

2018 Drinking Water Quality and Compliance Annual Notice to Consumers

Saskatchewan Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate a waterworks. The following is a summary of the Village of Briercrest's water quality and sample submission compliance record for the January 1 – December 31, 2018 time period. This report was completed on March 21, 2019. Readers should refer to Environment's Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202 for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information is available from: http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html.

Water Quality Standards

Bacteriological Quality

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted
Total Coliform	0 Organisms/100 mL	26	36	0
E Coli	0 Organisms/100 mL	26	36	0
Background Bacteria	Less than 200/100 mL	26	36	0

The owner/operator is responsible to ensure that one hundred percent of all bacteriological samples are submitted as required. All waterworks are required to submit samples for bacteriological water quality. The frequency of monitoring depends on the population served by the waterworks.

Water Disinfection –

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Limit	Range (mg/L)	# Tests # Tests Required	# Adequate Submitted	Chlorine
Free Chlorine	0.1 mg/L	0.14 – 0.99	26	36	36
Total Chlorine	0.5 mg/L	0.24 – 1.18	26	36	36

A minimum of 0.1 milligrams per liter (mg/L) free chlorine residual OR 0.5 mg/L total chlorine residual is required at all times throughout the distribution system unless otherwise approved. A proper chlorine submission is defined as a bacteriological sample submission form with the free and total chlorine residual fields filled out. An inadequate chlorine is a result that indicated that the chlorine level is below the regulated minimums. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit.

General Chemical

Samples Required	Samples Submitted	Date of Last Sample(s)
Not Required		

The community's waterworks is required to submit sample(s) every second year. The community has 12 months from the date of the last sample to submit the next sample. If the community relies on surface water, or ground water influenced by surface water a sample has to be submitted every three months for the 12 month time period. The general chemical sample test for a range of parameters such as hardness and alkalinity. The results of these tests show the aesthetic quality of your drinking water.

Health and Toxicity Analysis

Samples Required	Samples Submitted	Date of Last Sample
Not Required		

All waterworks serving less than 5000 persons are required to submit on water sample for Saskatchewan Environment's "Health and Toxicity" category once every 2 years. This category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium. Samples results indicated that the provincial drinking water quality standards were not exceeded.

Turbidity – From Water Treatment Plant Records

Parameter	Limit (NTU)	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# Tests Performed
<u>Performed</u>						
Turbidity	Not Required	_____	_____	_____	_____	_____

Turbidity is a measure of water efficiency. Turbidity measures the “clarity” of drinking water and is generally reported in Nephelometric Turbidity Units (NTU). All waterworks are required to monitor turbidity at the water treatment plant. The frequency of measurement varies from daily for small systems to continuous for larger waterworks.

Chemical – Health Category

All waterworks serving less than 5000 persons are required to submit water samples for SE’s Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

The last sample for Chemical Health analysis was submitted on (*insert date*). Sample results indicated that the provincial drinking water quality standards were not exceeded. (*Use this one if review indicates that there were no exceedences*). **(OR)** Samples exceeded provincial water quality standards for the following parameters: (*Use only the applicable portions of table below for which values have been exceeded*).

Chemical – Trihalomethanes (THMs)

Parameter	Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Total Trihalomethanes	100	59.85	4	4

Trihalomethanes are generated during the water disinfection process as a by-product of reactions between chlorine and organic material. Trihalomethanes are generally found only in drinking water obtained from surface water supplies. Trihalomethanes are to be monitored on a quarterly basis and the Interim Maximum Concentration (IMAC) result is expressed as an average of 4 quarterly samples. Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for Trihalomethanes.

More information on water quality and sample submission performance may be obtained from:

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