

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data**

December 2020

| Licence # 2716RR | File # 1069.10 | Final Effluent 24 Hour Composite | | | | | | | | | | Final Effluent Grab Sample | | |
|---------------------|-------------------|-------------------------------------|---------|-----------|---------|-----------|---------|----------------|------------------|------------------|----------------|-------------------------------|-------------|------------|
| | | TSS | | BOD5 | | cBOD5 | | Ammonia | Ortho Phosphorus | Total Phosphorus | Total Nitrogen | Temp. | pH | E.Coli |
| | | (mg/L) | (mg/L)* | (mg/L) | (mg/L)* | (mg/L) | (mg/L)* | (kg NH3-N/day) | (mg/L-P) | (mg/L-P)* | (mg/L-N)* | (°C) | (units) | MPN/100 mL |
| 1-Dec-20 | 46.1 | 10 | 11 | 35 | 27 | 8 | 8 | 1,891 | 3.26 | 4.5 | 55.9 | 16.3 | 6.73 | 200 |
| 2-Dec-20 | 46.1 | 12 | 11 | 48 | 28 | 29 | 9 | 1,752 | 3.61 | 4.5 | 56.2 | 15.3 | 6.59 | 20 |
| 3-Dec-20 | 48.5 | 13 | 12 | 33 | 28 | 7 | 9 | 2,024 | 3.98 | 4.5 | 56.3 | 16.3 | 6.72 | 90 |
| 4-Dec-20 | 46.5 | 11 | 12 | 30 | 28 | 5 | 9 | 1,931 | 3.74 | 4.5 | 56.3 | 15.8 | 6.75 | 20 |
| 5-Dec-20 | 46.0 | 10 | 12 | 28 | 28 | 5 | 9 | 2,044 | 4.00 | 4.5 | 56.3 | 16.2 | 6.70 | 60 |
| 6-Dec-20 | 47.7 | 11 | 12 | 29 | 28 | 8 | 9 | 2,013 | 4.81 | 4.6 | 56.3 | 16.1 | 6.70 | 30 |
| 7-Dec-20 | 46.9 | 11 | 12 | 27 | 28 | 6 | 9 | 2,048 | 3.71 | 4.6 | 56.0 | 16.3 | 6.63 | 170 |
| 8-Dec-20 | 46.8 | 9 | 12 | 25 | 28 | 6 | 9 | 1,821 | 2.31 | 4.5 | 55.9 | 16.3 | 6.63 | 40 |
| 9-Dec-20 | 46.0 | 7 | 12 | 29 | 29 | 6 | 9 | 1,881 | 3.01 | 4.5 | 56.1 | 16.3 | 6.67 | 30 |
| 10-Dec-20 | 51.3 | 8 | 12 | 25 | 29 | 5 | 9 | 1,927 | 3.05 | 4.5 | 56.1 | 15.6 | 6.64 | 30 |
| 11-Dec-20 | 45.7 | 8 | 12 | nr | 29 | nr | 9 | 1,847 | 3.59 | 4.5 | 56.2 | 15.5 | 6.66 | 30 |
| 12-Dec-20 | 46.4 | 10 | 13 | 24 | 29 | 8 | 9 | 1,847 | 4.10 | 4.4 | 56.3 | 16.0 | 6.73 | 20 |
| 13-Dec-20 | 47.8 | 10 | 13 | 29 | 30 | 9 | 9 | 2,042 | 3.84 | 4.4 | 56.3 | 15.7 | 6.72 | 100 |
| 14-Dec-20 | 51.3 | 15 | 13 | 24 | 30 | 9 | 9 | 1,862 | 3.96 | 4.4 | 56.2 | 15.8 | 6.69 | 10 |
| 15-Dec-20 | 48.8 | 12 | 12 | 26 | 29 | 10 | 9 | 1,746 | 3.57 | 4.4 | 56.0 | 15.6 | 6.68 | 80 |
| 16-Dec-20 | 49.0 | 13 | 12 | 24 | 29 | 12 | 9 | 1,861 | 3.90 | 4.4 | 56.1 | 15.2 | 6.64 | 20 |
