

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
July 2013**

Licence 2716RR	Raw Sewage	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-Jul-13	58.6	11	12	nr	13	nr	6	1,348	2.77	3.0	30	17	6.90	11
2-Jul-13	61.3	8	12	nr	12	nr	6	1,410	2.89	3.0	30	18	6.74	230
3-Jul-13	60.7	11	12	nr	11	nr	6	1,541	3.19	3.0	31	18	6.75	930
4-Jul-13	60.0	19	12	nr	11	nr	5	1,548	3.13	3.1	31	18	6.78	23
5-Jul-13	58.3	12	12	nr	11	nr	5	1,509	3.00	3.1	31	18	6.72	21
6-Jul-13	53.8	8	12	nr	10	nr	5	1,427	2.77	3.2	31	18	6.72	20
7-Jul-13	54.0	9	12	nr	10	nr	5	1,464	2.78	3.2	32	18	6.75	4
8-Jul-13	56.9	11	13	16	10	7	5	1,615	3.45	3.2	32	18	6.69	43
9-Jul-13	55.8	9	13	14	10	7	5	1,557	3.78	3.2	32	18	6.66	210
10-Jul-13	63.8	11	13	18	10	6	5	1,647	2.85	3.2	32	19	6.75	43
11-Jul-13	58.1	21	13	nr	10	nr	5	1,515	2.55	3.2	32	18	6.69	(93)
12-Jul-13	57.5	12	13	nr	9	nr	5	1,611	2.29	3.2	32	19	6.62	93
13-Jul-13	51.6	4	13	nr	9	nr	5	1,420	1.88	3.1	32	18	6.75	4
14-Jul-13	52.5	5	13	19	9	7	5	1,439	2.24	3.1	31	18	6.73	6
15-Jul-13	53.4	10	13	nr	9	nr	4	1,595	2.94	3.1	32	19	6.69	21
16-Jul-13	53.6	4	13	24	9	5	4	1,629	2.94	3.1	32	18	6.67	23
17-Jul-13	51.3	5	13	nr	9	nr	4	1,642	3.07	3.1	32	18	6.60	15
18-Jul-13	55.2	14	12	35	9	8	4	1,695	3.31	3.1	31	18	6.69	23
19-Jul-13	63.8	13	12	nr	9	nr	4	1,570	2.48	3.0	31	18	6.68	23
20-Jul-13	48.9	5	11	13	8	3	3	1,348	2.77	3.0	31	19	6.59	15
21-Jul-13	55.4	13	11	41	9	13	4	1,541	3.33	3.0	31	18	6.70	7
22-Jul-13	73.3	4	11	44	10	9	4	1,804	2.07	3.0	31	18	6.67	7
23-Jul-13	54.2	7	10	41	10	10	3	1,480	2.95	3.0	31	18	6.64	43
24-Jul-13	54.1	8	10	36	11	10	3	1,536	3.01	3.1	31	18	6.60	7
25-Jul-13	66.2	9	10	35	12	9	4	1,729	2.98	3.1	32	18	6.82	43
26-Jul-13	56.6	16	10	20	13	7	4	1,500	2.85	3.2	32	18	6.73	23
27-Jul-13	50.5	12	10	>24	12	7	4	1,443	3.19	3.2	32	18	6.68	43
28-Jul-13	49.9	15	10	>24	12	9	4	1,428	3.64	3.3	33	18	6.63	23
29-Jul-13	51.4	28	11	>23	12	16	4	1,523	3.77	3.4	34	18	6.74	93
30-Jul-13	52.6	37	12	>23	12	18	5	1,416	3.56	3.5	34	18	6.65	1,500
31-Jul-13	50.8	28	12	>23	12	21	6	1,407	3.55	3.6	34	18	6.62	430
Max:	73.3													
Min:	48.9													
Average:	56.3	12		26		10		1,527	2.97			18	6.70	
Total Flow:														
Geo.Mean:														33

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