

**City of Winnipeg  
Water and Waste Department  
North End Water Pollution Control Centre Monitoring Data  
December, 2005**

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-Dec-05	183.9	8	32	6	25	4,600	3.01	3.6	3.7	35	34	16.0	6.90	75,000	21,000
2-Dec-05	184.7	8	42	6	29	5,360	3.63	3.9	3.7	37	34	16.0	6.82	43,000	15,000
3-Dec-05	181.7	8	37	6	29	5,270	3.58	3.9	3.7	37	34	16.0	6.99	23,000	23,000
4-Dec-05	178.2	7	27	6	27	4,810	3.72	nr	3.7	32	34	15.0	7.04	23,000	9,300
5-Dec-05	182.8	9	23	6	27	4,940	3.34	3.9	3.7	39	34	16.0	6.88	230,000	230,000
6-Dec-05	180.1	11	nr	nr	29	5,220	3.35	4.4	3.6	41	34	15.5	6.88	75,000	43,000
7-Dec-05	182.7	10	36	8	30	5,480	3.71	3.6	3.6	35	34	16.0	6.92	230,000	230,000
8-Dec-05	183.1	9	24	7	30	5,490	3.27	3.1	3.6	36	34	16.0	6.85	75,000	75,000
9-Dec-05	181.6	10	33	7	30	5,450	3.50	3.5	3.5	37	34	15.5	6.92	230,000	93,000
10-Dec-05	177.1	10	26	7	29	5,140	3.05	3.3	3.5	36	35	16.0	6.86	93,000	93,000
11-Dec-05	168.6	9	20	5	26	4,380	3.19	3.7	3.6	36	35	16.0	6.97	230,000	93,000
12-Dec-05	180.2	9	22	6	25	4,510	2.84	3.2	3.6	34	35	16.0	6.68	43,000	43,000
13-Dec-05	172.7	7	22	6	25	4,320	2.33	2.6	3.5	33	34	15.5	6.77	23,000	23,000
14-Dec-05	180.7	11	29	7	28	5,060	2.71	2.7	3.5	34	34	16.0	6.75	43,000	15,000
15-Dec-05	171.3	8	27	5	27	4,630	3.08	3.3	3.5	38	35	15.0	6.78	93,000	43,000
17-Dec-05	165.2	13	29	6	31	5,120	3.70	3.9	3.5	40	35	15.0	6.79	23,000	9,300
17-Dec-05	160.3	10	35	6	32	4,630	3.88	3.8	3.5	39	35	15.5	6.77	75,000	75,000
19-Dec-05	159.6	9	21	6	29	4,630	3.69	4.4	3.5	42	35	15.5	6.78	93,000	93,000
19-Dec-05	161.4	8	26	5	19	3,070	3.55	3.8	3.5	35	35	15.5	6.90	93,000	93,000
20-Dec-05	158.8	9	29	6	30	4,760	3.76	nr	nr	nr	nr	15.5	6.77	93,000	93,000
21-Dec-05	160.9	10	30	5	30	4,830	3.92	4.5	3.5	43	35	15.5	6.77	23,000	9,300
22-Dec-05	158.5	6	29	6	29	4,600	4.06	4.3	3.6	41	36	16.0	7.02	23,000	9,300
23-Dec-05	172.7	13	34	6	27	4,660	3.49	3.6	3.6	35	36	16.0	6.72	75,000	75,000
24-Dec-05	182.4	10	39	6	24	4,380	3.01	3.2	3.6	31	36	16.0	6.77	43,000	4,300
25-Dec-05	157.4	8	31	6	25	3,940	3.64	nr	nr	29	36	16.0	6.83	9,300	9,300
26-Dec-05	156.5	9	40	5	30	4,700	4.52	4.3	3.7	38	36	16.0	6.83	43,000	43,000
27-Dec-05	168.1	10	27	6	31	5,210	4.16	4.1	3.7	37	36	16.0	6.85	23,000	15,000
28-Dec-05	171.2	8	31	6	31	5,310	4.26	nr	nr	36	36	16.0	6.85	15,000	15,000
29-Dec-05	167.3	8	30	5	31	5,190	4.19	3.9	3.7	39	36	16.0	6.89	43,000	43,000
30-Dec-05	165.1	10	39	6	29	4,790	4.01	4.2	3.7	38	37	16.0	6.84	9,300	9,300
31-Dec-05	159.2	10	39	6	29	4,620	4.14	4.0	3.7	37	37	15.5	6.75	93,000	93,000
<b>Total:</b>	5314														
<b>Max:</b>	184.7														
<b>Min:</b>	156.5														
<b>Average:</b>	<b>171.4</b>	<b>9</b>	<b>30</b>	<b>6</b>	<b>28</b>	<b>4,810</b>	<b>3.56</b>	<b>3.7</b>		<b>37</b>		<b>15.8</b>	<b>6.84</b>		
<b>Geo.Mean:</b>														<b>52,000</b>	<b>34,000</b>

**Notes:**

(1) \* = 30 day rolling average

(2) effluent ammonia load based upon Raw Sewage flows and Final NH3-N concentrations

(3) nr - not recorded or no result; na - not analyzed; ns - no sample

(4)\*\* During normal plant operation any flow greater than 400 ML/ day will by-pass the secondary process