

City of Nelson 2022 Annual Drinking Water Report

2022 Monitoring Year



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City of Nelson 2022 Annual Drinking Water Report

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Acronyms

<u>Abbreviations</u>	<u>Meaning</u>
CCCP	Cross-Connection Control Program
CFU	Colony Forming Units
DNA	Deoxyribonucleic Acid
EOCP	Environmental Operators Certification Program
GCDWQ	Guideline for Canadian Drinking Water Quality
HAA	Haloacetic Acid
KEI	Kootenay Environmental Innovations
LRAA	Locational Running Annual Average
MACs	Maximum Acceptable Concentration Limits
NTU	Nephelometric Turbidity Units
Reg	Regulation
RNA	Ribonucleic Acid
THM	Trihalomethane
UV	Ultraviolet Light
UVT	Ultraviolet Transmittance
WC	Water Cooled

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1 Introduction

This report is provided to enhance communications between the City of Nelson (the City) and the public regarding the management, planning and operations of the City's water treatment and distribution system. The City is required by Interior Health Authority to monitor various aspects of the raw water and treated water systems, including:

- Annual water consumption,
- Bacteriological colony forming units in raw and treated water,
- Continuous raw water turbidity data,
- Continuous ultraviolet light treatment data,
- Trihalomethane and haloacetic acid data in treated water, and
- Residual chlorine data.

In addition to the water quality monitoring results listed above, the City is required to maintain multiple management plans, including:

- Water Master Plan,
- Capital Works Plan
- Cross-Connection Control Program,
- Emergency Response Plan, and
- Maintenance of Environmental Operators Certification Program training for the City's Treatment Plant Operators.

In addition to being a communication tool between the City and the public, this Annual Drinking Water Report satisfies requirements outlined in the drinking water protection regulation, BC Reg. 200/2003, and the City's operating permit for the City's water treatment and distribution system, including Facility #0210671 – Mountain Station Water Treatment Plant.

2 System Design

The City sources its drinking water from Five Mile Creek, Fell Creek, Anderson Creek and Selous Creek. Fell Creek is a tributary to Anderson Creek and feeds into the reservoir at the Anderson Creek intake. Unless otherwise noted, all references to Anderson Creek will include Fell Creek, as most activities related to Anderson Creek occur below the confluence of Fell Creek and Anderson Creek.

Water is taken year-round from Five Mile Creek and is supplemented by Anderson Creek and Selous Creek in periods of peak demand during the summer. Though raw water from Anderson Creek and Selous Creek is not required during periods of low demand, approximately one to two litres per second is always maintained in the transmission lines to ensure the water in those portions of the distribution system does not become stagnant or freeze.

In 2022, Five Mile Creek and Selous Creek fed into a reservoir at Mountain Station before being treated with ultraviolet light (UV) and chlorine, while the flows from Anderson Creek are currently only treated by chlorine. However, in March 2023, raw water from Anderson Creek will be diverted to the Mountain Station reservoir to be treated with UV and chlorine before entering the distribution system. A map of the four catchments, main distribution pipes and buildings associated with the City's drinking water system can be seen in Figure 1.

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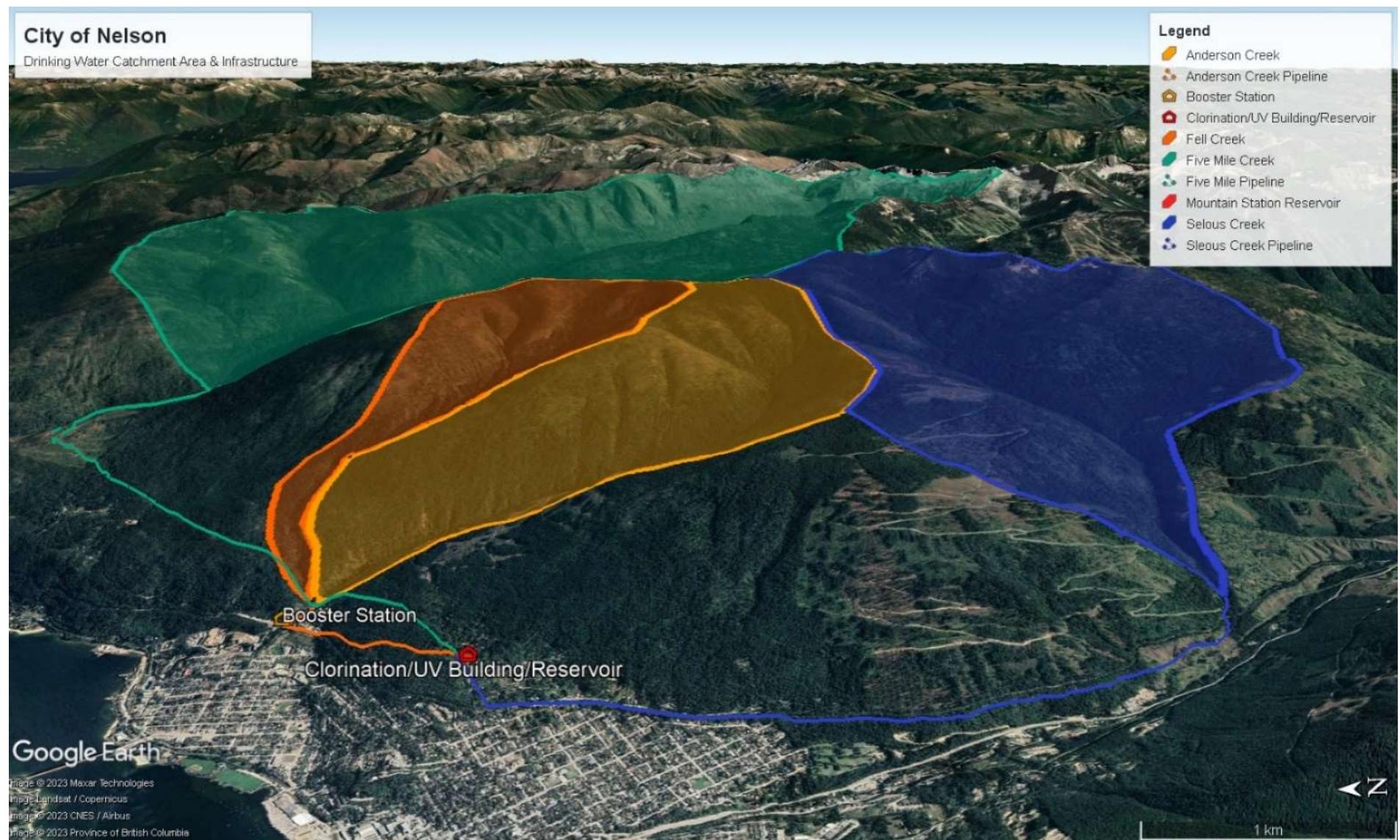


Figure 1: City of Nelson Catchments & Drinking Water Infrastructure as of 2023.

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3 2022 Water Consumption

The City consumed 1,857,241 m³ of drinking water in 2022, which is comparable to the 1,846,496 m³ consumed in 2021. Figure 2 shows the City's monthly water consumption, while Figure 3 shows the daily water consumption by source.

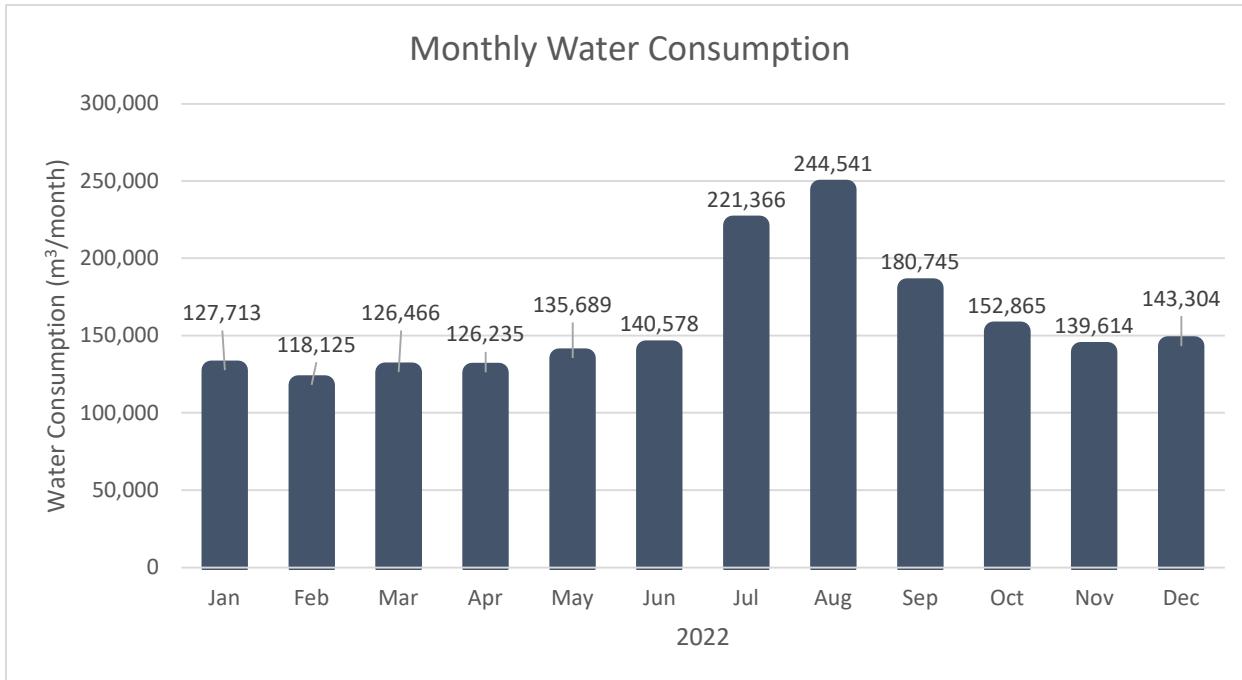


Figure 2: Monthly Water Consumption

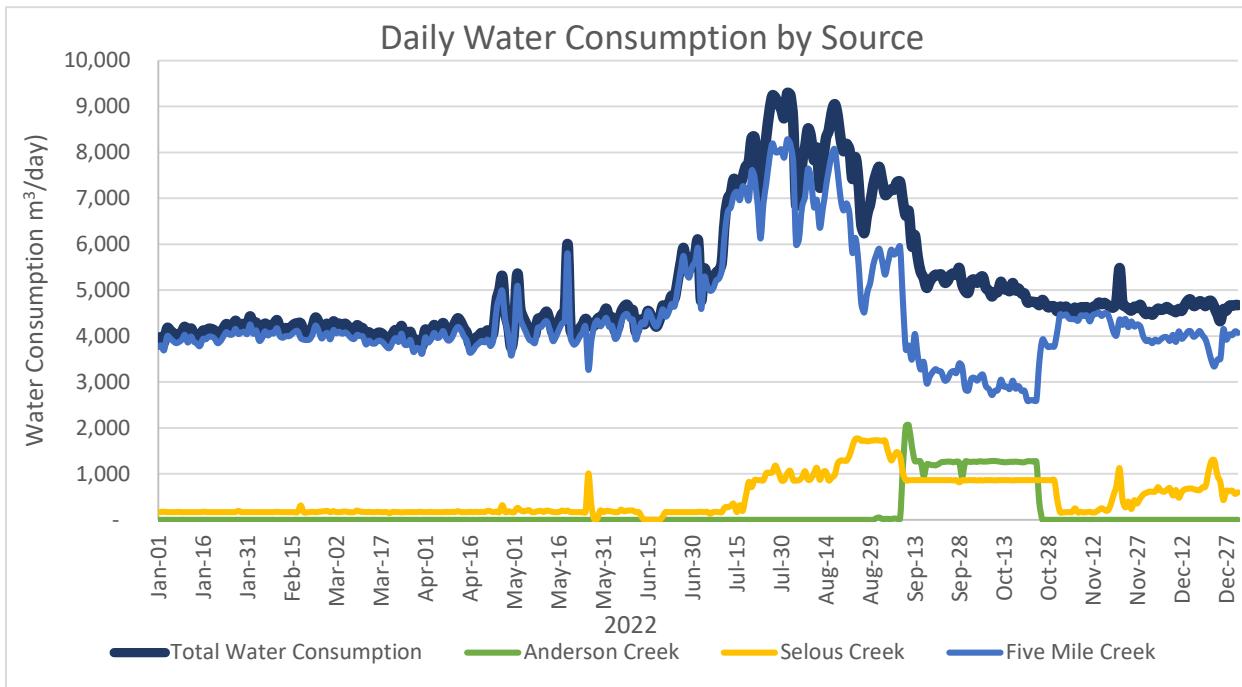


Figure 3: Daily Water Consumption by Source

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4 Water Quality Monitoring Program

The City's Water Quality Monitoring Program requires the collection of, and reporting on, the following parameters:

- Weekly bacteriological sampling for:
 - E. coli,
 - Fecal Coliforms, and
 - Total Coliforms;
- Continuous turbidity data at the Anderson Creek intake and the Mountain Station reservoir;
- Continuous UV performance/transmittance (UVT) data;
- Quarterly trihalomethane (THM) and haloacetic acid (HAA) testing in the distribution system;
- A full comprehensive raw water analysis for each source collected annually; and
- Continuous chlorine residuals.

