



# Plant McDonough-Atkinson

## Monthly Dewatering Results<sup>1</sup>

September 2018

Prepared by: TETRA TECH

Parameter	Units	Effluent Concentration		Permit Limits	
		Minimum	Maximum	Daily Avg	Daily Max
Flow	MGD	0.0	0.28	***	***
pH	SU	6.94	8.15	6.0 - 9.0	
Total Suspended Solids	mg/L	ND <sup>2</sup>	1.1	30.0	100.0
Oil and Grease	mg/L	ND	ND	15.0	20.0

Parameter	Units	Measured Effluent Concentration			
		9/4/2018	9/11/2018	9/17/2018	9/25/2018
Turbidity	NTU	1.40	0.80	0.54	0.38
Total Dissolved Solids	mg/L	830	1,100	900	1,100
Ammonia	mg/L	ND	0.36	0.15	ND
Total Kjeldahl Nitrogen	mg/L	0.23	0.64	0.38	ND
Nitrate-Nitrite	mg/L	0.22	0.47	0.48	0.60
Organic Nitrogen	mg/L	0.23	0.28	0.23	ND
Phosphorus	mg/L	ND	ND	ND	ND
Ortho-Phosphorus	mg/L	ND	ND	ND	0.07
Biological Oxygen Demand	mg/L	3.0	ND	4.1	2.1
Hardness	mg/L	470	650	640	690

Parameter	Units	Effluent Concentration <sup>3</sup>				Calculated River Value <sup>3</sup>				Water Quality Standard <sup>4</sup>
		9/4/2018	9/11/2018	9/17/2018	9/25/2018	9/4/2018	9/11/2018	9/17/2018	9/25/2018	
Arsenic	μg/L	1.8	2.5	3.6	3.4	0.0037	0.0056	0.0080	0.0076	340
Cadmium	μg/L	ND	ND	ND	ND	***	***	***	***	1
Chromium <sup>5</sup>	μg/L	ND	ND	ND	ND	***	***	***	***	16
Copper	μg/L	ND	ND	ND	3.3	***	***	***	0.0073	7
Lead	μg/L	ND	ND	ND	ND	***	***	***	***	30
Nickel	μg/L	9.7	25	16	28	0.0208	0.0556	0.0356	0.0622	260
Selenium <sup>6</sup>	μg/L	7.3	4.6	11	5.2	0.0162	0.0102	0.0245	0.0116	5
Zinc	μg/L	ND	ND	ND	ND	***	***	***	***	65
Mercury	ng/L	1.2	1.7	0.76	0.57	0.00035	0.00378	0.00169	0.00127	1400

<sup>1</sup> 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.

<sup>2</sup> ND = Not Detected.

<sup>3</sup> Calculated River Value shows what the total effluent concentration looks like 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 river values.

<sup>4</sup> 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 River Values less than these criteria are protective of the waterbody.

<sup>5</sup> Numeric water quality criterion shown is for Hexavalent Chromium.

<sup>6</sup> The numeric water quality criterion shown is the chronic (long-term) water quality criterion for selenium since this parameter does not have an acute (short-term) water quality criterion.

\*\*\* = Not Applicable

mg/L = milligrams per liter = parts per million; μg/L = micrograms per liter = parts per billion; ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day