

**City of Winnipeg  
Water and Waste Department  
South End Water Pollution Control Centre Monitoring Data  
December 2015**

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
Date	Raw Sewage Daily Flow ML**													
1-Dec-15	47.2	8	7	18	14	NR	6	1,802	3.84	4.2	41	16	6.68	43
2-Dec-15	45.9	6	7	17	14	6	6	1,585	3.96	4.2	41	16	6.62	15
3-Dec-15	45.7	4	7	17	14	5	6	1,640	3.99	4.2	41	17	6.70	NR
4-Dec-15	46.0	6	7	17	14	6	6	1,737	4.02	4.2	41	16	6.68	NR
5-Dec-15	46.3	6	7	20	15	6	6	1,686	4.00	4.3	42	16	6.81	23
6-Dec-15	47.7	10	8	19	15	6	6	1,839	3.98	4.3	42	16	6.66	9
7-Dec-15	46.8	8	8	22	15	7	6	1,672	3.87	4.3	42	17	6.61	74
8-Dec-15	45.7	8	8	23	16	7	6	1,634	3.83	4.3	42	17	6.64	43
9-Dec-15	45.8	10	8	23	16	6	6	1,815	4.27	4.4	43	17	6.58	93
10-Dec-15	45.6	7	8	18	16	5	6	1,697	3.89	4.4	43	17	6.61	4
11-Dec-15	45.8	7	8	16	16	4	6	1,730	3.99	4.4	43	16	6.61	4
12-Dec-15	46.6	8	8	16	16	5	6	1,831	4.32	4.4	43	16	6.60	4
13-Dec-15	47.1	6	7	18	16	6	6	1,744	4.10	4.4	43	16	6.67	43
14-Dec-15	46.7	8	7	18	17	7	6	1,764	3.66	4.4	43	16	6.61	7
15-Dec-15	46.5	9	7	17	17	7	6	1,631	4.09	4.4	43	16	6.66	9
16-Dec-15	45.6	4	7	16	17	7	6	1,772	4.21	4.4	43	16	6.63	43
17-Dec-15	45.4	8	7	20	17	6	6	1,627	4.39	4.4	43	16	6.59	43
18-Dec-15	45.9	12	8	22	18	8	6	1,709	4.47	4.4	44	16	6.67	15
19-Dec-15	46.7	14	8	20	18	7	6	1,835	4.44	4.4	44	15	6.72	7
20-Dec-15	46.2	10	8	28	19	9	6	1,900	4.36	4.4	44	16	6.66	4
21-Dec-15	45.7	11	8	22	19	8	6	1,724	4.13	4.4	44	16	6.57	290
22-Dec-15	45.3	22	9	32	19	11	7	1,773	4.04	4.4	44	16	6.57	21
23-Dec-15	45.2	10	9	22	20	9	7	1,728	3.98	4.4	44	16	6.58	21
24-Dec-15	46.6	16	9	26	20	11	7	1,683	4.08	4.4	44	16	6.72	4
25-Dec-15	41.9	15	9	29	20	12	7	1,554	4.21	4.5	44	15	6.59	93
26-Dec-15	41.6	22	10	30	21	13	7	1,757	4.74	4.5	45	16	6.68	4
27-Dec-15	43.7	19	10	30	21	13	7	1,860	4.59	4.5	45	15	6.71	2,400
28-Dec-15	45.1	17	10	21	21	13	8	1,808	4.42	4.6	45	15	6.72	93
29-Dec-15	44.7	16	10	30	22	15	8	1,784	4.34	4.6	45	15	6.46	150
30-Dec-15	44.3	14	11	35	22	17	8	1,755	4.09	4.6	45	16	6.71	20
31-Dec-15	45.7	4	11	40	23	16	9	1,778	4.15	4.6	45	15	6.54	15
<b>Min:</b>	41.6													
<b>Average:</b>	<b>45.6</b>	<b>10</b>		<b>23</b>		<b>9</b>		<b>1,737</b>	<b>4.14</b>			<b>16</b>	<b>6.64</b>	
<b>Total Flow:</b>	<b>1415.1</b>													
<b>Geo.Mean:</b>														<b>24</b>

**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
- (8) Total Nitrogen results are calculated from TKN and nitrate values