

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

November 2019

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-Nov-19	213.1	7	7	<4	2,791	2.27	1.9	18.2	14.7	6.73	50	30		
2-Nov-19	195.2	7	6	5	2,421	1.98	1.9	18.4	15.0	6.68	<10	30		
3-Nov-19	203.5	7	8	4	2,401	2.02	1.9	18.4	14.6	6.69	20	10		
4-Nov-19	193.5	3	8	5	2,206	2.61	2.0	18.8	14.5	6.78	30	20		
5-Nov-19	189.4	5	7	4	2,595	2.92	2.1	19.3	14.7	6.74	30	10		
6-Nov-19	187.6	6	11	5	2,646	3.06	2.1	19.7	14.5	6.72	30	(nr)		
7-Nov-19	181.6	9	11	6	2,234	3.08	2.2	20.0	14.4	6.64	30	(nr)		
8-Nov-19	178.6	8	10	6	2,553	2.68	2.2	20.2	14.6	6.69	40	50		
9-Nov-19	172.0	10	10	6	3,078	2.84	2.3	20.6	14.9	6.73	150	130		
10-Nov-19	161.8	8	nr	nr	2,961	3.20	2.3	21.2	14.5	6.55	130	150		
11-Nov-19	160.1	8	11	5	3,123	3.24	2.4	21.8	14.6	6.65	90	130		
12-Nov-19	163.6	8	8	3	3,223	3.63	2.4	22.3	14.3	6.84	20	20		
13-Nov-19	159.3	7	9	<4	2,979	3.51	2.6	23.0	14.5	6.79	20	<10		
14-Nov-19	158.0	7	9	4	2,828	2.95	2.7	23.6	14.9	6.76	70	90		
15-Nov-19	156.6	6	9	5	2,897	3.16	2.7	24.3	15.1	6.73	30	30		
16-Nov-19	160.4	8	11	6	3,096	3.00	2.8	25.1	15.2	6.62	130	150		
17-Nov-19	156.9	6	12	6	2,762	2.82	2.9	25.5	14.4	6.66	30	30		
18-Nov-19	161.0	8	10	6	2,929	3.23	2.9	26.1	15.1	6.75	<10	30		
19-Nov-19	184.6	7	11	5	3,526	3.77	3.0	26.6	14.6	6.77	30	<10		
20-Nov-19	165.0	6	14	6	3,630	3.94	3.1	27.3	14.4	6.67	40	<10		
21-Nov-19	165.0	9	14	6	3,531	3.93	3.2	28.0	14.5	6.63	<10	10		
22-Nov-19	178.8	13	13	7	3,880	3.81	3.3	28.7	13.8	6.72	40	40		
23-Nov-19	179.1	10	10	4	3,689	3.79	3.4	29.3	13.6	6.61	20	30		
24-Nov-19	191.4	52	33	18	3,923	4.04	3.5	30.0	12.9	6.56	50	30		
25-Nov-19	366.8	34	31	13	4,841	2.31	3.5	30.0	10.1	6.85	150	210		
26-Nov-19	176.9	9	11	5	3,113	2.32	3.5	30.1	12.3	6.79	40	30		
27-Nov-19	172.4	10	12	5	4,276	2.46	3.5	30.7	13.8	6.79	20	20		
28-Nov-19	158.4	7	13	6	4,167	2.62	3.5	31.2	14.1	6.81	20	60		
29-Nov-19	157.6	10	11	5	4,034	2.21	3.5	31.5	14.4	6.73	40	30		
30-Nov-19	158.5	11	13	5	4,249	2.42	3.6	32.0	14.5	6.82	10	20		
Max:	366.8													
Min:	156.6													
Average:	180.2	10	12	6	3,219	2.99			14.3	6.72				
Total Flow:	5406.7													
Geo.Mean:											32	30		

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