

**Town of Creighton - Drinking Water Quality and Compliance
Annual Notice to Consumer
JANUARY 1 – DECEMBER 31, 2018**

Water Quality Standards

Bacteriological Quality

	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform and Background Bacteria	0 Organisms/100 mL Less than 200/100 mL	52	53	0%

Water Disinfection –

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.1 mg/L free 0.5 mg/L total	0.41	0.21	52	53	100%

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

	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	at least 0.40	0.30 -2.0	372	5

Low free Cl₂ result of low water usage and plant didn't fire up for over 12 hours, residual up within 15 minutes when plant fired up. Fill time shortened to solve the issue. Operator reminded of Cl₂ limits on Permit to Operate

A minimum of 0.4 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 0.4 mg/L free chlorine residual.

Turbidity – From Water Treatment Plant Records

NTU not to exceed 0.3 over 12 Consecutive hr	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# TESTS Performed
	0.071 – 0.290	0	0.290	730	730

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. The last sample for Chemical Health analysis was submitted on 07/05/18

	Limit MAC(mg/L)	Limit IMAC(mg/L)	Sample Results(mg/L)	# Samples Exceeding Limits
Arsenic	0.025		0.0019	0
Barium	1.0		0.0302	0
Boron		5.0	<0.10	0
Cadmium	0.005		<0.000050	0
Chromium	0.05		<0.0010	0
Lead	0.01		<0.00050	0
Selenium	0.01		<0.00050	0
Uranium	0.02		<0.00010	0
Mercury	0.001		<0.0000050	0
Cyanide	0.2		<0.0010	0

Trihalomethanes (THM)

THM Limit(mg/L)	THM Samples Results (average)
0.100	0.088mg/L

Haloaceticacid (HAA)

HAA Limit(mg/L)	HAA Samples Results (average)
0.80	0.074mg/L

Samples Required
4

Samples Submitted
4

General Chemical

	Aesthetic Objectives (mg/L)	Samples Results (average)(mg/L)	# Samples Required	#Samples Submitted	#Samples Exceeding Limits
Alkalinity	500	50.55	4	4	0
Bicarbonate	None	61.68	4	4	0
Carbonate	None	<0.60	4	4	0
Chloride	250	22.5	4	4	0
Conductivity	None (uS/cm)	180	4	4	0
Hardness	800	63.3	4	3	0
Nitrate	45 MAC	0.146	4	4	0
Magnesium	200	3.42	4	4	0
PH	6.5 – 9.0	7.44	4	4	0
Sodium	300	9.43	4	4	0
Sulphate	500	4.61	4	4	0
Fluoride	1.5 MAC	0.054	4	2	0
Total dissolved Solids	1500	96.3	4	3	0

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 every 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.

The last sets of quarterly samples for General Chemical analysis were submitted on . 03/12/18

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

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