

**City of Winnipeg
Water and Waste Department
South End Water Pollution Control Centre Monitoring Data
January 2010**

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-Jan-10	42.1	5	15	3	30	1,240	4.15	4.4	4.4	31	32	18	6.46	17,000	17,000
2-Jan-10	43.6	8	17	4	32	1,387	4.54	4.9	4.4	35	33	17	6.55	4	4
3-Jan-10	46.4	8	16	4	31	1,458	4.36	4.9	4.4	36	33	16	6.56	7	7
4-Jan-10	47.0	5	20	5	30	1,404	4.00	4.3	4.4	32	33	15	6.46	8	4
5-Jan-10	45.7	9	13	4	30	1,370	3.83	4.2	4.3	32	33	17	6.47	<2	<2
6-Jan-10	45.7	7	13	4	30	1,379	4.12	4.4	4.3	35	33	ns	ns	ns	ns
7-Jan-10	47.2	7	22	5	29	1,370	4.08	4.7	4.4	34	33	15	6.39	23	23
8-Jan-10	44.1	<4	16	5	31	1,377	4.05	4.4	4.4	34	33	14	6.50	4	4
9-Jan-10	47.1	6	15	4	32	1,488	4.15	4.6	4.4	35	33	13	6.62	13	13
10-Jan-10	47.8	6	16	4	29	1,400	3.92	4.6	4.4	35	33	13	6.61	14	14
11-Jan-10	47.0	6	16	5	29	1,352	3.83	4.4	4.4	34	33	14	6.55	4	2
12-Jan-10	45.2	8	15	4	29	1,307	4.42	5.0	4.4	35	33	14	6.60	13	13
13-Jan-10	47.0	6	17	4	30	1,414	4.66	5.0	4.5	35	33	14	6.69	70	<2
14-Jan-10	44.0	8	24	4	30	1,323	4.40	4.8	4.5	35	33	14	6.42	23	<2
15-Jan-10	45.9	<4	22	4	30	1,366	4.39	4.8	4.5	35	34	14	6.50	4	4
16-Jan-10	45.9	4	20	6	30	1,383	4.32	4.7	4.5	34	34	14	6.58	8	4
17-Jan-10	46.9	4	13	5	32	1,478	4.25	4.6	4.5	35	34	14	6.60	<2	<2
18-Jan-10	45.5	9	21	7	30	1,373	4.16	4.7	4.5	33	34	14	6.54	<2	<2
19-Jan-10	46.6	8	20	7	31	1,462	4.51	4.9	4.6	33	34	14	6.54	49	17
20-Jan-10	45.8	<4	14	4	31	1,400	5.02	5.0	4.6	33	34	14	6.55	21	9
21-Jan-10	45.5	8	17	4	31	1,415	5.23	5.4	4.6	34	34	14	6.53	4	4
22-Jan-10	44.0	<4	10	4	34	1,492	4.85	5.1	4.7	37	34	14	6.53	4	4
23-Jan-10	46.7	<4	12	4	33	1,558	4.47	4.8	4.7	37	34	14	6.53	<2	<2
24-Jan-10	48.2	8	15	6	30	1,464	3.93	4.4	4.7	36	34	14	6.55	4	2
25-Jan-10	46.5	16	17	6	31	1,418	3.90	4.3	4.7	34	34	14	6.73	8	4
26-Jan-10	43.8	9	17	8	32	1,398	4.34	4.7	4.7	34	34	14	6.46	2	2
27-Jan-10	44.4	9	13	6	34	1,508	4.54	4.6	4.7	36	34	14	6.51	11	2
28-Jan-10	46.0	12	17	6	34	1,558	nr	5.0	4.7	36	34	nr	6.52	7	4
29-Jan-10	43.5	8	17	7	35	1,502	4.54	5.0	4.7	37	35	14	6.44	11	2
30-Jan-10	43.6	10	16	9	35	1,523	4.59	5.1	4.7	37	35	15	6.52	<2	<2
31-Jan-10	46.0	13	20	9	35	1,588	4.44	5.1	4.7	35	35	14	6.53	<2	<2
Max:	48.2														
Min:	42.1														
Average:	45.6	7	17	5	31	1,424	4.33	4.7		35		14	6.53		
Geo.Mean:														7	4

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 2716R.
- (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.
- (8) Total Nitrogen results are calculated from TKN and nitrate values.