

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**October 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-Oct-08	54.4	9	28	9	17	946	5.53	5.0	4.7	22	24	19	6.51	220	<2
2-Oct-08	56.0	13	29	13	21	1,181	5.66	6.4	4.8	29	24	19	6.51	300	300
3-Oct-08	55.3	11	24	14	21	1,178	5.09	5.7	4.8	29	24	19	6.44	247	247
4-Oct-08	55.8	15	35	19	21	1,194	4.73	5.4	4.8	29	24	19	6.51	500	140
5-Oct-08	55.1	18	nr	nr	21	1,129	4.35	5.2	4.8	28	24	19	6.48	1,300	800
6-Oct-08	78.2	73	>72	27	17	1,313	3.23	5.2	4.8	25	24	18	6.50	220	50
7-Oct-08	63.5	19	36	22	16	1,029	3.29	3.6	4.8	22	24	18	6.63	(3,000)	(3,000)
8-Oct-08	56.7	22	<10	<2	19	1,088	4.67	5.3	4.9	24	24	19	6.68	110	110
9-Oct-08	55.5	11	35	13	19	1,048	4.46	5.0	4.9	23	24	18	6.52	2,800	2,800
10-Oct-08	56.1	19	nr	nr	20	1,095	4.35	5.0	4.9	23	24	18	6.55	220	80
11-Oct-08	53.6	11	35	14	19	1,019	4.28	4.9	4.9	23	24	18	6.52	170	130
12-Oct-08	<b>108.6</b>	54	>71	20	11	1,184	2.12	3.3	4.8	16	24	18	6.57	(230)	(230)
13-Oct-08	<b>99.0</b>	14	53	10	9	891	1.78	2.3	4.7	12	23	16	6.91	(1,659)	(280)
14-Oct-08	74.3	10	40	6	12	884	2.92	3.4	4.6	16	23	17	6.74	800	500
15-Oct-08	68.5	9	36	6	14	980	3.74	4.1	4.6	20	23	18	6.66	130	22
16-Oct-08	65.7	9	33	5	15	999	3.81	4.4	4.6	20	23	18	6.76	30	30
17-Oct-08	64.1	9	32	7	15	974	4.00	4.6	4.6	22	23	18	6.65	80	50
18-Oct-08	63.5	16	38	11	15	978	3.81	4.5	4.5	21	22	18	6.57	2,300	800
19-Oct-08	63.1	11	39	12	16	978	3.49	4.4	4.5	20	22	18	6.56	4	2
20-Oct-08	60.0	8	35	6	16	960	3.78	4.2	4.5	22	22	18	6.61	90	70
21-Oct-08	59.1	8	31	6	17	1,029	4.20	4.9	4.5	23	22	18	6.58	50	17
22-Oct-08	62.8	6	34	4	17	1,061	4.44	4.9	4.5	23	22	18	6.54	70	50
23-Oct-08	59.1	9	32	8	17	1,022	5.08	5.8	4.6	24	22	18	6.52	358	220
24-Oct-08	60.6	10	29	8	18	1,067	4.40	4.9	4.7	24	23	17	6.58	50	30
25-Oct-08	62.5	14	36	12	17	1,074	3.89	4.6	4.7	24	23	18	6.59	50	30
26-Oct-08	67.7	13	32	10	14	961	2.92	3.5	4.7	20	23	17	6.58	1,300	1,300
27-Oct-08	61.8	10	31	7	16	983	3.75	4.3	4.7	21	23	17	6.52	1,300	32
28-Oct-08	58.3	9	38	5	17	997	3.87	4.4	4.6	22	23	17	6.55	119	119
29-Oct-08	58.8	11	35	8	18	1,081	4.33	5.1	4.7	24	23	18	6.58	700	90
30-Oct-08	56.8	6	30	4	18	1,034	4.35	4.8	4.6	23	23	18	6.61	48	47
31-Oct-08	53.3	7	41	6	19	996	4.40	4.7	4.6	25	23	17	6.58	1,300	490
<b>Max:</b>	108.6														
<b>Min:</b>	53.3														
<b>Average:</b>	<b>63.5</b>	<b>15</b>	<b>39</b>	<b>10</b>	<b>17</b>	<b>1,044</b>	<b>4.02</b>	<b>4.6</b>		<b>23</b>		<b>18</b>	<b>6.58</b>		
<b>Geo.Mean:</b>														<b>213</b>	<b>105</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.