

CERTIFICATE OF ANALYSIS

REPORTED TO Squamish-Lillooet Regional District
1350 Aster Street
Pemberton, BC V0N2L1

ATTENTION Kara Sockett

PO NUMBER

PROJECT Water testing

PROJECT INFO

WORK ORDER 24L2262

RECEIVED / TEMP 2024-12-18 09:33 / 7.1°C

REPORTED 2024-12-24 09:58

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 TeamCaro@caro.ca

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TEST RESULTS

REPORTED TO PROJECT Squamish-Lillooet Regional District
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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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GBW #1-4 (24L2262-01) | Matrix: Water | Sampled: 2024-12-17 09:50

Anions

Chloride	12.4	AO ≤ 250	0.10	mg/L	2024-12-21	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2024-12-21	
Nitrate (as N)	0.113	MAC = 10	0.010	mg/L	2024-12-21	HT1
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2024-12-21	HT1
Sulfate	59.6	AO ≤ 500	1.0	mg/L	2024-12-21	

Calculated Parameters

Hardness, Total (as CaCO ₃)	241	None Required	0.500	mg/L	N/A	
Langelier Index	0.4	N/A	-5.0		2024-12-23	CT6
Solids, Total Dissolved	264	AO ≤ 500	1.00	mg/L	N/A	

General Parameters

Alkalinity, Total (as CaCO ₃)	170	N/A	1.0	mg/L	2024-12-20	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2024-12-20	
Alkalinity, Bicarbonate (as CaCO ₃)	170	N/A	1.0	mg/L	2024-12-20	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2024-12-20	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2024-12-20	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2024-12-22	HT1
Conductivity (EC)	415	N/A	2.0	µS/cm	2024-12-20	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2024-12-20	
pH	8.12	7.0-10.5	0.10	pH units	2024-12-20	HT2
Temperature, at pH	22.1	N/A		°C	2024-12-20	HT2
Turbidity	< 0.10	OG < 1	0.10	NTU	2024-12-19	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2024-12-20	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2024-12-20	
Arsenic, total	0.00316	MAC = 0.01	0.00050	mg/L	2024-12-20	
Barium, total	0.0202	MAC = 2	0.0050	mg/L	2024-12-20	
Boron, total	0.275	MAC = 5	0.0500	mg/L	2024-12-20	
Cadmium, total	0.000020	MAC = 0.007	0.000010	mg/L	2024-12-20	
Calcium, total	47.6	None Required	0.20	mg/L	2024-12-20	
Chromium, total	0.00530	MAC = 0.05	0.00050	mg/L	2024-12-20	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2024-12-20	
Copper, total	0.0409	MAC = 2	0.00040	mg/L	2024-12-20	
Iron, total	0.037	AO ≤ 0.3	0.010	mg/L	2024-12-20	
Lead, total	0.00634	MAC = 0.005	0.00020	mg/L	2024-12-20	
Magnesium, total	29.7	None Required	0.010	mg/L	2024-12-20	
Manganese, total	< 0.00020	MAC = 0.12	0.00020	mg/L	2024-12-20	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2024-12-21	
Molybdenum, total	0.00464	N/A	0.00010	mg/L	2024-12-20	
Nickel, total	0.00276	N/A	0.00040	mg/L	2024-12-20	
Potassium, total	4.00	N/A	0.10	mg/L	2024-12-20	
Selenium, total	0.00175	MAC = 0.05	0.00050	mg/L	2024-12-20	

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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GBW #1-4 (24L2262-01) | Matrix: Water | Sampled: 2024-12-17 09:50, Continued

Total Metals, Continued

Sodium, total	6.90	AO ≤ 200	0.10	mg/L	2024-12-20	
Strontium, total	0.194	MAC = 7	0.0010	mg/L	2024-12-20	
Uranium, total	0.000101	MAC = 0.02	0.000020	mg/L	2024-12-20	
Zinc, total	0.221	AO ≤ 5	0.0040	mg/L	2024-12-20	

Sample Qualifiers:

CT6	Results were based on lab temperature & lab pH.
HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Squamish-Lillooet Regional District
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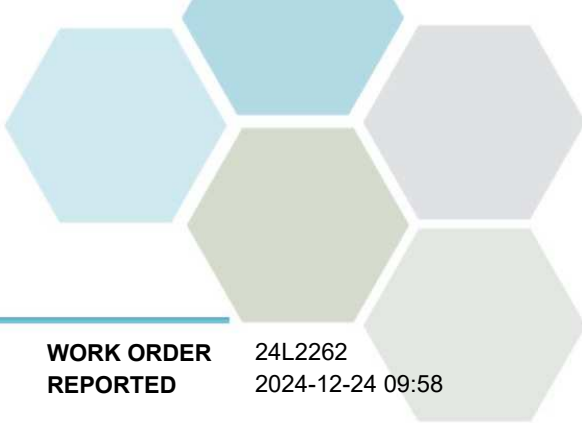
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Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Colour, True in Water	SM 2120 C (2021)	Spectrophotometry (456 nm)	✓	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
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Langelier Index in Water	SM 2330 B (2021)	Calculation		N/A
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
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
°C	Degrees Celcius
AO	Aesthetic Objective
CU	Colour Units (referenced against a platinum cobalt standard)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
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



