

**City of Winnipeg  
Water and Waste Department  
West End Water Pollution Control Centre Monitoring Data  
March 2017**

| Licence #<br>2669 E RR | File #<br>53.10 | Final Effluent<br>24 Hour Composite |                                |          |             |                |                     | Final Effluent<br>Grab Sample |                   |          |              |                   |        |
|------------------------|-----------------|-------------------------------------|--------------------------------|----------|-------------|----------------|---------------------|-------------------------------|-------------------|----------|--------------|-------------------|--------|
|                        |                 | Date                                | Raw Sewage<br>Daily Flow<br>ML | TSS      | cBOD5       | Ammonia        | Ortho<br>Phosphorus | Total<br>Phosphorus           | Total<br>Nitrogen | Temp.    | pH           | Fecal<br>Coliform | E.Coli |
|                        |                 |                                     |                                | (mg/L)   | (mg/L)      | (kg NH3-N/day) | (mg/L-P)            | (mg/L-P)*                     | (mg/L-N)*         | (°C)     | (units)      | MPN/100 mL        |        |
| 1-Mar-17               | 21.6            | 6                                   | 6                              | 33.6     | 0.11        | 0.4            | 11.8                | 2.7                           | 7.50              | 93       | 43           |                   |        |
| 2-Mar-17               | 21.2            | 6                                   | 6                              | 28.7     | 0.09        | 0.4            | 11.7                | 2.8                           | 7.70              | 93       | 15           |                   |        |
| 3-Mar-17               | 21.4            | 10                                  | 7                              | 28.9     | 0.07        | 0.4            | 11.6                | 2.4                           | 7.49              | 23       | 9            |                   |        |
| 4-Mar-17               | 23.2            | 9                                   | 7                              | 24.8     | 0.06        | 0.4            | 11.7                | 2.8                           | 7.54              | 7        | 7            |                   |        |
| 5-Mar-17               | 26.2            | 10                                  | 9                              | 28.0     | 0.03        | 0.4            | 11.7                | 2.4                           | 7.68              | 23       | 9            |                   |        |
| 6-Mar-17               | 37.5            | 8                                   | 8                              | 25.1     | 0.02        | 0.4            | 11.6                | 3.7                           | 7.72              | <3       | <3           |                   |        |
| 7-Mar-17               | 35.5            | 10                                  | 9                              | 26.3     | <0.01       | 0.4            | 11.4                | 2.4                           | 7.75              | <3       | <3           |                   |        |
| 8-Mar-17               | 23.8            | 10                                  | 10                             | 9.5      | <0.01       | 0.4            | 11.2                | 1.9                           | 8.03              | <3       | <3           |                   |        |
| 9-Mar-17               | 22.5            | 13                                  | 11                             | 7.2      | <0.01       | 0.4            | 11.0                | 2.8                           | 7.80              | <3       | <3           |                   |        |
| 10-Mar-17              | 22.1            | 12                                  | 13                             | 2.9      | 0.02        | 0.4            | 10.9                | 3.8                           | 8.01              | 7        | <3           |                   |        |
| 11-Mar-17              | 22.9            | 15                                  | 14                             | 0.2      | 0.01        | 0.4            | 10.7                | 2.3                           | 8.22              | <3       | <3           |                   |        |
| 12-Mar-17              | 23.1            | 21                                  | 14                             | 0.7      | <0.01       | 0.4            | 10.5                | 2.7                           | 8.29              | 4        | <3           |                   |        |
| 13-Mar-17              | 21.8            | 19                                  | 13                             | 0.1      | 0.01        | 0.4            | 10.3                | 3.6                           | 8.40              | 4        | 4            |                   |        |
| 14-Mar-17              | 21.1            | 19                                  | 14                             | 0.1      | <0.01       | 0.4            | 10.0                | 3.5                           | 8.55              | 4        | 4            |                   |        |
| 15-Mar-17              | 21.2            | 27                                  | >19                            | 1.1      | 0.03        | 0.4            | 9.9                 | 4.2                           | 8.55              | 4        | 4            |                   |        |
| 16-Mar-17              | 23.7            | 18                                  | 13                             | 0.1      | 0.02        | 0.4            | 9.7                 | 4.3                           | 8.61              | 3        | <3           |                   |        |
