City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
June 2013

Licence 2684 RRR	Raw Sewage	Final Effluent 24 Hour Composite							Final Effluent Grab Sample			
Date	Daily Flow	TSS	BOD5	cBOD5	Ammonia	Ortho Phosphorus	Total Phosphorus	Total Nitrogen	Temp.	pH	Fecal Coliform	E.Coli
	ML**	(mg/L)	(mg/L)	(mg/L)	(kg NH3-N/day)	(mg/L-P)	(mg/L-P)*	(mg/L-N)*	(^{o}C)	(units)	MPN/100 mL	
1-Jun-13	**430.8**	22	11	9	3,881	0.86	2.2	27	13	7.19	(9300)	(9300)
2-Jun-13	282.7	12	9	6	3,364	1.28	2.2	27	13	7.14	430	28
3-Jun-13	255.6	13	11	6	3,783	1.71	2.3	27	13	7.19	93	43
4-Jun-13	230.6	10	8	5	4,726	2.20	2.3	27	14	7.07	43	43
5-Jun-13	211.5	10	8	5	4,695	2.45	2.3	27	14	7.03	93	21
6-Jun-13	209.8	10	9	5	4,531	2.40	2.3	27	14	7.02	93	43
7-Jun-13	199.7	8	17	6	4,193	2.74	2.4	27	15	7.02	230	15
8-Jun-13	186.6	14	11	5	3,769	2.85	2.4	27	15	7.08	93	21
9-Jun-13	185.3	10	11	6	4,058	2.90	2.4	27	15	7.04	43	43
10-Jun-13	256.0	40	24	17	4,788	2.51	2.5	27	15	6.96	93	3
11-Jun-13	193.6	7	11	5	3,330	2.21	2.5	27	17	6.91	23	9
12-Jun-13	173.3	7	10	5	3,831	2.98	2.5	27	17	7.02	43	43
13-Jun-13	175.1	9	11	6	4,448	3.65	2.6	27	16	7.18	7	<3
14-Jun-13	187.9	8	11	6	4,622	3.80	2.6	27	17	7.08	43	43
15-Jun-13	175.2	10	12	6	3,644	3.32	2.6	27	16	7.00	23	23
16-Jun-13	152.6	10	11	5	3,450	3.77	2.7	26	16	6.91	23	9
17-Jun-13	160.1	11	15	7	3,393	3.76	2.8	26	17	6.98	9	9
18-Jun-13	159.5	12	17	nr	4,053	4.16	2.9	27	17	7.08	24,000	2,900
19-Jun-13	158.9	11	17	8	3,830	3.94	3.0	27	17	6.91	230	11
20-Jun-13	198.9	32	>37	22	4,892	3.84	3.1	28	17	6.78	23	4
21-Jun-13	245.3	12	15	8	3,581	2.53	3.1	27	18	6.79	43	23
22-Jun-13	185.3	16	12	6	3,540	2.75	3.1	27	18	6.82	9	4
23-Jun-13	307.6	48	33	18	4,091	2.07	3.1	27	18	6.95	43	9
24-Jun-13	277.6	13	11	6	2,970	1.77	3.1	26	18	6.84	230	43
25-Jun-13	202.7	42	>36	23	2,959	2.54	3.1	26	18	6.88	43	15
26-Jun-13	**424.5**	14	nr	nr	3,425	1.21	3.1	25	19	6.81	(>110,000)	(>110,000)
27-Jun-13	238.7	12	14	6	3,699	2.06	3.0	25	18	6.99	150	23
28-Jun-13	217.3	10	12	5	3,890	2.14	3.0	25	18	6.95	23	9
29-Jun-13	180.9	10	nr	nr	3,058	2.69	3.0	25	18	6.92	23	9
30-Jun-13	156.9	13	nr	nr	2,965	2.78	3.1	25	18	6.91	9	4
Max:	430.8											
Min:	152.6											
Average:	**220.7**	**15**	**15**	**8**	**3,849**	**2.66**			**16**	**6.98**		
Total Flow:	**6620.4**											
Geo.Mean:											**58**	**19**

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 proce 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