



April 16, 2025

Dear Sir/Madam:

RE: Erickson Water Service Water Quality

The Erickson Water service operates in compliance with safe drinking water legislation and continues to provide potable water to its customers.

Since 1929, the Erickson Water Service has drawn water from Arrow Creek authorized under water licenses issued from the Province of BC. Prior to serving Erickson and the Town of Creston customers, at the Arrow Creek Water Treatment Plant, the water is first processed with coarse screening, settling, fine screening, membrane ultrafiltration, UV disinfection, and residual chlorination to maintain an adequate chlorine residual in the distribution system. The filtration process on its own provides 4-log bacteria and virus removal. In addition, a Supervisory Control and Data Acquisition (SCADA) system allows for remote plant monitoring, alarming and operation.

Certified water utility operators take weekly bacteriological samples from 5 separate sites located in the Erickson water service area. If any results show the presence of bacteria they are acted upon immediately in consultation and collaboration with Interior Health. Attached is the latest bacteriological sample March 18 and April 4, 2025 test results. Attached also is the latest October 31, 2024, full comprehensive chemical and metal test results.

Should you require additional information, please do not hesitate to contact the undersigned.

Kind regards,

A handwritten signature in blue ink, appearing to read "Chris Gainham".

Chris Gainham
Utility Service Manager

cc: Allan Richardson, Utilities Supervisor – Erickson

Attch: Passmore Total Coliforms & E. coli Certificate of Analysis, February 11, 2025
Caro Analytical Services Certificate of Analysis, October 31, 2024



Report# 7851
Filename 250319RDEK.pdf

4240 Passmore Upper Road, Winlaw BC, V0G2J0
250-226-7339
test@passmorelaboratory.ca
passmorelaboratory.ca

Client RDCK Erickson Water Service
Attention Al Richardson

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

Passmore Laboratory Ltd. complies with methods and certification through the Province of British Columbia Enhanced Water Quality Assurance (EWQA) Program and the Clinical Microbiology Proficiency Testing (CMPT) Program. Other analytical results on this report not listed above are not within the scope of the EWQA. Passmore Laboratory assumes no responsibility for any loss or damage resulting from error or omission in the conduct of testing. Liability is limited to the cost of the analysis.

Processed by: James Lerch

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Erickson Reservoir			Sample #	1	
Date/Time Sampled	2025-03-18	9:00 AM	Matrix	TW	Temperature on Receipt	8

Date/Time on Test 2025-03-19 12:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	#2 prv			Sample #	2	
Date/Time Sampled	2025-03-18	9:20 AM	Matrix	TW	Temperature on Receipt	9

Date/Time on Test 2025-03-19 12:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	#3 prv			Sample #	3	
Date/Time Sampled	2025-03-18	9:30 AM	Matrix	TW	Temperature on Receipt	10

Date/Time on Test 2025-03-19 12:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Scotties RV park			Sample #	4	
Date/Time Sampled	2025-03-18	9:45 AM	Matrix	TW	Temperature on Receipt	8

Date/Time on Test 2025-03-19 12:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Ja-co Industries			Sample #	5	
Date/Time Sampled	2025-03-18	11:00 AM	Matrix	TW	Temperature on Receipt	9

Date/Time on Test 2025-03-19 12:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW =Treated water, DW= Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



Report# 7908
Filename 250404RDEK.pdf

4240 Passmore Upper Road, Winlaw BC, V0G2J0
250-226-7339
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passmorelaboratory.ca

Client RDCK Erickson Water Service
Attention Al Richardson

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2023 published by the American Public Health Association.

Passmore Laboratory Ltd. complies with methods and certification through the Province of British Columbia Enhanced Water Quality Assurance (EWQA) Program and the Clinical Microbiology Proficiency Testing (CMPT) Program. Other analytical results on this report not listed above are not within the scope of the EWQA. Passmore Laboratory assumes no responsibility for any loss or damage resulting from error or omission in the conduct of testing. Liability is limited to the cost of the analysis.

