

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

October 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-Oct-19	441.3	18	11	5	1,708	0.81	3.0	22.6	14.4	7.10	(700)	(700)		
2-Oct-19	306.3	10	8	5	1,795	1.14	2.9	22.5	15.8	7.10	4,110	2,760		
3-Oct-19	254.2	8	6	3	2,847	1.60	2.9	22.6	16.2	6.85	200	200		
4-Oct-19	240.2	18	12	6	2,262	1.52	2.9	22.5	16.8	6.77	330	440		
5-Oct-19	525.1	76	43	17	3,397	0.62	2.8	22.0	13.4	6.84	(>24,200)	(>24,200)		
6-Oct-19	388.9	10	9	<4	2,018	0.40	2.7	21.3	14.3	7.08	(330)	(280)		
7-Oct-19	277.1	10	7	<4	1,460	0.51	2.6	20.7	15.9	6.85	190	280		
8-Oct-19	242.5	6	7	<4	1,770	1.82	2.5	20.4	16.6	6.85	30	20		
9-Oct-19	264.3	7	9	4	2,722	2.18	2.5	20.2	16.9	6.84	190	40		
10-Oct-19	461.8	66	32	19	3,902	1.45	2.5	20.4	13.1	6.99	(>24,200)	(>24,200)		
11-Oct-19	423.8	38	32	15	2,653	1.15	2.4	20.1	12.1	7.08	(1,420)	(930)		
12-Oct-19	628.4	ns	ns	ns	ns	ns	2.4	19.9	11.1	7.12	(>24,200)	(>24,200)		
13-Oct-19	707.9	ns	ns	ns	ns	ns	2.4	20.1	10.6	7.20	(>24,200)	(>24,200)		
14-Oct-19	726.0	34	26	15	2,483	0.57	2.4	19.9	11.8	7.41	(>24,200)	(>24,200)		
15-Oct-19	673.8	78	54	24	2,190	0.72	2.3	19.6	12.7	7.34	nr	(>24,200)		
16-Oct-19	550.9	36	30	18	2,160	0.86	2.2	18.9	14.3	7.26	(>24,200)	(>24,200)		
17-Oct-19	480.9	45	34	23	1,899	0.83	2.1	18.2	14.1	7.23	(>24,200)	(>24,200)		
18-Oct-19	435.1	29	23	14	1,814	1.12	2.0	17.5	14.2	7.11	(2,490)	(2,600)		
19-Oct-19	369.7	13	7	5	1,675	1.38	1.9	16.8	14.0	7.09	(1,960)	(2,190)		
20-Oct-19	324.0	11	9	4	1,646	1.57	1.9	16.7	14.1	6.98	540	460		
21-Oct-19	352.9	30	27	16	2,216	1.38	1.9	16.8	14.1	7.00	(2,050)	(1,730)		
22-Oct-19	341.3	10	9	4	1,771	1.29	1.9	16.9	13.4	7.12	100	60		
23-Oct-19	289.0	10	12	5	1,598	1.46	1.8	16.8	14.0	7.04	6,130	nr		
24-Oct-19	273.7	6	11	5	2,085	1.67	1.8	16.6	14.4	6.91	>24,200	>24,200		
25-Oct-19	250.6	9	8	<4	1,827	1.86	1.8	16.4	14.9	6.87	50	60		
26-Oct-19	250.2	6	9	4	2,095	2.59	1.7	16.4	15.2	6.84	120	60		
27-Oct-19	221.0	6	6	5	1,879	2.35	1.7	16.7	14.5	6.80	30	40		
28-Oct-19	223.4	6	6	4	2,144	2.50	1.8	16.8	14.8	6.86	80	20		
29-Oct-19	215.1	6	5	3	2,088	2.43	1.8	17.0	14.9	6.79	10	10		
30-Oct-19	209.3	6	5	<4	2,302	2.61	1.8	17.5	15.1	6.80	10	30		
31-Oct-19	205.0	8	6	3	2,378	2.57	1.8	17.9	15.0	6.77	20	40		
Max:	726.0													
Min:	205.0													
Average:	372.7	21	16	8	2,165	1.48			14.3	7.00				
Total Flow:	11553.4													
Geo.Mean:											168	117		

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