

**City of Winnipeg  
Water and Waste Department  
North 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)*	(oC)	(units)	MPN/100 mL	
1-Aug-06	157.7	9	26	5	22	3,469	4.06	3.9	3.9	30	34	22.0	6.64	4300	1500
2-Aug-06	197.3	49	30	14	25	4,933	4.21	5.1	3.9	34	34	21.0	6.53	2300	430
3-Aug-06	217.2	15	<10	5	16	3,475	1.43	2.1	3.8	22	34	21.0	6.39	4300	2300
4-Aug-06	228.4	51	26	15	20	4,568	2.17	2.6	3.8	25	33	21.0	6.55	93	4
5-Aug-06	180.9	8	<10	6	16	2,894	1.69	2.2	3.7	22	33	19.0	6.82	2300	430
6-Aug-06	143.4	5	<10	6	18	2,581	2.56	3.0	3.7	25	32	20.0	7.60	4300	4300
7-Aug-06	149.4	14	18	7	20	2,988	3.07	3.8	3.7	27	32	20.5	6.86	930	930
8-Aug-06	154.4	ns	ns	ns	ns	ns	ns	ns	3.6	ns	31	20.5	6.71	750	380
9-Aug-06	174.5	39	23	11	26	4,537	3.58	4.5	3.6	36	31	21.0	6.79	23,000	2,100
10-Aug-06	300.3	21	23	14	16	4,805	2.58	2.7	3.5	22	30	21.5	6.57	930,000	430,000
11-Aug-06	179.6	49	25	13	24	4,310	2.76	3.6	3.5	33	30	21.0	6.58	2,300	430
12-Aug-06	350.0	31	26	10	12	4,200	1.45	2.3	3.5	20	30	21.0	6.85	430,000	430,000
13-Aug-06	175.9	11	18	7	20	3,518	2.56	3.3	3.5	29	30	20.0	7.06	2,300	2,300
14-Aug-06	175.7	16	37	9	24	4,217	3.66	4.2	3.6	33	30	20.5	7.12	7,500	3,800
15-Aug-06	174.7	13	35	8	25	4,368	3.74	4.6	3.6	35	30	20.0	6.83	15,000	7,500
16-Aug-06	180.2	15	37	9	29	5,226	4.18	5.0	3.6	41	30	20.0	6.59	15,000	15,000
17-Aug-06	172.7	16	37	8	37	6,390	4.69	4.4	3.7	41	30	21.0	6.68	23,000	23,000
18-Aug-06	169.4	44	29	10	44	7,454	2.11	3.4	3.6	54	31	21.5	6.75	23,000	23,000
19-Aug-06	159.3	12	33	7	32	5,098	3.39	4.0	3.6	43	31	18.5	6.94	230,000	93,000
20-Aug-06	159.5	13	37	7	26	4,147	4.60	4.1	3.7	33	31	21.0	6.83	23,000	23,000
21-Aug-06	171.3	10	37	8	22	3,769	4.09	4.6	3.7	34	31	21.0	6.80	15,000	7,500
22-Aug-06	169.1	10	48	8	24	4,058	4.13	4.7	3.7	36	31	21.0	6.84	2,300	930
23-Aug-06	169.3	9	41	7	28	4,740	4.14	4.6	3.7	39	31	20.2	6.83	9,300	1,500
24-Aug-06	166.4	13	39	9	28	4,659	4.14	4.6	3.6	38	32	20.5	6.79	230	43
25-Aug-06	249.6	34	32	8	17	4,243	4.28	nr	3.6	28	31	20.0	6.62	930	930
26-Aug-06	209.9	38	26	6	19	3,988	2.70	3.1	3.6	28	31	20.5	6.52	230,000	93,000
27-Aug-06	150.3	8	20	5	21	3,157	3.29	4.1	3.7	36	31	20.0	6.80	430	430
28-Aug-06	166.3	10	30	6	24	3,992	3.81	nr	3.6	22	31	19.5	6.87	2,100	930
29-Aug-06	168.2	8	26	6	26	4,373	4.09	4.7	3.6	41	31	21.0	6.85	2,300	230
30-Aug-06	167.4	9	32	6	27	4,519	3.85	4.5	3.6	37	31	21.0	6.78	2,300	2,300
31-Aug-06	172.2	7	39	6	25	4,305	4.11	4.4	3.6	34	32	21.0	6.86	430	230
<b>Total:</b>	5761														
<b>Max:</b>	350														
<b>Min:</b>	143														
<b>Average:</b>	<b>185.8</b>	<b>20</b>	<b>28</b>	<b>8</b>	<b>24</b>	<b>4,299</b>	<b>3.37</b>	<b>3.9</b>		<b>33</b>		<b>20.6</b>	<b>6.78</b>		
<b>Geo.Mean:</b>														<b>5,650</b>	<b>2,460</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 380 ML/D per clause 26 of Licence 2684R.
- (6) Bracketed Coliform results not used in the Geometric Mean calculation.
- (7) Raw wastewater flows in excess of 400 ML/D will by-pass the secondary process and flows in excess of 675 ML/D will cause raw sewage to by-pass the plant.