

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
September 2010**

Date	Raw Sewage	Final Effluent 24 Hour Composite										Final Effluent Grab Sample			
	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)	(mg/L-N)	(kg NH3-N/day)	(mg/L-P)	(mg/L-P)	(mg/L-P)*	(mg/L-N)	(mg/L-N)*	(°C)	(units)	MPN/100 mL	
1-Sep-10	90.1	24	34	12	9	767	2.34	2.8	3.1	13	17	19	6.74	(43)	(43)
2-Sep-10	205.1	18	29	11	4	722	1.25	1.7	3.1	10	17	18	7.21	(930)	(930)
3-Sep-10	119.3	11	15	9	5	599	1.49	1.8	3.0	11	17	18	7.12	(430)	(93)
4-Sep-10	92.7	8	21	5	5	504	1.71	2.1	3.0	12	17	18	6.94	9	4
5-Sep-10	78.3	10	22	4	6	454	2.01	2.2	3.0	14	17	18	6.72	43	15
6-Sep-10	75.5	15	27	7	8	617	2.33	2.8	3.0	17	17	18	6.67	43	23
7-Sep-10	73.1	9	25	4	11	826	2.63	3.0	3.0	19	17	18	6.73	43	43
8-Sep-10	69.6	9	26	4	13	877	2.75	3.0	2.9	20	17	18	6.62	9	4
9-Sep-10	67.8	12	25	5	14	949	2.92	3.4	2.9	21	17	19	6.63	9	9
10-Sep-10	142.6	37	30	14	7	1,055	1.48	1.9	2.9	11	17	19	7.02	(9,300)	(9,300)
11-Sep-10	104.6	16	20	7	8	794	1.64	2.0	2.8	15	16	18	6.87	(75)	(20)
12-Sep-10	87.7	13	23	5	10	841	1.97	2.4	2.8	17	16	18	6.87	43	23
13-Sep-10	78.8	8	18	4	11	882	2.24	2.6	2.8	18	17	18	6.71	93	93
14-Sep-10	74.2	10	21	6	13	971	2.34	2.7	2.9	20	17	19	6.82	4	4
15-Sep-10	71.9	10	23	4	15	1,042	2.54	2.8	2.9	20	17	19	6.81	93	93
16-Sep-10	70.5	12	26	5	16	1,107	2.53	2.8	2.9	22	17	19	6.68	23	23
17-Sep-10	70.2	7	24	5	14	996	2.37	2.7	2.9	21	17	18	6.71	430	93
18-Sep-10	65.5	7	23	4	15	970	2.58	3.0	2.8	23	18	18	6.77	14	4
19-Sep-10	64.5	15	28	6	16	1,052	2.89	3.3	2.8	23	18	18	6.68	9	9
20-Sep-10	66.3	10	25	5	16	1,075	2.75	3.2	2.8	22	18	18	6.62	23	23
21-Sep-10	65.2	10	27	6	17	1,114	2.72	3.2	2.8	26	18	19	6.54	2,300	75
22-Sep-10	74.2	23	48	10	18	1,313	2.54	3.1	2.8	21	18	19	6.68	43	43
23-Sep-10	76.7	39	64	14	13	1,028	2.00	2.9	2.8	21	19	18	6.71	15	15
24-Sep-10	143.9	16	28	7	7	1,056	1.21	1.7	2.7	14	18	16	7.06	(150)	(150)
25-Sep-10	97.1	11	24	6	8	803	1.73	2.3	2.7	17	18	18	6.92	15	7
26-Sep-10	89.1	14	28	7	10	868	2.06	2.6	2.7	18	18	18	6.81	4	4
26-Sep-10	83.5	8	31	4	11	902	2.31	2.8	2.6	18	18	18	6.75	38	23
28-Sep-10	77.7	9	27	4	12	901	2.35	2.8	2.6	18	18	18	6.78	<3	<3
29-Sep-10	74.2	11	31	5	14	1,039	2.82	3.3	2.6	20	18	19	6.77	(9)	(4)
30-Sep-10	72.3	8	35	3	14	1,026	2.47	2.7	2.7	20	18	19	6.74	(<3)	(<3)
Max:	205.1														
Min:	64.5														
Average:	87.4	14	28	6	11	905	2.23	2.7		18		18	6.79		
Geo.Mean:														26	15

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 98.6 ML/D per clause 26 of Licence 2716R.
- (6) Bracketed Coliform results not used in the Geometric Mean calculation.
- (7) Raw wastewater flows in excess of 100 ML/D will by-pass the secondary process.
- (8) Total Nitrogen results are calculated from TKN and nitrate values.