4.1 Weekly Bacteriological Sampling

The City conducts bacteriological sampling of treated water at four locations within the distribution system, while raw water samples are taken at Anderson Creek and the Mountain Station reservoirs. All samples are taken weekly, except for the raw water samples at the Anderson Creek reservoir, which are taken weekly only when water is sourced from the stream. Raw water samples are taken only at Anderson Creek and the Mountain Station reservoir because these are the two locations where raw water is treated and enters the distribution system.

The following four locations are the weekly sample locations within the distribution system:

- Rosemont reservoir,
- 300 Block Silica Street,
- 3rd Street and Davies Street, and
- Fell Street and 11th Street.

Tables 1 and 2 below show the bacteriological sampling results produced by a third-party independent laboratory, Passmore Laboratories Ltd.. The original reports from Passmore Laboratories can be found in Appendix B.

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Table 1: Weekly Coliform Results (Jan – Jun 2022)

Weekly Coliform Results (Jan to Jun 2022)

Sample Date	Rosemont Reservoir	Silica St.	3rd & Davies	Fell & 11th	Anderson Creek	Mtn. Station Reservoir		
	Treated Drinking Water					Raw Water		
	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli
2022-01-04	0	0	0	0	0	0	11	0
2022-01-11	0	0	0	0	0	0	1	0
2022-01-18	0	0	0	0	0	0	3	0
2022-01-25	0	0	0	0	0	0	8	0
2022-02-01	0	0	0	0	0	0	3	0
2022-02-08	0	0	0	0	0	0	0	0
2022-02-15	0	0	0	0	0	0	4	0
2022-02-22	0	0	0	0	0	0	7	0
2022-03-01	0	0	0	0	0	0	0	0
2022-03-08	0	0	0	0	0	0	7	0
2022-03-15	0	0	0	0	0	0	2	0
2022-03-22	0	0	0	0	0	0	2	0
2022-03-29	0	0	0	0	0	0	23	0
2022-04-05	0	0	0	0	0	0	7	0
2022-04-12	0	0	0	0	0	0	3	0
2022-04-19	0	0	0	0	0	0	9	0
2022-04-26	0	0	0	0	0	0	0	0
2022-05-03	0	0	0	0	0	0	0	0
2022-05-10	0	0	0	0	0	0	0	0
2022-05-17	0	0	0	0	0	0	10	0
2022-05-24	0	0	0	0	0	0	2	0
2022-05-31	0	0	0	0	0	0	16	2
2022-06-07	0	0	0	0	0	0	20	1
2022-06-14	0	0	0	0	0	0	20	0
2022-06-21	0	0	0	0	0	0	33	2
2022-06-28	0	0	0	0	0	0	14	2

0 = <1 grey = not collected

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Table 2: Weekly Coliform results (Jul – Dec 2022)

Weekly Coliform Results (Jul to Dec 2022)

Sample Date	Rosemont Reservoir	Silica St.		3rd & Davies	Fell & 11th		Anderson Creek	Mtn. Station Reservoir			
	Treated Drinking Water								Raw Water		
	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Fecal (Thermotolerant) Coliforms
2022-07-05	0	1	0	0	0	0	0	0	0	0	0
2022-07-06	0	0									
2022-07-12	0	0	0	0	0	0	0	0	31	0	0
2022-07-19	0	0	0	0	0	0	0	0	206	1	0
2022-07-26	0	0	0	0	0	0	0	0	135	0	0
2022-08-02	0	0	0	0	0	0	0	0	235	0	1
2022-08-09	0	0	0	0	0	0	0	0	114	0	1
2022-08-16	0	0	0	0	0	0	0	0	235	0	1
2022-08-23	0	0	0	0	0	0	0	0	162	2	2
2022-08-30	0	0	0	0	0	0	0	0	274	1	1
2022-09-07								0	0		
2022-09-13	0	0	0	0	0	0	0	0	194	0	0
2022-09-20	0	0	0	0	0	0	0	0	99	14	14
2022-09-27	0	0	0	0	0	0	0	0	165	0	3
2022-10-04	0	0	0	0	0	0	0	0	88	0	0
2022-10-11	0	0	0	0	0	0	0	0	82	0	0
2022-10-18	0	0	0	0	0	0	0	0	48	0	0
2022-10-25	0	0	0	0	0	0	0	0	134	0	0
2022-11-01	0	0	0	0	0	0	0	0	75	1	1
2022-11-08	0	0	0	0	0	0	0	0	37	0	0
2022-11-15	0	0	0	0	0	0	0	0	16	0	0
2022-11-22	0	0	0	0	0	0	0	0	55	0	0
2022-11-29											
2022-12-06	0	0	0	0	0	0	0	0	24	0	
2022-12-12	0	0	0	0	0	0	0	0	23	0	0
2022-12-20	0	0	0	0	0	0	0	0	19	0	0
2022-12-27											

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Throughout the 2022 bacteriological sampling only one sample within the treated water system returned a positive E. Coli result (1 CFU/100ml on 2022-07-05 at the Rosemont reservoir). This result was immediately investigated and determined to be a false positive. It was determined that the false positive was likely caused by a sampling error since the Total Coliforms result, which was taken from the same water sample, produced a count of less than one CFU/100ml. A second sample was collected the next day at the reservoir to check for E. Coli at the same location which returned a result of less than one CFU/100ml. The results of the second sample provide more assurance to the theory that the positive result was false. All other coliform samples from treated water within the distribution system had less than one CFU/100ml.

Raw water samples from the Mountain Station reservoir returned positive results for total coliforms, fecal (thermotolerant) coliforms, and E. coli. By observing the trends in Figure 4, showing the colony forming units (CFUs) in the raw water at the Mountain Station reservoir, the City is aware of CFUs being high during the summer months and fall precipitation events. Fecal (thermotolerant) coliforms and E. coli were only observed during the summer and fall and are monitored by City staff. Raw water samples were not taken at Anderson Creek, Five Mile Creek or Selous Creek reservoirs, though this sampling may begin in future years.

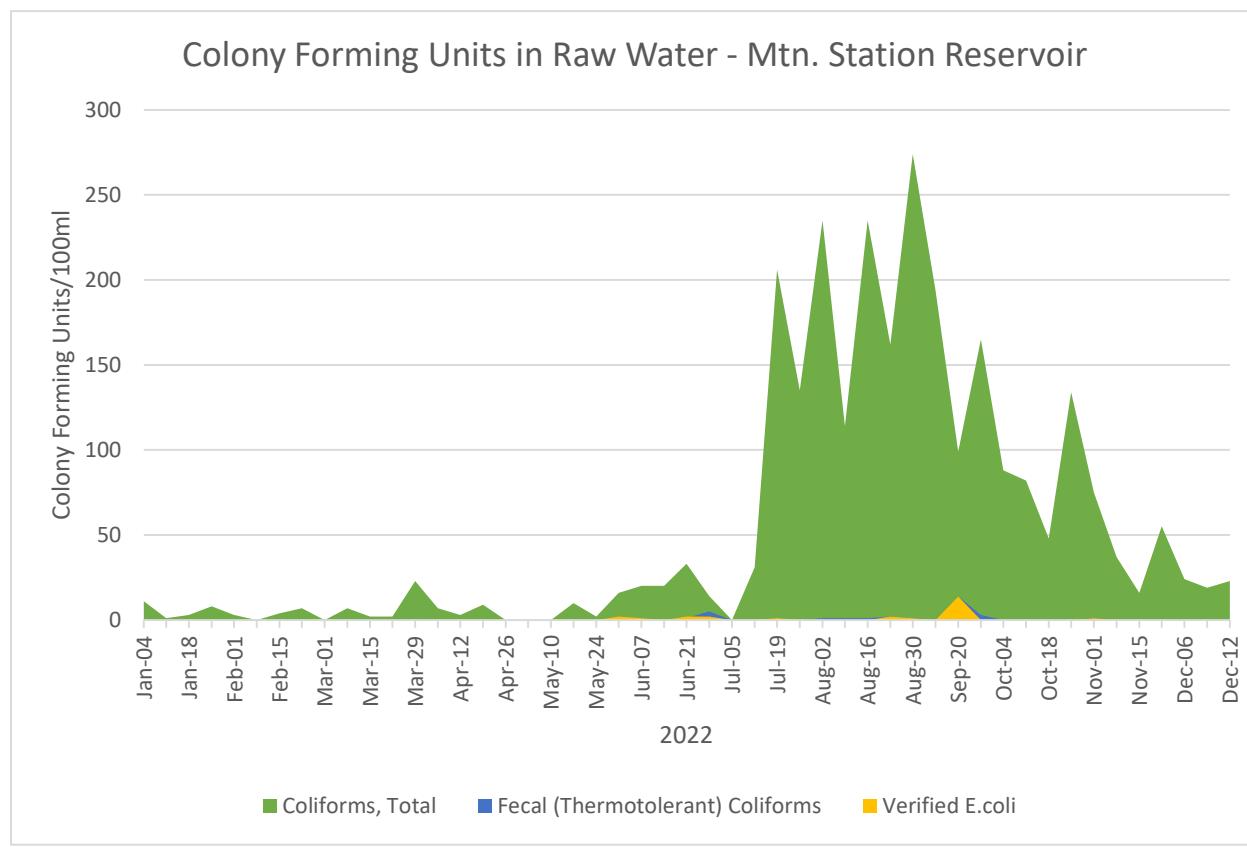


Figure 4: Colony Forming Units in Raw Untreated Water at Mtn. Station Reservoir

Though E. coli was observed in the raw water, the results remained below the filtration exemption criteria outlined in the Province's Drinking Water Treatment Objective for Surface Water in BC. The filtration exemption criteria state that E. coli should not exceed 20 CFU per 100 ml in at least 90% of the

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weekly samples from the previous six months (British Columbia, 2022a). In 2022, the highest E. Coli sample count was 14 CFU/100ml on September 13th, 2022. If we conclude that the positive E. Coli result from the Rosemont reservoir was indeed false, as all evidence points to, the City met the filtration exemption criteria for bacteriological monitoring in 2022.

4.2 Continuous Raw Water Turbidity

The City conducts in-line turbidity monitoring at Anderson Creek, Selous Creek and at the Mountain Station reservoir. The Province's filtration deferral criteria outline that average daily turbidity measurements should not exceed "around 1 [Nephelometric Turbidity Units] NTU, but do not exceed 5 NTU for more than two days in a 12-month period" (British Columbia, 2022a). As shown in Figure 5, the City met the filtration deferral criteria for turbidity on all occasions in 2022 at Anderson Creek and the Mountain Station reservoir, which are the two locations where raw water enters the distribution system.

