

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**September 2008**

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-08	72.3	26	68	16	18	1,265	3.82	4.6	4.7	30	31	19	6.56	50	30
2-Sep-08	69.5	8	54	4	14	987	2.57	3.4	4.7	23	30	19	6.59	>3,000	>3,000
3-Sep-08	61.5	6	45	4	19	1,151	4.18	4.4	4.6	28	30	18	6.57	170	110
4-Sep-08	58.4	6	62	3	20	1,149	4.27	4.5	4.6	29	30	19	6.61	11,000	11,000
5-Sep-08	60.5	7	40	5	21	1,264	4.80	5.2	4.5	32	29	19	6.60	170	23
6-Sep-08	65.5	8	44	6	20	1,277	4.08	4.5	4.5	29	29	19	6.53	900	90
7-Sep-08	72.4	12	39	8	15	1,108	3.08	3.6	4.4	24	29	19	6.59	800	500
8-Sep-08	64.2	6	60	4	17	1,104	3.98	4.6	4.4	26	28	18	6.65	1,300	1,300
9-Sep-08	60.8	7	43	3	19	1,149	4.29	4.6	4.4	24	28	18	6.58	300	130
10-Sep-08	58.0	6	41	3	19	1,114	4.89	5.2	4.4	24	27	19	6.66	500	500
11-Sep-08	54.8	7	68	5	19	1,047	5.26	5.7	4.5	25	28	19	6.53	5,000	3,000
12-Sep-08	54.8	5	40	5	19	1,046	5.09	5.8	4.6	25	28	19	6.63	3,000	1,100
13-Sep-08	54.8	6	37	7	18	1,002	4.36	4.9	4.6	24	28	18	6.57	130	130
14-Sep-08	56.8	11	37	7	18	1,040	4.43	5.1	4.6	25	27	16	6.67	17,000	11,000
15-Sep-08	55.3	7	32	5	19	1,040	4.25	4.7	4.6	22	27	19	6.52	17,000	17,000
16-Sep-08	54.1	6	32	5	20	1,094	4.54	5.1	4.7	24	27	20	6.49	300	300
17-Sep-08	53.3	5	27	4	21	1,129	4.34	4.5	4.6	25	27	19	6.44	170	170
18-Sep-08	52.0	8	14	5	23	1,217	6.24	6.9	4.7	28	27	19	6.56	300	300
19-Sep-08	52.1	5	38	5	22	1,126	4.00	4.3	4.7	24	27	20	6.49	500	300
20-Sep-08	52.5	6	25	5	22	1,134	4.20	4.5	4.7	25	26	19	6.53	33	7
21-Sep-08	52.0	7	25	6	20	1,055	4.28	4.7	4.8	26	27	19	6.55	13	13
22-Sep-08	54.9	7	30	5	21	1,137	4.42	4.7	4.8	24	27	19	6.51	2,300	1,300
23-Sep-08	94.2	38	61	13	13	1,262	2.86	3.8	4.8	18	27	19	6.83	(300,000)	(35,780)
24-Sep-08	89.4	8	25	5	12	1,073	1.53	1.8	4.7	16	26	18	6.74	nr	nr
25-Sep-08	78.5	13	nr	nr	15	1,169	4.03	4.5	4.7	20	26	19	6.56	500	300
26-Sep-08	62.8	9	32	5	16	1,005	3.58	3.8	4.7	21	26	19	6.62	40	36
27-Sep-08	58.5	11	nr	nr	17	1,000	4.37	4.7	4.6	24	25	18	6.51	110	21
28-Sep-08	59.5	16	30	13	17	1,000	4.78	5.3	4.6	24	25	19	6.50	140	70
29-Sep-08	57.7	8	32	9	17	975	4.00	4.4	4.6	22	25	18	6.66	1,300	800
30-Sep-08	56.5	9	26	8	18	1,022	4.66	5.3	4.6	24	24	21	6.47	50	30
<b>Max:</b>	94.2														
<b>Min:</b>	52.0														
<b>Average:</b>	<b>61.6</b>	<b>9</b>	<b>40</b>	<b>6</b>	<b>18</b>	<b>1,105</b>	<b>4.17</b>	<b>4.6</b>		<b>24</b>		<b>19</b>	<b>6.58</b>		
<b>Geo.Mean:</b>														<b>474</b>	<b>277</b>

- 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 2716.
  - (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.