

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

Licence 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample					
		Date	Raw Sewage Daily Flow	TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
			ML**	(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-Mar-17	146.7	18	29	11	5,545	1.86	2.0	42.9	12.7	7.60	240	9		
2-Mar-17	169.2	15	29	9	6,227	1.75	2.0	42.2	12.2	7.25	20	15		
3-Mar-17	162.4	18	26	11	4,808	1.64	2.0	41.5	11.8	7.06	93	93		
4-Mar-17	193.3	18	24	11	5,046	1.53	2.0	41.2	11.8	6.74	150	36		
5-Mar-17	247.3	33	31	19	4,996	1.02	2.0	40.9	11.4	7.02	93	93		
6-Mar-17	345.5	94	52	34	4,767	0.57	2.0	40.0	10.8	7.14	(93)	(23)		
7-Mar-17	278.1	17	24	10	4,311	0.54	2.0	39.0	7.8	7.96	93	93		
8-Mar-17	184.7	17	23	10	3,916	0.81	2.0	38.2	9.8	7.13	93	93		
9-Mar-17	166.7	20	21	10	4,017	0.79	2.0	37.4	10.9	7.24	43	23		
10-Mar-17	161.2	18	18	10	4,078	1.03	2.0	37.0	11.2	7.35	240	240		
11-Mar-17	161.3	18	28	12	4,226	1.34	2.0	36.8	11.1	7.00	240	43		
12-Mar-17	158.1	16	18	11	4,252	1.45	2.0	36.6	11.9	7.03	43	43		
13-Mar-17	154.6	14	25	10	4,035	1.27	2.0	36.3	11.9	7.31	23	9		
14-Mar-17	158.9	19	20	10	4,371	1.42	2.0	36.0	12.2	7.02	15	15		
15-Mar-17	153.6	10	25	8	4,254	1.44	2.0	36.0	12.5	6.80	15	7		
16-Mar-17	255.2	96	44	>37	5,333	1.19	2.0	35.6	12.9	6.69	74	23		
17-Mar-17	360.3	24	25	10	3,819	0.38	2.0	34.8	7.4	7.54	74	74		
18-Mar-17	171.8	16	16	10	3,470	0.96	1.9	34.5	13.6	7.12	30	30		
19-Mar-17	306.0	68	36	25	5,508	1.02	2.0	34.2	12.0	6.77	(24,000)	(9,300)		
20-Mar-17	320.2	41	24	17	4,355	0.74	2.0	34.0	9.2	7.25	30	4		
21-Mar-17	207.5	17	15	9	3,444	0.77	2.0	34.0	9.4	7.28	23	9		
22-Mar-17	164.3	18	18	12	3,911	1.20	2.0	34.4	11.3	6.82	14	14		
23-Mar-17	195.6	23	21	14	5,536	1.57	2.1	34.6	12.3	7.20	9	9		
24-Mar-17	192.0	15	18	14	4,819	1.50	2.1	34.5	11.1	6.97	93	15		
25-Mar-17	228.4	27	24	15	5,001	1.60	2.1	34.1	11.7	7.17	93	93		
26-Mar-17	317.3	40	28	24	4,791	1.05	2.1	33.4	10.1	6.88	(240)	(240)		
27-Mar-17	278.0	24	19	13	4,170	1.26	2.1	32.9	9.6	7.29	93	43		
28-Mar-17	266.8	24	18	12	4,215	1.79	2.1	32.4	9.9	7.14	43	43		
29-Mar-17	335.6	62	33	30	4,162	1.64	2.2	31.7	10.1	7.00	43	15		
30-Mar-17	513.4	32	21	16	4,374	0.93	2.2	30.6	8.7	7.09	(>110,000)	(>110,000)		
31-Mar-17	361.5	17	17	12	3,795	1.20	2.1	30.0	9.3	7.20	43	43		
Max:	513.4													
Min:	146.7													
Average:	236.0	29	25	15	4,502	1.20			11	7.13				
Total Flow:	7315.4													
Geo.Mean:											52	28		

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