

**Drinking Water Quality and Compliance  
North Central Rural Pipeline Association Inc.  
2019 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 North Central Rural Pipeline Association water quality and sample submission compliance record for the January 1, 2019 to December 31, 2019 time period. This report was completed on February 10, 2020. Readers should refer to the WSA's Municipal Drinking Water Quality Monitoring Guidelines, October 2012, EPB 202 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 in Saskatchewan, more detailed information is available from: <http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index-eng.php>.

**BACTERIOLOGICAL QUALITY**

**(North System)**

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# Positive of Regular Submitted
Total Coliform	0 Organisms/100 mL	24	26	0
E. Coli	0 Organisms/100 mL	24	26	0
Background Bacteria	Less than 200/100 mL	24	26	0

**(South System)**

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# Positive of Regular Submitted
Total Coliform	0 Organisms/100 mL	24	26	0
E. Coli	0 Organisms/100 mL	24	26	0
Background Bacteria	Less than 200/100 mL	24	26	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. Additional testing was done for informational purposes.

**WATER DISINFECTION**

**Chlorine Residual in Distribution System – From Test Results Submitted with Bacteriological Samples**

**(North System)**

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.1 mg/L	0.95 – 1.48	24	26	26
Total Chlorine	0.5 mg/L	1.13 – 1.61	24	26	

**(South System)**

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.1 mg/L	0.65 – 1.89	24	26	26
Total Chlorine	0.5 mg/L	0.87 – 2.11	24	26	

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 minimums. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit. Additional testing was done for informational purposes.

**North Central Rural Pipeline Association Inc.**

**Free Chlorine Residual for Water Entering a Distribution System**

**(North System)**

Parameter	Limit (mg/L)	Range (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	At least 0.1	0.64 – 1.80	365	Continuous	100

**(South System)**

Parameter	Limit (mg/L)	Range (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	At least 0.1	0.44 – 1.97	365	Continuous	100

Free chlorine residuals are monitored continuously by an in-line chlorine analyzer.

**TURBIDITY**

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

**(North System)**

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.04 – 0.30	0	26	0

**(South System)**

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.05 – 0.20	0	26	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.

**(North System)**

Parameter	Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Trihalomethane	0.100 mg/L	0.045	4	4

**(South System)**

Parameter	Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Trihalomethane	0.100 mg/L	0.041	4	4

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**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.

**(North System)**

<b>Parameter</b>	<b>Limit (mg/L)</b>	<b>Average (mg/L)</b>	<b># Samples Required</b>	<b># Samples Submitted</b>
Haloacetic Acids 5	0.080	0.042	4	4

**(South System)**

<b>Parameter</b>	<b>Limit (mg/L)</b>	<b>Average (mg/L)</b>	<b># Samples Required</b>	<b># Samples Submitted</b>
Haloacetic Acids 5	0.080	0.032	4	4

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

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