

**City of Winnipeg
Water and Waste Department**

2013 RIVERS SURVEY MONITORING REPORT

Survey Date ¹ : May 15, 2013		Assiniboine River Sampling Locations				Red River Sampling Locations						
Parameter	Unit	HEADINGLY BRIDGE	WEST PERIMETER BRIDGE	ASSINIBOINE PARK FOOT BRIDGE	MAIN STREET BRIDGE	SOUTH FLOODWAY CONTROL ⁴	SOUTH PERIMETER BRIDGE	FORT GARRY BRIDGE	NORWOOD BRIDGE	REDWOOD BRIDGE	NORTH PERIMETER BRIDGE	LOCKPORT BRIDGE
Temperature	° C	15.2	15.6	15.3	14.3	14.8	14.4	14.6	13.4	13.5	NS	14.0
Dissolved Oxygen	mg/L	8.7	8.8	8.8	8.9	8.4	8.5	8.6	8.7	8.6	NS	9.1
Oxygen Saturation ²	%	87	89	88	87	83	84	85	83	82	NS	89
pH	units	7.91	8.11	8.11	8.16	7.74	7.84	7.59	7.64	7.92	NS	7.99
Total Solids	mg/L	1070	1090	782	1070	564	552	560	596	670	NS	1040
Total Suspended Solids	mg/L	445	548	370	555	223	218	213	297	227	NS	525
Turbidity	n.t.u.	178	156	135	211	124	148	150	156	149	NS	144
Total Organic Carbon	mg/L	12	13	13	12	12	11	11	11	11	NS	11
Chlorophyll a	ug/L	NR	NR	NR	NR	NR	NR	NR	NR	NR	NS	NR
Ammonia Nitrogen	mg/L N	0.087	0.009	0.030	0.020	0.006	0.041	0.050	0.058	0.060	NS	0.018
Nitrate Nitrogen	mg/L N	0.722	1.260	1.280	1.320	0.543	0.570	0.615	0.584	0.720	NS	1.240
Total Kjeldahl Nitrogen	mg/L N	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	NS	<2.0
Total Nitrogen ²	mg/L N	<2.0	2.3	2.3	2.3	<2.0	<2.0	<2.0	<2.0	<2.0	NS	2.2
Soluble Phosphorus	mg/L P	0.26	0.17	0.66	0.22	0.23	0.18	0.21	0.22	0.53	NS	0.12
Total Phosphorus	mg/L P	1.50	0.50	0.60	0.80	0.50	0.40	0.50	0.50	0.60	NS	0.50
Escherichia Coliform ³	MPN/100 mL	9	21	15	23	<3	9	43	23	23	NS	43
Fecal Coliform ³	MPN/100 mL	9	21	15	23	3	9	43	23	23	NS	43

Weather Conditions during monitoring: Winds NE at 20 km/hr with 20 % cloud cover and 0 mm of precipitation. Average air temperature during survey at 18 C

- Notes:
- 1) LIMS Reference No: 35899
 - 2) Calculated values
 - 3) Analyzed by contract laboratory.
 - 4) Red River elevation at South Floodway Control Gates 744.8 ft
 - 5) Pierre Delorme Bridge was used as an alternate for the South Floodway Control due to construction.
 - 6) NS at North Perimeter Bridge because bridge was closed for cleaning
 - 7) NR for chlorophyll due to instrument malfunction

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