



Plant Branch

Prepared by: TETRA TECH

Monthly Dewatering Results¹

March 2019

| Parameter | Units | Effluent Concentration | | Permit Limits | |
|------------------------|-------|------------------------|---------|---------------|-----------|
| | | Minimum | Maximum | Daily Avg | Daily Max |
| Flow | MGD | 0 | 1,429 | *** | *** |
| pH | SU | 6.5 | 8.5 | 6.0 - 9.0 | |
| Total Suspended Solids | mg/L | ND ² | 18.5 | 30.0 | 100.0 |
| Oil and Grease | mg/L | ND | ND | 15.0 | 20.0 |

| Parameter | Units | Measured Effluent Concentration | | | |
|--------------------------|-------|---------------------------------|-----------|-----------|-----------|
| | | 3/6/2019 | 3/11/2019 | 3/19/2019 | 3/25/2019 |
| Turbidity | NTU | 3.1 | 5.3 | 3.3 | 2.6 |
| Total Dissolved Solids | mg/L | 322 | 323 | 306 | 294 |
| Ammonia | mg/L | 0.16 | 0.43 | ND | ND |
| Total Kjeldahl Nitrogen | mg/L | ND | ND | ND | ND |
| Nitrate-Nitrite | mg/L | ND | ND | ND | ND |
| Organic Nitrogen | mg/L | ND | ND | ND | ND |
| 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 | 196 | 186 | 184 | 176 |

| Parameter | Units | Effluent Concentration ³ | | | | Calculated Lake Value ³ | | | | Water Quality Standard ⁴ |
|-----------------------|-------|-------------------------------------|-----------|-----------|-----------|------------------------------------|-----------|-----------|-----------|-------------------------------------|
| | | 3/6/2019 | 3/11/2019 | 3/19/2019 | 3/25/2019 | 3/6/2019 | 3/11/2019 | 3/19/2019 | 3/25/2019 | |
| Arsenic | μg/L | ND | 6.7 | ND | ND | *** | 1.961 | *** | *** | 340 |
| Cadmium | μg/L | ND | ND | ND | ND | *** | *** | *** | *** | 1 |
| Chromium ⁵ | μg/L | ND | ND | ND | ND | *** | *** | *** | *** | 16 |
| Copper | μg/L | ND | ND | ND | ND | *** | *** | *** | *** | 7 |
| Lead | μg/L | ND | ND | ND | ND | *** | *** | *** | *** | 30 |
| Nickel | μg/L | ND | ND | ND | ND | *** | *** | *** | *** | 260 |
| Selenium ⁶ | μg/L | ND | ND | ND | 15.6 | *** | *** | *** | 7.810 | 5 |
| Zinc | μg/L | ND | ND | 56.4 | ND | *** | *** | 28.25 | *** | 65 |
| Mercury | ng/L | 2.23 | 0.98 | 0.60 | 0.87 | 0.3544 | 0.1442 | 0.2980 | 0.4343 | 1400 |

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.

² ND = Not Detected.

³ Calculated Lake 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 lake values.

⁴ 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 Lake Values less than these criteria are protective of the waterbody.

⁵ Numeric water quality criterion shown is for Hexavalent Chromium.

⁶ 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. The selenium water quality criterion is compared to the average in-lake concentration, which for March was calculated as 1.95 ug/L.

*** = 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



Plant Branch

Monthly Instream Results¹



March 2019

| Parameter ³ | Units | Lake Sinclair ² | | | |
|------------------------|-------|----------------------------|-------------------------|-----------------------|-------------------------|
| | | 3/11/2019 Upstream | 3/11/2019 Downstream | 3/19/2019 Upstream | 3/19/2019 Downstream |
| pH | SU | 6.17 | 6.48 | 6.97 | 7.23 |
| TSS | mg/L | 10.0 | 11.5 | 14.3 | 8.6 |
| O&G | mg/L | ND | ND | ND | ND |
| Turbidity | NTU | 18.2 | 14.6 | 30.1 | 9.1 |
| TDS | mg/L | 73 | 78 | 73 | 67 |
| BOD | mg/L | ND | 2.3 | 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 | 1.9 | 1.9 | 2.8 | 1.5 |
| Nickel | µg/L | ND | ND | ND | ND |
| Selenium | µg/L | ND | ND | ND | ND |
| Zinc | µg/L | ND | ND | ND | ND |
| Ammonia | mg/L | 0.1 | ND | ND | 0.11 |
| TKN | mg/L | ND | ND | ND | ND |
| Nitrate-Nitrite | mg/L | 0.18 | 0.23 | 0.22 | 0.40 |
| Organic Nitrogen | mg/L | ND | ND | ND | ND |
| Phosphorus | mg/L | ND | ND | ND | ND |
| Ortho-phosphorus | mg/L | ND | ND | ND | ND |
| Hardness | mg/L | 22.3 | 23.6 | 20.9 | 23.3 |

1 Tetra Tech verifies the correct laboratory analysis methods were used.

2 Lake Sinclair measured upstream near latitude 33.196636 and downstream near longitude -83.295389.

3 Metals results are total recoverable.

4 ND = Non-detect

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