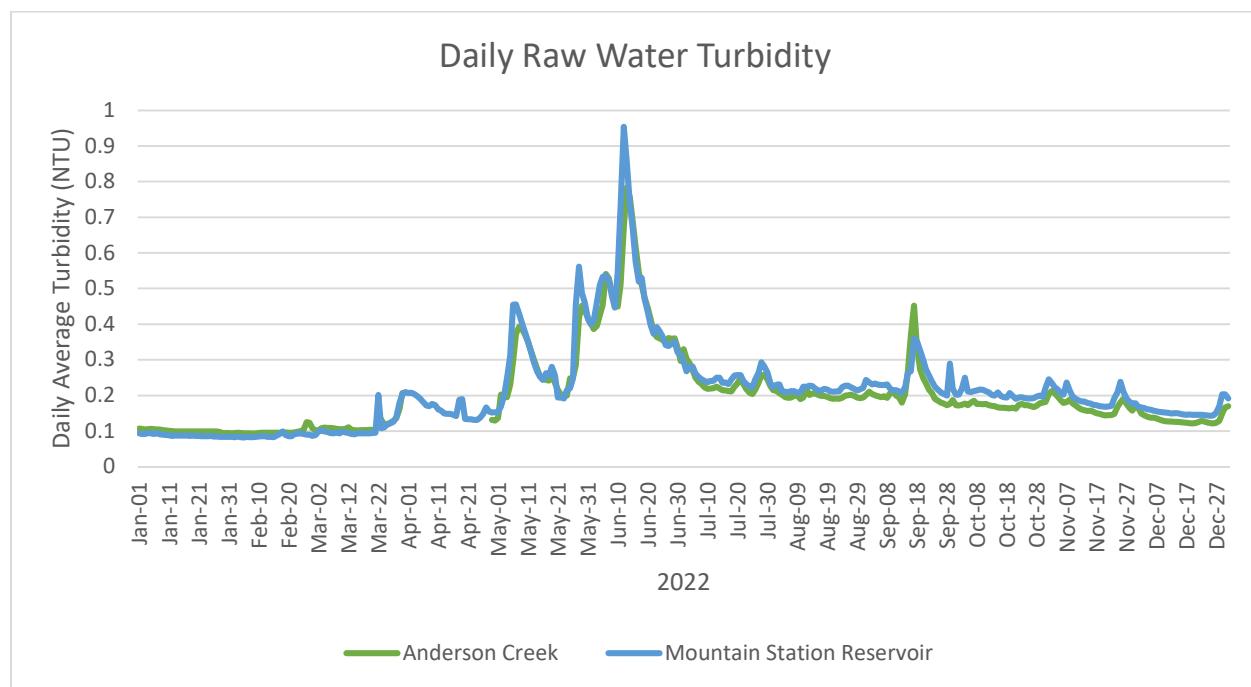


Figure 5: Daily Raw Water Turbidity

The monthly average turbidity represented in Nephelometric Turbidity Units (NTU) is displayed in Figure 6. Turbidity at Selous Creek is regularly observed to be higher than the turbidity at the Mountain Station reservoir and Anderson Creek. Due to the higher turbidity levels at Selous Creek, the City manages when it sources water from Selous Creek to maintain low turbidity values at the Mountain Station Reservoir in which the Selous Creek intake flows into.

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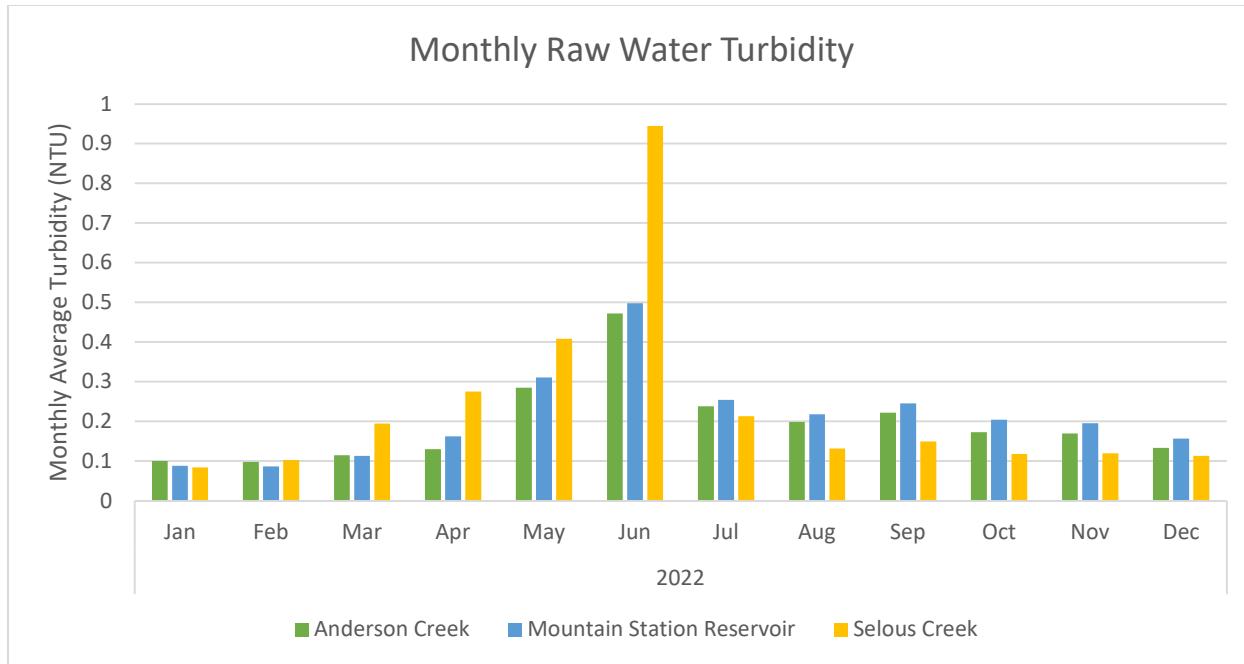


Figure 6: Monthly Raw Water Turbidity

4.3 Continuous Ultraviolet Performance

Ultraviolet (UV) performance is measured as the percent transmittance of ultraviolet light, referred to as Ultraviolet Transmittance (UVT), through a 10ml quartz cell. UV light is used in the drinking water disinfection process as UV "inactivates pathogens by damaging their nucleic acids (DNA and RNA) so that they cannot replicate and infect humans" (British Columbia, 2022b).

UVT is a vital performance metric as "it is related to the quantity of organics, colloidal solids and other material in the water which absorb and scatter the UV light as it passes through the water column. In a UV disinfection system, if the UVT of the water is low, the UV light cannot penetrate the water as effectively, thereby reducing the potency of the dose." (Real Tech Inc., n.d.)

As outlined in the Province's Guidelines for Ultraviolet Disinfection of Drinking Water, water entering a UV reactor is recommended to have a UVT greater than that recommended by the UV equipment supplier (British Columbia, 2022b). The UV system installed at Mountain Station is rated to achieve a 3-log reduction of giardia and cryptosporidium at a UVT of 72% at a flow up to 210 L/sec. In 2022 the treated water at Mountain Station continuously had greater than 72% UVT, as shown in Figure 7.

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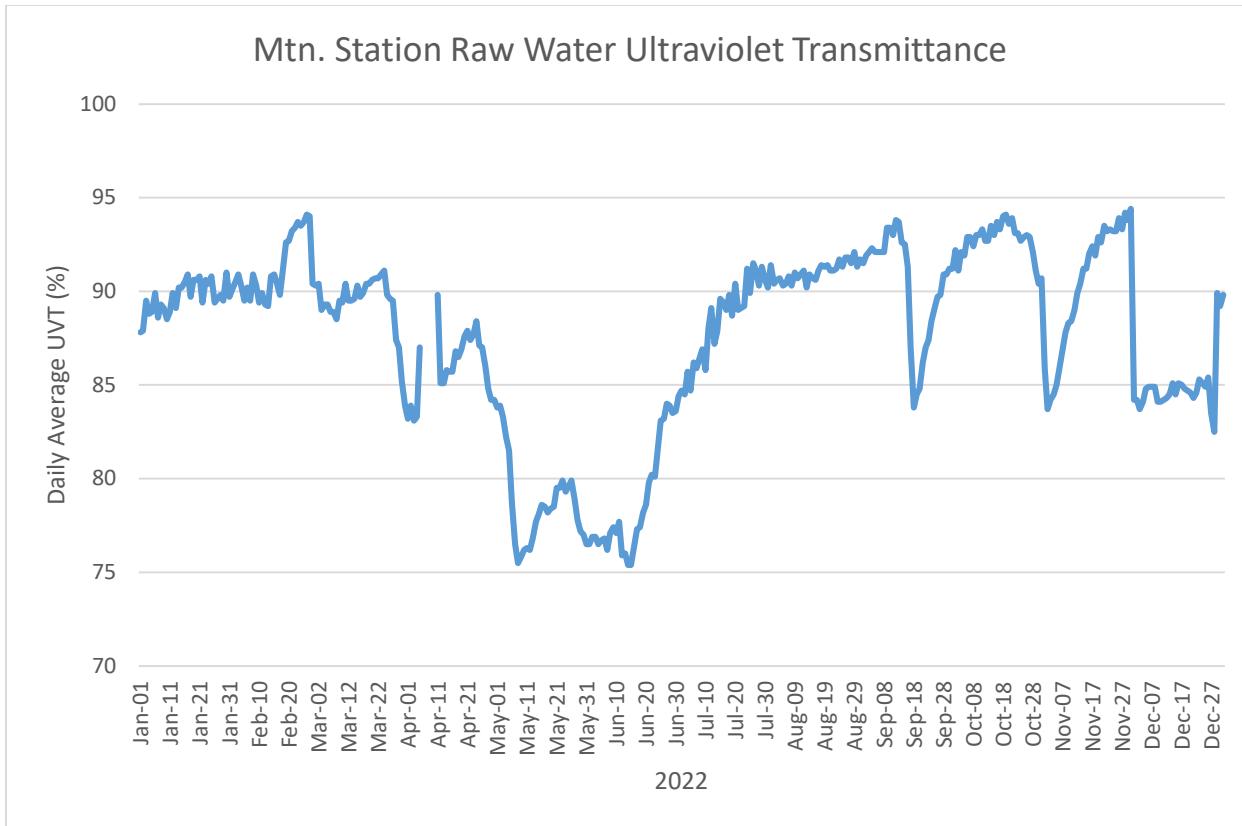


Figure 7: Mtn. Station Raw Water Ultraviolet Transmittance

4.4 Quarterly Trihalomethanes and Haloacetic Acids and Manganese Testing

The Guidelines for Canadian Drinking Water Quality (GCDWQ) published by Health Canada establishes Maximum Acceptable Concentration Limits (MACs) for Trihalomethanes (THMs) and Haloacetic Acids (HAAs). The MACs for these compounds are calculated over an average of the previous four calendar quarters at a designated location within the distribution system. This method of calculation is called the Locational Running Annual Average (LRAA). The MAC for THMs is 0.100mg/L (Health Canada, 2006), and the MAC for HAAs is 0.08mg/L (Health Canada, 2010).

The City was below Health Canada's MACs for THMs and HAA for all four quarters in 2022 based on an LRAA analysis. The results of the LRAA analysis for THMs and HAAs are shown in Tables 3 and 4. The quarterly THMs and HAAs sample results can be found in Appendix A.

