

Water wise

WATER QUALITY INTERPRETATION

A water supply can be considered unacceptable for drinking purposes based on bacterial analysis; the chemical characteristics of the water such as chlorides, iron and hardness; or the physical characteristics such as odour, taste and colour.

The report on the following page indicates the criteria for drinking water quality according to Health Canada's *Guidelines for Canadian Drinking Water Quality*. For further interpretation of the report, contact the Department of Fisheries, Aquaculture and Environment, Water Resources Division at (902)-368-5044. The following are notes relating to the guidelines:

- a Maximum Acceptable Concentration: Drinking water that continually contains a substance at a concentration greater than the maximum acceptable concentration will contribute significantly to consumers' exposure to that substance and may, in some instances, be capable of inducing harmful effects on health.
- b Aesthetic Objective: These apply to certain substances or characteristics of drinking water which can affect its acceptance by consumers or interfere with good water supply practices. The objective concentrations are below that considered to constitute a health hazard.
- c Coliform bacteria are absent. Water is considered in compliance with the coliform MAC.

If coliform bacteria present:

- < 10 Bacteria present, but not sufficient to regard water unfit for drinking. The water should be re-sampled and the source inspected.
- > 10 or any **E. coli** Water is not considered fit for human consumption. Drinking water should be boiled or an alternate source secured. The water should be re-sampled and appropriate remedial action taken.

- d #: less than or equal to.
- e Lead value may be expressed in mg/L or µg/L depending on the type of analysis conducted.
- f An acceptable limit for sodium depends on a person's allowable daily intake. If you are on a low sodium diet, see your physician or appropriate health authority.
- g Public acceptance of hardness varies considerably. Generally, hardness levels between 80 and 100 mg/L (as CaCO₃) are considered acceptable; levels greater than 200 mg/L are considered poor, but can be tolerated; those in excess of 500 mg/L are normally considered unacceptable.

Guidelines for Drinking Water Quality

(from GCDWQ, Health Canada 1996)

Parameter	Maximum Acceptable Concentration ^a (mg/L)	Aesthetic Objective ^b (mg/L)
Coliforms (total or faecal)	0 ^c)
Alkalinity Total))
Ammonia (NH ₄ -N)))
Cadmium	0.005)
Calcium))
Chloride	)	#250 ^d
Chromium	0.05)
Copper	)	#1.0
Iron	)	#0.3
Lead	0.01(10µg/L) ^e)
Magnesium))
Manganese	)	#0.05
Nitrate (NO ₃ -N)	10.0)
pH	)	6.5 to 8.5
Phosphorous))
Potassium))
Sodium	)^f	#200
Sulphate	)	#500
Temperature	)	#15°C
Total Dissolved Solids	)	#500
Total Hardness (as CaCO ₃)	)	#200 ^g
Zinc	)	#5.0