

**City of Winnipeg  
Water and Waste Department  
North End Water Pollution Control Centre Monitoring Data  
September 2014**

Licence 2684 RRR	Raw Sewage	Final Effluent 24 Hour Composite							Final Effluent Grab Sample			
		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-Sep-14	280.3	9	nr	nr	348	1.41	3.1	24	18	6.69	230	230
2-Sep-14	252.4	8	10	6	1,060	2.12	3.1	24	19	6.75	230	230
3-Sep-14	211.2	8	nr	nr	1,573	2.42	3.1	23	19	6.64	23	9
4-Sep-14	356.1	37	nr	nr	2,742	1.93	3.0	23	19	6.73	230	93
5-Sep-14	315.3	16	14	7	1,734	1.50	2.9	22	18	6.68	120	38
6-Sep-14	243.4	9	nr	nr	1,224	1.76	2.8	22	18	6.75	430	75
7-Sep-14	197.2	9	nr	nr	1,479	2.29	2.8	22	18	6.78	230	15
8-Sep-14	209.2	8	10	5	2,036	2.72	2.9	22	19	6.74	93	93
9-Sep-14	194.4	10	11	6	2,547	2.86	2.9	22	19	6.75	230	93
10-Sep-14	178.5	7	11	6	2,606	3.23	2.9	22	19	6.81	230	93
11-Sep-14	179.2	10	13	8	2,383	3.37	2.9	22	19	6.60	150	14
12-Sep-14	166.3	15	15	7	2,229	3.96	2.9	22	19	6.79	1,400	110
13-Sep-14	160.9	16	14	9	2,735	4.03	2.9	22	18	6.82	93	93
14-Sep-14	156.1	12	13	7	2,263	3.42	2.9	22	18	6.86	230	43
15-Sep-14	160.0	10	12	7	2,385	3.42	2.9	22	18	7.00	230	93
16-Sep-14	157.5	10	13	7	2,441	4.04	2.9	22	19	6.79	150	93
17-Sep-14	155.4	10	12	6	2,921	4.33	3.0	22	19	6.91	230	230
18-Sep-14	155.0	6	13	6	3,333	4.50	3.0	23	19	6.78	140	38
19-Sep-14	187.0	14	15	10	4,133	4.18	3.0	22	19	6.84	93	11
20-Sep-14	296.6	45	56	24	3,678	2.28	3.0	22	19	6.82	230	230
21-Sep-14	208.3	7	11	6	1,881	1.35	3.0	22	17	6.64	150	75
22-Sep-14	167.6	7	11	6	2,229	2.73	3.0	23	18	6.71	230	93
23-Sep-14	162.5	5	12	6	2,649	3.62	3.1	23	19	6.75	93	15
24-Sep-14	158.4	8	12	7	3,326	3.75	3.2	24	19	6.99	230	93
25-Sep-14	157.2	12	14	8	3,553	3.78	3.3	24	19	6.78	930	75
26-Sep-14	165.3	11	13	8	3,636	3.70	3.3	24	19	6.75	21,000	15,000
27-Sep-14	164.8	17	15	8	3,115	3.42	3.3	25	19	6.92	930	120
28-Sep-14	291.4	24	28	17	3,846	2.38	3.3	25	19	6.60	(>110,000)	(>110,000)
29-Sep-14	161.4	8	13	7	1,986	2.33	3.3	25	17	6.71	930	930
30-Sep-14	158.5	16	14	10	3,502	3.69	3.4	26	17	6.72	210	210
<b>Max:</b>	356.1											
<b>Min:</b>	155.0											
<b>Average:</b>	<b>200.2</b>	<b>13</b>	<b>15</b>	<b>8</b>	<b>2,519</b>	<b>3.02</b>			<b>18</b>	<b>6.77</b>		
<b>Total Flow:</b>	<b>6007.1</b>											
<b>Geo.Mean:</b>											<b>252</b>	<b>90</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
- (8) Total Nitrogen results are calculated from TKN and nitrate values