

**City of Winnipeg
Water and Waste Department
North End Water Pollution Control Centre Monitoring Data
December, 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-Dec-06	150.5	12	71	7	30	4,515	4.59	5.3	4.8	41	39	16.9	6.83	230	230
2-Dec-06	154.0	11	66	7	29	4,466	4.24	5.1	4.8	41	39	15.0	6.85	230	230
3-Dec-06	150.7	10	66	7	28	4,220	4.05	5.0	4.8	41	39	13.6	6.87	210	210
4-Dec-06	158.3	9	56	8	27	4,274	3.88	4.6	4.8	27	40	15.7	6.79	920	64
5-Dec-06	154.9	9	>79	7	26	4,027	3.90	4.6	4.8	37	40	17.2	6.74	430	430
6-Dec-06	158.8	13	56	7	26	4,129	3.79	4.6	4.9	38	40	15.3	6.76	240	240
7-Dec-06	157.2	6	72	7	25	3,930	3.58	4.6	4.9	38	40	14.7	6.72	170	5
8-Dec-06	158.5	10	59	6	25	3,963	3.59	6.6	5.0	41	41	14.9	6.79	920	40
9-Dec-06	157	11	80	7	27	4,239	3.78	4.3	5.0	44	41	15.0	6.85	79	49
10-Dec-06	148.4	14	69	8	23	3,413	3.71	4.4	5.0	40	41	14.3	6.83	240	240
11-Dec-06	161.2	12	>82	12	26	4,191	4.01	4.9	5.0	43	41	18.4	6.83	240	130
12-Dec-06	164.2	13	>79	8	28	4,598	3.77	4.8	5.0	44	42	17.8	6.76	540	350
13-Dec-06	160.1	13	70	8	29	4,643	3.68	4.2	5.0	43	42	16.5	6.74	350	350
14-Dec-06	160.1	12	>78	8	27	4,323	3.66	4.7	5.0	44	42	16.6	6.77	350	350
15-Dec-06	157.3	20	>78	8	28	4,404	3.75	5.1	5.0	46	42	15.9	6.72	240	240
16-Dec-06	157.3	22	>78	8	28	4,404	3.44	5.0	5.0	46	42	15.5	7.06	920	920
17-Dec-06	142.7	12	59	7	28	3,996	3.62	4.7	5.0	42	42	14.6	6.78	170	170
18-Dec-06	157.4	12	59	8	30	4,722	4.07	4.7	5.0	46	42	14.6	6.76	33	33
19-Dec-06	159.4	15	57	7	30	4,782	4.24	4.8	5.0	45	43	15.1	6.76	46	23
20-Dec-06	164.8	12	54	8	32	5,274	4.30	4.8	5.0	47	43	17.7	6.73	110	33
21-Dec-06	161.6	10	>81	9	32	5,171	4.03	4.9	5.0	49	43	17.4	6.74	540	540
22-Dec-06	156.6	10	71	7	31	4,855	4.03	4.7	5.0	46	43	16.6	6.80	79	33
23-Dec-06	150.7	10	72	8	26	3,918	3.80	4.7	5.0	41	43	14.2	6.79	220	220
24-Dec-06	147.2	12	63	7	24	3,533	3.63	4.6	4.9	41	43	15.6	6.92	1,100	330
25-Dec-06	123.8	13	64	7	25	3,095	3.94	4.9	4.9	41	43	14.5	6.80	920	220
26-Dec-06	139.7	12	59	8	28	3,912	4.68	5.8	4.9	46	43	15.9	6.84	240	130
27-Dec-06	149.1	8	>81	9	30	4,473	4.51	5.2	4.9	35	43	15.9	6.89	350	240
28-Dec-06	151.4	10	64	8	31	4,693	4.39	4.6	4.9	35	43	16.6	6.86	170	170
29-Dec-06	152.6	12	61	7	32	4,883	4.70	4.9	4.9	35	43	16.7	6.81	2,400	2,400
30-Dec-06	146.5	14	>78	8	29	4,249	4.57	5.1	4.9	35	42	14.3	6.83	170	170
31-Dec-06	143.8	13	50	6	30	4,314	4.47	5.3	4.9	40	42	12.5	6.87	130	130
Max:	165														
Min:	124														
Average:	153.4	12	68	8	28	4,310	4.01	4.9		41		15.7	6.81		
Geo.Mean:														270	155

- 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 2684RR.
 - (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.