Processed by: Mechelle Babic

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	3209 HWY 3			Sample #	1	
Date/Time Sampled	2025-04-03	8:00 AM	Matrix	DW	Temperature on Receipt	4

Date/Time on Test 2025-04-04 11:35 AM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Comments The sample meets drinking water guidelines for the tests performed

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW =Treated water, DW= Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Erickson 531B 16th Ave. South CRESTON, BC V0B 1G5	WORK ORDER	24J3162
ATTENTION	Allan Richardson	RECEIVED / TEMP REPORTED	2024-10-22 12:30 / 5.1°C
PO NUMBER	RDCK- Erickson	COC NUMBER	B136123
PROJECT	Arrow Creek/ Erickson		
PROJECT INFO			

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>

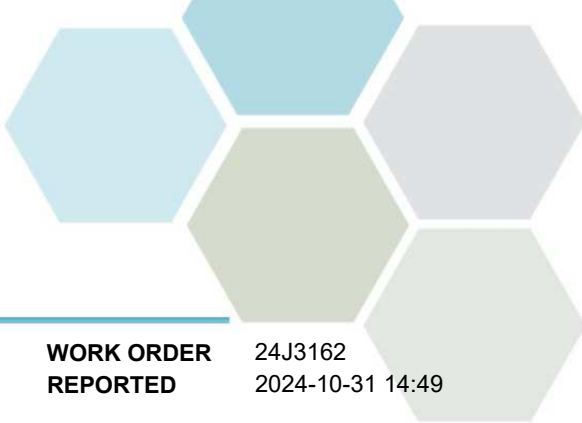
If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

1-888-311-8846 | www.caro.ca

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 | #108 4475 Wayburne Drive Burnaby, BC V5G 4X4



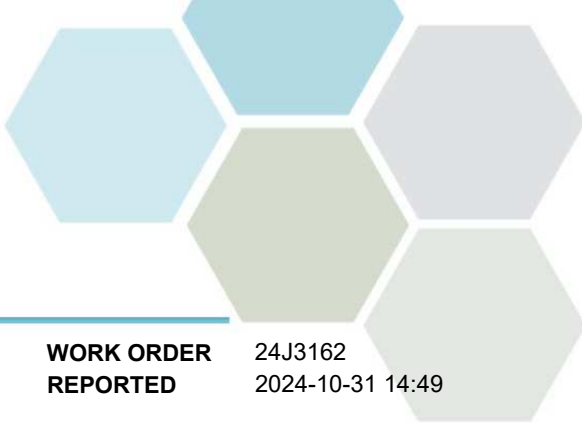
TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

WORK ORDER REPORTED 24J3162
2024-10-31 14:49

Analyte	Result	RL	Units	Analyzed	Qualifier
Arrow Creek (24J3162-01) Matrix: Water Sampled: 2024-10-17 09:15					
Anions					
Chloride	0.18	0.10	mg/L	2024-10-25	
Fluoride	< 0.10	0.10	mg/L	2024-10-25	
Nitrate (as N)	< 0.010	0.010	mg/L	2024-10-25	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2024-10-25	HT1
Sulfate	6.1	1.0	mg/L	2024-10-25	
Calculated Parameters					
Hardness, Total (as CaCO3)	43.4	0.500	mg/L	N/A	
Solids, Total Dissolved	49.0	1.00	mg/L	N/A	
General Parameters					
Alkalinity, Total (as CaCO3)	42.0	1.0	mg/L	2024-10-25	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2024-10-25	
Alkalinity, Bicarbonate (as CaCO3)	42.0	1.0	mg/L	2024-10-25	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2024-10-25	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2024-10-25	
Conductivity (EC)	92.7	2.0	µS/cm	2024-10-25	
Cyanide, Total	< 0.0020	0.0020	mg/L	2024-10-26	
pH	6.90	0.10	pH units	2024-10-25	HT2
Turbidity	0.15	0.10	NTU	2024-10-25	HT1
Total Metals					
Aluminum, total	0.0062	0.0050	mg/L	2024-10-28	
Antimony, total	< 0.00020	0.00020	mg/L	2024-10-28	
Arsenic, total	< 0.00050	0.00050	mg/L	2024-10-28	
Barium, total	0.0216	0.0050	mg/L	2024-10-28	
Boron, total	< 0.0500	0.0500	mg/L	2024-10-28	
Cadmium, total	< 0.000010	0.000010	mg/L	2024-10-28	
Calcium, total	11.9	0.20	mg/L	2024-10-28	
Chromium, total	< 0.00050	0.00050	mg/L	2024-10-28	
Copper, total	< 0.00040	0.00040	mg/L	2024-10-28	
Iron, total	< 0.010	0.010	mg/L	2024-10-28	
Lead, total	< 0.00020	0.00020	mg/L	2024-10-28	
Magnesium, total	3.33	0.010	mg/L	2024-10-28	
Manganese, total	0.00067	0.00020	mg/L	2024-10-28	
Potassium, total	0.48	0.10	mg/L	2024-10-28	
Selenium, total	< 0.00050	0.00050	mg/L	2024-10-28	
Sodium, total	1.48	0.10	mg/L	2024-10-28	
Strontium, total	0.0352	0.0010	mg/L	2024-10-28	
Uranium, total	0.000115	0.000020	mg/L	2024-10-28	
Zinc, total	< 0.0040	0.0040	mg/L	2024-10-28	

