

**City of Winnipeg
Water and Waste Department
West End Water Pollution Control Centre Monitoring Data
March 2013**

| Licence 2669 E RR | Raw Sewage | Final Effluent 24 Hour Composite | | | | | | Final Effluent Grab Sample | | | | | |
|----------------------|---------------|-------------------------------------|---------------|---------------|-------------|----------------|---------------------|-------------------------------|-------------------|------------|------------|-------------------|--------|
| | | Date | Daily Flow | TSS | cBOD5 | Ammonia | Ortho Phosphorus | Total Phosphorus | Total Nitrogen | Temp. | pH | Fecal Coliform | E.Coli |
| | | | ML | (mg/L) | (mg/L) | (kg NH3-N/day) | (mg/L-P) | (mg/L-P)* | (mg/L-N)* | (°C) | (units) | MPN/100 mL | |
| 1-Mar-13 | 21.0 | 6 | <3 | 69.0 | 0.45 | 0.5 | 8 | 1 | 7.15 | 430 | 430 | | |
| 2-Mar-13 | 20.2 | <4 | 3 | 62.7 | 0.47 | 0.5 | 8 | 0 | 7.09 | 430 | 150 | | |
| 3-Mar-13 | 20.7 | 4 | <3 | 66.0 | 0.48 | 0.5 | 8 | 1 | 7.10 | 230 | 93 | | |
| 4-Mar-13 | 19.5 | 5 | <3 | 61.5 | 0.49 | 0.5 | 8 | 1 | 7.01 | 930 | 430 | | |
| 5-Mar-13 | 19.2 | 11 | 3 | 61.6 | 0.47 | 0.5 | 8 | 1 | 7.23 | 230 | 93 | | |
| 6-Mar-13 | 19.3 | <4 | 4 | 58.0 | 0.49 | 0.5 | 8 | 1 | 7.08 | 430 | 230 | | |
| 7-Mar-13 | 19.4 | 4 | <3 | 58.6 | 0.49 | 0.6 | 8 | 1 | 7.00 | 210 | 210 | | |
| 8-Mar-13 | 19.3 | 8 | <3 | 58.7 | 0.50 | 0.6 | 8 | 1 | 7.03 | 750 | 750 | | |
| 9-Mar-13 | 21.4 | 4 | nr | 64.3 | 0.50 | 0.6 | 8 | 1 | 7.12 | 230 | 230 | | |
| 10-Mar-13 | 21.5 | <4 | 3 | 64.9 | 0.49 | 0.6 | 8 | 0 | 7.07 | 430 | 430 | | |
| 11-Mar-13 | 20.4 | <4 | 3 | 62.9 | 0.49 | 0.6 | 8 | 0 | 7.04 | 750 | 430 | | |
| 12-Mar-13 | 19.8 | 5 | <3 | 65.0 | 0.48 | 0.6 | 8 | 0 | 7.08 | 930 | 430 | | |
| 13-Mar-13 | 19.9 | <4 | 3 | 74.2 | 0.48 | 0.6 | 8 | 1 | 7.09 | 2,300 | 290 | | |
| 14-Mar-13 | 19.9 | <4 | <3 | 76.5 | 0.49 | 0.6 | 8 | 0 | 7.10 | 2,300 | 2,300 | | |
| 15-Mar-13 | 19.7 | 4 | nr | 82.3 | 0.49 | 0.6 | 8 | 0 | 7.02 | 2,300 | 2,300 | | |
| 16-Mar-13 | 20.8 | 7 | <3 | 94.4 | 0.49 | 0.6 | 8 | 1 | 7.09 | 750 | 750 | | |
| 17-Mar-13 | 19.9 | 4 | <3 | 95.8 | 0.50 | 0.6 | 8 | 0 | 7.20 | 1,500 | 930 | | |
| 18-Mar-13 | 20.8 | 4 | <3 | 112.0 | 0.52 | 0.6 | 8 | 0 | 7.12 | 4,300 | 4,300 | | |
| 19-Mar-13 | 24.6 | <4 | 4 | 130.7 | 0.50 | 0.6 | 8 | 0 | 7.07 | 2,300 | 430 | | |
| 20-Mar-13 | 24.9 | 6 | 4 | 150.0 | 0.52 | 0.7 | 8 | 0 | 7.10 | 930 | 930 | | |
| 21-Mar-13 | 16.5 | <4 | 4 | 109.2 | 0.52 | 0.7 | 9 | 0 | 7.20 | 2,300 | 2,300 | | |
| 22-Mar-13 | 20.0 | 5 | nr | 144.4 | 0.51 | 0.7 | 9 | 0 | 7.08 | 930 | 930 | | |
| 23-Mar-13 | 21.1 | 4 | 3 | 159.1 | 0.53 | 0.7 | 9 | 0 | 7.18 | 930 | 430 | | |
| 24-Mar-13 | 21.3 | <4 | 4 | 174.5 | 0.54 | 0.7 | 9 | 0 | 7.14 | 2,300 | 930 | | |
| 25-Mar-13 | 21.0 | 4 | 4 | 180.9 | 0.52 | 0.7 | 9 | 0 | 7.16 | 2,300 | 2,300 | | |
| 26-Mar-13 | 20.8 | <4 | nr | 182.2 | 0.52 | 0.7 | 9 | 0 | 7.20 | 430 | 430 | | |
| 27-Mar-13 | 21.0 | <4 | 3 | 189.2 | 0.51 | 0.7 | 9 | 0 | 7.19 | 430 | 430 | | |
| 28-Mar-13 | 21.7 | 8 | 4 | 210.2 | 0.52 | 0.7 | 9 | 1 | 7.21 | 930 | 930 | | |
| 29-Mar-13 | 23.0 | <4 | 4 | 219.8 | 0.52 | 0.7 | 10 | 1 | 7.21 | 230 | 230 | | |
| 30-Mar-13 | 25.1 | 4 | 4 | 242.1 | 0.53 | 0.7 | 10 | 1 | 7.24 | 1,500 | 430 | | |
| 31-Mar-13 | 23.7 | 4 | 4 | 234.5 | 0.51 | 0.7 | 10 | 1 | 7.18 | 4,300 | 4,300 | | |
| Max: | 25.1 | | | | | | | | | | | | |
| Min: | 16.5 | | | | | | | | | | | | |
| Average: | 20.89 | 4 | <3 | 116.63 | 0.50 | | | 0 | 7.12 | | | | |
| Total Flow: | 647.5 | | | | | | | | | | | | |
| Geo.Mean: | | | | | | | | | | 872 | 578 | | |

Notes:

(1) Effluent ammonia load based upon Raw Sewage flows and Final Cell 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) Total Nitrogen results are calculated from TKN and nitrate values