

**Table 2-7**  
**Select SVOC Analytical Results in the Unsaturated Soil Zone Compared to IGW Soil Screening Levels**  
**Forrest Current-Use Remediation Areas, Garfield Avenue Group**  
**PPG, Jersey City, New Jersey**

Grid ID (G1)	Location ID (G2)	Location Elevation (ft NAVD88) (G3, G4)	Sample ID (G5, G6)	Depth Interval (ft bgs) (G7)	Sample Start Elevation (ft NAVD88) (G4, G8)	Sample End Elevation (ft NAVD88) (G4, G9)	Lab ID (G10)	Lab SDG (G10)	Date Collected (G11)	Sample Status (G12, G13)	Sample Type (G14)	Validated (Y/N) (G15)	Groundwater Elevation (ft NAVD88) (G6)	ANALYTE: BENZO(A)ANTHRACENE CAS-RN: 56-55-3 Units: mg/kg DIGWSSL: 0.8		BENZO(A)PYRENE 50-32-8 mg/kg 0.2		BENZO(B)FLUORANTHENE 205-99-2 mg/kg 2		BENZO(K)FLUORANTHENE 207-08-9 mg/kg 25	
														Result (G16, G17)	Qualifier (G18, G19)	Result (G16, G17, G20)	Qualifier (G18, G19)	Result (G16, G17)	Qualifier (G18, G19)	Result (G16, G17)	Qualifier (G18, G19)
CC10B	P4-FOR-CC10B	10.7	P4-FOR-CC10B-3.0-3.5	3.0 - 3.5	7.7	7.2	JC22855-5A	JC22855A	06/23/2016	remaining	N	Y	6.3	0.131		0.104		0.144		0.0575	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-0.0-0.5	0.0 - 0.5	10.7	10.2	JC27321-2A	JC27321A	09/09/2016	remaining	N	Y	6.1	0.377				0.68		0.241	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-2.0-2.5	2.0 - 2.5	8.7	8.2	JC27321-8A	JC27321A	09/09/2016	remaining	N	Y	6.1	1.93				2.12		0.742	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-4.0-4.5	4.0 - 4.5	6.7	6.2	JC27321-10A	JC27321A	09/09/2016	remaining	N	Y	6.1	3.9 J				3.7 J		1.21 J	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-4.0-4.5X	4.0 - 4.5	6.7	6.2	JC27321-11A	JC27321A	09/09/2016	remaining	FD	Y	6.1	0.689 J				0.809 J		0.27 J	
CC12B	NFS-PDI-CC12BR	10.5	NFS-PDI-CC12BR-0.5-1.0	0.5 - 1.0	10.0	9.5	JC31705-2A	JC31705A	11/14/2016	remaining	N	Y	6.1	0.884				0.852		0.276	
CC12B	NFS-PDI-CC12BR	10.5	NFS-PDI-CC12BR-2.5-3.0	2.5 - 3.0	8.0	7.5	JC31705-8A	JC31705A	11/14/2016	remaining	N	Y	6.1	0.538				0.514		0.159	
CC14B	NFS-PDI-CC14B	10.8	NFS-PDI-CC14B-0.5-1.0	0.5 - 1.0	10.3	9.8	JC27804-17A	JC27804A	09/16/2016	remaining	N	Y	6.1	0.127 J				0.368		0.104 J	
CC14B	NFS-PDI-CC14B	10.8	NFS-PDI-CC14B-2.5-3.0	2.5 - 3.0	8.3	7.8	JC27804-19A	JC27804A	09/16/2016	remaining	N	Y	6.1	1.2				1.21		0.402	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-0.0-0.5	0.0 - 0.5	11.0	10.5	JC27483-1A	JC27483A	09/13/2016	remaining	N	Y	6.1	< 0.019 U				0.0448 J		< 0.032 U	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-2.0-2.5	2.0 - 2.5	9.0	8.5	JC27483-8A	JC27483A	09/13/2016	remaining	N	Y	6.1	0.84				0.797		0.306	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-4.0-4.5	4.0 - 4.5	7.0	6.5	JC27483-11A	JC27483A	09/13/2016	remaining	N	Y	6.1	0.224 J				0.208		0.0873	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-4.0-4.5X	4.0 - 4.5	7.0	6.5	JC27483-10A	JC27483A	09/13/2016	remaining	FD	Y	6.1	0.122 J				0.127		0.0429	
Y12B	P4-FOR-Y12B	10.5	P4-FOR-Y12B-0.5-1.0	0.5 - 1.0	9.9	9.4	JC22855-17A	JC22855A	06/23/2016	remaining	N	Y	6.3	1.8		1.42		1.93		0.567	
Y12B	P4-FOR-Y12B	10.5	P4-FOR-Y12B-2.0-2.5	2.0 - 2.5	8.4	7.9	JC22855-18A	JC22855A	06/23/2016	remaining	N	Y	6.3	0.436		0.416		0.655		0.173	
Y12B	P4-FOR-Y12BR	10.5	P4-FOR-Y12BR-0.5-1.0	0.5 - 1.0	9.9	9.4	JC23104-12A	JC23104A	06/28/2016	remaining	N	Y	6.3	1.65		1.93		2.51		0.723	
Z12B	PSEG-SB62	10.0	NJD981084668-8/17/2007-1	1.5 - 2.0	8.5	8.0	854412	K070	08/17/2007	remaining	N	N	6.3	6.7				6.3		6.1	

