

**Drinking Water Quality and Compliance**  
**Village of Elbow Distribution System**  
**Station Number SK05HF0014**  
**2022 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 Village of Elbow Distribution System water quality and sample submission compliance record for the January 1, 2022 to December 31, 2022 time period. This report was completed on February 1, 2023. Readers should refer to the 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 in Saskatchewan, 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 – From Test Results Submitted with Bacteriological Samples from Distribution System**

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.10 mg/L	0.46 – 1.12	52	52	52
Total Chlorine	0.50 mg/L	0.73 – 1.32	52	52	

A minimum of 0.10 milligrams per litre (mg/L) free chlorine residual **OR** 0.50 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.

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

Parameter	Minimum Limit (mg/L)	Range (mg/L)	Average (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	0.10	0.67 – 1.20	0.94	365	Continuous	100

Residuals are monitored continuously and recorded. Additional testing was done for informational purposes.

## Village of Elbow Distribution System

### TURBIDITY

#### Turbidity – From Test Results Submitted with Bacteriological Samples from Distribution System

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.11 – 0.29	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, 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
Trihalomethanes	0.100	0.064	4	4

### 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	0.037	4	4

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

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