

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
March 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-Mar-14	132.0	20	22	14	4,027	1.79	2.2	39	12	6.97	2,300	2,300
2-Mar-14	133.8	23	24	15	4,133	2.16	2.2	39	12	7.01	930	930
3-Mar-14	144.5	25	22	15	4,319	0.98	2.2	39	11	6.87	75	43
4-Mar-14	148.2	24	11	15	4,653	1.13	2.2	39	12	6.93	4	4
5-Mar-14	144.1	19	21	15	4,408	1.21	2.2	39	12	6.89	93	93
6-Mar-14	142.0	22	20	14	4,400	1.34	2.2	39	12	6.83	150	75
7-Mar-14	146.5	34	23	17	4,292	1.43	2.2	39	12	6.82	93	43
8-Mar-14	146.0	31	22	16	4,030	1.71	2.2	39	13	6.67	43	43
9-Mar-14	140.5	31	23	18	3,893	1.53	2.2	39	13	6.74	7,500	4,300
10-Mar-14	197.7	32	nr	nr	5,181	1.40	2.2	39	13	6.70	93	43
11-Mar-14	159.9	28	22	15	3,582	1.15	2.2	38	11	6.80	380	36
12-Mar-14	153.7	29	23	16	4,058	1.54	2.3	38	12	6.81	430	20
13-Mar-14	165.4	34	23	17	4,665	1.90	2.3	38	13	6.82	140	23
14-Mar-14	159.2	25	18	12	3,964	1.62	2.3	38	12	6.88	23	23
15-Mar-14	148.0	26	21	12	3,965	1.95	2.3	38	13	6.85	230	230
16-Mar-14	145.7	37	24	17	4,122	2.07	2.3	38	12	7.04	3,800	3,800
17-Mar-14	154.7	25	22	14	4,037	1.69	2.3	38	12	6.83	93	43
18-Mar-14	152.7	25	22	17	4,107	2.19	2.4	38	12	6.95	150	93
19-Mar-14	173.3	37	23	18	4,558	2.68	2.4	38	13	6.78	230	93
20-Mar-14	172.6	23	21	15	4,420	2.28	2.5	38	12	6.76	150	75
21-Mar-14	153.8	23	20	15	3,630	1.12	2.5	37	12	6.85	75	43
22-Mar-14	149.0	38	23	20	4,186	0.62	2.5	38	12	6.98	4,300	4,300
23-Mar-14	145.6	23	23	20	3,961	1.12	2.4	38	12	7.05	46,000	46,000
24-Mar-14	147.2	19	21	18	3,695	0.98	2.4	38	12	6.88	230	93
25-Mar-14	150.6	30	24	17	3,855	1.27	2.4	37	12	6.76	38	23
26-Mar-14	152.2	32	nr	nr	4,002	1.42	2.4	37	12	6.74	230	230
27-Mar-14	154.7	30	23	20	4,300	1.49	2.4	37	12	6.74	1,500	750
28-Mar-14	156.8	31	23	20	4,390	1.62	2.4	37	13	7.02	4,300	2,300
29-Mar-14	151.1	32	25	18	3,898	1.26	2.4	37	12	6.78	230	21
30-Mar-14	198.5	35	27	21	4,129	1.16	2.4	37	12	6.75	230	230
31-Mar-14	151.2	22	22	14	3,160	0.79	2.4	36	13	6.82	43	23
Max:	198.5											
Min:	132.0											
Average:	153.9	28	22	16	4,130	1.50			12	6.85		
Total Flow:	4771.0											
Geo.Mean:											270	143

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