CERTIFICATE OF ANALYSIS

REPORTED TO	SION Improvement District 7920 Donaldson Drive GRAND FORKS, BC V0H 1H2		
ATTENTION	Daniel Koochin	**WORK ORDER**	25H0723
PO NUMBER		**RECEIVED / TEMP**	2025-08-07 08:18 / 14.3°C
PROJECT	Essential Drinking Water Test Kit	**REPORTED**	2025-08-13 15:13
PROJECT INFO		**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at hhannaoui@caro.ca

Authorized By:

Hanane El Hannaoui
Junior Account Manager

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	SION Improvement District	**WORK ORDER**	25H0723
PROJECT	Essential Drinking Water Test Kit	**REPORTED**	2025-08-13 15:13

Analyte	Result	RL	Units	Analyzed	Qualifier
3185 Herdy Mtn. Rd. (25H0723-01) | Matrix: Drinking | Sampled: 2025-08-06 11:30					
Anions					
Chloride	**2.99**	0.10	mg/L	2025-08-07	
Fluoride	**0.39**	0.10	mg/L	2025-08-07	
Nitrate (as N)	**0.632**	0.010	mg/L	2025-08-07	
Nitrite (as N)	< 0.010	0.010	mg/L	2025-08-07	
Sulfate	**52.4**	1.0	mg/L	2025-08-07	
Calculated Parameters					
Hardness, Total (as CaCO3)	**279**	0.500	mg/L	N/A	
Solids, Total Dissolved	**302**	1.00	mg/L	N/A	
General Parameters					
Alkalinity, Total (as CaCO3)	**222**	1.0	mg/L	2025-08-08	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-08-08	
Alkalinity, Bicarbonate (as CaCO3)	**222**	1.0	mg/L	2025-08-08	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-08-08	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-08-08	
Conductivity (EC)	**540**	2.0	µS/cm	2025-08-08	
Cyanide, Total	< 0.0020	0.0020	mg/L	2025-08-13	
pH	**8.05**	0.10	pH units	2025-08-08	HT2
Turbidity	**0.10**	0.10	NTU	2025-08-08	
Microbiological Parameters					
Coliforms, Total	< 1	1	CFU/100 mL	2025-08-07	
E. coli	< 1	1	CFU/100 mL	2025-08-07	
Total Metals					
Aluminum, total	< 0.0050	0.0050	mg/L	2025-08-08	
Antimony, total	< 0.00020	0.00020	mg/L	2025-08-08	
Arsenic, total	**0.00066**	0.00050	mg/L	2025-08-08	
Barium, total	**0.0627**	0.0050	mg/L	2025-08-08	
Boron, total	< 0.0500	0.0500	mg/L	2025-08-08	
Cadmium, total	**0.000014**	0.000010	mg/L	2025-08-08	
Calcium, total	**75.9**	0.20	mg/L	2025-08-08	
Chromium, total	**0.00097**	0.00050	mg/L	2025-08-08	
Copper, total	**0.00186**	0.00040	mg/L	2025-08-08	
Iron, total	< 0.010	0.010	mg/L	2025-08-08	
Lead, total	< 0.00020	0.00020	mg/L	2025-08-08	
Magnesium, total	**21.7**	0.010	mg/L	2025-08-08	
Manganese, total	**0.00061**	0.00020	mg/L	2025-08-08	
Potassium, total	**2.29**	0.10	mg/L	2025-08-08	
Selenium, total	**0.0115**	0.00050	mg/L	2025-08-08	
Sodium, total	**8.56**	0.10	mg/L	2025-08-08	
Strontium, total	**0.652**	0.0010	mg/L	2025-08-08	
Uranium, total	**0.00565**	0.000020	mg/L	2025-08-08	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
3185 Herdy Mtn. Rd. (25H0723-01) | Matrix: Drinking | Sampled: 2025-08-06 11:30, Continued					
Total Metals, Continued					
Zinc, total	**0.0097**	0.0040	mg/L	2025-08-08	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SION Improvement District	**WORK ORDER**	25H0723
PROJECT	Essential Drinking Water Test Kit	**REPORTED**	2025-08-13 15:13

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2021)	SM 1030 E		N/A
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
CFU/100 mL	Colony Forming Units per 100 millilitres
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, ph > 7 = basic
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SION Improvement District	**WORK ORDER**	25H0723
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B5H2390										
Blank (B5H2390-BLK1)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B5H2390-BLK2)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Chloride	< 0.10	0.10	mg/L							
Fluoride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B5H2390-BS1)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Chloride	16.0	0.10	mg/L	16.0		100	90-110			
Fluoride	4.05	0.10	mg/L	4.00		101	88-108			
Nitrate (as N)	4.06	0.010	mg/L	4.00		102	90-110			
Nitrite (as N)	1.92	0.010	mg/L	2.00		96	85-115			
Sulfate	16.3	1.0	mg/L	16.0		102	90-110			
LCS (B5H2390-BS2)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Chloride	16.0	0.10	mg/L	16.0		100	90-110			
Fluoride	4.05	0.10	mg/L	4.00		101	88-108			
Nitrate (as N)	4.13	0.010	mg/L	4.00		103	90-110			
Nitrite (as N)	1.91	0.010	mg/L	2.00		96	85-115			
Sulfate	15.9	1.0	mg/L	16.0		99	90-110			
General Parameters, Batch B5H2528										
Blank (B5H2528-BLK1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Turbidity	< 0.10	0.10	NTU							
Blank (B5H2528-BLK2)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Turbidity	< 0.10	0.10	NTU							

