

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
December 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
1-Dec-14	141.4	20	22	12	4,200	4.05	5.0	38	15	6.82	<3	<3
2-Dec-14	128.6	24	20	12	3,974	3.93	5.0	37	15	6.90	38	38
3-Dec-14	146.0	25	36	18	4,161	4.00	5.0	37	15	6.97	93	93
4-Dec-14	139.9	26	24	13	4,436	4.60	5.0	37	15	6.94	43	43
5-Dec-14	135.0	29	25	15	4,332	4.42	5.0	37	15	7.02	93	21
6-Dec-14	130.0	28	23	14	4,199	4.46	4.9	37	15	7.23	43	43
7-Dec-14	132.0	29	24	14	4,249	4.56	5.0	37	15	6.89	15,000	15,000
8-Dec-14	127.9	26	25	13	4,158	4.45	5.0	37	14	7.06	93	21
9-Dec-14	142.0	24	19	14	4,799	4.47	5.0	37	15	6.91	93	23
10-Dec-14	139.7	29	25	14	4,749	4.98	5.0	38	15	6.97	4,300	4,300
11-Dec-14	137.6	26	27	16	4,445	4.70	5.0	38	15	6.82	43	43
12-Dec-14	144.8	26	28	15	4,401	4.54	5.0	38	15	6.92	75	38
13-Dec-14	146.2	46	34	17	4,195	4.59	5.1	38	15	7.00	110,000	110,000
14-Dec-14	164.6	33	33	17	4,329	3.47	5.1	38	15	6.85	230	230
15-Dec-14	145.9	27	nr	nr	3,691	3.48	5.1	38	14	7.01	43	43
16-Dec-14	136.0	17	nr	nr	3,958	4.09	5.1	38	15	7.03	21	15
17-Dec-14	140.5	37	29	21	4,201	4.28	5.1	38	15	6.99	43	9
18-Dec-14	130.5	28	25	18	3,901	4.49	5.1	38	15	6.76	43	43
19-Dec-14	135.4	37	18	16	4,239	4.16	5.1	38	15	6.87	75	43
20-Dec-14	128.3	43	37	19	3,901	4.18	5.2	38	15	7.03	4,300	4,300
21-Dec-14	128.1	34	35	19	4,008	4.04	5.2	38	15	6.82	2,300	2,300
22-Dec-14	131.7	35	33	19	4,031	4.13	5.1	38	15	6.82	93	43
23-Dec-14	143.7	25	24	16	4,671	4.31	5.1	38	15	7.00	2,300	2,300
24-Dec-14	130.8	43	33	24	5,103	4.40	5.1	38	15	6.97	4,300	2,300
25-Dec-14	113.7	21	30	14	3,764	4.00	5.1	38	14	6.79	750	380
27-Dec-14	112.0	35	44	17	3,294	3.36	5.1	38	14	6.97	9,300	9,300
26-Dec-14	112.3	33	45	21	3,940	4.04	5.1	39	14	6.80	24,000	9,300
28-Dec-14	116.3	25	37	19	4,221	3.86	5.1	39	14	7.05	4,300	4,300
29-Dec-14	127.6	46	40	26	4,261	4.27	5.2	39	13	6.97	43	23
30-Dec-14	129.9	60	46	28	4,495	4.64	5.2	40	14	6.93	930	930
31-Dec-14	136.5	35	45	34	4,588	4.19	5.2	40	14	6.90	2,900	2,900
Max:	164.6											
Min:	112.0											
Average:	134.0	31	31	18	4,222	4.23			15	6.94		
Total Flow:	4154.9											
Geo.Mean:											343	239

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