Erickson Distribution (24J3162-02) | Matrix: Water | Sampled: 2024-10-17 08:30



TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

WORK ORDER REPORTED 24J3162
2024-10-31 14:49

Analyte	Result	RL	Units	Analyzed	Qualifier
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Erickson Distribution (24J3162-02) | Matrix: Water | Sampled: 2024-10-17 08:30, Continued

Anions

Chloride	1.70	0.10	mg/L	2024-10-25	
Fluoride	< 0.10	0.10	mg/L	2024-10-25	
Nitrate (as N)	< 0.010	0.010	mg/L	2024-10-25	HT1
Nitrite (as N)	< 0.010	0.010	mg/L	2024-10-25	HT1
Sulfate	5.8	1.0	mg/L	2024-10-25	

Calculated Parameters

Total Trihalomethanes	0.0210	0.00400	mg/L	N/A	
Hardness, Total (as CaCO3)	42.7	0.500	mg/L	N/A	
Solids, Total Dissolved	55.4	1.00	mg/L	N/A	

General Parameters

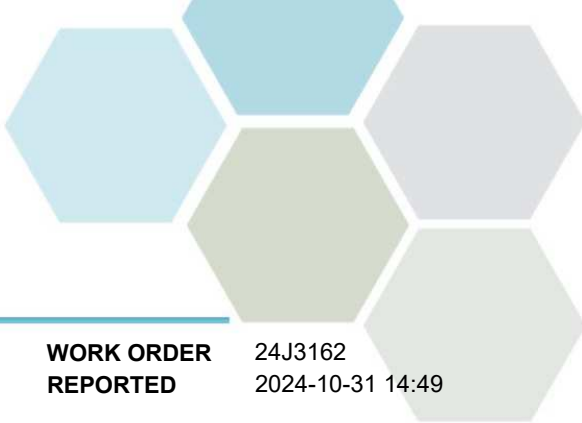
Alkalinity, Total (as CaCO3)	48.5	1.0	mg/L	2024-10-25	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2024-10-25	
Alkalinity, Bicarbonate (as CaCO3)	48.5	1.0	mg/L	2024-10-25	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2024-10-25	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2024-10-25	
Conductivity (EC)	105	2.0	µS/cm	2024-10-25	
Cyanide, Total	< 0.0020	0.0020	mg/L	2024-10-26	
pH	8.10	0.10	pH units	2024-10-25	HT2
Turbidity	0.12	0.10	NTU	2024-10-25	HT1

Haloacetic Acids

Monochloroacetic Acid	< 0.0020	0.0020	mg/L	2024-10-31	
Monobromoacetic Acid	< 0.0020	0.0020	mg/L	2024-10-31	
Dichloroacetic Acid	0.0093	0.0020	mg/L	2024-10-31	
Trichloroacetic Acid	0.0092	0.0020	mg/L	2024-10-31	
Dibromoacetic Acid	< 0.0020	0.0020	mg/L	2024-10-31	
Total Haloacetic Acids (HAA5)	0.0185	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	108	70-130	%	2024-10-31	