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Table 3: Q4 & Q3 THM & HAA LRAA Results

Legend

Below maximum acceptable concentration	Above Maximum Acceptable Concentration
Below Reporting Limits	Not Reported

2022 Q4 Locational Running Annual Average

Analyte	Rosemont	3rd St & Reservoir	Fell St & Davies St	Silica St & 11th St	Mountain Stanley St	Reporting Station Res	Units	Limit	GCDWQ Standard
	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Chloroform	0.0570	0.0527	0.0519	0.0564	0.0437	mg/L	0.001	N/A
	Dibromochloromethane	0.0005	0.0007	0.0007	0.0005	0.0005	mg/L	0.001	N/A
Haloacetic Acids	Monochloroacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Dichloroacetic Acid	0.0205	0.0200	0.0194	0.0206	0.0144	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0283	0.0283	0.0260	0.0295	0.0131	mg/L	0.002	N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0473	0.0484	0.0454	0.0501	0.0272	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0570	0.0527	0.0519	0.0564	0.0440	mg/L	0.004	MAC=0.1

2022 Q3 Locational Running Annual Average

Analyte	Rosemont	3rd St & Reservoir	Fell St & Davies St	Silica St & 11th St	Mountain Stanley St	Reporting Station Res	Units	Limit	GCDWQ Standard
	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Chloroform	0.0773	0.0723	0.0698	0.0754	0.0437	mg/L	0.001	N/A
	Dibromochloromethane	0.0005	0.0007	0.0005	0.0005	0.0005	mg/L	0.001	N/A
Haloacetic Acids	Monochloroacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Dichloroacetic Acid	0.0232	0.0226	0.0226	0.0227	0.0144	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0333	0.0319	0.0301	0.0317	0.0131	mg/L	0.002	N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0538	0.0545	0.0527	0.0544	0.0272	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0773	0.0723	0.0701	0.0754	0.0440	mg/L	0.004	MAC=0.1

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Table 4: Q2 & Q1 THM & HAA LRAA Results

2022 Q2 Locational Running Annual Average

Analyte		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Reporting Units	Limit	GCDWQ Standard
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Chloroform	0.0891	0.0823	0.0806	0.0871	0.0437	mg/L	0.001	N/A
	Dibromochloromethane	0.0005	0.0007	0.0005	0.0005	0.0005	mg/L	0.001	N/A
Haloacetic Acids	Monochloroacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Dichloroacetic Acid	0.0271	0.0263	0.0262	0.0268	0.0144	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0333	0.0348	0.0333	0.0357	0.0131	mg/L	0.002	N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0623	0.0611	0.0594	0.0624	0.0272	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0891	0.0823	0.0809	0.0871	0.0440	mg/L	0.004	MAC=0.1

2022 Q1 Locational Running Annual Average

Analyte		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Reporting Units	Limit	GCDWQ Standard
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
	Chloroform	0.0885	0.0795	0.0759	0.0864	0.0425	mg/L	0.001	N/A
	Dibromochloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001	N/A
Haloacetic Acids	Monochloroacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Dichloroacetic Acid	0.0262	0.0249	0.0253	0.0257	0.0144	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0314	0.0330	0.0336	0.0343	0.0131	mg/L	0.002	N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0561	0.0535	0.0528	0.0557	0.0272	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0885	0.0798	0.0762	0.0864	0.0429	mg/L	0.004	MAC=0.1

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Total Manganese is included in the same analysis as THMs and HAA and thus is also reported. The Guidelines for Canadian Drinking Water Quality listed the MAC for manganese at 0.12 mg/L for adults and 0.02 mg/L for infants who are fed formula “where water containing manganese at levels above the MAC are used to prepare formula.” The health considerations of manganese in exceedance of the MAC can lead to “effects on neurological development and behaviour; deficits in memory, attention, and motor skills” (Health Canada, 2023).

The City was below the MAC for adults and infants during all sampling events in 2022. The results of the 2022 quarterly sampling are shown below in Table 5.

Table 5: Quarterly Total Manganese

Legend

		Below maximum acceptable concentration						Above Maximum Acceptable Concentration		
		Below Reporting Limits						Not Reported		
		2022 Quarterly Manganese Results								
Sample Date	Analyte	Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	Detection Limit	GCDWQ Adults	GCDWQ Infants
Q4 (2022-12-06)	Manganese, total	0.00039	0.00060	0.00058	0.00205	0.00200	mg/L	0.0002	MAC =0.12	MAC =0.02
Q3 (2022-09-14)		0.00046	0.00077	0.00618	0.00239	0.00230	mg/L	0.0002		
Q2 (2022-06-30)		0.00085	0.00667	0.00103	0.00286	0.00257	mg/L	0.0002		
Q1 (2022-03-29)		0.00067	0.00105	0.00054	0.00293	0.00102	mg/L	0.0002		

4.5 Annual Full Comprehensive Raw Water Analysis

A raw water analysis of Five Mile, Anderson, Selous Creeks and the Mountain Station reservoir, were taken on December 27th 2022. The results can be found in Appendix C.

The raw water analysis shows that the raw water was within the recommended levels outlined in the Guidelines for Canadian Drinking Water Quality (GCDWQ), published by Health Canada, for all parameters.

CARO Analytical Services (Kelowna facility) conducted the 2022 raw water analysis and reported on the following parameters:

- Chloride
- Fluoride
- Nitrate
- Nitrite
- Sulphate
- Langelier Index
- Hydrogen Sulfide
- Trihalomethanes
- Hardness
- Total Dissolved Solids
- UV Transmittance
- Colour
- Alkalinity
- Total Organic Carbon
- Cyanide
- Total Suspended Solids
- Sulphite
- Turbidity
- pH
- Conductivity
- Aluminum
- Antimony
- Arsenic
- Barium
- Boron
- Cadmium
- Calcium
- Chromium
- Cobalt
- Copper
- Iron
- Lead
- Magnesium
- Manganese
- Mercury
- Molybdenum
- Nickel
- Potassium
- Selenium
- Sodium
- Strontium
- Uranium
- Zinc
- Bromodichloromethane
- Bromoform
- Chloroform

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4.6 Continuous Chlorine Residual

Chlorine is one of the two ways the City disinfects its drinking water. As a best practice, the City maintains a minimum of 0.2 mg/L chlorine residuals at the furthest point in the distribution system. This small amount of chlorine acts as a secondary disinfectant, reducing the likelihood of biofilm formation in pipes and preventing the growth of opportunistic microorganisms. The City monitors residual chlorine in real-time and daily with a handheld meter at the Anderson Creek and Mountain Station reservoir intakes.

Health Canada notes that residual chlorine "in most Canadian drinking water distribution systems range from 0.04 to 2.0 mg/L." However, the "suggested operational range for free chlorine residual is between a detectable level and 5 mg/L (Health Canada, 2016)." As can be seen in Figure 8, the City's daily handheld residual chlorine readings were most often between 0.04 and 2.0 mg/L and were never above 5 mg/L.

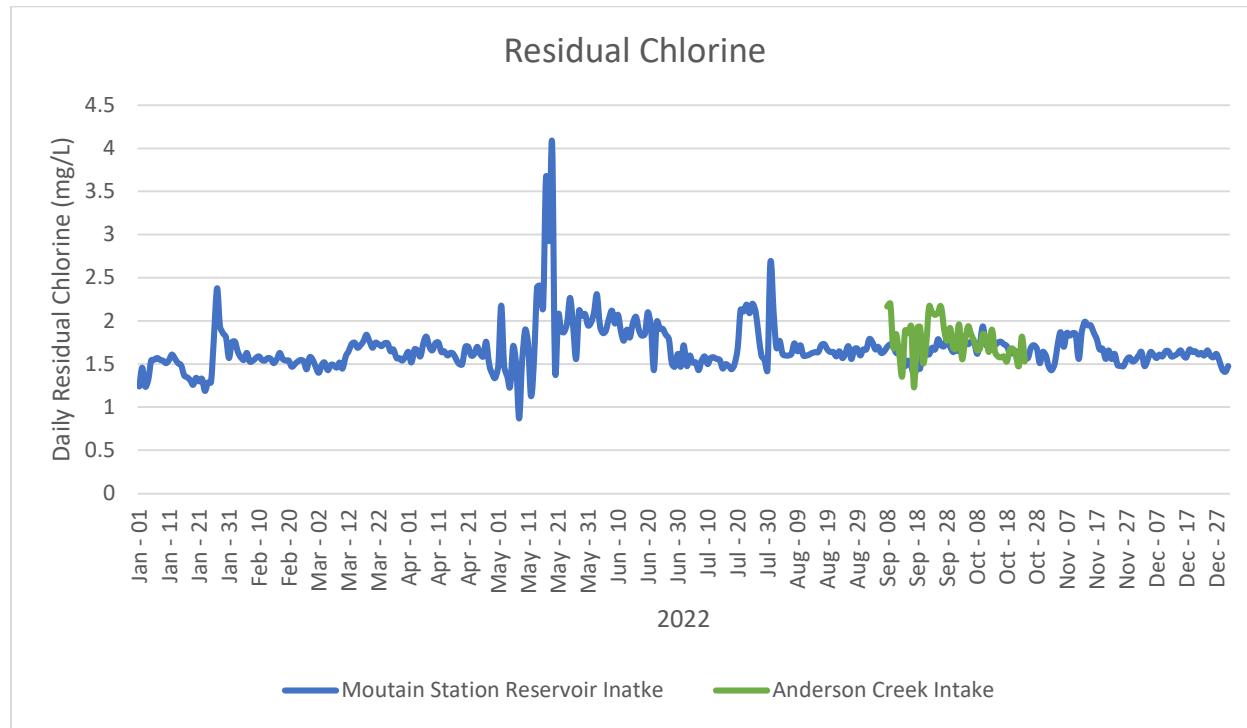


Figure 8: Daily Handheld Residual Chlorine Readings

5 Water Emergency Response Plan

Emergency response planning is an important part of protecting a drinking water system. Most public water systems have to contend with common operating emergencies such as pipe breaks, pump malfunctions, bacteriological contamination, or power outages. These are manageable if the water system has an emergency response plan that can be put into action.

More serious, non-routine emergencies may result from intentional acts of vandalism, chemical spills, floods, earthquakes, windstorms, or droughts. Each emergency has unique effects on different parts of a water system. Floods can cause widespread bacterial contamination and equipment failures,

City of Nelson 2022 Annual Drinking Water Report

earthquakes can damage water sources, distribution systems and treatment systems, and storms can disrupt power supplies. The common element is that each emergency may threaten the system's ability to deliver potable and palatable drinking water. Emergency response planning is a process by which water system managers and staff explore vulnerabilities, make improvements, and establish procedures to follow in an emergency situation. It is also a process that encourages people to form partnerships and get to know one another. Preparing a response plan and practicing it can save lives, prevent illness, enhance system security, minimize property damage, and lessen the overall burden of a catastrophic event and the cost associated with the disaster.

The City developed the current emergency response plan in 2016 and updates the plan annually, with the latest update being in 2022. The plan is available for viewing at the Public Works and Utility Complex located at 80 Lakeside Drive, Nelson, BC, V1L 6B9.

6 Cross-Connection Control Program Summary

The City's Cross-Connection Control Program (CCCP), implemented in 2017, has completed 280 facility inspections, representing 73% of industrial, commercial and institutional customers in the City, and has 137 registered backflow prevention devices in our tracking system.

The City's Waterworks Regulatory Bylaw #3293 (2015) and Subdivision and Development Bylaw #3170 (2011) contain provisions for the protection of the City's water system from potential sources of contamination through cross-connection protection, mandating the installation of backflow protection and provisions for access to properties for inspections by qualified persons.

7 Water Master Plan Summary

The City of Nelson Water Master Plan was updated in 2017, with final Council approval in 2018. A copy of the Master Plan is available by following the link:

<https://www.nelson.ca/DocumentCenter/View/2066/Water-Masterplan-Update->

The plan continues to inform and outline major capital projects intended to strengthen utility resilience and treatment capacity. In 2022, The Capital Project Delivery team commissioned the Anderson Creek Booster Station, a facility designed to deliver raw water from Anderson and Fell Creeks to the Mountain Station Treatment Facility and represents one of the largest water assets that The City of Nelson has commissioned in over a decade.

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8 Water Distribution System Capital Works Summary

In 2022, the City replaced or installed 766.7 meters of modern water main at the project locations listed in Table 6. Almost 360 meters of new distribution system was installed between Elwyn and Fell Streets to add additional fire hydrant coverage in the area, and to strengthen system redundancy and flows in preparation for the construction of the new Nelson Health Campus. Additional locations where a new water main was added to the system include the 1200 Block of Josephine to improve fire protection flows to Trafalgar Middle School.

Table 6: Water Distribution System Asset Replacement

Material type	Watermain Diameter (mm)	Watermain Length (m)	Location
PVC	200	194.7	Fell ST to Selkirk College ring road
PVC	200	164.9	Elwyn ST to Selkirk College ring road
PVC	200	102.6	300 Blk JOSEPHINE ST
PVC	200	91.3	1200 Blk JOSEPHINE ST
PVC	200	15.3	1201 JOSPHINE SERVICE
PVC	150	2.6	1200 Blk JOSEPHINE
PVC	200	45.6	100 Blk BAKER ST
PVC	150	2.9	HWY 3A/6 at BAKER ST
PVC	150	54.2	HWY 3A/HUME LANE
PVC	200	1.0	700 Blk Fall ST
PVC	200	55.8	700 Blk Fall ST
PVC	200	20.9	810 Tenth ST Ring Rd
MPE	25	1.7	1200 Blk Kootenay West Lane
MPE	37	13.2	1200 Blk Kootenay West Lane

*PVC – Polyvinyl Chloride C900 DR18 water pipe; MPE – Municipal Polyethylene series 160 water pipe

9 Environmental Operators Certification Program Training

The City's water treatment plant and water distribution system operators are certified by the Environmental Operators Certification Program (EOCP). The current levels of each certified operator are documented in Table 7.

