

**NOTE:** The data below represents surface water samples that were collected on Feb 6, 2014 by EPA SESD sampling teams. Water sample measurements are in micrograms per liter (ug/L) and milligrams per liter (mg/L) for these samples. The data is being compared to EPA ecological risk screening levels (ERSLs) to protect aquatic life in the surface water of the Dan River. Specific qualifiers and footnotes are listed below the summary table. These samples were collected at various locations along the river (refer to map for generalized locations). The detected concentrations in surface water are all below the EPA ERSLs with the exception of lead. The preferred method for screening aquatic toxicity of surface water is dissolved metals, therefore the finding of lead above the ecological screening value does not clearly indicate unacceptable risk to aquatic life.

		Danville Water Treatment Plant - Intake	South Boston Water Treatment Plant - Intake	
Location	Ecological Screening Standard for Surface Water Samples <sup>2</sup>	DVR	SBR	
Sample ID		DVR01	SBR01	
Date Collected		2/6/2014	2/6/2014	
Time Collected		1540	1350	
Status		Validation Complete	Validation Complete	
Type		Surface Water	Surface Water	
Volatile Organic Compounds			Units	
(m- and/or p-)Xylene		1.0 U	1.0 U	µg/L
1,1,1,2-Tetrachloroethane		0.50 U	0.50 U	µg/L
1,1,1-Trichloroethane		2.0 U	2.0 U	µg/L
1,1,2,2-Tetrachloroethane		0.50 U	0.50 U	µg/L
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)		0.50 U	0.50 U	µg/L
1,1,2-Trichloroethane		2.0 U	2.0 U	µg/L
1,1-Dichloroethane		0.50 U	0.50 U	µg/L
1,1-Dichloroethene (1,1-Dichloroethylene)		0.50 U	0.50 U	µg/L
1,1-Dichloropropene		0.50 U	0.50 U	µg/L
1,2,3-Trichlorobenzene		0.50 U	0.50 U	µg/L
1,2,3-Trichloropropane		2.0 U	2.0 U	µg/L
1,2,4-Trichlorobenzene		0.50 U	0.50 U	µg/L
1,2,4-Trimethylbenzene		0.50 U	0.50 U	µg/L
1,2-Dibromo-3-Chloropropane (DBCP)		4.0 U	4.0 U	µg/L
1,2-Dibromoethane (EDB)		2.0 U	2.0 U	µg/L
1,2-Dichlorobenzene		0.50 U	0.50 U	µg/L
1,2-Dichloroethane		0.50 U	0.50 U	µg/L
1,2-Dichloropropane		0.50 U	0.50 U	µg/L
1,3,5-Trimethylbenzene		0.50 U	0.50 U	µg/L
1,3-Dichlorobenzene		0.50 U	0.50 U	µg/L
1,3-Dichloropropane		0.50 U	0.50 U	µg/L
1,4-Dichlorobenzene		0.50 U	0.50 U	µg/L
2,2-Dichloropropane		2.0 U	2.0 U	µg/L
Acetone		4.0 U	4.0 U	µg/L
Benzene		0.50 U	0.50 U	µg/L
Bromobenzene		0.50 U	0.50 U	µg/L
Bromochloromethane		0.50 U	0.50 U	µg/L
Bromodichloromethane		0.50 U	0.50 U	µg/L

