

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
November 2012**

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-Nov-12	146.4	15	29	10	3,894	3.67	2.4	32	17	6.92	93	21
2-Nov-12	144.6	14	27	10	3,992	3.70	2.4	32	18	6.82	43	9
3-Nov-12	141.8	15	25	10	2,978	3.09	2.4	32	17	6.84	15	15
4-Nov-12	136.6	19	31	11	3,605	3.79	2.6	32	18	6.85	230	4
5-Nov-12	161.1	41	44	22	4,028	3.62	2.7	32	18	6.86	230	75
6-Nov-12	224.5	19	nr	nr	3,593	1.80	2.7	32	18	6.91	230	93
7-Nov-12	151.9	15	22	9	3,948	2.89	2.7	32	18	6.77	930	930
8-Nov-12	153.6	20	25	12	4,194	3.55	2.8	33	18	6.93	43	43
9-Nov-12	143.1	30	nr	nr	3,936	4.00	2.8	33	18	7.02	43	23
10-Nov-12	139.6	18	nr	nr	3,909	4.17	2.9	33	17	6.89	43	15
11-Nov-12	143.0	18	26	15	4,132	3.93	3.0	33	17	6.90	43	43
12-Nov-12	150.6	24	30	13	4,127	4.12	3.1	33	17	6.88	93	93
13-Nov-12	149.6	17	33	12	4,878	4.13	3.2	33	17	6.67	230	15
14-Nov-12	149.7	19	42	11	4,205	3.66	3.3	33	17	6.85	23	23
15-Nov-12	145.8	19	34	12	3,921	3.57	3.4	33	17	6.85	43	9
16-Nov-12	148.0	17	29	11	3,908	3.81	3.5	33	17	6.77	23	23
17-Nov-12	148.5	17	27	13	3,817	3.86	3.6	34	17	6.88	930	930
18-Nov-12	147.6	19	34	12	3,839	3.74	3.7	34	17	6.83	15000	7500
19-Nov-12	152.5	21	32	11	3,935	3.67	3.8	34	17	6.79	93	15
20-Nov-12	156.1	21	nr	nr	3,918	3.64	3.9	34	17	6.80	230	43
21-Nov-12	165.8	20	29	12	4,012	3.56	3.9	34	17	6.69	150	23
22-Nov-12	158.4	16	33	11	4,007	3.48	3.9	34	17	6.90	43	43
23-Nov-12	150.8	17	26	8	4,283	3.74	4.0	34	16	6.91	4300	1500
24-Nov-12	144.8	14	39	11	4,041	3.81	4.1	34	16	6.93	2300	2300
25-Nov-12	146.5	17	27	12	4,146	3.81	4.1	34	16	6.89	93	93
26-Nov-12	146.7	17	39	11	3,652	3.51	4.1	35	15	6.81	43	15
27-Nov-12	142.3	18	44	10	3,743	3.87	4.1	35	16	6.82	15	9
28-Nov-12	146.1	18	37	11	3,784	3.91	4.2	35	16	6.94	43	43
29-Nov-12	146.8	18	35	10	3,992	4.11	4.2	35	16	6.91	4	4
30-Nov-12	143.1	17	60	12	3,935	4.40	4.2	34	16	6.84	93	43
Max:	224.5											
Min:	136.6											
Average:	150.9	19	33	12	3,945	3.69			17	6.86		
Total Flow:	4526.0											
Geo.Mean:											111	49

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