

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
November 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
		(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-Nov-14	128.4	36	23	17	4,570	4.72	5.4	40	18	7.13	4,300	2,300
2-Nov-14	128.2	32	25	18	4,436	4.48	5.5	41	18	6.94	2,300	2,300
3-Nov-14	137.5	41	24	20	4,429	4.25	5.5	41	18	6.85	150	93
4-Nov-14	135.8	40	26	21	4,170	4.84	5.6	41	18	6.88	2,300	2,300
5-Nov-14	135.3	ns	ns	ns	ns	ns	ns	ns	18	6.80	230	230
6-Nov-14	134.9	54	41	nr	4,452	4.76	5.5	40	18	6.88	150	75
7-Nov-14	152.7	69	45	35	4,412	4.02	5.5	40	18	6.86	9,300	230
8-Nov-14	130.8	50	nr	nr	3,543	3.59	5.5	40	17	6.87	9,300	2,100
9-Nov-14	127.7	36	30	25	3,791	3.57	5.5	40	17	7.15	9,300	1,500
10-Nov-14	132.5	34	23	18	3,750	3.76	5.4	40	17	6.97	430	430
11-Nov-14	124.4	36	25	21	3,644	3.95	5.4	40	17	7.00	4,300	930
12-Nov-14	130.6	38	22	20	4,074	3.91	5.4	40	17	6.95	430	230
13-Nov-14	117.6	28	19	18	3,682	3.88	5.4	40	17	6.76	230	230
14-Nov-14	134.6	31	22	17	4,349	4.10	5.4	40	17	6.98	230	230
15-Nov-14	126.2	31	27	18	4,027	4.18	5.4	40	16	6.96	230	230
16-Nov-14	120.8	28	23	17	3,805	3.87	5.3	40	16	7.02	230	230
17-Nov-14	138.3	30	24	17	3,997	3.80	5.2	40	16	6.96	430	150
18-Nov-14	131.1	30	21	15	4,195	4.80	5.2	40	16	6.98	93	93
19-Nov-14	128.0	23	19	12	4,146	3.97	5.2	39	16	6.96	24,000	24,000
20-Nov-14	127.6	25	18	nr	4,147	3.92	5.1	39	16	6.80	150	75
21-Nov-14	124.0	22	19	12	3,920	4.03	5.0	39	16	7.00	43	43
22-Nov-14	130.8	32	27	16	4,042	4.51	5.0	39	16	6.86	93	43
23-Nov-14	120.6	25	20	12	3,897	4.24	5.0	39	16	6.95	15,000	9,300
24-Nov-14	122.3	nr	17	10	3,767	3.67	5.0	38	16	6.90	430	430
25-Nov-14	134.7	23	21	12	4,161	4.31	5.0	38	16	6.92	23	9
26-Nov-14	137.6	22	18	12	4,127	4.05	5.0	38	15	6.94	93	93
27-Nov-14	135.8	26	21	11	4,088	4.11	4.9	38	15	6.86	230	230
28-Nov-14	131.0	23	19	12	3,955	4.28	4.9	37	15	7.02	93	93
29-Nov-14	124.5	25	17	10	3,684	4.44	4.9	37	15	6.97	38	38
30-Nov-14	123.5	15	18	10	3,717	4.26	4.9	37	15	6.97	93	93
Max:	152.7											
Min:	117.6											
Average:	130.3	32	23	16	4,034	4.15			17	6.94		
Total Flow:	3907.7											
Geo.Mean:											468	285

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