

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
December 2018**

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-Dec-18	130.2	13	nr	nr	5,206	4.57	5.1	45.7	15.7	6.67	40	60		
2-Dec-18	130.5	19	16	7	5,048	4.53	5.1	46.2	15.5	6.67	20	50		
3-Dec-18	133.5	16	15	7	4,914	4.34	5.2	46.7	15.3	6.70	40	100		
4-Dec-18	134.8	23	17	8	5,312	4.87	5.2	47.1	15.2	6.81	<10	40		
5-Dec-18	133.7	20	20	10	4,922	4.80	5.2	47.3	14.9	6.85	310	360		
6-Dec-18	134.5	21	19	8	4,975	4.49	5.3	47.6	15.2	6.84	230	290		
7-Dec-18	138.3	22	22	9	5,174	4.94	5.3	47.9	14.4	6.84	160	200		
8-Dec-18	130.8	20	nr	nr	5,181	5.35	5.4	48.1	15.7	6.73	10	40		
9-Dec-18	129.9	20	nr	nr	5,104	5.11	5.4	48.4	15.3	6.67	150	200		
10-Dec-18	132.2	20	nr	nr	5,024	4.98	5.4	48.2	15.4	6.69	50	20		
11-Dec-18	133.4	20	22	9	4,976	5.04	5.4	48.0	15.1	6.82	140	150		
12-Dec-18	132.7	20	29	11	5,148	5.14	5.4	48.1	15.1	6.71	10	30		
13-Dec-18	134.5	25	27	10	5,340	4.80	5.4	48.4	15.5	6.72	40	40		
14-Dec-18	136.6	27	42	12	5,435	5.32	5.5	48.6	15.6	6.74	310	260		
15-Dec-18	128.6	23	38	11	5,197	5.54	5.5	48.9	15.6	6.74	570	620		
16-Dec-18	128.0	25	37	9	5,198	5.28	5.5	49.1	15.6	6.76	410	510		
17-Dec-18	132.7	24	34	9	4,990	4.77	5.6	49.3	15.4	6.70	60	190		
18-Dec-18	136.7	26	38	10	5,346	4.16	5.6	49.6	15.1	6.76	230	220		
19-Dec-18	156.1	27	43	13	6,089	4.89	5.6	50.0	15.4	6.80	370	440		
20-Dec-18	139.7	22	33	10	5,154	3.93	5.6	50.1	14.3	6.84	1,240	1,440		
21-Dec-18	127.7	15	36	8	4,878	3.74	5.6	50.1	14.6	6.74	820	740		
22-Dec-18	133.1	14	30	7	5,309	3.45	5.6	50.2	14.9	6.61	50	50		
23-Dec-18	127.6	18	29	8	4,886	3.79	5.6	50.1	15.0	6.63	10	30		
24-Dec-18	133.3	24	nr	nr	5,012	2.33	5.5	50.2	14.7	6.76	50	90		
25-Dec-18	117.5	27	17	11	4,535	1.62	5.4	50.3	14.7	6.67	3,650	6,870		
26-Dec-18	119.6	24	nr	nr	4,810	3.83	5.4	50.3	14.5	6.76	1,270	1,610		
27-Dec-18	127.8	19	nr	nr	5,621	4.13	5.4	50.4	13.9	6.86	70	90		
28-Dec-18	131.8	16	nr	nr	5,629	4.00	5.4	50.7	14.1	6.85	30	50		
29-Dec-18	129.4	20	26	8	4,996	4.61	5.4	50.9	15.7	6.80	30	20		
30-Dec-18	125.1	18	25	11	4,929	4.55	5.4	50.9	14.4	6.77	40	30		
31-Dec-18	132.8	20	24	8	5,084	4.57	5.3	51.0	13.9	6.81	20	40		
Max:	156.1													
Min:	117.5													
Average:	132.0	21	28	9	5,143	4.43			15.0	6.75				
Total Flow:	4093.1													
Geo.Mean:											94	137		

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