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Grid ID (G1)	Location ID (G2)	Location Elevation (ft NAVD88) (G3, G4)	Sample ID (G5, G6)	Depth Interval (ft bgs) (G7)	Sample Start Elevation (ft NAVD88) (G4, G8)	Sample End Elevation (ft NAVD88) (G4, G9)	Lab ID (G10)	Lab SDG (G10)	Date Collected (G11)	Sample Status (G12, G13)	Sample Type (G14)	Validat ed (Y/N) (G15)	Groundw ater Elevation (ft NAVD88) (G6)	Analyte CAS-RN Units DIGWSSL		DIBENZO(A,H)ANTHRACENE		INDENO(1,2,3-CD)PYRENE		NAPHTHALENE		Specific Notes
														53-70-3 mg/kg 0.8	193-39-5 mg/kg 7	91-20-3 mg/kg 25	Result (G16, G17)	Qualifier (G18, G19)	Result (G16, G17)	Qualifier (G18, G19)	Result (G16, G17)	
CC10B	P4-FOR-CC10B	10.7	P4-FOR-CC10B-3.0-3.5	3.0 - 3.5	7.7	7.2	JC22855-5A	JC22855A	06/23/2016	remaining	N	Y	6.3	0.0201	J	0.0781		0.0446			S1	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-0.0-0.5	0.0 - 0.5	10.7	10.2	JC27321-2A	JC27321A	09/09/2016	remaining	N	Y	6.1	0.116	J	0.424		< 0.055	U		S2	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-2.0-2.5	2.0 - 2.5	8.7	8.2	JC27321-8A	JC27321A	09/09/2016	remaining	N	Y	6.1	0.32		1.03		0.784			S2, S3	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-4.0-4.5	4.0 - 4.5	6.7	6.2	JC27321-10A	JC27321A	09/09/2016	remaining	N	Y	6.1	0.56	J	1.89	J	0.899	J		S2, S3	
CC12B	NFS-PDI-CC12B	10.7	NFS-PDI-CC12B-4.0-4.5X	4.0 - 4.5	6.7	6.2	JC27321-11A	JC27321A	09/09/2016	remaining	FD	Y	6.1	0.0919	J	0.412	J	0.165	J		S2	
CC12B	NFS-PDI-CC12BR	10.5	NFS-PDI-CC12BR-0.5-1.0	0.5 - 1.0	10.0	9.5	JC31705-2A	JC31705A	11/14/2016	remaining	N	Y	6.1	0.142		0.412		0.214			S3, S4	
CC12B	NFS-PDI-CC12BR	10.5	NFS-PDI-CC12BR-2.5-3.0	2.5 - 3.0	8.0	7.5	JC31705-8A	JC31705A	11/14/2016	remaining	N	Y	6.1	0.0841		0.268		0.106			S4	
CC14B	NFS-PDI-CC14B	10.8	NFS-PDI-CC14B-0.5-1.0	0.5 - 1.0	10.3	9.8	JC27804-17A	JC27804A	09/16/2016	remaining	N	Y	6.1	0.0788	J	0.255		< 0.049	U		S2	
CC14B	NFS-PDI-CC14B	10.8	NFS-PDI-CC14B-2.5-3.0	2.5 - 3.0	8.3	7.8	JC27804-19A	JC27804A	09/16/2016	remaining	N	Y	6.1	0.181		0.595		0.769			S2, S3	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-0.0-0.5	0.0 - 0.5	11.0	10.5	JC27483-1A	JC27483A	09/13/2016	remaining	N	Y	6.1	< 0.03	U	0.0545	J	< 0.019	U		S2	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-2.0-2.5	2.0 - 2.5	9.0	8.5	JC27483-8A	JC27483A	09/13/2016	remaining	N	Y	6.1	0.162	J	0.478		3.84			S2, S3	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-4.0-4.5	4.0 - 4.5	7.0	6.5	JC27483-11A	JC27483A	09/13/2016	remaining	N	Y	6.1	0.0312	J	0.126		0.212	J		S2	
EE15B	NFS-PDI-EE15B	11.0	NFS-PDI-EE15B-4.0-4.5X	4.0 - 4.5	7.0	6.5	JC27483-10A	JC27483A	09/13/2016	remaining	FD	Y	6.1	< 0.017	U	0.0696		0.117	J		S2	
Y12B	P4-FOR-Y12B	10.5	P4-FOR-Y12B-0.5-1.0	0.5 - 1.0	9.9	9.4	JC22855-17A	JC22855A	06/23/2016	remaining	N	Y	6.3	0.306		1.02		0.258			S5, S6	
Y12B	P4-FOR-Y12B	10.5	P4-FOR-Y12B-2.0-2.5	2.0 - 2.5	8.4	7.9	JC22855-18A	JC22855A	06/23/2016	remaining	N	Y	6.3	0.0957		0.337		0.392			S5, S6	
Y12B	P4-FOR-Y12BR	10.5	P4-FOR-Y12BR-0.5-1.0	0.5 - 1.0	9.9	9.4	JC23104-12A	JC23104A	06/28/2016	remaining	N	Y	6.3	0.372		1.23		0.459			S5, S6	
Z12B	PSEG-SB62	10.0	NJD981084668-8/17/2007-1	1.5 - 2.0	8.5	8.0	854412	K070	08/17/2007	remaining	N	N	6.3	0.49		1.1		0.22	J		S1, S3, S7	

