

**City of Winnipeg  
Water and Waste Department  
North End Water Pollution Control Centre Monitoring Data  
February 2015**

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-Feb-15	125.3	24	30	14	3,407	2.32	3.7	42	13	6.83	1,200	750
2-Feb-15	133.0	20	21	8	3,525	1.84	3.6	41	13	6.83	230	230
3-Feb-15	131.0	24	49	18	3,707	2.03	3.5	41	13	6.74	93	93
4-Feb-15	130.0	18	39	15	3,523	1.76	3.4	41	13	6.66	43	23
5-Feb-15	129.0	19	54	15	3,688	1.96	3.3	41	13	6.86	93	93
6-Feb-15	131.0	22	26	11	3,499	1.39	3.2	41	13	6.80	430	230
7-Feb-15	136.3	25	nr	nr	3,910	1.97	3.1	41	13	6.82	380	380
8-Feb-15	127.9	29	nr	nr	3,518	1.93	3.1	41	13	6.94	750	150
9-Feb-15	126.6	23	44	25	3,493	1.80	3.0	41	13	6.71	930	230
10-Feb-15	129.2	18	46	13	3,578	2.01	2.9	40	13	6.73	230	230
11-Feb-15	129.4	13	40	22	4,049	1.94	2.9	40	13	6.86	1,500	750
12-Feb-15	134.5	20	48	8	4,116	2.09	2.9	40	13	7.00	430	430
13-Feb-15	131.5	22	31	16	4,300	1.95	2.9	40	13	7.12	230	93
14-Feb-15	139.0	23	32	13	4,392	1.73	2.9	40	13	7.03	4,300	4,300
15-Feb-15	130.0	18	30	14	4,329	1.39	2.8	40	13	6.97	2,300	2,300
17-Feb-15	134.0	ns	ns	ns	ns	ns	2.8	39	13	6.92	93	23
18-Feb-15	130.2	19	26	19	4,024	2.06	2.9	39	12	6.94	93	93
19-Feb-15	133.5	25	32	13	4,340	1.58	2.9	39	13	6.96	930	430
16-Feb-15	137.8	13	25	20	4,504	1.46	2.8	39	13	6.93	1,500	930
20-Feb-15	139.9	23	23	21	4,589	1.66	2.8	39	13	6.83	230	230
21-Feb-15	138.0	27	24	22	4,264	1.17	2.8	38	13	6.77	930	930
22-Feb-15	126.7	25	24	18	4,042	0.71	2.7	38	13	6.83	75	43
23-Feb-15	136.6	26	19	17	4,412	0.73	2.6	38	13	6.86	150	23
24-Feb-15	143.4	ns	ns	ns	ns	ns	2.6	37	13	6.85	930	430
25-Feb-15	138.8	21	15	11	4,691	1.74	2.6	37	13	6.86	430	93
26-Feb-15	142.0	34	17	14	4,288	1.30	2.6	37	13	6.93	380	230
27-Feb-15	143.0	37	23	22	4,676	1.87	2.5	37	13	6.86	430	230
28-Feb-15	134.0	27	23	19	4,127	1.03	2.5	37	13	6.94	1,500	930
<b>Max:</b>	143.4											
<b>Min:</b>	125.3											
<b>Average:</b>	<b>133.6</b>	<b>23</b>	<b>31</b>	<b>16</b>	<b>4,038</b>	<b>1.67</b>			<b>13</b>	<b>6.87</b>		
<b>Total Flow:</b>	<b>3741.5</b>											
<b>Geo.Mean:</b>											<b>406</b>	<b>235</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