

Water Treatment Plant Permit to Operate Laboratory Report

2026 - FIRST QUARTER WATER QUALITY

Procedures used are based upon recognized Provincial, Federal or U.S. method compendia such as CCME, APHA, EPA. The results relate only to the items tested or sampled. Unless qualified otherwise, all samples were received in acceptable condition. Estimated uncertainties and additional information provided upon request.

Test methods and data are validated by the laboratory's Quality Assurance Program. Analyses are conducted by ISO/IEC 17025 accredited laboratories for parameters listed on their respective scope. Parameters reported herein were analyzed by Sub-Contracted laboratories, except where indicated as analyzed by the City of Saskatoon Water Lab (*COS-WL parameter*).

Interpretation and use of test results are the sole responsibility of the Client/Customer. The retained laboratory is not responsible for the accuracy or any data impacts that result from the information provided by the Client/Customer or their agent.

Results authorized by:

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PHYSICAL CHARACTERISTICS		Drinking Water LIMIT*	Drinking Water	Main Raw Water Intake
Conductivity	µS/cm	none applied	444	478
Colour, True	CU	15	<5.0	<5.0
Solids, Total Dissolved (TDS), calculated	mg/L	500	273	288
Solids, Total Suspended (TSS)	mg/L	none applied	<3.0	3.5
Turbidity	NTU	1 (recommended)	<0.10	2.0
pH	pH	7.0 to 10.5	7.95	8.04

CHEMICAL - General		Drinking Water LIMIT*	Drinking Water	Main Raw Water Intake
Alkalinity, Bicarbonate (HCO ₃)	mg/L	none applied	133	192
Alkalinity, Carbonate (CO ₃)	mg/L	none applied	<1.2	<1.2
Alkalinity, Total (as CaCO ₃)	mg/L	500	109	157
Chloride (Cl)	mg/L	250	16.8	14.3
Chlorine (Cl ₂), Total (<i>COS-WL parameter</i>)	mg/L	0.5 - 3.0	1.8	
Fluoride (F)	mg/L	1.5	0.66	0.15
Hardness (Total as CaCO ₃), dissolved	mg/L	800	165	188
Calcium (Ca) - Dissolved	mg/L	none applied	35	44
Magnesium (Mg) - Dissolved	mg/L	200	19	19
Manganese (Mn) - Dissolved	mg/L	0.02	<0.00010	0.00102
Potassium (K) - Dissolved	mg/L	none applied	3.4	3.4
Sodium (Na) - Dissolved	mg/L	200	28	28
Sulfate (SO ₄)	mg/L	500	100	80

CHEMICAL - Health		Drinking Water LIMIT*	Drinking Water	Main Raw Water Intake
Aluminum (Al) - Total	mg/L	0.1	0.0316	0.0862
Antimony (Sb) - Total	mg/L	0.006	0.00015	0.00017
Arsenic (As) - Total	mg/L	0.010	0.00028	0.00139
Barium (Ba) - Total	mg/L	1	0.0435	0.0934
Boron (B) - Total	mg/L	5	0.031	0.030
Cadmium (Cd) - Total	mg/L	0.005	<0.0000050	0.0000154
Chromium (Cr) - Total	mg/L	0.05	<0.00050	<0.00050
Copper (Cu) - Total	mg/L	1	0.00106	0.00013
Cyanide (CN) - Total	mg/L	0.2	<0.0050	<0.0050
Iron (Fe) - Total	mg/L	0.1	<0.010	0.105
Lead (Pb) - Total	mg/L	0.005	<0.000050	0.000086
Manganese (Mn) - Total	mg/L	0.02	0.00016	0.0105
Mercury (Hg) - Total	mg/L	0.001	<0.0000050	<0.0000050
Selenium (Se) - Total	mg/L	0.01	0.000323	0.000402
Silver (Ag) - Total	mg/L	none applied	<0.000010	<0.000010
Uranium (U) - Total	mg/L	0.02	0.000998	0.00114
Zinc (Zn) - Total	mg/L	5	<0.0030	<0.0030

OTHER		Drinking Water LIMIT*	Drinking Water	Main Raw Water Intake
Ammonia, Total (as N)	mg/L	none applied	0.40	0.05
Kjeldahl nitrogen, Total (TKN)	mg/L	none applied	0.61	0.26
Nitrate (as N)	mg/L	10	0.07	0.07
Nitrate + Nitrite (as N)	mg/L	none applied	0.07	0.07
Nitrite (as N)	mg/L	1	<0.010	<0.020
Nitrogen, Total	mg/L	none applied	0.68	0.32
Phosphate, Ortho-, Dissolved (as P)	mg/L	none applied	<0.050	<0.050
Phosphorus, Total	mg/L	none applied	<0.0020	0.013
Biochemical Oxygen Demand (5-day)	mg/L	none applied		<2.0
Phenols	mg/L	none applied	<0.0010	0.0014
Carbon (TOC) - Total Organic	mg/L	none applied	2.55	3.17

MICROORGANISMS		Drinking Water LIMIT*	Drinking Water	Main Raw Water Intake
Chlorophyll a (Plant Pigment)	µg/L	none applied		1.16
<i>E. coli</i> ** (COS-WL parameter)	MPN/100mL	0		2
Total Coliform (COS-WL parameter)	CFU/100mL	0	0	150
Background Non-Coliform (COS-WL parameter)	CFU/100mL	200	0	350
<i>Giardia</i>	cysts/100 L	3 log inactivation		0.0
<i>Cryptosporidium</i>	oocysts/100 L	3 log inactivation		0.0
Microcystins***	µg/L	1.5		

TRIHALOMETHANES		Drinking Water LIMIT*	Drinking Water	East Distribution	West Distribution
• Bromodichloromethane	µg/L	none applied	5.2	7.3	6.9
• Bromoform	µg/L	none applied	<1.0	<1.0	<1.0
• Chloroform	µg/L	none applied	17.0	20.6	20.4
• Dibromochloromomethane	µg/L	none applied	1.1	1.7	1.7
Total Trihalomethanes (calc)	µg/L	100	23.3	29.5	28.9

HALOACETIC ACIDS		Drinking Water LIMIT*	Drinking Water	East Distribution	West Distribution
• Bromochloroacetic Acid	µg/L	none applied	1.96	1.77	1.76
• Dibromoacetic Acid	µg/L	none applied	<1.00	1.32	<1.00
• Dichloroacetic Acid	µg/L	none applied	5.87	5.74	5.55
• Monobromoacetic Acid	µg/L	none applied	<1.00	<1.00	<1.00
• Monochloroacetic Acid	µg/L	none applied	<1.00	<1.00	<1.00
• Trichloroacetic Acid	µg/L	none applied	4.84	4.61	4.37
Halo Acetic Acids 5, Total (calc)	µg/L	80	10.70	11.00	9.93

*Drinking Water Limit: This is the Limit for the parameter specified, as determined by Health Canada and/or the City of Saskatoon *Permit to Operate a Waterworks* issued by the Water Security Agency. Limits shown in table are the lowest value of a MAC (Maximum Acceptable Concentration), Interim or Guideline MAC (MAC has yet to be determined) or AO (Aesthetic Objective - may affect acceptance of water by consumers but are not a health-based limit. Compliance within this range is not mandatory). Further information can be obtained by consulting the Health Canada document *Guidelines for Canadian Drinking Water Quality*.

**Analyzed only if indicated by a Total Coliform sample ≥ 1 cfu/100mL.

***Analyzed May to October only

Symbol of "<" means "less than" and indicates that the analyte was not detected above the stated level.

- END REPORT -