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**ABBREVIATIONS:**

ACO - Administrative Consent Order  
bgs - below ground surface  
CAS RN - Chemical Abstracts Service Registry Number  
DIGWSSL - Default Impact to Ground Water Soil Screening Level  
El. - elevation  
FD - field duplicate sample type  
ft - feet  
JCO - Judicial Consent Order  
IGW - Impact to Ground Water  
mg/kg - milligrams per kilogram  
MGP - manufactured gas plant  
N - normal sample type  
NAVD88 - North American Vertical Datum of 1988  
NJDEP - New Jersey Department of Environmental Protection  
PAHs - polycyclic aromatic hydrocarbons  
PSEG - Public Service Electric and Gas Company  
SDG - sample delivery group  
SVOC - semi-volatile organic compound

**QUALIFIERS:**

J - The result was an estimated value; the associated numerical value was an approximate concentration of the analyte in the sample.  
U - The analyte was not detected above the sample reporting limit shown.

**GENERAL NOTES:**

G1. "Grid ID" refers to an area, typically 30 ft by 30 ft, identified as Grid Row W through HH (extending west to east) and Grid Column 10B through 17B (extending from south to north).  
G2. "Location ID" refers to the location name where samples were collected.  
G3. "Location Elevation" refers to the pre-remediation surface elevation for samples collected from the pit bottom, and the surface elevation of the sample location when the sample was collected via boring or test pit.  
G4. Elevation vertical datum is NAVD88, in U.S. survey ft.  
G5. "Sample ID" refers to the name of a sample collected at a given location and is unique to the depth of the sample collected. The depth listed in the Sample ID may not necessarily correspond to the actual sample depth interval due to corrections made as a result of post-field work review of surveyed surface elevations and/or boring logs. In some cases, the "Sample ID" in the table is a variant of the sample ID in the laboratory report and/or data validation report. In these cases, the "Lab ID" associates the sample results to the laboratory report and/or data validation report.  
G6. This table compares sample results from the unsaturated zone to the DIGWSSLs. The groundwater elevations (above which is the unsaturated zone) on Forrest Street Properties was estimated as the 50th percentile groundwater elevation from ten monitoring wells located on or adjacent to Forrest Street Properties gauged between February 2007 and December 2016. The groundwater elevation (above which is the unsaturated zone) on Forrest Street was estimated as the 50th percentile groundwater elevation from seven monitoring wells located on or adjacent to Forrest Street gauged between December 2003 and December 2016. The monitoring well locations and data are included in Appendix D. The estimated groundwater elevation for Forrest Street Properties is El. 6.1 ft NAVD88, and the estimated groundwater elevation for Forrest Street is El. 6.3 ft NAVD88.  
G7. "Depth Interval" is based on the "Location Elevation."  
G8. "Sample Start Elevation" refers to the start of the sample interval. There may be up to 0.1 ft variation between the listed Sample Start Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G9. "Sample End Elevation" refers to the end of the sample interval. There may be up to 0.1 ft variation between the listed Sample End Elevation and the elevation calculated using the Location Elevation and Depth Interval due to rounding of the numbers.  
G10. "Lab ID" refers to the identification number assigned to the sample by the analytical laboratory performing the sample analysis. "Lab SDG" refers to the delivery group number assigned to the sample by the analytical laboratory.  
