

**City of Winnipeg  
Water and Waste Department  
North End Water Pollution Control Centre Monitoring Data  
November 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-Nov-17	134.2	10	13	5	4,213	4.47	5.0	41.8	17.8	6.71	100	150		
2-Nov-17	135.6	11	13	7	4,271	4.72	5.1	42.1	17.7	6.71	20	20		
3-Nov-17	135.5	14	12	7	4,592	4.84	5.1	42.3	17.9	6.71	30	20		
4-Nov-17	133.2	12	13	6	4,647	5.19	5.1	42.6	18.0	6.76	20	40		
5-Nov-17	140.0	13	14	9	4,873	4.68	5.1	42.7	17.6	6.77	30	90		
6-Nov-17	133.6	11	15	8	4,143	4.52	5.1	42.8	17.5	6.68	20	40		
7-Nov-17	133.1	13	12	8	4,194	4.79	5.1	43.0	17.2	6.72	10	60		
8-Nov-17	133.7	11	13	8	4,411	4.75	5.1	43.2	17.1	6.77	120	260		
9-Nov-17	133.8	13	13	9	4,376	4.54	5.1	43.4	17.4	6.75	50	150		
10-Nov-17	131.9	13	15	10	4,393	4.59	5.1	43.5	16.9	6.74	80	150		
11-Nov-17	128.9	14	13	9	4,357	4.70	5.1	43.5	16.9	6.67	140	190		
12-Nov-17	129.1	12	19	8	4,093	4.75	5.1	43.4	17.5	6.73	60	40		
13-Nov-17	135.1	12	10	7	4,379	4.63	5.2	43.5	17.3	6.66	10	20		
14-Nov-17	145.3	12	12	8	4,808	4.32	5.2	43.7	17.3	6.78	20	30		
15-Nov-17	137.8	3	14	8	4,369	3.92	5.2	43.9	16.5	6.79	20	10		
16-Nov-17	136.1	10	14	7	5,021	4.41	5.2	44.3	17.0	6.74	80	30		
17-Nov-17	128.7	10	16	8	4,312	4.06	5.2	44.7	17.2	6.75	nr	nr		
18-Nov-17	131.2	14	12	8	4,761	2.79	5.1	44.8	17.1	6.72	50	50		
19-Nov-17	133.4	14	12	8	4,869	1.43	5.0	44.9	16.9	6.74	460	620		
20-Nov-17	132.8	12	12	7	4,662	2.21	4.9	44.9	16.9	6.75	60	90		
21-Nov-17	129.3	11	12	6	4,525	2.74	4.8	44.8	16.3	6.77	40	40		
22-Nov-17	128.7	9	11	6	4,697	2.56	4.8	44.8	16.5	6.78	10	50		
23-Nov-17	136.6	12	12	6	4,769	2.58	4.7	44.9	16.9	6.72	350	350		
24-Nov-17	149.4	11	14	6	5,274	2.30	4.6	44.9	17.1	6.77	130	190		
25-Nov-17	133.0	9	10	4	4,388	1.99	4.5	45.3	16.5	6.76	230	260		
26-Nov-17	127.1	8	10	4	4,310	2.37	4.6	45.7	16.7	6.74	160	140		
27-Nov-17	147.5	9	10	5	5,075	2.11	4.6	45.8	16.8	6.72	40	130		
28-Nov-17	143.0	9	8	4	4,204	1.70	4.5	45.6	15.5	6.85	120	50		
29-Nov-17	132.1	8	10	4	4,374	2.19	4.5	45.7	16.2	6.75	120	170		
30-Nov-17	136.4	10	11	4	4,732	2.57	4.4	45.7	16.8	6.75	50	130		
<b>Max:</b>	149.4													
<b>Min:</b>	127.1													
<b>Average:</b>	<b>134.9</b>	<b>11</b>	<b>13</b>	<b>7</b>	<b>4,536</b>	<b>3.58</b>			<b>17.0</b>	<b>6.74</b>				
<b>Total Flow:</b>	<b>4046.2</b>													
<b>Geo.Mean:</b>											<b>55</b>	<b>78</b>		

**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