NOTE: The data below represents surface water samples that were collected on Feb 5, 2014 by EPA sampling teams. Water sample measurement is in micrograms per liter (ug/L) and milligrams per liter (mg/L) for water 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 copper, lead, and nitrate nitrogen. The copper value slightly exceeds the EPA ERSL, but is below the current North Carolina Surface Water Standard of 7 ug/L. EPA typically screens the surface water concentrations using total metals samples, because this is a conservative practice for screening. Because lead was not detected in any of the samples of the dissolved fraction of surface water (i.e., samples that were filtered to remove particulates), there is no threat of toxicity of lead to aquatic organisms. Nitrate nitrogen was detected above ERSLboth upriver and downriver from the release point. This indicates a preexisting condition in the river. EPA will continue to monitor to ensure the levels do not increase.

Analyte	**Ecological Screening Standard for Surface Water Samples[2]**		**Hwy 14 (Above Discharge)**		**Hwy 700 (Below Discharge)**	
Sample Information						
Sample ID	-		EDEN-VANBUREN-		EDEN-FIELDCREST-	
Date	-		2/5/2014		2/5/2014	
Time	-		1430		1545	
Status	-		Validated Stage 2A		Validated Stage 2A	
Type	-		River		River	
Water Quality						
Temperature	-		6.05	^{o}C	10.24	^{o}C
Dissolved Oxygen	6	mg/L	9	mg/L	>12	mg/L
Specific Conductance	-		0.037	mS/cm	0.084	mS/cm
pH	6.5 - 9.0	std	6.84	std	3.84^{R}	std
Turbidity	-		29	NTU	33	NTU
Dissolved metals						
Aluminum	87	µg/L	25U	µg/L	25U	µg/L
Antimony	-	-	1.0U	µg/L	1.0U	µg/L
Arsenic	-	-	1.0U	µg/L	1.0U	µg/L
Barium	220	µg/L	19.9	µg/L	20.3	µg/L
Beryllium	0.66	µg/L	1.0U	µg/L	1.0U	µg/L
Boron	360	µg/L	130	µg/L	104	µg/L
Cadmium	0.1*	µg/L	1.0U	µg/L	1.0U	µg/L
Calcium	-*	-	6,850	µg/L	6,590	µg/L
Chromium	25	µg/L	1.0U	µg/L	1.0U	µg/L
Cobalt	-	-	1.0U	µg/L	1.0U	µg/L
Copper	3	µg/L	1.0U	µg/L	5.4 J	µg/L
Iron	1,000	µg/L	44.0J	µg/L	60.7	µg/L

Analyte	Ecological Screening Standard for Surface Water Samples[2]		Hwy 14 (Above Discharge)		Hwy 700 (Below Discharge)	
Lead	0.59	µg/L	1.0U	µg/L	1.0U	µg/L
Magnesium	-	-	2,410	µg/L	2,350	µg/L
Manganese	200	µg/L	11.5	µg/L	11.8	µg/L
Mercury	-	-	0.020U	µg/L	0.020U	µg/L
Molybdenum	800	µg/L	10U	µg/L	10U	µg/L
Nickel	17	µg/L	1.0U	µg/L	1.0U	µg/L
Potassium	53,000	µg/L	1,500	µg/L	1,500	µg/L
Selenium	5	µg/L	1.0U	µg/L	1.0U	µg/L
Silica	-	-	15,200	µg/L	14,900	µg/L
Silver	-	-	0.10U	µg/L	0.10U	µg/L
Sodium	680,000	µg/L	5,030	µg/L	5,180	µg/L
Thallium	0.24	µg/L	1.0U	µg/L	1.0U	µg/L
Vanadium	27	µg/L	1.0U	µg/L	1.0U	µg/L
Zinc	39	µg/L	5.0U	µg/L	5.2	µg/L
Total Suspended Solids						
Total Suspended Solids	-	-	16.5	mg/L	43.9	mg/L
Total Metals						
Aluminum	-	-	1,290	µg/L	1,910J+	µg/L
Antimony	5.6	µg/L	1.0U	µg/L	1.0U	µg/L
Arsenic	10	µg/L	1.0U	µg/L	1.4	µg/L
Barium	220	µg/L	27.0	µg/L	42.9	µg/L
Beryllium	0.66	µg/L	1.0U	µg/L	1.0U	µg/L
Boron	-	-	133	µg/L	113	µg/L
Cadmium	2	µg/L	1.0U	µg/L	1.0U	µg/L
Calcium	-	-	6,830	µg/L	6,750	µg/L
Chromium	29	µg/L	1.5	µg/L	2.6	µg/L
Cobalt	24	µg/L	1.0U	µg/L	0.99J	µg/L
Copper	3	µg/L	1.1	µg/L	3.1J	µg/L
Iron	-	-	1,360	µg/L	2,170	µg/L
Lead	0.6	µg/L	0.56J	µg/L	1.3	µg/L
Magnesium	-	-	2,510	µg/L	2,560	µg/L
Manganese	200	µg/L	26.9	µg/L	39.4	µg/L
Mercury	0.012	µg/L	0.2U	µg/L	0.2U	µg/L
Molybdenum	-	-	10U	µg/L	10U	µg/L
Nickel	17	µg/L	0.85J	µg/L	1.8	µg/L
Potassium	53,000	µg/L	1,560	µg/L	1,700	µg/L
Selenium	-	-	1.0U	µg/L	1.0U	µg/L
Silica	-	-	18,800	µg/L	20,500	µg/L
Silver	0.06	µg/L	0.10U	µg/L	0.10U	µg/L
Sodium	680,000	µg/L	5,030	µg/L	5,130	µg/L
Thallium	0.24	µg/L	1.0U	µg/L	1.0U	µg/L

Analyte	Ecological Screening Standard for Surface Water Samples[2]		Hwy 14 (Above Discharge)		Hwy 700 (Below Discharge)	
Vanadium	27	µg/L	2.1	µg/L	4.9	µg/L
Zinc	39	µg/L	3.6J	µg/L	5.7	µg/L
Anions						
Bromide	-	-	0.10U	mg/L	0.10U	mg/L
Chloride	230	mg/L	8.9	mg/L	8.3	mg/L
Nitrate Nitrogen[3]	0.31	mg/L	0.32	mg/L	0.33	mg/L
Nitrite Nitrogen[4]	-	-	0.050U	mg/L	0.050U	mg/L
Sulfate	-	-	5.2	mg/L	5.9	mg/L
Orthophosphate	-	-	0.10U	mg/L	0.10U	mg/L
Nutrients						
Ammonia Nitrogen	-	-	0.10U	mg/L	0.05U	mg/L
Total Kjeldhal Nitrogen	-	-	0.10J	mg/L	0.091J	mg/L
Phosphorus	-	-	0.10U	mg/L	0.10U	mg/L

Notes

[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

[3] Value listed is for Nitrate.

[4] Value listed is for Nitrite.

[5] Only compared to Human Health Screening Values

R Instrument calibration error; monitoring result rejected

^{o}C degrees Celsius

EPA U.S. Environmental Protection Agency

J Value is estimated

J+ Value is estimated with a possible high bias

µg/L micrograms per liter

mg/L milligrams per liter

mS/cm millisiemens/centimeter

NTU Nephelometric turbidity units

std standard

U Analyte was not detected above the listed reporting limit.

* The screening values for Cadmium and Calcium in dissolved metals were orginally reported incorrectly. The correct screening value for Cadmium is 0.1 µg/L and there is no screening value for Calcium. This table was updated on 2/27/14 to reflect the correction.