

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
October 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-Oct-10	75.1	6	27	3	14	1,021	2.75	3.0	2.7	18	18	18	6.80	7	3
2-Oct-10	70.5	5	23	4	14	1,008	2.53	2.8	2.7	20	19	18	6.68	23	23
3-Oct-10	71.0	9	26	5	14	994	2.58	2.9	2.7	22	19	18	6.63	23	23
4-Oct-10	69.3	7	31	4	14	998	2.73	3.1	2.8	22	19	18	6.60	43	15
5-Oct-10	67.2	8	29	6	16	1,069	2.78	3.1	2.8	23	20	18	6.71	93	43
6-Oct-10	66.3	10	24	4	17	1,108	2.98	3.4	2.8	23	20	ns	ns	ns	ns
7-Oct-10	64.3	8	34	4	16	1,055	2.71	3.2	2.8	24	20	18	6.62	<3	<3
8-Oct-10	63.5	8	36	2	17	1,067	2.99	3.6	2.8	24	20	19	6.61	<3	<3
9-Oct-10	61.4	8	24	5	17	1,013	3.07	3.7	2.9	24	20	19	6.59	23	23
10-Oct-10	58.6	9	21	6	16	926	3.10	3.6	2.9	24	21	19	6.59	<3	<3
11-Oct-10	61.0	11	26	6	18	1,091	3.37	3.7	3.0	26	21	19	6.86	9	4
12-Oct-10	58.7	8	26	5	20	1,192	3.22	3.3	3.0	25	21	19	6.60	43	15
13-Oct-10	57.4	10	26	7	24	1,349	3.64	4.3	3.1	30	22	19	6.60	43	15
14-Oct-10	57.0	6	30	4	20	1,164	2.89	3.3	3.1	27	22	18	6.63	7	3
15-Oct-10	57.9	6	34	4	22	1,274	3.58	3.9	3.1	27	22	18	6.71	9	9
16-Oct-10	56.4	7	44	6	23	1,269	3.66	4.0	3.2	29	22	18	6.67	4	4
17-Oct-10	58.4	7	32	6	21	1,220	3.54	4.0	3.2	24	22	18	6.60	9	4
18-Oct-10	56.8	5	32	4	21	1,181	3.30	3.9	3.2	27	23	18	6.59	43	7
19-Oct-10	55.0	7	38	4	23	1,237	3.79	4.2	3.3	30	23	18	6.68	43	15
20-Oct-10	54.8	6	34	3	23	1,245	4.27	4.7	3.3	29	23	18	6.61	11	7
21-Oct-10	54.2	7	68	3	23	1,268	4.30	4.7	3.4	32	23	18	6.55	15	15
22-Oct-10	54.1	4	63	3	22	1,201	4.60	4.8	3.4	31	24	18	6.48	<3	<3
23-Oct-10	54.6	5	50	4	22	1,178	3.88	4.3	3.5	32	24	18	6.68	4	4
24-Oct-10	55.3	9	40	6	21	1,184	3.57	3.9	3.5	28	24	18	6.50	23	23
25-Oct-10	68.4	11	36	7	20	1,347	3.56	3.6	3.6	26	25	18	6.61	23	4
26-Oct-10	139.0	44	41	14	9	1,238	1.50	1.9	3.6	15	25	17	6.81	(380)	(380)
27-Oct-10	172.0	14	29	11	5	781	1.00	1.4	3.5	12	24	16	7.14	(430)	(430)
28-Oct-10	115.0	11	37	9	7	789	1.44	1.9	3.5	15	24	16	7.32	(930)	(430)
29-Oct-10	98.0	8	37	5	8	805	2.00	2.4	3.4	17	24	16	6.94	7	7
30-Oct-10	96.3	11	36	7	9	827	1.85	2.3	3.4	17	24	16	6.98	43	15
31-Oct-10	89.3	14	53	8	9	845	1.95	2.4	3.4	18	24	16	6.80	23	9
Max:	172.0														
Min:	54.1														
Average:	72.2	9	35	5	17	1,095	3.00	3.4		24		18	6.71		
Geo.Mean:														12	7

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.