

Drinking Water Quality and Compliance  
2017  
Town of Canora

**Introduction**

The Water Security Agency and the Ministry of the 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 Town of Canora's water quality and sample submission compliance record for the January 1<sup>st</sup> to December 31<sup>st</sup> time period. This report is completed **September 26, 2018** (*must be completed before June 30<sup>th</sup> each year on a calendar year based reporting frequency*). Readers should refer to SE's "Municipal Water Quality Monitoring Guidelines, June 2015, EPB 502" for more information on minimum sample submissions 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-semp/pubs/water-eau/index\\_e.html](http://www.hc-sc.gc.ca/ewh-semp/pubs/water-eau/index_e.html).

**Water Quality Standards**

**Bacteriological Quality**

Parameter/Location	Limit	Regular Samples Requires	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform and Background Bacteria	0 Organism/100 mL Less than 200/100 mL	52	52	0 %

**Water Disinfection-**

**Chlorine Residual in Distribution Systems for Test Results Submitted with Bacteriological Samples**

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.20 – 0.68	0.15 – 0.54	52	52	100 %

**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	0.36 – 1.55	365	0

A minimum of 0.1 milligram 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 the free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirements 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)	# Tests Required	# Tests Performed
Turbidity	1.0	0.04 – 0.17	0	0.17	365	365

**Fluoride – From Water Treatment Plant Records**

Parameter	Max.Limit (mg/L)	Test Level Range	# Tests Not Meeting Requirements	Maximum Limit (mg/L)	# Tests Required	# Tests Performed
Fluoride	1.5	0.26 – 1.05	0	1.05	365	365

**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 **November 21, 2017**. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Results	# Samples Exceeding Limit
Arsenic	0.025		<b>0.0003</b>	<b>0</b>
Barium	1.0		<b>0.28</b>	<b>0</b>
Boron		5.0	<b>0.02</b>	<b>0</b>
Cadmium	0.005		<b>&lt;0.00001</b>	<b>0</b>
Chromium	0.05		<b>&lt;0.0005</b>	<b>0</b>
Fluoride (avg*)	1.5		<b>0.49</b>	<b>0</b>
Lead	0.01		<b>&lt;0.0001</b>	<b>0</b>
Nitrate (avg*)	45.0		<b>0.23</b>	<b>0</b>
Selenium	0.01		<b>&lt;0.0001</b>	<b>0</b>
Uranium	0.02		<b>0.0011</b>	<b>0</b>

\*Results expressed as average values for communities or waterworks that fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrate

### General Chemical

Parameter	Aesthetic Objectives * (mg/L)	Sample Results (average)	# Samples Required	# Samples Submitted
Alkalinity	500	<b>300</b>	<b>1</b>	<b>1</b>
Bicarbonate	No Objective	<b>366</b>	<b>1</b>	<b>1</b>
Calcium	No Objective	<b>71</b>	<b>1</b>	<b>1</b>
Carbonate	No Objective	<b>&lt;1</b>	<b>1</b>	<b>1</b>
Chloride	250	<b>4</b>	<b>1</b>	<b>1</b>
Conductivity	No Objective	<b>519 uS/cm</b>	<b>1</b>	<b>1</b>
Hardness	800	<b>259</b>	<b>1</b>	<b>1</b>
Magnesium	200	<b>20</b>	<b>1</b>	<b>1</b>
pH	No Objective	<b>8.16</b>	<b>1</b>	<b>1</b>
Sodium	300	<b>5.7</b>	<b>1</b>	<b>1</b>
Sulphate	500	<b>12</b>	<b>1</b>	<b>1</b>
Total dissolved Solids	1500	<b>309</b>	<b>1</b>	<b>1</b>

All waterworks serving less than 5000 persons are required to submit water samples for SE's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO<sub>3</sub>, magnesium, sodium, sulphate and total dissolved solids).

The last sample for General Chemical analysis was required on **November 21, 2017**.

\*Objectives apply to certain characteristics of or substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where that do not constitute a health hazard. The aesthetic objectives for several parameters (including hardness as CaCO<sub>3</sub>, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.

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

**Town of Canora**  
**Box 717**  
**Canora, SK.**  
**S0A 0L0**  
**(306) 563-5773 office**  
**(306) 563-4336 fax**