Total Metals

Aluminum, total	< 0.0050	0.0050	mg/L	2024-10-28	
Antimony, total	< 0.00020	0.00020	mg/L	2024-10-28	
Arsenic, total	< 0.00050	0.00050	mg/L	2024-10-28	
Barium, total	0.0214	0.0050	mg/L	2024-10-28	
Boron, total	< 0.0500	0.0500	mg/L	2024-10-28	
Cadmium, total	< 0.000010	0.000010	mg/L	2024-10-28	
Calcium, total	11.8	0.20	mg/L	2024-10-28	
Chromium, total	< 0.00050	0.00050	mg/L	2024-10-28	
Copper, total	0.00370	0.00040	mg/L	2024-10-28	
Iron, total	< 0.010	0.010	mg/L	2024-10-28	
Lead, total	< 0.00020	0.00020	mg/L	2024-10-28	
Magnesium, total	3.22	0.010	mg/L	2024-10-28	



TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

WORK ORDER REPORTED 24J3162
2024-10-31 14:49

Analyte	Result	RL	Units	Analyzed	Qualifier
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Erickson Distribution (24J3162-02) | Matrix: Water | Sampled: 2024-10-17 08:30, Continued

Total Metals, Continued

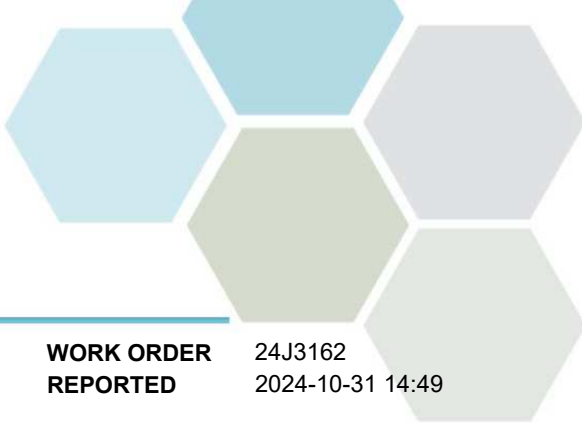
Manganese, total	0.00030	0.00020	mg/L	2024-10-28	
Potassium, total	0.52	0.10	mg/L	2024-10-28	
Selenium, total	< 0.00050	0.00050	mg/L	2024-10-28	
Sodium, total	2.83	0.10	mg/L	2024-10-28	
Strontium, total	0.0348	0.0010	mg/L	2024-10-28	
Uranium, total	0.000104	0.000020	mg/L	2024-10-28	
Zinc, total	< 0.0040	0.0040	mg/L	2024-10-28	

Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	0.0010	mg/L	2024-10-29	
Bromoform	< 0.0010	0.0010	mg/L	2024-10-29	
Chloroform	0.0210	0.0010	mg/L	2024-10-29	
Dibromochloromethane	< 0.0010	0.0010	mg/L	2024-10-29	
Surrogate: Toluene-d8	111	70-130	%	2024-10-29	
Surrogate: 4-Bromofluorobenzene	77	70-130	%	2024-10-29	

Sample Qualifiers:

- 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 Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

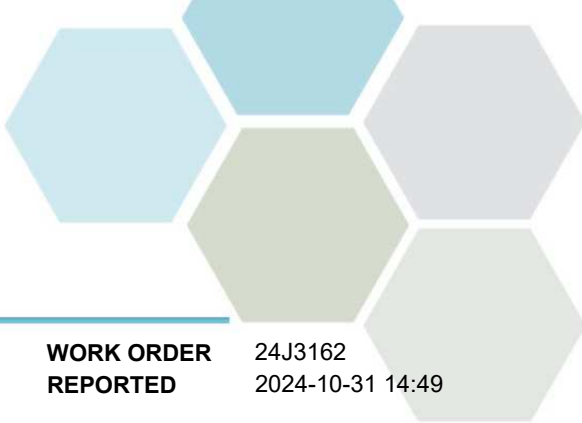
WORK ORDER REPORTED 24J3162
2024-10-31 14:49

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
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
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
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
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	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
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



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

WORK ORDER REPORTED 24J3162
2024-10-31 14:49

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. The quality control (QC) data is available upon request

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: bwhitehead@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.