

City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
November 2016

| 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-Nov-16 | 79.0 | 6 | 9 | 19 | 21 | 4 | 6 | 1,746 | 1.64 | 4.0 | 42.4 | 15.6 | 6.98 | 43 |
| 2-Nov-16 | 57.7 | 6 | 9 | 23 | 21 | 4 | 6 | 1,651 | 2.36 | 3.9 | 42.1 | 17.6 | 6.96 | 4 |
| 3-Nov-16 | 55.4 | 6 | 9 | 21 | 21 | 4 | 6 | 1,779 | 3.09 | 3.8 | 41.9 | 17.7 | 6.95 | 9 |
| 4-Nov-16 | 54.7 | 5 | 9 | 28 | 22 | 5 | 6 | 1,788 | 3.21 | 3.9 | 42.1 | 17.8 | 6.77 | 43 |
| 5-Nov-16 | 53.3 | 10 | 9 | 25 | 22 | 6 | 6 | 1,733 | 3.57 | 3.9 | 42.2 | 17.8 | 6.62 | 23 |
| 6-Nov-16 | 55.7 | 14 | 9 | 36 | 23 | 6 | 6 | 1,776 | 3.31 | 3.9 | 42.4 | 18.1 | 6.67 | 3 |
| 7-Nov-16 | 51.7 | 7 | 9 | 21 | 23 | 4 | 6 | 1,632 | 3.01 | 3.9 | 42.6 | 18.4 | 6.65 | 9 |
| 8-Nov-16 | 50.5 | 8 | 8 | 19 | 23 | 4 | 6 | 1,722 | 3.54 | 3.9 | 42.8 | 18.2 | 6.75 | 9 |
| 9-Nov-16 | 50.3 | 8 | 8 | 29 | 23 | 5 | 6 | 1,705 | 3.75 | 3.8 | 43.0 | 18.3 | 6.79 | 74 |
| 10-Nov-16 | 49.6 | 8 | 8 | 30 | 23 | 6 | 6 | 1,712 | 4.12 | 3.8 | 43.1 | 18.2 | 6.70 | 150 |
| 11-Nov-16 | 49.6 | 8 | 8 | 18 | 23 | 6 | 6 | 1,747 | 3.90 | 3.8 | 43.3 | 17.8 | 6.77 | 930 |
| 12-Nov-16 | 49.2 | 13 | 8 | 26 | 23 | 5 | 5 | 1,613 | 3.86 | 3.8 | 43.2 | 17.8 | 6.62 | 43 |
| 13-Nov-16 | 50.3 | 9 | 9 | 30 | 23 | 5 | 5 | 1,661 | 3.35 | 3.8 | 42.6 | 17.9 | 6.67 | 15 |
| 14-Nov-16 | 48.5 | 5 | 8 | 18 | 23 | 4 | 5 | 1,570 | 3.38 | 3.7 | 42.3 | 17.8 | 6.63 | 430 |
| 15-Nov-16 | 50.6 | 8 | 8 | 17 | 22 | 4 | 5 | 1,659 | 3.40 | 3.7 | 41.8 | 18.0 | 6.58 | 93 |
| 16-Nov-16 | 47.6 | 4 | 8 | 28 | 23 | 4 | 5 | 1,625 | 3.46 | 3.7 | 41.8 | 17.8 | 6.90 | 23 |
| 17-Nov-16 | 47.5 | 5 | 8 | 25 | 23 | 4 | 5 | 1,705 | 3.88 | 3.7 | 41.6 | 17.7 | 6.70 | 23 |
| 18-Nov-16 | 46.7 | 7 | 8 | 19 | 23 | 4 | 5 | 1,680 | 4.03 | 3.7 | 41.5 | 17.3 | 6.56 | 430 |
| 19-Nov-16 | 47.4 | 8 | 8 | 18 | 23 | 4 | 5 | 1,743 | 3.96 | 3.7 | 40.9 | 17.2 | 6.70 | 9 |
| 20-Nov-16 | 48.4 | 6 | 8 | 26 | 23 | 5 | 5 | 1,809 | 4.09 | 3.7 | 40.3 | 16.7 | 6.76 | 4 |
| 21-Nov-16 | 47.3 | 7 | 8 | 18 | 23 | 4 | 5 | 1,751 | 4.03 | 3.7 | 39.7 | 17.3 | 6.79 | 240 |
| 22-Nov-16 | 47.5 | 6 | 7 | nr | 23 | nr | 5 | 1,743 | 3.49 | 3.7 | 39.6 | 17.6 | 6.57 | 7 |
| 23-Nov-16 | 52.3 | 6 | 7 | 16 | 23 | 5 | 5 | 1,762 | 3.50 | 3.7 | 39.5 | 17.3 | 6.70 | 4 |
| 24-Nov-16 | 52.8 | 7 | 7 | 23 | 23 | 4 | 5 | 1,758 | 3.37 | 3.8 | 39.3 | 17.3 | 6.63 | <3 |
| 25-Nov-16 | 50.5 | 6 | 7 | 18 | 23 | 4 | 5 | 1,580 | 3.29 | 3.8 | 39.3 | 17.1 | 6.67 | 150 |
| 26-Nov-16 | 51.1 | 10 | 8 | 19 | 23 | 5 | 5 | 1,752 | 3.60 | 3.8 | 39.5 | 17.0 | 6.65 | <3 |
| 27-Nov-16 | 51.2 | 8 | 8 | 20 | 23 | 5 | 5 | 1,786 | 3.51 | 3.9 | 39.2 | 17.3 | 6.71 | 15 |
| 28-Nov-16 | 62.0 | 9 | 8 | 24 | 23 | 7 | 5 | 1,965 | 3.26 | 3.9 | 38.9 | 17.1 | 6.90 | 7 |
| 29-Nov-16 | 71.9 | 7 | 8 | 15 | 22 | 5 | 5 | 1,748 | 2.16 | 3.8 | 38.5 | 15.7 | 6.77 | 15 |
| 30-Nov-16 | 64.7 | 8 | 8 | 21 | 22 | 4 | 5 | 1,578 | 2.02 | 3.8 | 38.0 | 15.4 | 6.97 | 29 |
| Max: | 71.9 | | | | | | | | | | | | | |
| Min: | 46.7 | | | | | | | | | | | | | |
| Average: | 53.2 | 8 | | 22 | | 5 | | 1,716 | 3.37 | | | 17 | 6.74 | |
| Total Flow: | 1594.9 | | | | | | | | | | | | | |
| Geo.Mean: | | | | | | | | | | | | | | 23 |

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