Drinking Water Quality and Compliance
Rural Municipality of Sherwood
Station Number SK05JF0018
2020 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 Rural Municipality of Sherwood water quality and sample submission compliance record for the January 1, 2020 to December 31, 2020 time period. This report was completed on January 28, 2021. 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

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	0.20 - 1.50	52	52	52
Total Chlorine	0.50 mg/L	0.55 - 2.12	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 the Distribution System

Parameter	Minimum Limit (mg/L)	Range (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	0.10	0.85 – 2.14	366	366	100

Tests are performed on a daily basis by waterworks operators and are recorded in operation records.

Rural Municipality of Sherwood

TURBIDITY

Turbidity for Water Entering the Distribution System

Parameter	Limit (NTU)	Range (NTU)	95th Percentile (NTU)	# Tests Required	# Tests Performed	# months Exceeding Limit
Turbidity	< 1.0 – 95% of measurements each month.	0.10 – 0.62	0.47	366	366	0

Tests are performed on a daily basis by waterworks operators and are recorded in operation records.

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	0.09 - 1.58	52	52	0

Turbidity is a measure of water treatment efficiency. Turbidity measures the "clarity" of the drinking water and is generally reported in Nephelometric Turbidity Units (NTU).

CHEMICAL – HEALTH

The permit for the RM of Sherwood requires sampling for Chemical Health parameters once every two years. 2020 is a required sampling year.

Parameter	MAC (mg/L)	IMAC (mg/L)	AO* (mg/L)	Sample Results (mg/L)	# of Samples Required	# of Samples Submitted
Aluminum	No Objective			<0.00696	1	1
Antimony	0.006			<0.00016	1	1
Arsenic	0.010			0.00030	1	1
Barium	1.0			0.0085	1	1
Boron		5.0		0.2	1	1
Cadmium	0.005			<0.00015	1	1
Chromium	0.05			0.00020	1	1
Copper			1.0	<0.0083	1	1
Iron			0.3	<0.1	1	1
Lead	0.01			<0.00007	1	1
Manganese			0.05	<0.01	1	1
Selenium	0.01			<0.00113	1	1
Silver	No Objective			<0.00020	1	1
Uranium	0.02			0.0077	1	1
Zinc			5	<0.00400	1	1

MAC – Maximum Acceptable Concentrations
IMAC – Interim Maximum Acceptable Concentrations
AO – Aesthetic Objective

CHEMICAL – GENERAL

The permit for the RM of Sherwood requires sampling for General Chemical parameters once every two years. 2020 is a required sampling year.

Parameter	MAC	AO*	Sample Results	# of Samples Required	# of Samples Submitted
Total Alkalinity (mg/L)		500	311	1	1
Bicarbonate (mg/L)	No Objective		379	1	1
Calcium (mg/L)	No Objective		211	1	1
Carbonate (mg/L)	No Objective		0	1	1
Chloride (mg/L)		250	56.0	1	1
Fluoride (mg/L)	1.5		0.30	1	1
Iron (mg/L)		0.3	<0.1	1	1
Total Hardness (mg/L)		800	955	1	1
Hydroxide (mg/L)	No Objective		0	1	1
Magnesium (mg/L)		200	104	1	1
Manganese (mg/L)		0.05	<0.01	1	1
Nitrate (mg/L)	45		<0.2	1	1
pH (pH units)		6.5 - 9.0	7.2	1	1
Potassium (mg/L)	No Objective		8	1	1
Sodium (mg/L)		300	52	1	1
Specific Conductivity (µs/cm)	No Objective		1751	1	1
Sulphate (mg/L)		500	659.5	1	1
Total Dissolved Solids (mg/L)		1500	1470	1	1

MAC – Maximum Acceptable Concentrations AO – Aesthetic Objective

The aesthetic objective for sulphate and Hardness was exceeded, but all health regulatory requirements are met.

*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 they do not constitute a health hazards. The aesthetic objectives for several parameters (including hardness as $CaCO_3$, 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:

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4400 Campbell St
P.O. Box 40029 Grasslands PO
Regina SK S4W 0L3