G11. "Date Collected" refers to the date the soil sample was collected.  
G12. "Sample Status" of "remaining" indicates the soil in that interval is outside the excavation footprint, and remains in-place at that location.  
G13. The 1-ft post-excavation contours representing the as-built terminal excavation elevations are provided Figure 4-1 through Figure 4-9.  
G14. "Sample Type" indicates whether the sample type is normal (N) or a field duplicate (FD).  
G15. "Y" indicates that a sample underwent data validation and "N" indicates that data validation was not conducted.  
G16. "Result" refers to the analytical result which is reported in mg/kg.  
G17. Bold text indicates that the result exceeds the DIGWSSL. Non-bold text indicates that the result does not exceed the DIGWSSL.  
G18. "Qualifier" refers to the data qualifier assigned by the data validation team reviewing the data from the laboratory for validated data. For unvalidated data, it refers to the qualifier assigned by the laboratory.  
G19. Non-detect results are shown on this table using the Method Detection Limit, if available; otherwise they are shown at the Reporting Limit.  
G20. Per the ACO/JCO Site Parameters List, benzo(a)pyrene was identified as a parameter emanating from Site 114 onto Forrest Street (but not onto Forrest Street Properties); therefore, benzo(a)pyrene analytical results are reported for samples collected from Forrest Street.

**SPECIFIC NOTES:**

S1. This sample is remaining in place within the Forrest Street Utility Offset.

S2. This sample is remaining in place within the 90 Forrest Street Alleyway.

S3. The PAH result(s) for this sample is greater than the DIGWSSL. The elevated PAH concentration(s) in this sample is not related to MGP impacts emanating from Site 114 per the *Supplemental Soil Remedial Investigation Report Final (Revision 1)*, dated August 30, 2018 and approved by NJDEP on October 22, 2018. As this exceedance is not associated with MGP operations, it does not fall under purview of the ACO and JCO and is the responsibility of the property owner.

S4. This sample is remaining in place within the 86/90 Forrest Street Building Footprint.

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S5. This sample is remaining in place within the 100 Forrest Street Loading Dock Driveway.

S6. In Grid Y12B, the PAH result(s) for samples P4-FOR-Y12B-0.5-1.0, P4-FOR-Y12B-2.0-2.5, and P4-FOR-Y12BR-0.5-1.0 are greater than the DIGWSSL. MGP impacts are identified as emanating from the former Halladay Street Gas Works Plant located within Site 114 into the portion of Forrest Street adjacent to Site 114 Phase 2B-2, as described in the technical memorandum *North of Forrest Street Area – Evaluation of Non-CCPW-Related Compounds Emanating from Site 114*, dated August 26, 2016. These contaminants may be related to MGP impacts and may also be attributed to historic fill, which is widespread throughout this area. Per the ACO and JCO, PPG and/or PSEG are jointly responsible for remediation of the MGP impacts emanating from Site 114. For the current-use remediation, these sample are being addressed via engineering controls (Existing Asphalt and Concrete Cap) and institutional controls (notice in lieu of deed notice/deed notice). For the future residential-use remediation, exceedances in samples P4-FOR-Y12B-0.5-1.0 and P4-FOR-Y12BR-0.5-1.0 will be removed via future remedial excavation per the *Conceptual Future Residential-Use Remedial Excavation Plan*, provided in Appendix M; the exceedance in sample P4-FOR-Y12B-2.0-2.5 will be addressed via engineering controls (capping) and institutional controls (notice in lieu of deed notice/deed notice).

S7. This sample was collected by another party. A data validation memorandum has not been identified.