

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
February 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
Date	Raw Sewage Daily Flow													
	ML**													
1-Feb-16	44.3	4	9	17	20	9	9	1,702	3.95	4.5	46.9	15.4	6.76	15
2-Feb-16	48.1	6	9	18	19	11	9	1,914	4.05	4.5	46.9	15.3	6.62	9
3-Feb-16	43.7	5	9	14	19	7	9	1,663	3.79	4.5	46.9	15.4	6.69	23
4-Feb-16	43.0	9	9	14	18	8	8	1,715	3.91	4.5	46.8	15.5	6.59	4
5-Feb-16	43.8	6	8	14	17	6	8	1,717	3.90	4.4	46.8	15.1	6.65	21
6-Feb-16	44.1	5	8	<10	17	6	8	1,701	3.99	4.4	46.6	14.5	6.70	4
7-Feb-16	44.7	8	8	13	16	6	8	1,704	4.05	4.4	46.4	14.6	6.66	<3
8-Feb-16	43.4	7	8	17	16	12	8	1,738	3.92	4.4	46.3	15.1	6.69	7
9-Feb-16	42.6	8	8	17	16	10	8	1,661	4.13	4.4	46.1	14.8	6.61	23
10-Feb-16	42.8	6	8	9	15	8	8	1,548	3.52	4.4	46.1	14.7	6.67	9
11-Feb-16	43.1	10	8	19	16	11	8	1,661	4.10	4.4	46.1	14.6	6.74	9
12-Feb-16	43.4	13	8	nr	16	nr	8	1,533	3.96	4.4	46.0	14.3	6.68	240
13-Feb-16	43.8	9	8	20	16	6	8	1,663	3.84	4.4	46.0	13.5	6.73	210
14-Feb-16	43.5	10	8	24	16	7	8	1,558	3.89	4.4	45.9	13.7	6.77	15
15-Feb-16	44.0	10	8	26	17	9	9	1,619	3.91	4.4	45.8	14.3	6.68	240
16-Feb-16	42.6	8	8	23	17	12	9	1,593	3.79	4.4	45.7	13.7	6.60	43
17-Feb-16	42.3	10	8	26	17	nr	8	1,699	4.27	4.4	45.8	14.1	6.51	23
18-Feb-16	42.6	10	8	13	16	8	8	1,656	4.16	4.4	45.8	14.3	6.53	93
19-Feb-16	44.2	11	8	34	17	11	9	1,698	4.50	4.4	45.8	14.7	6.65	9
20-Feb-16	45.1	14	8	23	17	7	9	1,731	3.98	4.4	45.9	14.3	6.87	4
21-Feb-16	45.6	10	8	24	17	8	8	1,747	3.77	4.4	45.7	14.1	6.61	9
22-Feb-16	43.9	9	8	26	18	12	9	1,643	3.91	4.4	45.6	14.4	6.61	4
23-Feb-16	43.4	10	8	25	18	12	9	1,652	4.09	4.4	45.6	14.6	6.64	23
24-Feb-16	43.6	ns	8	ns	18	ns	9	ns	ns	4.4	45.6	14.7	6.58	20
25-Feb-16	43.9	ns	8	ns	18	ns	9	ns	ns	4.4	45.4	14.6	6.77	15
26-Feb-16	44.8	12	9	30	19	8	9	1,772	3.83	4.4	45.3	14.5	6.65	9
27-Feb-16	45.3	11	9	18	19	7	9	1,766	3.83	4.3	45.2	14.4	6.50	43
28-Feb-16	45.6	11	9	17	19	10	9	1,755	3.75	4.3	45.0	13.1	6.84	23
29-Feb-16	43.6	12	9	21	19	13	9	1,753	4.59	4.4	45.1	14.3	6.65	74
Max:	48.1													
Min:	42.3													
Average:	44.0	9		20		9		1,687	3.98			15	6.66	
Total Flow:	1274.6													
Geo.Mean:														18

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