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Date Collected		2/6/2014	2/6/2014	
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Status		Validation Complete	Validation Complete	
Type		Surface Water	Surface Water	
Bromoform		4.0 U	4.0 U	µg/L
Bromomethane		2.0 U	2.0 U	µg/L
Carbon Tetrachloride		2.0 U	2.0 U	µg/L
Carbon disulfide		2.0 U	2.0 U	µg/L
Chlorobenzene		0.50 U	0.50 U	µg/L
Chloroethane		2.0 U	2.0 U	µg/L
Chloroform		0.50 U	0.50 U	µg/L
Chloromethane		0.50 U	0.50 U	µg/L
Cyclohexane		0.50 U	0.50 U	µg/L
Dibromochloromethane		2.0 U	2.0 U	µg/L
Dibromomethane		0.50 U	0.50 U	µg/L
Dichlorodifluoromethane (Freon 12)		2.0 U	2.0 U	µg/L
Ethyl Benzene		0.50 U	0.50 U	µg/L
Hexachlorobutadiene		0.50 U	0.50 U	µg/L
Isopropylbenzene		0.50 U	0.50 U	µg/L
Methyl Acetate		4.0 U	4.0 U	µg/L
Methyl Butyl Ketone		1.0 U	1.0 U	µg/L
Methyl Ethyl Ketone		4.0 U	4.0 U	µg/L
Methyl Isobutyl Ketone		1.0 U	1.0 U	µg/L
Methyl T-Butyl Ether (MTBE)		0.50 U	0.50 U	µg/L
Methylcyclohexane		0.50 U	0.50 U	µg/L
Methylene Chloride		0.50 U	0.50 U	µg/L
Styrene		0.50 U	0.50 U	µg/L
Tetrachloroethene (Tetrachloroethylene)		0.50 U	0.50 U	µg/L
Toluene		0.50 U	0.50 U	µg/L
Trichloroethene (Trichloroethylene)		0.50 U	0.50 U	µg/L
Trichlorofluoromethane (Freon 11)		0.50 U	0.50 U	µg/L
Vinyl chloride		0.50 U	0.50 U	µg/L
cis-1,2-Dichloroethene		0.50 U	0.50 U	µg/L
cis-1,3-Dichloropropene		0.50 U	0.50 U	µg/L
n-Butylbenzene		0.50 U	0.50 U	µg/L
n-Propylbenzene		0.50 U	0.50 U	µg/L
o-Chlorotoluene		0.50 U	0.50 U	µg/L
o-Xylene		0.50 U	0.50 U	µg/L
p-Chlorotoluene		0.50 U	0.50 U	µg/L
p-Isopropyltoluene		0.50 U	0.50 U	µg/L
sec-Butylbenzene		0.50 U	0.50 U	µg/L
tert-Butylbenzene		0.50 U	0.50 U	µg/L
trans-1,2-Dichloroethene		0.50 U	0.50 U	µg/L
trans-1,3-Dichloropropene		0.50 U	0.50 U	µg/L

<b>Location</b>	<b>Ecological Screening Standard for Surface Water Samples<sup>2</sup></b>	<b>DVR</b>	<b>SBR</b>
<b>Sample ID</b>		<b>DVR01</b>	<b>SBR01</b>
<b>Date Collected</b>		<b>2/6/2014</b>	<b>2/6/2014</b>
<b>Time Collected</b>		<b>1540</b>	<b>1350</b>
<b>Status</b>		<b>Validation Complete</b>	<b>Validation Complete</b>
<b>Type</b>		<b>Surface Water</b>	<b>Surface Water</b>