Table 7: Operator EOCP Certificates

Facility Operator	EOCP Certification #	Water Treatment Plant Operator	Water Distribution System Operator
Martin Grill – Chief Plant Operator	3964	Level 2	Level 2
Jason Allum	9288	Level 1	Level 2
Jay Moyle	8112	Level 2	Level 2
Chris Laminski	9369	Level 2	Level 2
Glen McDonald	9615	Level 2	n/a
Leonard Arabia	6800	Level 1	Level 2
Matthew Block	7707	Level 2	Level 1

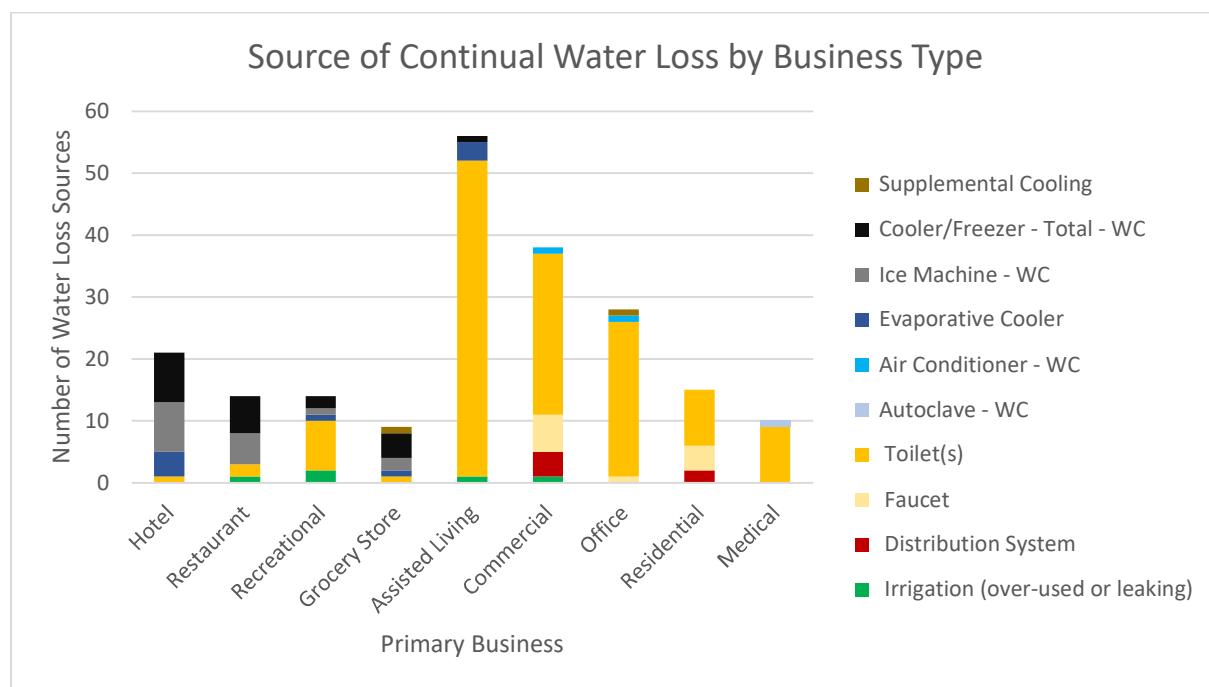
City of Nelson 2022 Annual Drinking Water Report

10 Water Conservation Measures

10.1 Water Loss Mitigation Study

In 2022, the City renewed its program to investigate and mitigate instances of continuous or high water consumption detected within the customer group comprised of institutional, commercial and industrial businesses. The instances of continuous or high consumption were identified during monthly water consumption audits and addressed directly with the customer. The source of each consumption incident identified in the initial 2021 Water Loss Mitigation Study, separated by primary business type, can be seen in Figure 9.

Figure 9: Source of Continuous Water Consumption by Primary Business Type



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10.2 Watering Restrictions

Table 8 shows the 2022 dates that the City enacted watering restrictions, while Figure 10 shows the restrictions associated with each stage.

Table 8: 2022 Watering Restrictions

Watering Restriction Level	Start Date
Normal Regulations	2022-01-01
Stage 1	2022-08-05
Stage 2	2022-08-25
Stage 1	2022-09-01
Normal Regulations	2022-11-01

Water Restriction Stages					
(As per Bylaw 3293, 2015)					
Activity	Normal Regulations	1	2	3	
Watering lawns using a sprinkler or irrigation system	4am - 9am & 7pm-10pm Even # address: Even # days of the month Odd # address: Odd # days of the month	4am - 9am & 7pm-10pm Even # address: ONLY ON Wednesday and Saturday Odd # address: ONLY ON Thursday and Sunday	4am-9am & 7pm-10pm Even # address: ONLY ON Wednesday Odd # address: ONLY ON Thursday		X
Watering trees, shrubs, or vegetable & flower gardens using a sprinkler or irrigation system	✓	4am-9am & 7pm-10pm ANY DAY	4am-9am & 7pm-10pm ANY DAY		X
Watering trees, shrubs, or vegetable & flower gardens using a hand-held container, a hose with a shut-off nozzle, or a drip-irrigation system	✓	✓	✓	4am-9am & 7pm-10pm ANY DAY	
Washing sidewalks, driveways, parking lots, exterior building surfaces, and exterior windows *	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle	X		X
Washing personal Vehicles **	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle		X
Filling of fountains, pools, hot tubs, or garden ponds	✓	✓	✓		X
Watering new sod or grass outside of the permitted restrictions ***	PERMIT REQUIRED	PERMIT REQUIRED	X		X

* Permitted at all stages if necessary for applying product such as paint, preservative and stucco, preparing a surface prior to paving or repointing bricks, or if required bylaw to comply with health or safety regulations.

** Commercial carwash permitted at all stages

*** Permits can be acquired by contacting the Public Works at (250) 352-8238.



Figure 10: City of Nelson Water Restriction Stages

City of Nelson 2022 Annual Drinking Water Report

11 References

British Columbia. (2022a). *Drinking Water Treatment Objectives (Microbiological) for Surface Water Supplies in British Columbia V1.2*. Retrieved from The Official Website of the Government of British Columbia: https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/how-drinking-water-is-protected-in-bc/dwog_part_b_-5_surface_water_treatment_objectives.pdf

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Health Canada. (2010, June 23). *Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Haloacetic Acids*. Retrieved from Canada.ca: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-canadian-drinking-water-quality-guideline-technical-document-haloacetic-acids/page-2-guidelines-canadian-drinking-water-quality-guideline-technical-document-haloacetic->

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KEI. (2021). *City of Nelson Water Loss Mitigation Study*. Nelson: City of Nelson.

Real Tech Inc. (n.d.). *UV TRANSMITTANCE 101: EVERYTHING YOU NEED TO KNOW ABOUT UVT*. Retrieved from Real Tech Inc.: https://realtechwater.com/w_p/wp-content/uploads/2021/09/UV-Transmittance-101-Real-Tech.pdf

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Appendix A: THM and HAA Quarterly Lab Results



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	22D0057
ATTENTION	Martin Grill	RECEIVED / TEMP	2022-03-31 09:45 / 9.6°C
PO NUMBER		REPORTED	2022-04-07 16:57
PROJECT	Drinking Water	COC NUMBER	40837.5581
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.

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

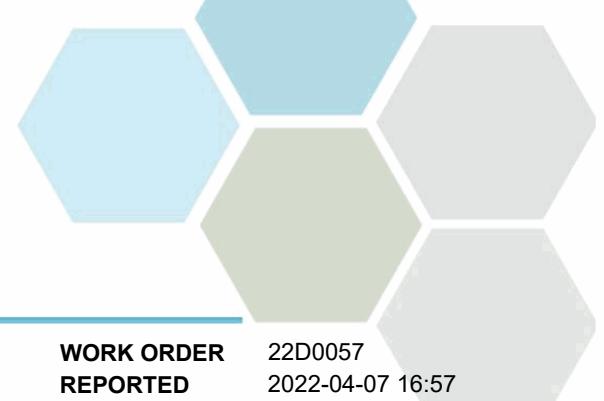
Authorized By:

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



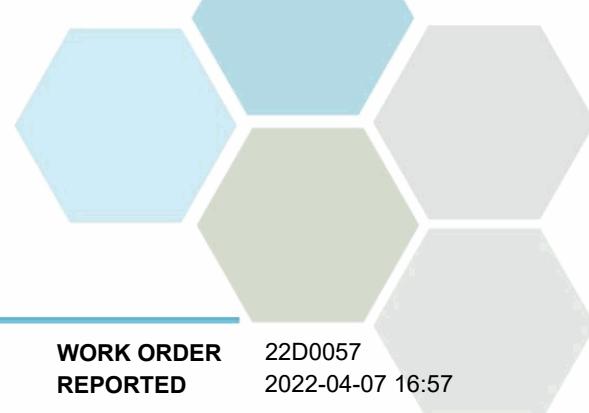
TEST RESULTS

REPORTED TO Nelson, City of Drinking Water **WORK ORDER** 22D0057
PROJECT Drinking Water **REPORTED** 2022-04-07 16:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (22D0057-01) Matrix: Water Sampled: 2022-03-29 07:40						
Calculated Parameters						
Total Trihalomethanes	0.0669	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-05	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-05	
Dichloroacetic Acid	0.0243	N/A	0.0020	mg/L	2022-04-05	
Trichloroacetic Acid	0.0324	N/A	0.0020	mg/L	2022-04-05	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-05	
Total Haloacetic Acids (HAA5)	0.0567	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	115		70-130	%	2022-04-05	
Total Metals						
Manganese, total	0.00067	MAC = 0.12	0.00020	mg/L	2022-04-06	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Chloroform	0.0669	N/A	0.0010	mg/L	2022-04-05	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Surrogate: Toluene-d8	88		70-130	%	2022-04-05	
Surrogate: 4-Bromofluorobenzene	99		70-130	%	2022-04-05	

3rd St and Davies St (22D0057-02) | Matrix: Water | Sampled: 2022-03-29 09:25

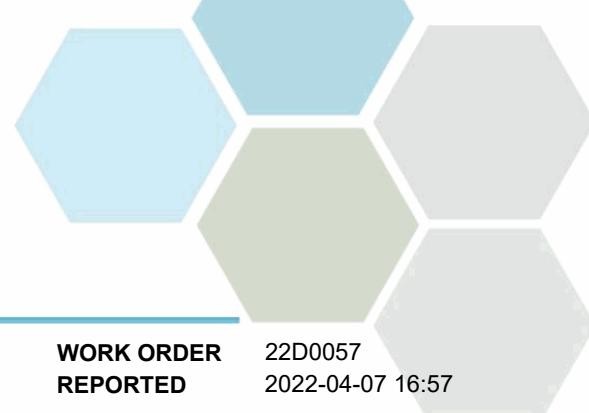
Calculated Parameters						
Total Trihalomethanes	0.0678	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-05	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-05	
Dichloroacetic Acid	0.0238	N/A	0.0020	mg/L	2022-04-05	
Trichloroacetic Acid	0.0324	N/A	0.0020	mg/L	2022-04-05	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-05	
Total Haloacetic Acids (HAA5)	0.0562	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	113		70-130	%	2022-04-05	
Total Metals						
Manganese, total	0.00105	MAC = 0.12	0.00020	mg/L	2022-04-06	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Chloroform	0.0678	N/A	0.0010	mg/L	2022-04-05	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Surrogate: Toluene-d8	92		70-130	%	2022-04-05	



TEST RESULTS

REPORTED TO Nelson, City of Drinking Water **WORK ORDER** 22D0057
PROJECT Drinking Water **REPORTED** 2022-04-07 16:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
3rd St and Davies St (22D0057-02) Matrix: Water Sampled: 2022-03-29 09:25, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Surrogate: 4-Bromofluorobenzene	105		70-130	%	2022-04-05	
Fell St and 11th St (22D0057-03) Matrix: Water Sampled: 2022-03-29 09:10						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0699	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06	
Dichloroacetic Acid	0.0235	N/A	0.0020	mg/L	2022-04-06	
Trichloroacetic Acid	0.0328	N/A	0.0020	mg/L	2022-04-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06	
Total Haloacetic Acids (HAA5)	0.0563	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	114		70-130	%	2022-04-06	
<i>Total Metals</i>						
Manganese, total	0.00054	MAC = 0.12	0.00020	mg/L	2022-04-06	
<i>Volatile Organic Compounds (VOC)</i>						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Chloroform	0.0699	N/A	0.0010	mg/L	2022-04-05	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Surrogate: Toluene-d8	92		70-130	%	2022-04-05	
Surrogate: 4-Bromofluorobenzene	106		70-130	%	2022-04-05	
Silica St and Stanley St (22D0057-04) Matrix: Water Sampled: 2022-03-29 08:00						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0683	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06	
Dichloroacetic Acid	0.0239	N/A	0.0020	mg/L	2022-04-06	
Trichloroacetic Acid	0.0328	N/A	0.0020	mg/L	2022-04-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06	
Total Haloacetic Acids (HAA5)	0.0568	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	114		70-130	%	2022-04-06	
<i>Total Metals</i>						
Manganese, total	0.00293	MAC = 0.12	0.00020	mg/L	2022-04-06	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

