Z39A-SW-E	135-Z39A-SW-E-4.1-4.6	JC34136A	JC34136-2A	4.1 - 4.6	14.0	9.9	9.4	12/21/2016	Yes	2.8		139		20.4		< 0.43	U	31.5			

**Table 3-3
CCPW Metals Analytical Results in the Unstaturated Soil Zone Compared to IGW Soil Screening Level and Soil Remediation Standards
Caven Point Avenue and Pacific Avenue Roadways
PPG, Jersey City, New Jersey**

Grid ID	Location ID	Sample ID	Lab SDG	Lab ID	Depth Interval (ft bgs)	Location Elevation (NAVD88)	Sample Start Elevation (NAVD88)	Sample End Elevation (NAVD88)	Collection Date	Validated	ANTIMONY		CHROMIUM		NICKEL		THALLIUM		VANADIUM	
											Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
											Analyte CAS RN Units DIGWSSL IGWSRS-GAG	7440-36-0 mg/kg NA 62.7	7440-47-3 mg/kg NA NA	7440-02-0 mg/kg NA 170	7440-28-0 mg/kg 3 NA	7440-62-2 mg/kg NA NA				
Z40A	135-Z40A-SW-E1	135-Z40A-SW-E-6.0-6.5	JC35023A	JC35023-12A	6.0 - 6.5	14.0	8.0	7.5	01/06/2017	Yes	15.5		167		23.8		< 0.49	U	34.7	
Z40A	135-Z40A-SW-E2	135-Z40A-SW-E-8.0-8.5	JC35023A	JC35023-11A	8.0 - 8.5	14.0	6.0	5.5	01/06/2017	Yes	3.4		122		19.7		< 0.49	U	39.1	
Z46A	EF-22	EF-B22-2.5	460255501	460-25550-37	2.5 - 3.0	9.4	6.9	6.4	04/19/2011	Yes	2.2	J	54.1		66.3		< 1.1	U	18.9	

Notes:

This table compares sample results from the unsaturated zone to the DIGWSSLs and IGWSRS-GAGs. The groundwater elevation (above which is the unsaturated zone) on this Site was estimated as the 50th percentile groundwater elevation from six monitoring wells, three located on or adjacent to Caven Point Avenue and three located on or adjacent to Pacific Avenue, gauged between February 2007 and May 2018. The monitoring well locations and data are included in Appendix A. The estimated groundwater elevation for the Caven Point Avenue area is El. 6.9 ft NAVD88. The estimated groundwater elevation for the Pacific Avenue area is El. 5.3 ft NAVD88.

Definitions -

- bgs - below ground surface
- CAS-RN - Chemical Abstracts Service Registry Number
- CCPW - Chromate Chemical Production Waste
- DIGWSSL - NJDEP Default Impact to Groundwater Soil Screening Level
- El. - elevation
- ft - feet or foot
- IGW - Impact to Groundwater
- IGWSRS-GAG - NJDEP Impact to Groundwater Soil Remediation Standard-Garfield Avenue Group
- mg/kg - milligrams per kilogram
- NA - not applicable
- NAVD88 - North American Vertical Datum of 1988
- NJDEP - New Jersey Department of Environmental Protection
- SDG - Sample Delivery Group
- "X" at the end of the Sample ID indicates field duplicate sample

Qualifiers -

- J - Indicates the result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample.
- J- -Indicates the analyte was positively identified; the associated numerical value is an estimated quantity with a potential low bias.
- U - Indicates the analyte was not detected in the sample above the sample reporting limit.
- UJ - Indicates the analyte was not detected above the reporting limit and the reporting limit was approximate.