

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 the Permit to Operate Waterworks. The following is a summary of the Town of Bengough's water quality and sample submission compliance record for the January 1 – December 31, 2011 time period. This report was completed on March 7, 2012. Readers should refer to Saskatchewan's "Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202" for more information on minimum sample submission requirements. 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 test, for example, "what is the significance of selenium in a water supply", more detailed information is available from: <http://www.saskh2o.ca>

Water Quality Standards

Bacteriological Quality

<u>Parameter/Location</u>	<u>Limit</u>	<u>Regular Samples Required</u>	<u>Regular Samples Submitted (Percentage)</u>	<u>#of Positive Regular Submitted (Percentage)</u>
Total Coliform and Background Bacteria	0 Organisms/100 mg/L Less than 200 Organisms/100 ml	26	26 (100)	0 (100)

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

<u>Parameter</u>	<u>Minimum Limit (mg/L)</u>	<u>Free Chlorine Residual Range</u>	<u>Total Chlorine Residual Range</u>	<u>#Tests Submitted</u>	<u>#Inadequate Chlorine</u>	<u>#Proper Chlorine (Percentage)</u>
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.19 – 0.56 mg/L	1.80 – 3.28 mg/L	26	0	26 (100)

A minimum of 0.1 milligrams per litre (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 both the free and total chlorine residual fields filled out. An inadequate chlorine is a result that indicates that the chlorine level is below the regulated minimums. A waterworks is required to submit chlorine test results on every bacteriological sample they submit.

General Chemical

<u>Samples Required</u>	<u>Samples Submitted</u>	<u>Date of Last Sample</u>
1	1	December 20, 2010

The community's waterworks is required to submit 1 sample every second year. The community has 24 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 13 month time period. The general chemical sample tests for a range of parameters such as hardness and alkalinity. The results show the aesthetic quality of your drinking water.

Health And Toxicity Analysis

Samples Required	Samples Submitted	Date of Last Sample
1	1	December 31, 2010

All waterworks serving less than 5000 persons are required to submit one 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. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Water Disinfection – Free Chlorine Residual for Water Entering Distribution System from Waterworks Records – From Water Treatment Plant Records

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	0.1 – 0.57	365	0

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Turbidity – From Water Treatment Plant Records

Parameter	Limit (NTU)	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Test Required	# Tests Performed
Turbidity	1.0 NTU	0.28 – 0.98	0	.98	365	365

Turbidity is a measure of water treatment 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.

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

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S0C 0K0*