APPENDIX 1: SUPPORTING INFORMATION

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General Comments:
The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. 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. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. 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: TeamCaro@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

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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
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Anions, Batch B4L3250

Blank (B4L3250-BLK1)			Prepared: 2024-12-21, Analyzed: 2024-12-21						
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 (B4L3250-BLK2)			Prepared: 2024-12-21, Analyzed: 2024-12-21						
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 (B4L3250-BS1)			Prepared: 2024-12-21, Analyzed: 2024-12-21						
Chloride	16.4	0.10 mg/L	16.0		102	90-110			
Fluoride	3.97	0.10 mg/L	4.00		99	88-108			
Nitrate (as N)	4.12	0.010 mg/L	4.00		103	90-110			
Nitrite (as N)	2.05	0.010 mg/L	2.00		102	85-115			
Sulfate	16.5	1.0 mg/L	16.0		103	90-110			
LCS (B4L3250-BS2)			Prepared: 2024-12-21, Analyzed: 2024-12-21						
Chloride	16.5	0.10 mg/L	16.0		103	90-110			
Fluoride	4.07	0.10 mg/L	4.00		102	88-108			
Nitrate (as N)	4.05	0.010 mg/L	4.00		101	90-110			
Nitrite (as N)	2.02	0.010 mg/L	2.00		101	85-115			
Sulfate	15.9	1.0 mg/L	16.0		99	90-110			

General Parameters, Batch B4L3289

Blank (B4L3289-BLK1)			Prepared: 2024-12-19, Analyzed: 2024-12-19						
Turbidity	< 0.10	0.10 NTU							
LCS (B4L3289-BS1)			Prepared: 2024-12-19, Analyzed: 2024-12-19						
Turbidity	15.8	0.10 NTU	14.6		108	90-110			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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General Parameters, Batch B4L3289, Continued

Duplicate (B4L3289-DUP1)		Source: 24L2262-01		Prepared: 2024-12-19, Analyzed: 2024-12-19					
Turbidity	0.10	0.10 NTU		< 0.10				15	

General Parameters, Batch B4L3292

Blank (B4L3292-BLK1)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Cyanide, Total	< 0.0020	0.0020 mg/L							
Blank (B4L3292-BLK2)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Cyanide, Total	< 0.0020	0.0020 mg/L							
LCS (B4L3292-BS1)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Cyanide, Total	0.0223	0.0020 mg/L	0.0200		112	82-120			
LCS (B4L3292-BS2)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Cyanide, Total	0.0189	0.0020 mg/L	0.0200		94	82-120			
LCS Dup (B4L3292-BSD1)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Cyanide, Total	0.0216	0.0020 mg/L	0.0200		108	82-120	3	10	
LCS Dup (B4L3292-BSD2)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Cyanide, Total	0.0208	0.0020 mg/L	0.0200		104	82-120	9	10	

General Parameters, Batch B4L3324

Blank (B4L3324-BLK1)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
Temperature, at pH	22.3	°C							
LCS (B4L3324-BS1)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Alkalinity, Total (as CaCO ₃)	89.2	1.0 mg/L	100		89	80-120			
Alkalinity, Phenolphthalein (as CaCO ₃)	30.6	1.0 mg/L	50.0		61	0-200			
LCS (B4L3324-BS2)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
Conductivity (EC)	1420	2.0 µS/cm	1410		100	95-105			
Reference (B4L3324-SRM1)		Prepared: 2024-12-20, Analyzed: 2024-12-20							
pH	7.02	0.10 pH units	7.01		100	98-102			