| 17-Dec-20 | 45.9 | ns | 12 | ns | 29 | ns | 9 | ns | ns | 4.3 | 56.0 | 15.2 | 6.63 | 400 |
| 18-Dec-20 | 46.2 | 14 | 12 | 46 | 30 | 13 | 9 | 1,922 | 3.87 | 4.3 | 56.0 | 16.2 | 6.94 | 6,130 |
| 19-Dec-20 | 47.4 | 13 | 12 | 29 | 30 | 14 | 9 | 1,953 | 3.80 | 4.3 | 55.9 | 15.4 | 6.70 | 100 |
| 20-Dec-20 | 47.5 | 15 | 12 | 28 | 30 | 15 | 10 | 1,960 | 3.64 | 4.4 | 55.8 | 15.4 | 6.67 | 290 |
| 21-Dec-20 | 50.4 | 17 | 12 | 32 | 30 | 13 | 10 | 1,886 | 3.62 | 4.3 | 55.4 | 15.6 | 6.61 | 3,450 |
| 22-Dec-20 | 46.8 | 15 | 12 | 21 | 30 | 11 | 10 | 1,850 | 3.53 | 4.3 | 55.2 | 15.4 | 6.66 | 360 |
| 23-Dec-20 | 47.3 | 12 | 12 | 22 | 29 | 10 | 10 | 1,791 | 3.61 | 4.3 | 54.8 | 15.4 | 6.70 | 380 |
| 24-Dec-20 | 47.6 | 17 | 12 | 21 | 29 | 11 | 10 | 1,831 | 3.89 | 4.4 | 54.5 | 14.5 | 6.71 | 370 |
| 25-Dec-20 | 44.2 | 15 | 12 | 20 | 29 | 7 | 9 | 1,628 | 3.98 | 4.4 | 54.2 | 15.0 | 6.70 | 170 |
| 26-Dec-20 | 44.4 | 16 | 12 | 22 | 28 | nr | 10 | 1,941 | 4.21 | 4.4 | 54.3 | 15.3 | 6.69 | 110 |
| 27-Dec-20 | 45.4 | 25 | 12 | 27 | 28 | 18 | 10 | 1,617 | 3.80 | 4.4 | 54.4 | 15.4 | 6.74 | 400 |
| 28-Dec-20 | 46.7 | 19 | 13 | 27 | 28 | 14 | 10 | 1,888 | 4.08 | 4.4 | 54.5 | 15.0 | 6.74 | 80 |
| 29-Dec-20 | 45.6 | 13 | 13 | 24 | 28 | 14 | 10 | 1,805 | 4.31 | 4.4 | 54.7 | 15.1 | 6.67 | 580 |
| 30-Dec-20 | 45.7 | 13 | 13 | 22 | 28 | 11 | 11 | 1,829 | 3.96 | 4.5 | 54.9 | 15.3 | 6.67 | 20 |
| 31-Dec-20 | 47.6 | 14 | 13 | 21 | 27 | 10 | 11 | 1,812 | 4.46 | 4.5 | 55.0 | 14.9 | 6.54 | 20 |
| Max: | 51.3 | | | | | | | | | | | | | |
| Min: | 44.2 | | | | | | | | | | | | | |
| Average: | 47.1 | 13 | | 28 | | 10 | | 1,875 | 3.77 | | | 15.6 | 6.69 | |
| Total Flow: | 1,459.7 | | | | | | | | | | | | | |
| Geo.Mean: | | | | | | | | | | | | | | 22 |

Notes:

- (1) Effluent ammonia load based upon Raw Sewage flows and Final NH3-N concentrations
- (2) nr - not recorded or no result; na - not analyzed; ns - no sample
- (3) Where value is expressed as less than (<), the value is halved and used in the calculations
- (4) * = 30 day rolling average

- (5)** Flow, highlighted in bold, in excess of 98.6 ML/D per clause 27 of Licence 2716RR
- (6) Bracketed Coliform results not used in the Geometric Mean calculation
- (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process