

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
September 2015**

Licence # 2684 RRR	File # 1071.10	Final Effluent 24 Hour Composite							Final Effluent Grab Sample					
		Date	Raw Sewage Daily Flow ML**	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-Sep-15	164.9	12	11	8	2,144	2.89	3.0	23	20	6.77	150	74		
2-Sep-15	172.0	14	13	9	3,887	3.57	3.0	23	20	6.82	430	430		
3-Sep-15	171.2	11	14	9	4,315	3.47	3.0	23	20	6.82	150	150		
4-Sep-15	381.7	77	41	23	4,428	1.64	3.0	23	20	6.74	(150)	(74)		
5-Sep-15	462.7	37	28	13	1,929	0.62	3.0	23	20	6.98	(930)	(150)		
6-Sep-15	458.3	13	7	5	1,196	0.84	2.9	23	19	6.95	(9300)	(9300)		
7-Sep-15	274.1	8	8	5	1,162	1.49	2.9	23	19	7.16	240	43		
8-Sep-15	237.7	8	10	6	1,816	2.00	2.9	23	19	7.03	93	93		
9-Sep-15	228.2	8	11	6	2,179	2.01	2.9	23	19	7.05	240	150		
10-Sep-15	202.9	8	21	6	2,374	1.96	2.9	23	19	6.91	210	210		
11-Sep-15	189.0	11	13	5	2,381	2.05	2.8	23	19	6.78	240	93		
12-Sep-15	165.6	10	10	5	1,673	2.05	2.8	23	19	6.78	93	43		
13-Sep-15	173.4	6	12	7	1,378	2.28	2.8	23	19	6.84	43	43		
14-Sep-15	162.4	8	11	5	1,564	2.61	2.8	23	19	6.80	43	15		
15-Sep-15	163.2	9	11	5	1,975	3.06	2.8	23	20	6.79	93	43		
16-Sep-15	166.9	ns	ns	ns	ns	ns	2.7	23	20	6.84	930	930		
17-Sep-15	239.1	ns	ns	ns	ns	ns	2.7	22	19	6.73	430	150		
18-Sep-15	162.8	ns	ns	ns	ns	ns	2.7	22	20	6.68	240	240		
19-Sep-15	155.0	ns	ns	ns	ns	ns	2.6	22	19	7.02	240	43		
20-Sep-15	153.0	ns	ns	ns	ns	ns	2.5	22	20	6.81	150	150		
21-Sep-15	160.5	ns	ns	ns	ns	ns	2.6	22	20	6.69	74	74		
22-Sep-15	154.5	18	34	15	2,565	3.43	2.7	23	20	6.77	240	93		
23-Sep-15	152.9	8	9	5	2,614	3.47	2.8	23	20	6.67	43	23		
24-Sep-15	155.0	9	10	5	2,743	3.57	2.9	24	20	6.67	23	23		
25-Sep-15	153.6	9	9	4	2,612	3.31	3.0	24	20	6.69	23	23		
26-Sep-15	140.8	12	11	11	2,591	4.25	3.1	25	20	6.88	43	15		
27-Sep-15	168.0	12	12	7	2,738	3.85	3.1	25	20	6.79	93	9		
28-Sep-15	149.7	8	11	5	1,931	3.58	3.2	25	20	6.77	1,500	1,500		
29-Sep-15	145.9	9	11	5	2,801	4.20	3.2	25	19	6.72	43	23		
30-Sep-15	158.1	11	14	5	3,415	4.32	3.3	26	20	6.76	93	43		
Max:	462.7													
Min:	140.8													
Average:	200.8	14	14	7	2,434	2.77			20	6.82				
Total Flow:	6022.9													
Geo.Mean:											131	73		

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