

**Drinking Water Quality and Compliance  
SaskWater Prairie North Potable Water Supply System  
2023 Notification to Consumers**

The Water Security Agency (WSA) 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 Permit to Operate a waterworks. The following is a summary of the SaskWater Prairie North Potable Water Supply System water quality and sample submission compliance record for the January 1, 2023, to December 31, 2023, time period. This report was completed on February 1, 2024. Readers should refer to WSA's Municipal Drinking Water Quality Monitoring Guidelines for more information on minimum sample submission requirements and types of samples. Permit requirements for a specific waterworks may require more sampling than outlined in the Agency's monitoring guidelines. If consumers need to know more about drinking water, more detailed information is available from: <http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index-eng.php>.

**BACTERIOLOGICAL QUALITY**

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# Positive of Regular Submitted
Total Coliform	0 Organisms/100 mL	52	52	0
E. Coli	0 Organisms/100 mL	52	52	0
Background Bacteria	Less than 200/100 mL	52	52	0

Analysis is performed on a single sample for all parameters mentioned above. 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 – From Test Results Submitted with Bacteriological Samples**

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.10 mg/L	0.37 – 1.54	52	52	52
Total Chlorine	0.50 mg/L	0.53 – 1.82	52	52	

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. An adequate chlorine is a result that indicates that the chlorine level is above the regulated minimum.

**Free Chlorine Residual for Water within the Distribution System**

Parameter	Limit (mg/L)	Range (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	At least 0.10	0.08 – 2.55	Continuous	Continuous	99.96

Residuals are continuously monitored and recorded, and tests performed by waterworks operators are recorded in operation records.

The free chlorine residual dropped below the required minimum on July 7, 2023, because of an abnormal low chlorine residual from the City of Lloydminster. Since this time, SaskWater has set up the capability to boost the residual if the low supply happens in the future. The Environment Officer was notified.

**Prairie North Potable Water Supply System**

**TURBIDITY**

**Turbidity in the Distribution System – From Test Results Submitted with Bacteriological Samples**

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.08 – 0.40	0	52	0

Turbidity is a measure of water treatment efficiency. Turbidity measures the “clarity” of the drinking water and is reported in Nephelometric Turbidity Units (NTU). Additional testing was done for informational purposes.

**CHEMICAL – TRIHALOMETHANES (THM)**

Trihalomethanes are formed when chlorine reacts with organic matter in water. The four THM compounds are: chloroform, dibromochloromethane, bromodichloromethane (BCDM) and bromoform. The sum of the concentrations of these four components is referred to as Total Trihalomethanes. The limit for THM is a long-term objective based on an annual average of seasonal samples.

Parameter	Maximum Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Trihalomethane	0.100	0.049	4	8

Additional sampling was done for informational purposes.

**CHEMICAL – HALOACETIC ACIDS (HAAs)**

Haloacetic acids are formed when chlorine reacts with organic matter in water. The five regulated haloacetic acids are: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid. The sum of the concentrations of these five components is referred to as HAA5. The limit for HAA5 is a long term objective based on an annual average of seasonal samples.

Parameter	Maximum Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Haloacetic Acids 5	0.080	0.042	4	8

Additional sampling was done for informational purposes.

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

SaskWater  
200 - 111 Fairford Street East  
Moose Jaw SK S6H 1C8  
Toll Free: 1-888-230-1111  
Fax: 306-694-3207  
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