



Plant Bowen

Monthly Dewatering Results¹ December 2022

	Units	Efflu	ent Concent	ration	Permit Limits			
Parameter		Daily Min ²	Daily Avg ²	Daily Max ²	Daily Min	Daily Avg	Daily Max	
Flow	MGD	0.00	0.89	1.03	***	***	***	
pН	SU	6.9	***	7.5	6.0	***	9.0	
Total Suspended Solids	mg/L	ND ³	ND	ND	***	30.0	100.0	
Oil and Grease	mg/L	ND	ND	ND	***	15.0	20.0	

Parameter	Units		Daily			
Parameter	Units	Week 1	Week 2	Week 3	Week 4	Average
		12/5/2022	12/12/2022	12/19/2022	No Discharge	
Turbidity ⁴	NTU	1.5	1.5	1.6		1.5
Total Residual Chlorine ⁴	mg/L	ND	ND	ND		ND
Total Dissolved Solids	mg/L	2120	1840	1580		1847
Ammonia	mg/L	ND	ND	ND		ND
Total Kjeldahl Nitrogen	mg/L	0.58	0.56	0.80		0.65
Nitrate-Nitrite	mg/L	0.07	0.22	0.21		0.17
Organic Nitrogen	mg/L	ND	0.53	0.71		0.41
Phosphorus	mg/L	ND	ND	ND		ND
Ortho-Phosphorus	mg/L	ND	ND	ND		ND
Biological Oxygen Demand	mg/L	ND	ND	ND		ND
Hardness	mg/L	1390	1020	1090		1167

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B		Effluent Concentration⁵				Calculated Receiving Water Concentration ⁵					Water Quality Criteria ⁶	
Parameter	Units	Jnits Week 1	Week 2	Week 3	Week 4	Week 1	Week 2	Week 3	Week 4	Averes	Acute ⁷	Chronic ⁷
		12/5/2022	12/12/2022	12/19/2022	No Discharge	12/5/2022	12/12/2022	12/19/2022	No Discharge	Average	Acute	Curonic.
Antimony ⁹	μg/L	ND	ND	ND		***	***	***		***	***	640
Arsenic	μg/L	ND	ND	ND		***	***	***		***	***	150
Cadmium	μg/L	ND	ND	ND		***	***	***		***	***	0.43
Chromium ⁸	μg/L	ND	ND	ND		***	***	***		***	***	11
Copper	μg/L	ND	ND	ND		***	***	***		***	***	5
Lead	μg/L	ND	ND	ND		***	***	***		***	***	1.2
Nickel	μg/L	ND	ND	ND		***	***	***		***	***	29
Selenium ⁹	μg/L	39.7	62.0	54.2		0.2544	0.3974	0.3474		0.3331	***	5
Thallium ⁹	μg/L	ND	1.1	ND		***	0.0070	***		0.0023	***	0.47
Zinc	μg/L	ND	ND	ND		***	***	***		***	***	65
Mercury	ng/L	1.6	2.4	1.4		0.0102	0.0151	0.0092		0.0115	***	12

- 1 Tetra Tech verifies the correct laboratory analysis methods were used, any applicable permit limits have been met and other results are protective of Georgia EPD's water quality standards.
- Daily Min and Daily Max are the lowest and highest values for any day in the month. Daily Avg is the arithmetic average of all daily values during the entire month.
- 3 ND = Not Detected (below the lab's reporting limit).
- 4 Turbidity and total residual chlorine are monitored continuously. The value reported is the weekly maximum and the daily average is the average of the weekly maximum values reported.
- 5 Calculated Receiving Water Concentration shows the effluent concentration at the discharge once it has fully mixed in the receiving waterbody. This value is calculated as a dissolved concentration for an appropriate comparison to the numeric water quality criteria, which are also in the dissolved form. Consistent with Georgia EPD, non-detectable effluent concentrations are not translated into Calculated Receiving Water Concentrations.
- 6 Numeric Water Quality Criteria is the maximum concentration of a parameter (calculated at a default hardness of 50 mg/L as calcium carbonate) established for the receiving waterbody that will be protective of the designated use per Georgia EPD's rules and regulations. Calculated Receiving Water Concentrations less than these criteria are protective of the waterbody.
- Acute (short-term) water quality criterion to be compared with the weekly calculated receiving water concentration; Chronic (long-term) water quality criterion to be compared with the average calculated receiving water concentration.
- 8 Numeric water quality criterion shown is for Hexavalent Chromium.
- 9 The numeric water quality criterion shown are the chronic (long-term) water quality criterion for antimony, selenium, and thallium since these parameters do not have an acute (short-term) water quality criterion.

 *** = Not Applicable
- $mg/L = milligrams \ per \ liter = parts \ per \ million; \ \mu g/L = micrograms \ per \ liter = parts \ per \ billion; \ ng/L = nanograms \ per \ liter = parts \ per \ trillion; \ SU = Standard \ Units; \ MGD = Million \ Gallons \ Day$





Monthly Instream Results¹

Plant Bowen



December 2022

		Etowah River ²						
Parameter ³	Units	12/19/2022	12/19/2022	12/29/2022	12/29/2022			
		Upstream	Downstream	Upstream	Downstream			
рН	SU	6.7	6.7	7.3	7.1			
TSS	mg/L	7.2	8.0	ND	ND			
O&G	mg/L	ND^4	ND	ND	ND			
TRC	mg/L	***	***	***	***			
Turbidity	NTU	12.2	11.0	5.8	5.9			
TDS	mg/L	57	55	70	72			
BOD	mg/L	ND	ND	ND	ND			
Antimony	μg/L	ND	ND	ND	ND			
Arsenic	μg/L	ND	ND	ND	ND			
Cadmium	μg/L	ND	ND	ND	ND			
Chromium	μg/L	ND	ND	ND	ND			
Copper	μg/L	ND	ND	ND	ND			
Lead	μg/L	ND	ND	ND	ND			
Mercury	ng/L	2.1	2.0	1.5	1.7			
Nickel	μg/L	ND	ND	ND	ND			
Selenium	μg/L	ND	ND	ND	ND			
Thallium	μg/L	ND	ND	ND	ND			
Zinc	μg/L	ND	ND	ND	ND			
Ammonia			ND	0.11	ND			
TKN	mg/L	0.54	0.53	0.54	ND			
Nitrate-Nitrite	e-Nitrite mg/L		0.41	0.80	0.68			
Organic Nitrogen	Organic Nitrogen mg/L		0.50	ND	ND			
Phosphorus			ND	ND	ND			
Ortho-phosphorus	mg/L	ND	ND	ND	ND			
Hardness	mg/L	22	22	43	68			

- 1 Tetra Tech verifies the correct laboratory analysis methods were used.
- 2 Etowah River measured 1000ft upstream and 1000ft downstream of the Final Plant Discharge (Outfall 001)
- 3 Metals results are total recoverable.
- 4 ND = Non-detect
- *** = Not Applicable

mg/L = milligrams per liter = parts per million; $\mu g/L = micrograms$ per liter = parts per billion; ng/L = manograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day