General Parameters, Batch B4L3467

Blank (B4L3467-BLK1)		Prepared: 2024-12-22, Analyzed: 2024-12-22							
Colour, True	< 5.0	5.0 CU							
Blank (B4L3467-BLK2)		Prepared: 2024-12-22, Analyzed: 2024-12-22							
Colour, True	< 5.0	5.0 CU							
LCS (B4L3467-BS1)		Prepared: 2024-12-22, Analyzed: 2024-12-22							
Colour, True	19	5.0 CU	20.0		96	85-115			
LCS (B4L3467-BS2)		Prepared: 2024-12-22, Analyzed: 2024-12-22							
Colour, True	18	5.0 CU	20.0		92	85-115			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B4L3379									
Blank (B4L3379-BLK1)				Prepared: 2024-12-20, Analyzed: 2024-12-20					
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							
Cobalt, total	< 0.00010	0.00010 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							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 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 (B4L3379-BS1)				Prepared: 2024-12-20, Analyzed: 2024-12-20					
Aluminum, total	3.89	0.0050 mg/L	4.00		97	80-120			
Antimony, total	0.0380	0.00020 mg/L	0.0400		95	80-120			
Arsenic, total	0.389	0.00050 mg/L	0.400		97	80-120			
Barium, total	0.0395	0.0050 mg/L	0.0400		99	80-120			
Boron, total	0.395	0.0500 mg/L	0.400		99	80-120			
Cadmium, total	0.0389	0.000010 mg/L	0.0400		97	80-120			
Calcium, total	4.07	0.20 mg/L	4.00		102	80-120			
Chromium, total	0.0395	0.00050 mg/L	0.0400		99	80-120			
Cobalt, total	0.0394	0.00010 mg/L	0.0400		98	80-120			
Copper, total	0.0394	0.00040 mg/L	0.0400		98	80-120			
Iron, total	3.92	0.010 mg/L	4.00		98	80-120			
Lead, total	0.0396	0.00020 mg/L	0.0400		99	80-120			
Magnesium, total	3.90	0.010 mg/L	4.00		97	80-120			
Manganese, total	0.0398	0.00020 mg/L	0.0400		99	80-120			
Molybdenum, total	0.0395	0.00010 mg/L	0.0400		99	80-120			
Nickel, total	0.0402	0.00040 mg/L	0.0400		101	80-120			
Potassium, total	4.00	0.10 mg/L	4.00		100	80-120			
Selenium, total	0.386	0.00050 mg/L	0.400		97	80-120			
Sodium, total	3.90	0.10 mg/L	4.00		98	80-120			
Strontium, total	0.0394	0.0010 mg/L	0.0400		98	80-120			
Uranium, total	0.0396	0.000020 mg/L	0.0400		99	80-120			
Zinc, total	0.383	0.0040 mg/L	0.400		96	80-120			
Matrix Spike (B4L3379-MS1)				Source: 24L2262-01	Prepared: 2024-12-20, Analyzed: 2024-12-20				
Aluminum, total	4.00	0.0050 mg/L	4.00	< 0.0050	100	70-130			
Antimony, total	0.0405	0.00020 mg/L	0.0400	< 0.00020	101	70-130			
Arsenic, total	0.410	0.00050 mg/L	0.400	0.00316	102	70-130			
Barium, total	0.0620	0.0050 mg/L	0.0400	0.0202	105	70-130			
Boron, total	0.656	0.0500 mg/L	0.400	0.275	95	70-130			
Cadmium, total	0.0416	0.000010 mg/L	0.0400	0.000020	104	70-130			
Calcium, total	51.1	0.20 mg/L	4.00	47.6	89	70-130			
Chromium, total	0.0453	0.00050 mg/L	0.0400	0.00530	100	70-130			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B4L3379, Continued									
Matrix Spike (B4L3379-MS1), Continued		Source: 24L2262-01		Prepared: 2024-12-20, Analyzed: 2024-12-20					
Cobalt, total	0.0390	0.00010 mg/L	0.0400	< 0.00010	97	70-130			
Copper, total	0.0783	0.00040 mg/L	0.0400	0.0409	94	70-130			
Iron, total	4.05	0.010 mg/L	4.00	0.037	100	70-130			
Lead, total	0.0474	0.00020 mg/L	0.0400	0.00634	103	70-130			
Magnesium, total	32.9	0.010 mg/L	4.00	29.7	82	70-130			
Manganese, total	0.0398	0.00020 mg/L	0.0400	< 0.00020	99	70-130			
Molybdenum, total	0.0473	0.00010 mg/L	0.0400	0.00464	107	70-130			
Nickel, total	0.0418	0.00040 mg/L	0.0400	0.00276	98	70-130			
Potassium, total	8.00	0.10 mg/L	4.00	4.00	100	70-130			
Selenium, total	0.398	0.00050 mg/L	0.400	0.00175	99	70-130			
Sodium, total	10.6	0.10 mg/L	4.00	6.90	92	70-130			
Strontium, total	0.232	0.0010 mg/L	0.0400	0.194	96	70-130			
Uranium, total	0.0428	0.000020 mg/L	0.0400	0.000101	107	70-130			
Zinc, total	0.602	0.0040 mg/L	0.400	0.221	95	70-130			