<b>Semi-Volatile Organic Compounds</b>				<b>Units</b>
Acenaphthene		1.0 U	1.0 U	µg/L
Acenaphthylene		1.0 U	1.0 U	µg/L
Anthracene		1.0 U	1.0 U,J,O	µg/L
Benzo(a)anthracene		1.0 U	1.0 U,J,O	µg/L
Benzo(a)pyrene		0.21 U	0.20 U,J,O	µg/L
Benzo(b)fluoranthene		1.0 U	1.0 U,J,O	µg/L
Benzo(g,h,i)perylene		1.0 U	1.0 U,J,O	µg/L
Benzo(k)fluoranthene		1.0 U	1.0 U,J,O	µg/L
Benzyl butyl phthalate		1.0 U,J,O	1.0 U,J,O	µg/L
Bis(2-ethylhexyl) phthalate		1.0 U	1.0 U,J,O	µg/L
Bis-(2-Ethylhexyl) Adipate		1.0 U,J,O	1.0 U,J,O	µg/L
Chrysene		1.0 U	1.0 U,J,O	µg/L
Di-n-butylphthalate		1.0 U,J,O	1.0 U,J,O	µg/L
Di-n-octylphthalate		1.0 U	1.0 U,J,O	µg/L
Dibenz(a,h)anthracene		1.0 U	1.0 U,J,O	µg/L
Diethyl phthalate		1.0 U	1.0 U	µg/L
Dimethyl phthalate		1.0 U	1.0 U	µg/L
Fluoranthene		1.0 U	1.0 U,J,O	µg/L
Fluorene		1.0 U	1.0 U	µg/L
Hexachlorobenzene (HCB)		1.0 U	1.0 U,J,O	µg/L
Indeno (1,2,3-cd) pyrene		1.0 U	1.0 U,J,O	µg/L
Naphthalene		1.0 U	1.0 U	µg/L
Phenanthrene		1.0 U	1.0 U,J,O	µg/L
Pyrene		1.0 U	1.0 U,J,O	µg/L
<b>Total Metals</b>				<b>Units</b>
Aluminum	-	1900	3200	µg/L
Antimony	5.6 µg/L	1.0 U	1.0 U	µg/L
Arsenic	10 µg/L	1.5	3.7	µg/L
Barium	220 µg/L	44	66	µg/L
Beryllium	0.66 µg/L	3.0 U	3.0 U	µg/L
Cadmium	2 µg/L	0.50 U	0.50 U	µg/L
Calcium	-	7100	7800	µg/L
Chromium	29 µg/L	5.0 U	5.0 U	µg/L
Cobalt	24 µg/L	5.0 U	5.0 U	µg/L
Copper	3 µg/L	10 U	10 U	µg/L
Iron	-	1800	2500	µg/L
Lead	0.6 µg/L	1.8	4.0	µg/L
Magnesium	-	2800	3200	µg/L
Manganese	200 µg/L	29	57	µg/L

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Status		Validation Complete	Validation Complete	
Type		Surface Water	Surface Water	
Mercury	0.012 µg/L	0.10 U	0.10 U	µg/L
Molybdenum	-	10 U	10 U	µg/L
Nickel	17 µg/L	10 U	10 U	µg/L
Potassium	53000 µg/L	1600	1900	µg/L
Selenium	-	2.0 U	2.0 U	µg/L
Silver	0.06 µg/L	5.0 U	5.0 U	µg/L
Sodium	680000 µg/L	5400	8200	µg/L
Strontium	NA	53	98	µg/L
Thallium	0.24 µg/L	1.0 U	1.0 U	µg/L
Tin	NA	15 U	15 U	µg/L
Titanium	NA	94	170	µg/L
Vanadium	27 µg/L	6.4	12	µg/L
Yttrium	NA	3.0 U	3.2	µg/L
Zinc	39 µg/L	10 U	10 U	µg/L
<b>Additional Solids Analysis</b>				<b>Units</b>
Total Dissolved Solids		83	96	mg/L
Total Suspended Solids		35	82	mg/L
<b>Classical/Nutrient Analysis</b>				<b>Units</b>
Nitrate as N		0.36	0.42	mg/L
Nitrate/Nitrite as N		0.36	0.42	mg/L
Nitrite as N		0.050 U	0.050 U	mg/L
Total Organic Carbon		2.1	1.6	mg/L
Cyanide (total)		15 U	15 U	µg/L

<b>LEGEND</b>	
2	Value obtained from the GL Tier 2 Values; National Recommended Water Quality Criteria; Suter and Tsao (1996); Reference condition for EcoRegion XI (25 percentile); NCDNER State Standards for surface water. If the compound was not detected, a screening value may not be indicated.
mg/L	milligram per liter
µg/L	microgram per liter
NA	Not available
U	The analyte was not detected at or above the reporting limit.
J	The identification of the analyte is acceptable; the reported value is an estimate.
O	Other qualifiers have been assigned providing additional information. These explanatory qualifiers are included in the printable pdf report and in other columns in the export files.