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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B5H2528, Continued										
LCS (B5H2528-BS1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Turbidity	15.4	0.10	NTU	15.8		97	90-110			
LCS (B5H2528-BS2)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Turbidity	15.4	0.10	NTU	15.8		97	90-110			
General Parameters, Batch B5H2587										
Blank (B5H2587-BLK1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B5H2587-BLK2)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B5H2587-BLK3)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
LCS (B5H2587-BS1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Alkalinity, Total (as CaCO3)	89.4	1.0	mg/L	100		89	80-120			
LCS (B5H2587-BS2)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-105			
LCS (B5H2587-BS3)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Alkalinity, Total (as CaCO3)	90.3	1.0	mg/L	100		90	80-120			
LCS (B5H2587-BS4)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-105			
LCS (B5H2587-BS5)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Alkalinity, Total (as CaCO3)	90.6	1.0	mg/L	100		91	80-120			
LCS (B5H2587-BS6)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-105			
Reference (B5H2587-SRM1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
pH	7.00	0.10	pH units	7.01		100	98-102			
Reference (B5H2587-SRM2)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
pH	7.00	0.10	pH units	7.01		100	98-102			
Reference (B5H2587-SRM3)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
pH	7.00	0.10	pH units	7.01		100	98-102			

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REPORTED TO	SION Improvement District	**WORK ORDER**	25H0723
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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B5H3006										
Blank (B5H3006-BLK1)				Prepared: 2025-08-13, Analyzed: 2025-08-13						
Cyanide, Total	< 0.0020	0.0020	mg/L							
Blank (B5H3006-BLK2)				Prepared: 2025-08-13, Analyzed: 2025-08-13						
Cyanide, Total	< 0.0020	0.0020	mg/L							
LCS (B5H3006-BS1)				Prepared: 2025-08-13, Analyzed: 2025-08-13						
Cyanide, Total	0.0181	0.0020	mg/L	0.0200		91	82-120			
LCS (B5H3006-BS2)				Prepared: 2025-08-13, Analyzed: 2025-08-13						
Cyanide, Total	0.0180	0.0020	mg/L	0.0200		90	82-120			
LCS Dup (B5H3006-BSD1)				Prepared: 2025-08-13, Analyzed: 2025-08-13						
Cyanide, Total	0.0186	0.0020	mg/L	0.0200		93	82-120	2	10	
LCS Dup (B5H3006-BSD2)				Prepared: 2025-08-13, Analyzed: 2025-08-13						
Cyanide, Total	0.0178	0.0020	mg/L	0.0200		89	82-120	< 1	10	
Microbiological Parameters, Batch B5H2337										
Blank (B5H2337-BLK1)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK2)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK3)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK4)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK5)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK6)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK7)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK8)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLK9)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Blank (B5H2337-BLKA)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							

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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Microbiological Parameters, Batch B5H2337, Continued										
Blank (B5H2337-BLKB)				Prepared: 2025-08-07, Analyzed: 2025-08-07						
Coliforms, Total	< 1	1	CFU/100 mL							
E. coli	< 1	1	CFU/100 mL							
Total Metals, Batch B5H2516										
Blank (B5H2516-BLK1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
LCS (B5H2516-BS1)				Prepared: 2025-08-08, Analyzed: 2025-08-08						
Aluminum, total	3.76	0.0050	mg/L	4.00		94	80-120			
Antimony, total	0.0391	0.00020	mg/L	0.0400		98	80-120			
Arsenic, total	0.389	0.00050	mg/L	0.400		97	80-120			
Barium, total	0.0400	0.0050	mg/L	0.0400		100	80-120			
Boron, total	0.392	0.0500	mg/L	0.400		98	80-120			
Cadmium, total	0.0393	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	3.93	0.20	mg/L	4.00		98	80-120			
Chromium, total	0.0389	0.00050	mg/L	0.0400		97	80-120			
Copper, total	0.0391	0.00040	mg/L	0.0400		98	80-120			
Iron, total	3.93	0.010	mg/L	4.00		98	80-120			
Lead, total	0.0409	0.00020	mg/L	0.0400		102	80-120			
Magnesium, total	3.87	0.010	mg/L	4.00		97	80-120			
Manganese, total	0.0391	0.00020	mg/L	0.0400		98	80-120			
Potassium, total	3.65	0.10	mg/L	4.00		91	80-120			
Selenium, total	0.393	0.00050	mg/L	0.400		98	80-120			
Sodium, total	3.83	0.10	mg/L	4.00		96	80-120			
Strontium, total	0.0397	0.0010	mg/L	0.0400		99	80-120			
Uranium, total	0.0405	0.000020	mg/L	0.0400		101	80-120			
Zinc, total	0.390	0.0040	mg/L	0.400		97	80-120			