WORK ORDER 22D0057
REPORTED 2022-04-07 16:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (22D0057-04) Matrix: Water Sampled: 2022-03-29 08:00, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Chloroform	0.0683	N/A	0.0010	mg/L	2022-04-05	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05	
Surrogate: Toluene-d8	88		70-130	%	2022-04-05	
Surrogate: 4-Bromofluorobenzene	100		70-130	%	2022-04-05	

Mountain Station Res (22D0057-05) | Matrix: Water | Sampled: 2022-03-29 08:45

Calculated Parameters

Total Trihalomethanes	0.0527	MAC = 0.1	0.00400	mg/L	N/A
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Haloacetic Acids

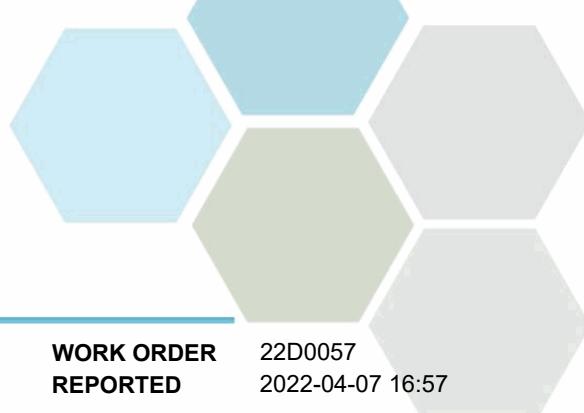
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06
Dichloroacetic Acid	0.0191	N/A	0.0020	mg/L	2022-04-06
Trichloroacetic Acid	0.0182	N/A	0.0020	mg/L	2022-04-06
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-04-06
Total Haloacetic Acids (HAA5)	0.0373	MAC = 0.08	0.00200	mg/L	N/A
Surrogate: 2-Bromopropionic Acid	113		70-130	%	2022-04-06

Total Metals

Manganese, total	0.00102	MAC = 0.12	0.00020	mg/L	2022-04-06
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Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-04-05
Chloroform	0.0527	N/A	0.0010	mg/L	2022-04-05
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-04-05
Surrogate: Toluene-d8	93		70-130	%	2022-04-05
Surrogate: 4-Bromofluorobenzene	106		70-130	%	2022-04-05



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	22D0057
PROJECT	Drinking Water	REPORTED	2022-04-07 16:57

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +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

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

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, June 2019\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

General Comments:

The results in this report apply to the 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. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing. The quality control (QC) data is available upon request.

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CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	22G0390
ATTENTION	Martin Grill	RECEIVED / TEMP	2022-07-05 14:30 / 9.6°C
PO NUMBER		REPORTED	2022-07-11 14:32
PROJECT	Drinking Water	COC NUMBER	40837.5581
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



We've Got Chemistry



Ahead of the Curve



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.

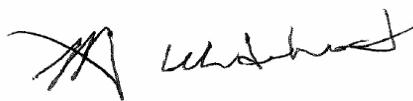
It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

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.

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

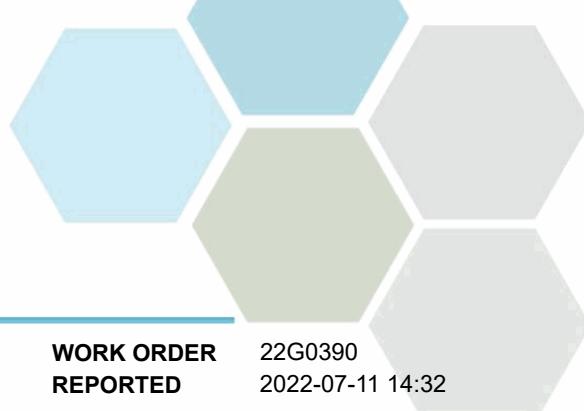
Authorized By:

Brent Whitehead
Account Manager



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TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

WORK ORDER 22G0390
REPORTED 2022-07-11 14:32

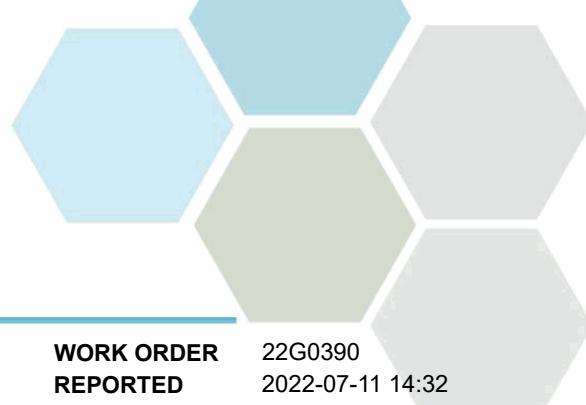
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (22G0390-01) Matrix: Water Sampled: 2022-06-30 08:05						
Calculated Parameters						
Total Trihalomethanes	0.0895	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Dichloroacetic Acid	0.0300	N/A	0.0020	mg/L	2022-07-08	
Trichloroacetic Acid	0.0372	N/A	0.0020	mg/L	2022-07-08	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Total Haloacetic Acids (HAA5)	0.0672	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	98		70-130	%	2022-07-08	
Total Metals						
Manganese, total	0.00085	MAC = 0.12	0.00020	mg/L	2022-07-08	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Chloroform	0.0895	N/A	0.0010	mg/L	2022-07-09	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Surrogate: Toluene-d8	106		70-130	%	2022-07-09	
Surrogate: 4-Bromofluorobenzene	106		70-130	%	2022-07-09	

3rd St and Davies St (22G0390-02) | Matrix: Water | Sampled: 2022-06-30 08:50

Calculated Parameters				
Total Trihalomethanes	0.0825	MAC = 0.1	0.00400 mg/L	N/A
Haloacetic Acids				
Monochloroacetic Acid	< 0.0020	N/A	0.0020 mg/L	2022-07-08
Monobromoacetic Acid	< 0.0020	N/A	0.0020 mg/L	2022-07-08
Dichloroacetic Acid	0.0306	N/A	0.0020 mg/L	2022-07-08
Trichloroacetic Acid	0.0402	N/A	0.0020 mg/L	2022-07-08
Dibromoacetic Acid	< 0.0020	N/A	0.0020 mg/L	2022-07-08
Total Haloacetic Acids (HAA5)	0.0708	MAC = 0.08	0.00200 mg/L	N/A
Surrogate: 2-Bromopropionic Acid	93		70-130 %	2022-07-08

Total Metals

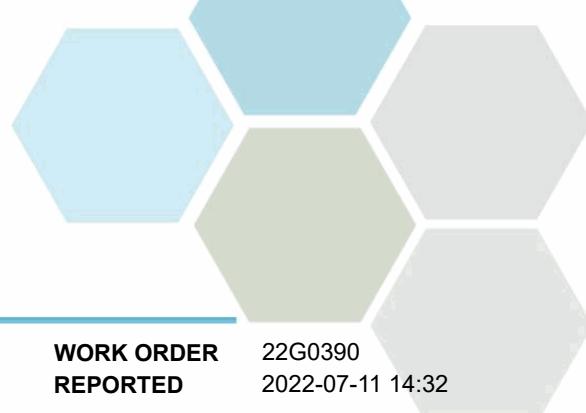
Manganese, total	0.00667	MAC = 0.12	0.00020 mg/L	2022-07-08
Volatile Organic Compounds (VOC)				
Bromodichloromethane	< 0.0010	N/A	0.0010 mg/L	2022-07-09
Bromoform	< 0.0010	N/A	0.0010 mg/L	2022-07-09
Chloroform	0.0825	N/A	0.0010 mg/L	2022-07-09
Dibromochloromethane	< 0.0010	N/A	0.0010 mg/L	2022-07-09
Surrogate: Toluene-d8	104		70-130 %	2022-07-09



TEST RESULTS

REPORTED TO Nelson, City of Drinking Water **WORK ORDER** 22G0390
PROJECT Drinking Water **REPORTED** 2022-07-11 14:32

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
3rd St and Davies St (22G0390-02) Matrix: Water Sampled: 2022-06-30 08:50, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Surrogate: 4-Bromofluorobenzene	105		70-130	%	2022-07-09	
Fell St and 11th St (22G0390-03) Matrix: Water Sampled: 2022-06-30 09:00						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0802	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Dichloroacetic Acid	0.0289	N/A	0.0020	mg/L	2022-07-08	
Trichloroacetic Acid	0.0321	N/A	0.0020	mg/L	2022-07-08	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Total Haloacetic Acids (HAA5)	0.0609	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	94		70-130	%	2022-07-08	
<i>Total Metals</i>						
Manganese, total	0.00103	MAC = 0.12	0.00020	mg/L	2022-07-08	
<i>Volatile Organic Compounds (VOC)</i>						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Chloroform	0.0802	N/A	0.0010	mg/L	2022-07-09	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Surrogate: Toluene-d8	104		70-130	%	2022-07-09	
Surrogate: 4-Bromofluorobenzene	105		70-130	%	2022-07-09	
Silica St and Stanley St (22G0390-04) Matrix: Water Sampled: 2022-06-30 08:40						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0860	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Dichloroacetic Acid	0.0298	N/A	0.0020	mg/L	2022-07-08	
Trichloroacetic Acid	0.0397	N/A	0.0020	mg/L	2022-07-08	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08	
Total Haloacetic Acids (HAA5)	0.0695	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	94		70-130	%	2022-07-08	
<i>Total Metals</i>						
Manganese, total	0.00286	MAC = 0.12	0.00020	mg/L	2022-07-08	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

WORK ORDER 22G0390
REPORTED 2022-07-11 14:32

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (22G0390-04) Matrix: Water Sampled: 2022-06-30 08:40, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Chloroform	0.0860	N/A	0.0010	mg/L	2022-07-09	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09	
Surrogate: Toluene-d8	106		70-130	%	2022-07-09	
Surrogate: 4-Bromofluorobenzene	106		70-130	%	2022-07-09	

Mountain Station Res (22G0390-05) | Matrix: Water | Sampled: 2022-06-30 09:20

Calculated Parameters

Total Trihalomethanes	0.0539	MAC = 0.1	0.00400	mg/L	N/A
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Haloacetic Acids

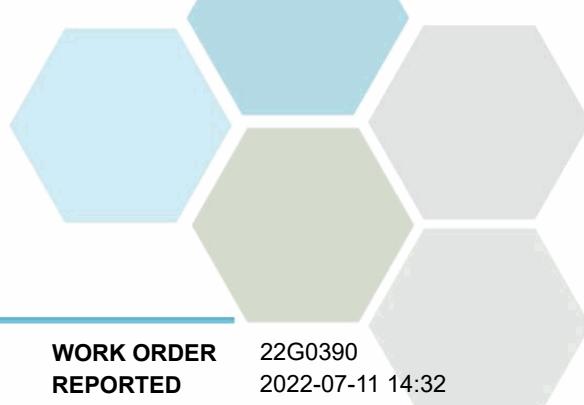
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08
Dichloroacetic Acid	0.0198	N/A	0.0020	mg/L	2022-07-08
Trichloroacetic Acid	0.0180	N/A	0.0020	mg/L	2022-07-08
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-07-08
Total Haloacetic Acids (HAA5)	0.0377	MAC = 0.08	0.00200	mg/L	N/A
Surrogate: 2-Bromopropionic Acid	94		70-130	%	2022-07-08

Total Metals

Manganese, total	0.00257	MAC = 0.12	0.00020	mg/L	2022-07-08
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Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-07-09
Chloroform	0.0539	N/A	0.0010	mg/L	2022-07-09
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-07-09
Surrogate: Toluene-d8	103		70-130	%	2022-07-09
Surrogate: 4-Bromofluorobenzene	103		70-130	%	2022-07-09



