

**City of Winnipeg**  
**Water and Waste Department**  
**South End Water Pollution Control Centre Monitoring Data**  
**February 2009**

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-Feb-09	47.4	13	20	10	28	1,318	2.96	3.8	4.9	31	33	13	6.72	33	33
2-Feb-09	48.7	12	24	9	26	1,250	2.97	4.1	4.9	29	32	13	6.59	220	79
3-Feb-09	48.8	9	18	8	29	1,419	3.82	4.6	4.9	32	33	13	6.53	110	110
4-Feb-09	47.0	6	18	7	30	1,404	4.57	5.4	4.9	37	33	13	6.64	1,100	790
5-Feb-09	46.0	11	18	6	31	1,420	5.46	6.8	4.9	40	33	13	6.59	170	170
6-Feb-09	46.2	6	22	9	30	1,405	5.42	6.2	4.9	37	33	13	6.63	23	23
7-Feb-09	48.3	9	20	12	30	1,425	4.41	5.4	4.9	38	33	13	6.66	70	26
8-Feb-09	47.9	11	20	8	29	1,385	4.09	4.9	4.9	35	33	13	6.64	230	49
9-Feb-09	56.1	17	27	13	25	1,413	4.41	4.6	4.9	33	33	14	6.49	330	110
10-Feb-09	78.6	14	20	8	19	1,477	2.41	3.2	4.8	25	33	13	6.61	3,300	790
11-Feb-09	62.1	13	24	12	19	1,161	3.49	4.5	4.8	25	33	12	6.55	4,900	1,700
12-Feb-09	50.1	9	21	7	25	1,237	4.13	4.9	4.9	30	33	13	6.61	4,900	1,100
13-Feb-09	48.4	5	14	6	26	1,273	4.05	4.8	4.9	33	33	14	6.56	79	49
14-Feb-09	47.8	<4	13	4	27	1,310	3.89	4.7	4.8	34	33	12	6.58	490	79
15-Feb-09	46.9	4	<10	5	29	1,347	3.94	4.6	4.8	35	33	12	6.64	11	11
16-Feb-09	47.6	5	16	6	28	1,337	4.12	5.1	4.9	35	33	12	6.60	33	17
17-Feb-09	45.9	<4	11	5	29	1,316	3.88	4.5	4.9	35	33	14	6.50	110	9
18-Feb-09	44.5	4	11	6	29	1,285	3.99	4.8	4.9	34	33	13	6.55	49	33
19-Feb-09	44.9	<4	24	5	31	1,375	4.54	5.2	4.9	33	33	13	6.53	790	790
20-Feb-09	47.2	<4	15	4	30	1,424	4.25	4.9	4.9	36	33	12	6.67	79	27
21-Feb-09	46.6	<4	11	4	31	1,441	4.39	5.0	4.8	34	33	10	6.65	49	49
22-Feb-09	46.2	<4	<10	5	30	1,361	4.01	4.7	4.8	33	33	12	6.69	7	4
23-Feb-09	46.1	6	16	6	28	1,295	3.84	4.7	4.8	34	33	14	6.62	220	130
24-Feb-09	45.8	<4	13	6	30	1,369	4.03	4.7	4.9	33	33	13	6.55	46	17
25-Feb-09	45.7	<4	12	5	31	1,394	4.40	5.1	4.9	33	33	14	6.49	46	46
26-Feb-09	44.5	6	14	5	31	1,376	5.07	6.0	4.9	36	33	12	6.72	46	23
27-Feb-09	46.4	<4	10	5	32	1,494	4.98	5.4	4.9	35	33	14	6.49	220	26
28-Feb-09	48.2	4	nr	nr	31	1,514	4.23	4.9	4.9	35	33	13	6.61	110	49
<b>Max:</b>	78.6														
<b>Min:</b>	44.5														
<b>Average:</b>	<b>48.9</b>	<b>7</b>	<b>16</b>	<b>7</b>	<b>28</b>	<b>1,365</b>	<b>4.13</b>	<b>4.9</b>		<b>34</b>		<b>13</b>	<b>6.60</b>		
<b>Geo.Mean:</b>														<b>140</b>	<b>65</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.