

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
April 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-Apr-14	152.6	29	27	16	4,121	1.36	2.4	36	12	6.86	430	75
2-Apr-14	172.6	32	25	20	4,419	1.36	2.4	36	12	6.64	23	9
3-Apr-14	173.4	29	25	16	3,814	1.12	2.4	36	12	6.73	43	9
4-Apr-14	214.1	43	30	21	4,667	1.39	2.4	35	12	6.70	93	21
5-Apr-14	268.2	64	33	23	4,345	0.97	2.4	35	10	7.07	230	21
6-Apr-14	294.8	54	31	22	3,980	0.76	2.4	34	9	6.98	9,300	2,300
7-Apr-14	261.8	29	24	16	3,691	0.80	2.3	34	9	6.74	93	43
8-Apr-14	319.4	41	23	19	4,184	0.84	2.3	33	9	6.77	75	75
9-Apr-14	421.7	61	33	27	3,955	0.69	2.2	33	9	6.85	(380)	(140)
10-Apr-14	409.9	54	27	23	3,713	0.79	2.2	32	8	6.89	(210)	(210)
11-Apr-14	320.8	33	19	13	3,593	0.88	2.2	32	9	6.94	9,300	9,300
12-Apr-14	264.2	37	nr	nr	3,434	1.16	2.2	31	9	6.88	93	93
13-Apr-14	252.0	33	nr	nr	3,553	1.29	2.2	31	9	6.99	430	230
14-Apr-14	206.1	22	13	12	3,298	1.63	2.1	30	9	6.84	9	9
15-Apr-14	219.8	26	17	12	4,045	1.97	2.1	30	10	6.81	93	93
16-Apr-14	230.9	26	16	12	4,087	1.84	2.1	30	9	6.80	93	93
17-Apr-14	241.7	25	17	14	4,230	1.94	2.1	29	9	6.83	23	23
18-Apr-14	256.7	38	12	18	3,517	1.52	2.1	29	9	6.83	430	430
19-Apr-14	446.6	61	35	29	3,805	0.94	2.0	28	8	6.85	(9)	(9)
20-Apr-14	364.2	34	20	17	3,365	1.03	2.0	28	8	6.84	93	93
21-Apr-14	341.7	25	15	13	3,759	1.25	2.0	27	8	7.00	2,300	2,300
22-Apr-14	313.8	25	16	15	3,923	1.37	2.0	27	9	7.09	150	93
23-Apr-14	285.3	38	26	21	3,737	1.39	2.0	26	9	7.03	73	23
24-Apr-14	511.0	29	17	13	3,669	0.90	2.0	26	10	6.80	(46000)	(9300)
25-Apr-14	543.1	50	30	25	4,480	0.91	2.0	25	10	7.10	(>110000)	(110000)
26-Apr-14	325.5	19	13	10	3,808	1.25	1.9	24	9	6.95	43	15
27-Apr-14	256.1	13	13	9	3,533	1.53	1.9	24	10	7.02	93	15
28-Apr-14	410.0	41	27	25	4,100	1.26	1.9	23	10	6.99	(4300)	(1500)
29-Apr-14	319.3	15	13	9	3,768	1.33	1.9	23	9	6.98	93	15
30-Apr-14	254.3	13	12	10	4,171	1.91	1.9	23	10	6.98	9	9
Max:	543.1											
Min:	152.6											
Average:	301.7	35	22	17	3,892	1.25			9	6.89		
Total Flow:	9051.3											
Geo.Mean:											135	66

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