| 17-Mar-17              | 37.8            | 19                                  | 13                             | 0.2      | 0.07        | 0.4            | 9.6                 | 4.2                           | 8.70              | <3       | <3           |                   |        |
| 18-Mar-17              | 23.8            | 17                                  | 15                             | 0.1      | 0.02        | 0.4            | 9.4                 | 2.8                           | 8.92              | 4        | 4            |                   |        |
| 19-Mar-17              | 32.9            | 32                                  | 14                             | 0.2      | 0.04        | 0.4            | 9.3                 | 2.7                           | 8.95              | 4        | 4            |                   |        |
| 20-Mar-17              | 43.1            | 18                                  | 13                             | 0.2      | 0.03        | 0.4            | 9.1                 | 4.1                           | 8.82              | <3       | <3           |                   |        |
| 21-Mar-17              | 30.6            | 11                                  | 11                             | 0.2      | <0.01       | 0.3            | 8.9                 | 3.5                           | 8.97              | <3       | <3           |                   |        |
| 22-Mar-17              | 25.0            | 17                                  | 12                             | 0.1      | <0.01       | 0.3            | 8.8                 | 3.6                           | 8.74              | 4        | 4            |                   |        |
| 23-Mar-17              | 25.8            | 19                                  | 13                             | 0.1      | <0.01       | 0.3            | 8.6                 | 4.2                           | 8.92              | <3       | <3           |                   |        |
| 24-Mar-17              | 24.3            | 16                                  | 11                             | 2.2      | 0.04        | 0.3            | 8.4                 | 4.0                           | 9.09              | <3       | <3           |                   |        |
| 25-Mar-17              | 30.3            | 17                                  | 11                             | 0.2      | <0.01       | 0.3            | 8.2                 | 3.1                           | 8.98              | 3        | 3            |                   |        |
| 26-Mar-17              | 43.1            | 18                                  | 11                             | 0.2      | <0.01       | 0.3            | 7.9                 | 3.1                           | 8.98              | <3       | <3           |                   |        |
| 27-Mar-17              | 46.9            | 17                                  | 11                             | 0.2      | <0.01       | 0.3            | 7.8                 | 4.6                           | 8.99              | <3       | <3           |                   |        |
| 28-Mar-17              | 42.7            | 17                                  | 11                             | 0.2      | <0.01       | 0.3            | 7.6                 | 4.9                           | 9.19              | <3       | <3           |                   |        |
| 29-Mar-17              | 50.7            | 15                                  | 10                             | 0.3      | 0.08        | 0.3            | 7.5                 | 4.8                           | 9.07              | <3       | <3           |                   |        |
| 30-Mar-17              | 73.9            | 11                                  | 9                              | 0.4      | 0.02        | 0.3            | 7.3                 | 5.1                           | 9.05              | <3       | <3           |                   |        |
| 31-Mar-17              | 56.8            | 11                                  | 8                              | 0.3      | 0.02        | 0.3            | 7.1                 | 5.5                           | 9.14              | <3       | <3           |                   |        |
| <b>Max:</b>            | 73.9            |                                     |                                |          |             |                |                     |                               |                   |          |              |                   |        |
| <b>Min:</b>            | 21.1            |                                     |                                |          |             |                |                     |                               |                   |          |              |                   |        |
| <b>Average:</b>        | <b>31.5</b>     | <b>15</b>                           | <b>11</b>                      | <b>7</b> | <b>0.03</b> |                |                     | <b>3.5</b>                    | <b>8.46</b>       |          |              |                   |        |
| <b>Total Flow:</b>     | <b>976.6</b>    |                                     |                                |          |             |                |                     |                               |                   |          |              |                   |        |
| <b>Geo.Mean:</b>       |                 |                                     |                                |          |             |                |                     |                               |                   | <b>3</b> | <b>&lt;3</b> |                   |        |

**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