

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**August, 2006**

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-Aug-06	49.3	38	27	3	21	1,035	0.07	1.6	2.9	22	29	20	6.39	430	150
2-Aug-06	50.0	30	<10	<2	21	1,050	0.09	1.5	2.8	25	28	20	6.53	930	430
3-Aug-06	55.1	10	<10	<2	19	1,047	<0.04	0.7	2.7	23	28	19	6.61	9,300	2,300
4-Aug-06	58.2	10	<10	<2	19	1,106	<0.04	0.6	2.6	22	27	20	6.63	430	230
5-Aug-06	56.7	10	<10	<2	18	1,021	<0.04	0.5	2.4	18	27	20	6.76	43	23
6-Aug-06	46.5	9	<10	<4	17	791	<0.04	0.4	2.3	21	26	20	6.71	75	23
7-Aug-06	47.8	6	12	<2	16	765	<0.04	0.4	2.2	19	26	19	6.77	23	9
8-Aug-06	51.4	21	17	4	17	874	<0.04	2.3	2.2	22	26	20	6.48	2,300	930
9-Aug-06	50.9	54	15	5	17	865	<0.04	2.3	2.2	24	25	21	6.53	7,500	1,500
10-Aug-06	77.0	15	24	11	14	1,078	1.52	2.7	2.2	21	25	21	6.34	9,300	4,300
11-Aug-06	57.0	11	16	8	15	855	2.81	3.6	2.2	25	25	20	6.58	4,300	4,300
12-Aug-06	<b>115.6</b>	23	24	11	8	925	1.50	2.1	2.1	15	25	20	6.82	(3,800)	(3,800)
13-Aug-06	69.2	9	19	10	9	623	2.70	3.5	2.1	20	24	19	6.90	210	150
14-Aug-06	61.7	12	28	14	14	864	3.87	4.7	2.1	24	24	20	6.68	7,500	4,300
15-Aug-06	57.3	17	32	17	15	860	3.82	4.8	2.2	27	24	20	6.69	23,000	23,000
16-Aug-06	55.9	10	32	19	16	894	3.61	4.4	2.2	27	24	21	6.69	430,000	430,000
17-Aug-06	56.3	9	40	14	16	901	3.55	4.4	2.2	27	24	20	6.63	23,000	4,300
18-Aug-06	55.4	8	34	7	16	886	3.51	4.4	2.2	27	24	20	6.71	230,000	93,000
19-Aug-06	52.5	11	32	12	16	840	3.83	4.8	2.3	29	24	20	6.54	430	230
20-Aug-06	52.8	5	30	9	16	845	3.36	3.8	2.4	26	24	17	6.49	930	930
21-Aug-06	54.9	5	24	5	16	878	3.46	3.4	2.4	21	24	20	6.55	1,500	750
22-Aug-06	52.3	<4	21	4	18	941	4.14	4.6	2.5	27	24	20	6.96	150	93
23-Aug-06	52.1	9	22	6	18	938	4.61	5.2	2.6	28	24	20	6.89	230	230
24-Aug-06	52.1	5	33	6	18	938	4.76	5.3	2.6	30	23	20	6.69	93	15
25-Aug-06	58.6	4	17	4	17	996	3.83	4.2	2.6	28	24	20	6.71	75	75
26-Aug-06	53.0	7	20	8	18	954	3.81	4.3	2.7	32	24	20	6.60	<3	<3
27-Aug-06	51.6	6	17	7	18	929	3.93	2.5	2.8	23	24	20	6.62	23	9
28-Aug-06	53.7	5	19	6	19	1,020	4.04	4.2	2.9	32	24	20	6.85	430	430
29-Aug-06	52.4	4	18	5	19	996	<b>3.89</b>	4.6	3.1	32	25	20	6.56	380	230
30-Aug-06	52.4	4	18	5	19	996	4.24	5.9	3.2	34	25	20	6.64	93	93
31-Aug-06	53.2	6	34	5	20	1,064	4.83	5.4	3.4	28	25	18	6.53	43	43
<b>Total:</b>	1763														
<b>Max:</b>	116														
<b>Min:</b>	46.5														
<b>Average:</b>	<b>56.9</b>	<b>12</b>	<b>21</b>	<b>7</b>	<b>17</b>	<b>928</b>	<b>2.58</b>	<b>3.32</b>		<b>25</b>		<b>20</b>	<b>6.65</b>		
<b>Geo.Mean:</b>														<b>699</b>	<b>379</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.