Drinking Water Quality and Compliance Northern Settlement of Uranium City – 2022 Annual Notice to Consumers

Introduction

The Water Security Agency and the Ministry of 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 Northern Settlement of Uranium City water quality and sample submission compliance record for the January 1st, 2022 to December 31st, 2022 time period. This report was completed on June 26, 2023. Readers should refer to Water Security Agency's <u>Municipal Drinking Water Quality Monitoring Guidelines</u>, June 2015, EPB 502 for more information on minimum sample submission 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-semt/pubs/water-eau/index e.html .

Water Quality Standards Bacteriological Quality

		Regular Samı	oles Regular Samples	# of Positive Regular	
Parameter/Location	Limit	Required	Submitted	Submitted (%)	
Total Coliform	0 Organisms/100 mL	52	90	12%	_
E. coli	0 Organisms/100 mL	52	90	3%	

Water Disinfection -

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples
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Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine	0.1 mg/L free OR					
Residual	0.5 mg/L total	0.04 to 1.80	0.02 to 1.78	52	83	44.58%

<u>Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-From Water Treatment Plant Records</u>

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.1	0.01 to 2.16	332	11

A minimum of 0.1 milligrams 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 free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Turbidity - From Water Treatment Plant Records

Parameter	Limit	Test Level	# Tests Not Meeting	Maximum	# Tests	# Tests	
	(NTU)	Range	Requirements	Turbidity (NTU)	Required	Performed	
Turbidity	1.0	0.28 to 2.05	61	2.05	365	331	

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. No samples were taken in 2022.

Chemical – Trihalomethanes (THMs)and Haloacetic Acids (HAAs)

Parameter	THMs Limit (mg/L)	Sample Result (average)	# Samples Required	# Samples Submitted
Trihalomethanes	0.1	0.068	4 (1 every 3 months)	3
Haloacetic Acids	0.08	0.021	4 (1 every 3 months)	3

Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for THMs and HAAs. Waterworks using groundwater sources beyond the influence of surface water do not need to report THMs or HAAs since sampling/analysis will not likely have been performed unless otherwise noted in the waterworks permit to operate

General Chemical

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 Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids. No samples were taken in 2022.

*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 CaCO₃, 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:

Northern Municipal Trust Account Northern Settlement of Uranium City c/o NMS Advisor Box 113, La Ronge, SK SOJ 1L0

Tel: 1-800-663-1555 Fax: 1-306-425-2401

E-mail address: nms@gov.sk.ca

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