

Environmental Services Analysis Report - Final

Invoice Number: 1135961	Collected Date: 01-Feb-2021 8:00 AM
Sample Location: WTP	Received: 02-Feb-2021 8:45 AM
Collected by: Sid Sirota	Reported: 04-Feb-2021 8:33 AM
Station #: SK05HA0001	Water Source: Distributed

Permit: 2070 CABRI DIST.SYSTEM

Submitted By:	Invoice:
CABRI TOWN OF	CABRI TOWN OF
BOX 200	BOX 200
CABRI, SK	CABRI, SK
SON 0J0	SON 0J0

Analysis	Result	Unit	Sask Guideline	Test Comment	Fee
Health and Toxicity Panel					92.50
Boron	0.2	mg/L	< 5.0		
Aluminum (ICPMS)	30.3	µg/L	No Guideline		
Arsenic (ICPMS)	1.0	µg/L	< 10		
Barium (ICPMS)	17.8	µg/L	< 1000		
Cadmium (ICPMS)	<0.15	µg/L	< 5		
Chromium (ICPMS)	1.7	µg/L	< 50		
Copper (ICPMS)	12.0	µg/L	< 1000		
Lead (ICPMS)	0.10	µg/L	< 10		
Selenium (ICPMS)	<1.13	µg/L	< 10		
Uranium (ICPMS)	1.3	µg/L	< 20		
Zinc (ICPMS)	<4.00	µg/L	< 5000		
Antimony (ICPMS)	0.20	µg/L	No Guideline		
Silver (ICPMS)	<0.20	µg/L	No Guideline		
General Chemistry/Water Quality Panel					104.00
Conductivity	2247	µS/cm	< 2300		
pH	7.4	pH Units	7.0 - 10.5		
Total Alkalinity	196	mg/L CaCO3	< 500		
Phenol Alkalinity	0.00	mg/L CaCO3	No Guideline		
Bicarbonate	239	mg/L	No Guideline		
Carbonate	0	mg/L	No Guideline		
Hydroxide	0	mg/L	No Guideline		
Chloride Dissolved	48.5	mg/L	< 250		
Fluoride Dissolved	0.09	mg/L	< 1.5		
Nitrate Dissolved	1.6	mg/L	< 45		
Sulfate Dissolved	1093.1	mg/L	< 500		
Total Hardness (Calculated)	1028	mg/L CaCO3	< 800		
Total Dissolved Solids	1958	mg/L	< 1500		
Iron	<0.1	mg/L	< 0.3		
Manganese	<0.01	mg/L	< 0.05		
Calcium	242	mg/L	No Guideline		
Magnesium	103	mg/L	< 200		
Potassium	18	mg/L	No Guideline		
Sodium	213	mg/L	< 300		

RRPL TESTING METHODS AND SASKATCHEWAN WATER STANDARDS INFORMATION

Roy Romanow Provincial Laboratory (RRPL) Methodology

Method	Description/Parameter	Method	Description/Parameter
ES-1	Membrane Filtration / Fecal Streptococci	ES-32	Combustion-IR / Dissolved Organic Carbon -CL / Total Nitrogen
ES-6	Titration + Electrode / pH & Alkalinity	ES-34	Automated Ascorbic Acid Reduction / Ortho Phosphorus
ES-7	Biochemical Oxygen Demand / 5-Day BOD, 5 day CBOD	ES-37	Colilert-QuantiTray / Total Coliforms & E.coli
ES-8	Closed Reflux Colorimeter / Chemical Oxygen Demand	ES-38	Membrane Filtration - DC Agar / Total Coliforms & E.coli
ES-9	Conductivity Meter / Conductivity	ES-41	Calculation / Total Kjeldahl Nitrogen
ES-13	Calculation / Total Dissolved Solids	ES-44	Gas Diffusion + Conductimetric Detection / Ammonia
ES-14	Gravimetric / Suspended Solids (total, fixed and volatile)	ES-45	Abraxis Kit (ELISA) / Microcystin
ES-16	Nephelometer / Turbidity	ES-47	Automated Spectrophotometric / Nitrate
ES-22	Spectrophotometer / Chlorophyll a	ES-50	E-PERM Electret Ion Chamber / Radon in Indoor Air
ES-23	Ion-Selective Electrode / Fluoride	ES-51	Enzyme Detection (Pseudalert) / Pseudomonas
ES-25 & 59	ICP-AES / Metals and Calculation / Hardness	ES-52	Quanti-Tray / Heterotrophic Plate Count
ES-26	Cold-Vapor AA / Mercury in Water	ES-53	ICP-MS (Metals)
ES-27	Automated Ascorbic Acid Reduction / Total Phosphorus	ES-55	GC/MS Headspace / VOCs
ES-30	Digestion - Cold Vapor AA / Mercury in Fish	ES-58	Ion Chromatography / Anions (Cl, F, NO ₃ and SO ₄)

Notes: *Testing results of these parameters are time sensitive. The results may change if a sample does not arrive at the lab within the sample holding time. For the most accurate results, it is recommended that samples be submitted to the lab immediately after collection. Additional information such as date and time of analysis, method calculated uncertainty, equipment maintenance records etc. are available upon request.*

The Roy Romanow Provincial Laboratory guarantees the quality and correctness of the analyses performed on the sample as received and relates only to the tested sample.

Results authorized by: Dr. Phillip Bailey (Director, Environmental Services)

Detailed information on Saskatchewan's Drinking Water Quality Standards and Objectives may be found at <http://www.saskh2o.ca/pdf/EPB507.pdf>

Summary of Saskatchewan Drinking Water Standards and Objectives

Bacteriological Standards

Parameter	Maximum Acceptable Concentration (MAC)
Total Coliform	No organisms detectable / 100 mL
E. coli	No organisms detectable / 100 mL

Chemical Parameters and Physical Properties (1 mg/L = 1,000 µg/L)

Parameter	Maximum Acceptable Concentration (MAC)	Parameter	Aesthetic Objective (AO)
Arsenic	0.01 mg/L	Alkalinity	500 mg/L
Barium	1 mg/L	Chloride	250 mg/L
Boron	5 mg/L Interim MAC	Copper	1 mg/L
Cadmium	0.005 mg/L	Hardness	800 mg/L (as Calcium Carbonate)
Chromium	0.05 mg/L	Iron	0.3 mg/L
Fluoride	1.5 mg/L	Magnesium	200 mg/L
Lead	0.01 mg/L	Manganese	0.05 mg/L
Mercury	1 µg/L	pH	7.0 – 10.5
Nitrate	45 mg/L	Sodium	300 mg/L
Selenium	0.01 mg/L	Sulphate	500 mg/L
THM	100 µg/L (Average of 4 seasonal samples)	TDS	1,500 mg/L
Turbidity	1.0 NTU	Zinc	5 mg/L
Uranium	0.02 mg/L		

For all other water quality information in Saskatchewan please refer to <http://www.saskh2o.ca/WaterInformation.asp>