

**Water Sample Results - General Chemistry and Metals**

Parameter	Units	Canadian Drinking Water Guideline	Detection Limit	Hayden Lake (059)	
				9-Jun-2005	16-Dec-2008
<b>General Chemistry</b>					
Total Alkalinity (Total as CaCO <sub>3</sub> )	mg/L	-	5	14	12
Chloride (Cl)	mg/L	250 AO	1	9.2	9
Colour	TCU	15 AO	5	ND	ND
Hardness (CaCO <sub>3</sub> )	mg/L	-	-	15	13
Nitrate + Nitrite	mg/L	10	0.05	ND	0.06
Nitrite (N)	mg/L	1	0.01	ND	ND
Nitrate (N)	mg/L	10	0.05	ND	0.06
Nitrogen (Ammonia Nitrogen)	mg/L	-	0.05	ND	ND
Total Organic Carbon (C)	mg/L	-	0.5	0.8	0.6
Orthophosphate (P)	mg/L	-	0.01	ND	ND
pH	pH	7.0-10.5 OG	-	6.74	6.33
Reactive Silica (SiO <sub>2</sub> )	mg/L	-	0.5	5.9	7.6
Sulphate (SO <sub>4</sub> )	mg/L	500 AO	2	4.3	4
Turbidity	NTU	-	0.1	ND	0.1
Conductivity	uS/cm	-	-	70	64
Anion Sum	me/L	-	-	0.622	0.58
Bicarb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	-	1	13.6	12
Calculated TDS	mg/L	-	1	41.2	40
Carb. Alkalinity (calc. as CaCO <sub>3</sub> )	mg/L	-	1	ND	ND
Cation Sum	me/L	-	-	0.659	0.57
Ion Balance (% Difference)	%	-	-	2.9	0.87
Langelier Index (@ 20C)	N/A	-	-	-2.86	-3.4
Langelier Index (@ 4C)	N/A	-	-	-3.11	-3.65
Saturation pH (@ 20C)	N/A	-	-	9.6	9.73
Saturation pH (@ 4C)	N/A	-	-	9.85	9.98
Calcium (Ca)	mg/L	-	0.1	3.7	3.1
Magnesium (Mg)	mg/L	-	0.1	1.5	1.3
Phosphorus (P)	mg/L	-	0.1	ND	ND
Potassium (K)	mg/L	-	0.1	0.9	1
Sodium (Na)	mg/L	200 AO	0.1	7.5	6.6
Bromide (Br)	mg/L	-	0.5	ND	ND
Fluoride (F)	mg/L	1.5	0.1	ND	ND
<b>Metals</b>					
Aluminum (Al)	ug/L	-	10	25	73
Antimony (Sb)	ug/L	6	2	ND	ND
Arsenic (As)	ug/L	10	2	ND	ND
Barium (Ba)	ug/L	1000	5	7.4	8
Beryllium (Be)	ug/L	-	2	ND	ND
Bismuth (Bi)	ug/L	-	2	ND	ND
Boron (B)	ug/L	5000	5	6.9	7
Cadmium (Cd)	ug/L	5	0.3	ND	ND
Chromium (Cr)	ug/L	50	2	ND	ND
Cobalt (Co)	ug/L	-	1	ND	ND
Copper (Cu)	ug/L	1000 AO	2	37	ND
Iron (Fe)	ug/L	300 AO	50	ND	ND
Lead (Pb)	ug/L	10	0.5	ND	ND
Manganese (Mn)	ug/L	50 AO	2	13	10
Molybdenum (Mo)	ug/L	-	2	ND	ND
Mercury (Hg)	ug/L	1	0.01		ND
Nickel (Ni)	ug/L	-	2	ND	ND
Selenium (Se)	ug/L	50	2	ND	ND
Silver (Ag)	ug/L	-	0.5	ND	ND
Strontium (Sr)	ug/L	-	5	19	20
Thallium (Tl)	ug/L	-	0.1	ND	ND
Tin (Sn)	ug/L	-	2	ND	ND
Titanium (Ti)	ug/L	-	2	ND	ND
Uranium (U)	ug/L	20	0.1	ND	ND
Vanadium (V)	ug/L	-	2	ND	ND
Zinc (Zn)	ug/L	5000 AO	5	21	5

**Notes:**

All guidelines are based on Health Canada MACs (Maximum Acceptable Concentrations) or Interim (I)MACs, unless otherwise indicated.

AO = Aesthetic Objective- see Health Canada Drinking Water Guidelines for details

OG = Operational Guidance - see Health Canada Drinking Water Guidelines for details

ND = not detected and ND( ) = not detected at the detection limit shown in brackets ( )

"-" = not applicable

Shaded values exceed guidelines.