Total Metals, Batch B4L3490

Blank (B4L3490-BLK1)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	< 0.000010	0.000010 mg/L							
Blank (B4L3490-BLK2)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	< 0.000010	0.000010 mg/L							
Blank (B4L3490-BLK3)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	< 0.000010	0.000010 mg/L							
Blank (B4L3490-BLK4)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	< 0.000010	0.000010 mg/L							
Blank (B4L3490-BLK5)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	< 0.000010	0.000010 mg/L							
Blank (B4L3490-BLK6)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	< 0.000010	0.000010 mg/L							
LCS (B4L3490-BS1)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00266	0.000010 mg/L	0.00250		106	80-120			
LCS (B4L3490-BS2)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00274	0.000010 mg/L	0.00250		110	80-120			
LCS (B4L3490-BS3)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00253	0.000010 mg/L	0.00250		101	80-120			
LCS (B4L3490-BS4)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00216	0.000010 mg/L	0.00250		86	80-120			
LCS (B4L3490-BS5)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00239	0.000010 mg/L	0.00250		96	80-120			
LCS (B4L3490-BS6)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00295	0.000010 mg/L	0.00250		118	80-120			
LCS (B4L3490-BS7)		Prepared: 2024-12-21, Analyzed: 2024-12-21							
Mercury, total	0.00243	0.000010 mg/L	0.00250		97	80-120			

CERTIFICATE OF ANALYSIS

REPORTED TO Regional District of Squamish-Lillooet
1350 Aster Street
Pemberton, BC V0N2L1

ATTENTION Kara Sockett

PO NUMBER

PROJECT Gold Bridge Water Lead

PROJECT INFO

WORK ORDER 25A1348

RECEIVED / TEMP 2025-01-14 09:39 / 2.9°C

REPORTED 2025-01-17 09:59

COC NUMBER B141209

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>

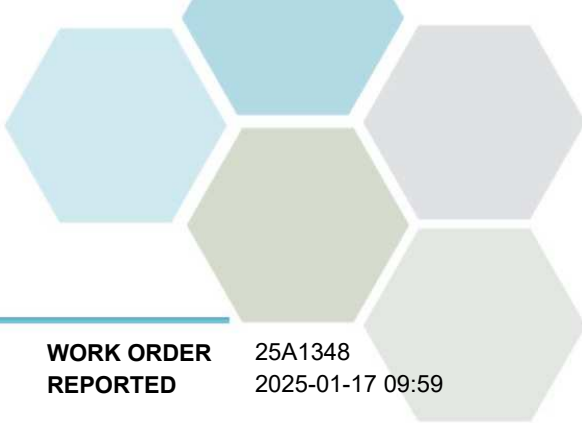
If you have any questions or concerns, please contact me at TeamCaro@caro.ca

Authorized By:

Team CARO
Client Service Representative

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT	Regional District of Squamish-Lillooet Gold Bridge Water Lead	WORK ORDER REPORTED	25A1348 2025-01-17 09:59
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Analyte	Result	RL	Units	Analyzed	Qualifier
GBW #1 (25A1348-01) Matrix: Water Sampled: 2025-01-13 09:35					
Total Metals					
Lead, total	0.00234	0.00020	mg/L	2025-01-16	
GBW #2 (25A1348-02) Matrix: Water Sampled: 2025-01-13 09:55					
Total Metals					
Lead, total	0.00085	0.00020	mg/L	2025-01-16	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Squamish-Lillooet
Gold Bridge Water Lead

WORK ORDER REPORTED 25A1348
2025-01-17 09:59

Analysis Description	Method Ref.	Technique	Accredited	Location
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Glossary of Terms:

RL	Reporting Limit (default)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. 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. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. 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: TeamCaro@caro.ca

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO PROJECT Regional District of Squamish-Lillooet
Gold Bridge Water Lead

WORK ORDER REPORTED 25A1348
2025-01-17 09:59

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
Total Metals, Batch B5A2532									
Blank (B5A2532-BLK1)			Prepared: 2025-01-16, Analyzed: 2025-01-16						
Lead, total	< 0.00020	0.00020 mg/L							
LCS (B5A2532-BS1)			Prepared: 2025-01-16, Analyzed: 2025-01-16						
Lead, total	0.0406	0.00020 mg/L	0.0400		102	80-120			
Total Metals, Batch B5A2540									
Blank (B5A2540-BLK1)			Prepared: 2025-01-16, Analyzed: 2025-01-16						
Lead, total	< 0.00020	0.00020 mg/L							
LCS (B5A2540-BS1)			Prepared: 2025-01-16, Analyzed: 2025-01-16						
Lead, total	0.0402	0.00020 mg/L	0.0400		101	80-120			