

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
July 2017**

Licence 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample					
		Date	Raw Sewage Daily Flow ML**	TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
				(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-17	160.9	13	19	9	4,248	2.87	4.5	37.6	18.6	6.69	16	11		
2-Jul-17	126.1	16	18	9	3,669	3.48	4.5	37.4	18.5	6.91	3	3		
3-Jul-17	142.0	17	18	8	3,920	3.76	4.5	37.2	18.3	6.93	16	7		
4-Jul-17	205.1	19	24	11	5,270	3.45	4.5	37.0	18.0	6.82	(>2,420)	(>2,420)		
5-Jul-17	155.8	16	15	8	4,254	2.98	4.5	36.6	18.6	6.82	187	219		
6-Jul-17	162.1	16	19	9	6,355	4.23	4.5	36.7	18.5	6.87	172	152		
7-Jul-17	192.6	17	20	7	7,512	4.31	4.5	37.0	19.6	7.01	25	33		
8-Jul-17	146.0	17	17	8	5,401	4.14	4.4	37.0	19.3	6.82	11	12		
9-Jul-17	141.9	13	16	6	5,096	4.19	4.4	37.4	18.8	6.87	6	2		
10-Jul-17	143.8	18	17	7	4,832	4.18	4.5	38.0	19.8	6.82	15	25		
11-Jul-17	256.8	ns	ns	ns	ns	ns	4.5	38.1	18.8	6.79	(>2,420)	(>2,420)		
12-Jul-17	493.3	36	24	14	4,539	0.80	4.3	37.4	17.6	6.91	(>2,420)	(>2,420)		
13-Jul-17	215.7	13	17	7	4,163	1.87	4.2	37.1	18.2	6.97	108	86		
14-Jul-17	178.0	11	11	7	4,182	2.13	4.3	37.8	18.6	6.86	159	118		
15-Jul-17	153.3	15	12	8	4,110	2.22	4.3	38.0	19.0	6.91	63	41		
16-Jul-17	153.0	12	12	7	4,177	3.11	4.2	38.1	19.0	6.87	23	17		
17-Jul-17	164.1	8	13	7	3,888	2.95	4.2	37.9	18.7	6.91	12	10		
18-Jul-17	160.1	13	13	7	4,115	3.23	4.2	37.8	18.9	6.92	12	84		
19-Jul-17	149.0	14	16	9	4,248	3.32	4.2	37.6	18.9	6.85	261	205		
20-Jul-17	149.3	17	18	8	4,358	3.56	4.2	37.8	19.1	6.78	34	31		
21-Jul-17	215.5	34	26	17	4,762	3.14	4.2	38.3	19.1	6.77	(>2,420)	(>2,420)		
22-Jul-17	291.0	40	21	14	3,929	1.29	4.1	38.3	19.3	6.68	>2,420	>2,420		
23-Jul-17	189.0	13	9	6	2,873	1.44	4.1	38.0	19.3	6.89	40	127		
24-Jul-17	164.5	19	11	6	3,553	2.65	4.1	37.9	18.9	6.90	16	25		
25-Jul-17	241.7	20	13	9	4,374	2.35	4.1	37.7	19.2	7.02	1,550	1,550		
26-Jul-17	170.5	15	15	6	4,109	2.36	4.0	37.8	19.6	6.91	>2,420	1,730		
27-Jul-17	160.1	13	nr	nr	4,226	2.98	4.0	37.5	19.6	6.82	75	68		
28-Jul-17	156.0	18	18	6	4,696	3.52	4.0	37.4	19.9	6.85	36	40		
29-Jul-17	144.8	15	11	6	3,895	2.36	3.9	37.2	20.5	6.71	44	14		
30-Jul-17	144.2	14	9	5	4,051	2.21	3.9	37.2	20.8	6.77	31	24		
31-Jul-17	147.2	10	15	7	3,828	2.95	3.9	37.0	19.8	6.89	122	35		
Max:	493.3													
Min:	126.1													
Average:	183.0	17	16	8	4,421	2.93			19.1	6.86				
Total Flow:	5673.4													
Geo.Mean:											54	49		

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 380 ML/D per clause 26 of Licence 2684RRR
- (6) Bracketed Coliform results not used in the Geometric Mean calculation
- (7) Raw wastewater flows in excess of 400 ML/D will by-pass the secondary process and flows in excess of 675 ML/D will cause raw sewage to by-pass the plant