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	22G0390
PROJECT	Drinking Water	REPORTED	2022-07-11 14:32

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +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

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

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, June 2019\)](#)

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CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	22I2433
ATTENTION	Martin Grill	RECEIVED / TEMP	2022-09-19 09:50 / 16.6°C
PO NUMBER		REPORTED	2022-09-26 11:32
PROJECT	Drinking Water	COC NUMBER	40837.5581
PROJECT INFO			

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Authorized By:

Brent Whitehead
Account Manager



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TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

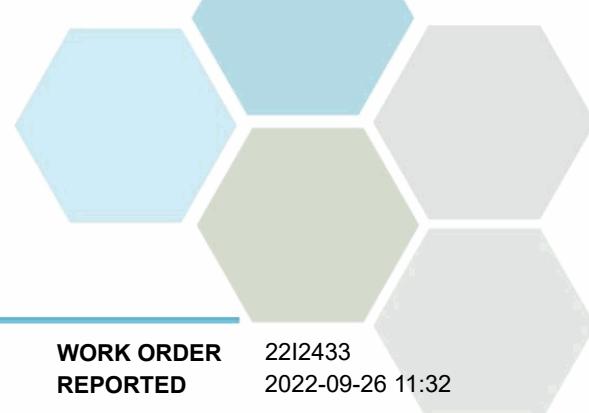
WORK ORDER 22I2433
REPORTED 2022-09-26 11:32

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
3rd St and Davies St (22I2433-01) Matrix: Water Sampled: 2022-09-14 12:55						
Calculated Parameters						
Total Trihalomethanes	0.0368	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Dichloroacetic Acid	0.0145	N/A	0.0020	mg/L	2022-09-22	
Trichloroacetic Acid	0.0220	N/A	0.0020	mg/L	2022-09-22	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Total Haloacetic Acids (HAA5)	0.0365	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	94		70-130	%	2022-09-22	
Total Metals						
Manganese, total	0.00077	MAC = 0.12	0.00020	mg/L	2022-09-22	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Chloroform	0.0368	N/A	0.0010	mg/L	2022-09-24	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Surrogate: Toluene-d8	110		70-130	%	2022-09-24	
Surrogate: 4-Bromofluorobenzene	105		70-130	%	2022-09-24	
Fell St and 11th St (22I2433-02) Matrix: Water Sampled: 2022-09-14 12:45						
Calculated Parameters						
Total Trihalomethanes	0.0342	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Dichloroacetic Acid	0.0142	N/A	0.0020	mg/L	2022-09-22	
Trichloroacetic Acid	0.0207	N/A	0.0020	mg/L	2022-09-22	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Total Haloacetic Acids (HAA5)	0.0349	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	97		70-130	%	2022-09-22	
Total Metals						
Manganese, total	0.00618	MAC = 0.12	0.00020	mg/L	2022-09-22	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Chloroform	0.0342	N/A	0.0010	mg/L	2022-09-24	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Surrogate: Toluene-d8	109		70-130	%	2022-09-24	



TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	22I2433			
PROJECT	Drinking Water	REPORTED	2022-09-26 11:32			
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Fell St and 11th St (22I2433-02) Matrix: Water Sampled: 2022-09-14 12:45, Continued						
Volatile Organic Compounds (VOC), Continued						
Surrogate: 4-Bromofluorobenzene	104		70-130	%	2022-09-24	
Silica St and Stanley St (22I2433-03) Matrix: Water Sampled: 2022-09-14 13:10						
Calculated Parameters						
Total Trihalomethanes	0.0453	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Dichloroacetic Acid	0.0163	N/A	0.0020	mg/L	2022-09-22	
Trichloroacetic Acid	0.0244	N/A	0.0020	mg/L	2022-09-22	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-22	
Total Haloacetic Acids (HAA5)	0.0407	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	97		70-130	%	2022-09-22	
Total Metals						
Manganese, total	0.00239	MAC = 0.12	0.00020	mg/L	2022-09-22	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Chloroform	0.0453	N/A	0.0010	mg/L	2022-09-24	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Surrogate: Toluene-d8	109		70-130	%	2022-09-24	
Surrogate: 4-Bromofluorobenzene	104		70-130	%	2022-09-24	
Mountain Station Res (22I2433-04) Matrix: Water Sampled: 2022-09-14 13:30						
Calculated Parameters						
Total Trihalomethanes	0.0289	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-23	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-23	
Dichloroacetic Acid	0.0123	N/A	0.0020	mg/L	2022-09-23	
Trichloroacetic Acid	0.0111	N/A	0.0020	mg/L	2022-09-23	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-23	
Total Haloacetic Acids (HAA5)	0.0234	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	103		70-130	%	2022-09-23	
Total Metals						
Manganese, total	0.00343	MAC = 0.12	0.00020	mg/L	2022-09-22	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

WORK ORDER 22I2433
REPORTED 2022-09-26 11:32

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Mountain Station Res (22I2433-04) Matrix: Water Sampled: 2022-09-14 13:30, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Chloroform	0.0289	N/A	0.0010	mg/L	2022-09-24	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Surrogate: Toluene-d8	109		70-130	%	2022-09-24	
Surrogate: 4-Bromofluorobenzene	105		70-130	%	2022-09-24	
Rosemont Reservoir (22I2433-05) Matrix: Water Sampled: 2022-09-14						
Calculated Parameters						
Total Trihalomethanes	0.0487	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-23	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-23	
Dichloroacetic Acid	0.0171	N/A	0.0020	mg/L	2022-09-23	
Trichloroacetic Acid	0.0225	N/A	0.0020	mg/L	2022-09-23	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-09-23	
Total Haloacetic Acids (HAA5)	0.0396	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	102		70-130	%	2022-09-23	
Total Metals						
Manganese, total	0.00046	MAC = 0.12	0.00020	mg/L	2022-09-22	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Chloroform	0.0487	N/A	0.0010	mg/L	2022-09-24	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-09-24	
Surrogate: Toluene-d8	111		70-130	%	2022-09-24	
Surrogate: 4-Bromofluorobenzene	104		70-130	%	2022-09-24	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	22I2433
PROJECT	Drinking Water	REPORTED	2022-09-26 11:32

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +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

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

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, June 2019\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

General Comments:

The results in this report apply to the 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. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing. 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.



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	22L0706
ATTENTION	Martin Grill	RECEIVED / TEMP	2022-12-07 09:10 / 5.9°C
PO NUMBER		REPORTED	2022-12-16 14:38
PROJECT	Drinking Water	COC NUMBER	40837.5581
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

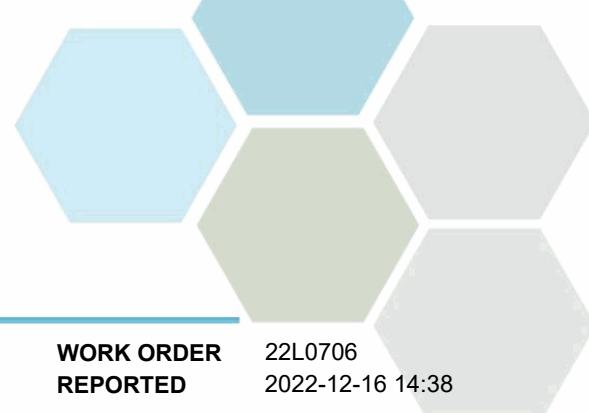
Authorized By:

Brent Whitehead
Account Manager



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#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



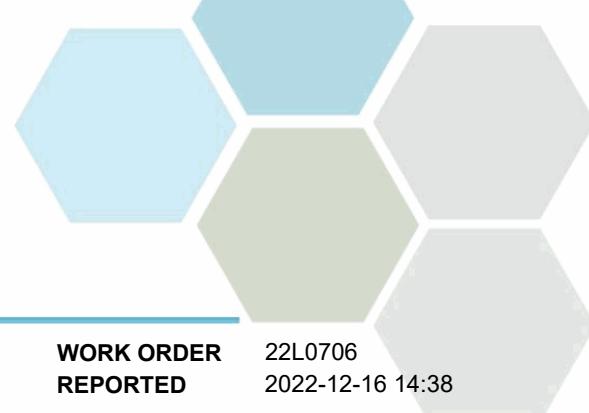
TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water **WORK ORDER** 22L0706
REPORTED 2022-12-16 14:38

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (22L0706-01) Matrix: Water Sampled: 2022-12-06 08:10						
Calculated Parameters						
Total Trihalomethanes	0.0227	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Dichloroacetic Acid	0.0105	N/A	0.0020	mg/L	2022-12-13	
Trichloroacetic Acid	0.0153	N/A	0.0020	mg/L	2022-12-13	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Total Haloacetic Acids (HAA5)	0.0258	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	108		70-130	%	2022-12-13	
Total Metals						
Manganese, total	0.00039	MAC = 0.12	0.00020	mg/L	2022-12-13	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Chloroform	0.0227	N/A	0.0010	mg/L	2022-12-15	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Surrogate: Toluene-d8	105		70-130	%	2022-12-15	
Surrogate: 4-Bromofluorobenzene	108		70-130	%	2022-12-15	

3rd St and Davies St (22L0706-02) | Matrix: Water | Sampled: 2022-12-06 10:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Calculated Parameters						
Total Trihalomethanes	0.0238	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Dichloroacetic Acid	0.0112	N/A	0.0020	mg/L	2022-12-13	
Trichloroacetic Acid	0.0187	N/A	0.0020	mg/L	2022-12-13	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Total Haloacetic Acids (HAA5)	0.0299	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	103		70-130	%	2022-12-13	
Total Metals						
Manganese, total	0.00060	MAC = 0.12	0.00020	mg/L	2022-12-13	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Chloroform	0.0238	N/A	0.0010	mg/L	2022-12-15	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Surrogate: Toluene-d8	105		70-130	%	2022-12-15	

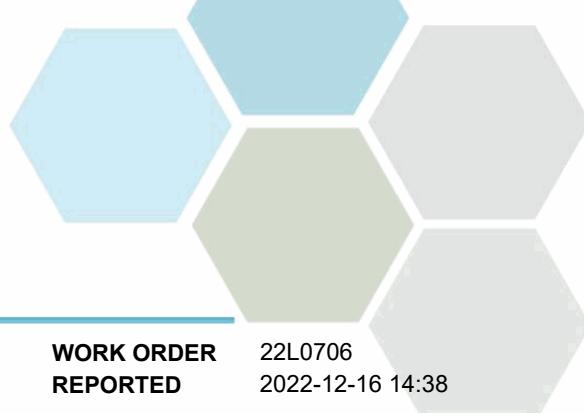


TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

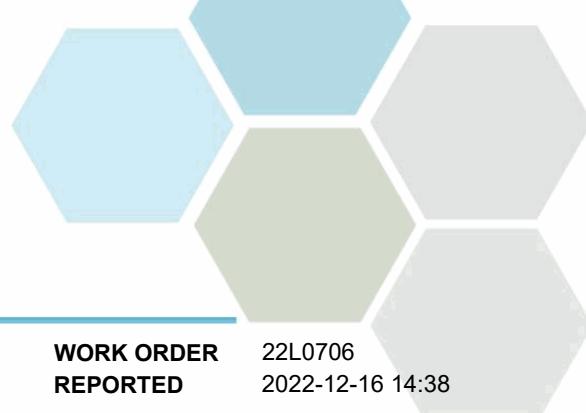
WORK ORDER 22L0706
REPORTED 2022-12-16 14:38

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
3rd St and Davies St (22L0706-02) Matrix: Water Sampled: 2022-12-06 10:30, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Surrogate: 4-Bromofluorobenzene	111		70-130	%	2022-12-15	
Fell St and 11th St (22L0706-03) Matrix: Water Sampled: 2022-12-06 10:50						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0233	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Dichloroacetic Acid	0.0110	N/A	0.0020	mg/L	2022-12-13	
Trichloroacetic Acid	0.0183	N/A	0.0020	mg/L	2022-12-13	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Total Haloacetic Acids (HAA5)	0.0293	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	101		70-130	%	2022-12-13	
<i>Total Metals</i>						
Manganese, total	0.00058	MAC = 0.12	0.00020	mg/L	2022-12-13	
<i>Volatile Organic Compounds (VOC)</i>						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Chloroform	0.0233	N/A	0.0010	mg/L	2022-12-15	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Surrogate: Toluene-d8	106		70-130	%	2022-12-15	
Surrogate: 4-Bromofluorobenzene	111		70-130	%	2022-12-15	
Silica St and Stanley St (22L0706-04) Matrix: Water Sampled: 2022-12-06 09:40						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0260	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Dichloroacetic Acid	0.0122	N/A	0.0020	mg/L	2022-12-13	
Trichloroacetic Acid	0.0210	N/A	0.0020	mg/L	2022-12-13	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Total Haloacetic Acids (HAA5)	0.0332	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	105		70-130	%	2022-12-13	
<i>Total Metals</i>						
Manganese, total	0.00205	MAC = 0.12	0.00020	mg/L	2022-12-13	



TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	22L0706			
PROJECT	Drinking Water	REPORTED	2022-12-16 14:38			
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (22L0706-04) Matrix: Water Sampled: 2022-12-06 09:40, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Chloroform	0.0260	N/A	0.0010	mg/L	2022-12-15	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Surrogate: Toluene-d8	105		70-130	%	2022-12-15	
Surrogate: 4-Bromofluorobenzene	110		70-130	%	2022-12-15	
Mountain Station Res (22L0706-05) Matrix: Water Sampled: 2022-12-06 08:50						
Calculated Parameters						
Total Trihalomethanes	< 0.00400	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Dichloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Trichloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2022-12-13	
Total Haloacetic Acids (HAA5)	< 0.00200	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	90		70-130	%	2022-12-13	
Total Metals						
Manganese, total	0.00200	MAC = 0.12	0.00020	mg/L	2022-12-13	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Chloroform	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2022-12-15	
Surrogate: Toluene-d8	101		70-130	%	2022-12-15	
Surrogate: 4-Bromofluorobenzene	107		70-130	%	2022-12-15	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	22L0706
PROJECT	Drinking Water	REPORTED	2022-12-16 14:38

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Edmonton

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

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, June 2019\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

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. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing. 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

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City of Nelson 2022 Annual Drinking Water Report

Appendix B: Weekly Bacteriological Sampling



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

Client City of Nelson
Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	1/4/2022	11:10 AM	Matrix DW

Date/Time on Test 1/4/2022 5:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	1/4/2022	8:00 AM	Matrix DW

Date/Time on Test 1/4/2022 5:25 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	Sampler @ Fell and 11th	Sample #	3
Date/Time Sampled	1/4/2022	11:35 AM	Matrix DW

Date/Time on Test 1/4/2022 5:30 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	1/4/2022	8:30 AM	Matrix DW

Date/Time on Test 1/4/2022 5:35 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	1/4/2022	11:45 AM	Matrix SW

Date/Time on Test 1/4/2022 5:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	11	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	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# 4262
Filename 220111CN.pdf

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

Client City of Nelson

Attention Martin Grill

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: Mechelle Babic

Jennifer Yeow,
Lab Manager

A handwritten signature in black ink that reads "Jennifer Yeow".

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	1/11/2022	8:05 AM	Matrix DW

Date/Time on Test 1/11/2022 4:25 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	1/11/2022	8:45 AM	Matrix DW

Date/Time on Test 1/11/2022 4:30 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	1/11/2022	9:50 AM	Matrix DW

Date/Time on Test 1/11/2022 4:35 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	1/11/2022	9:45 AM	Matrix DW

Date/Time on Test 1/11/2022 4:40 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

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	1/11/2022	10:30 AM	Matrix SW

Date/Time on Test 1/11/2022 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	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



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Client City of Nelson
Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	1/18/2022	7:40 AM	Matrix DW

Date/Time on Test 1/18/2022 4:00 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	1/18/2022	7:52 AM	Matrix DW

Date/Time on Test 1/18/2022 4:05 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	1/18/2022	8:05 AM	Matrix DW

Date/Time on Test 1/18/2022 4:10 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	1/18/2022	8:20 AM	Matrix DW

Date/Time on Test 1/18/2022 4:15 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	1/18/2022	8:50 AM	Matrix SW

Date/Time on Test 1/18/2022 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	3	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	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# 4300
Filename 220125CN.pdf

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Attention Martin Grill

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

A handwritten signature in black ink that reads "Jennifer Yeow".

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	1/25/2022	8:00 AM	Matrix DW

Date/Time on Test 1/25/2022 3:15 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	1/25/2022	8:30 AM	Matrix DW

Date/Time on Test 1/25/2022 3:20 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	1/25/2022	9:05 AM	Matrix DW

Date/Time on Test 1/25/2022 3:25 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	1/25/2022	8:50 AM	Matrix DW

Date/Time on Test 1/25/2022 3:45 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	1/25/2022	10:30 AM	Matrix SW

Date/Time on Test 1/25/2022 3:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	8	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# 4325
Filename 220201CN.pdf

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Attention Martin Grill

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.

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Processed by: Zach Yeow

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2/1/2022	7:55 AM	Matrix DW

Date/Time on Test 2/1/2022 4:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2/1/2022	8:10 AM	Matrix DW

Date/Time on Test 2/1/2022 4:25 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	3rd and Davies	Sample #	3
Date/Time Sampled	2/1/2022	9:00 AM	Matrix DW

Date/Time on Test 2/1/2022 4:30 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	11th and Fell	Sample #	4
Date/Time Sampled	2/1/2022	8:25 AM	Matrix DW

Date/Time on Test 2/1/2022 4:35 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	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2/1/2022	9:15 AM	Matrix SW

Date/Time on Test 2/1/2022 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	3	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



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Client City of Nelson

Attention Martin Grill

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

A handwritten signature in black ink that reads "Jennifer Yeow".

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2/8/2022	9:30 AM	Matrix DW

Date/Time on Test 2/8/2022 4:10 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2/8/2022	8:30 AM	Matrix DW

Date/Time on Test 2/8/2022 4:12 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2/8/2022	8:20 AM	Matrix DW

Date/Time on Test 2/8/2022 4:15 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2/8/2022	8:00 AM	Matrix DW

Date/Time on Test 2/8/2022 4:20 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2/8/2022	10:30 AM	Matrix SW

Date/Time on Test 2/8/2022 4:25 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

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# 4364
Filename 220215CN.pdf

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Attention Martin Grill

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

A handwritten signature in black ink that reads "Jennifer Yeow".

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2/15/2022	8:15 AM	Matrix DW

Date/Time on Test 2/15/2022 4:15 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2/15/2022	8:40 AM	Matrix DW

Date/Time on Test 2/15/2022 4:20 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2/15/2022	9:53 AM	Matrix DW

Date/Time on Test 2/15/2022 4:25 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2/15/2022	9:43 AM	Matrix DW

Date/Time on Test 2/15/2022 4:30 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2/15/2022	9:17 AM	Matrix DW

Date/Time on Test 2/15/2022 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	4	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



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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-02-22	8:00 AM	Matrix DW
Date/Time on Test	2022-02-22	4:30 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-02-22	8:20 AM	Matrix DW
Date/Time on Test	2022-02-22	4:30 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-02-22	9:45 AM	Matrix DW
Date/Time on Test	2022-02-22	4:35 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-02-22	8:30 AM	Matrix DW
Date/Time on Test	2022-02-22	4:35 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Mtn. Station Reservoir - Raw			Sample #	5
Date/Time Sampled	2022-02-22	9:30 AM	Matrix	SW	Temperature on Receipt
Date/Time on Test	2022-02-22	4:40 PM			
<u>Analyses</u>	<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total	7		CFU/100mL	1	
Verified E.coli	less than 1		CFU/100mL	1	
Fecal (Thermotolerant) Coliforms	less than 1		CFU/100mL	1	

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



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Client City of Nelson
Attention Martin Grill

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-03-01	8:28 AM	Matrix DW

Date/Time on Test 2022-03-01 3:00 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 Silica st. Sampler Sample # 2

Date/Time Sampled	2022-03-01	11:35 AM	Matrix DW	Temperature on Receipt	9
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Date/Time on Test 2022-03-01 3:05 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 Sampler @ 3rd and Davies Sample # 3

Date/Time Sampled	2022-03-01	8:50 AM	Matrix DW	Temperature on Receipt	9
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Date/Time on Test 2022-03-01 3:10 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 Sampler @ Fell and 11th Sample # 4

Date/Time Sampled	2022-03-01	9:10 AM	Matrix DW	Temperature on Receipt	9
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Date/Time on Test 2022-03-01 3:15 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 Mtn. Station Reservoir - Raw Sample # 5

Date/Time Sampled	2022-03-01	11:00 AM	Matrix SW	Temperature on Receipt	9
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Date/Time on Test 2022-03-01 3:20 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

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



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Client City of Nelson
Attention Martin Grill

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-03-08	8:15 AM	Matrix DW

Date/Time on Test 2022-03-08 3:05 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 Silica st. Sampler Sample # 2

Date/Time Sampled	2022-03-08	10:15 AM	Matrix DW	Temperature on Receipt	5
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Date/Time on Test 2022-03-08 3:10 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 Sampler @ 3rd and Davies Sample # 3

Date/Time Sampled	2022-03-08	9:15 AM	Matrix DW	Temperature on Receipt	7
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Date/Time on Test 2022-03-08 3:15 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 Sampler @ Fell and 11th Sample # 4

Date/Time Sampled	2022-03-08	9:00 AM	Matrix DW	Temperature on Receipt	5
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Date/Time on Test 2022-03-08 3:20 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 Mtn. Station Reservoir - Raw Sample # 5

Date/Time Sampled	2022-03-08	8:40 AM	Matrix SW	Temperature on Receipt	6
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Date/Time on Test 2022-03-08 3:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	7	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-03-15	7:58 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-03-15	3:45 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-03-15	8:17 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-03-15	3:50 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-03-15	10:23 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-03-15	3:55 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-03-15	10:11 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-03-15	4:00 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-03-15	9:14 AM	Matrix SW
			Temperature on Receipt 11
Date/Time on Test	2022-03-15	4:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	2	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-03-22	7:40 AM	Matrix DW

Date/Time on Test 2022-03-22 4:00 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-03-22	8:05 AM	Matrix DW

Date/Time on Test 2022-03-22 4:05 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-03-22	11:00 AM	Matrix DW

Date/Time on Test 2022-03-22 4:10 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-03-22	10:50 AM	Matrix DW

Date/Time on Test 2022-03-22 4:15 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-03-22	9:35 AM	Matrix SW

Date/Time on Test 2022-03-22 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	2	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-03-29	7:40 AM	Matrix DW

Date/Time on Test 2022-03-29 3:15 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-03-29	8:00 AM	Matrix DW

Date/Time on Test 2022-03-29 3:20 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-03-29	9:20 AM	Matrix DW

Date/Time on Test 2022-03-29 3:25 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-03-29	9:10 AM	Matrix DW

Date/Time on Test 2022-03-29 3:30 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-03-29	8:52 AM	Matrix SW

Date/Time on Test 2022-03-29 3:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	23	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-04-05	8:30 AM	Matrix DW

Date/Time on Test 2022-04-05 3:20 PM

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

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-04-05	8:55 AM	Matrix DW

Date/Time on Test 2022-04-05 3:25 PM

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

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-04-05	10:27 AM	Matrix DW

Date/Time on Test 2022-04-05 3:30 PM

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

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-04-05	10:17 AM	Matrix DW

Date/Time on Test 2022-04-05 3:35 PM

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

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-04-05	10:00 AM	Matrix SW

Date/Time on Test 2022-04-05 3:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	7	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	Less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-04-12	7:48 AM	Matrix DW

Date/Time on Test 2022-04-12 4:45 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-04-12	8:05 AM	Matrix DW

Date/Time on Test 2022-04-12 4:50 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-04-12	9:20 AM	Matrix DW

Date/Time on Test 2022-04-12 4:55 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-04-12	9:10 AM	Matrix DW

Date/Time on Test 2022-04-12 5:00 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-04-12	8:50 AM	Matrix SW

Date/Time on Test 2022-04-12 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	3	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-04-19	8:55 AM	Matrix DW

Date/Time on Test 2022-04-19 3:55 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-04-19	9:15 AM	Matrix DW

Date/Time on Test 2022-04-19 4:00 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-04-19	10:28 AM	Matrix DW

Date/Time on Test 2022-04-19 4:05 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-04-19	10:20 AM	Matrix Dw

Date/Time on Test 2022-04-19 4:10 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-04-19	9:43 AM	Matrix SW

Date/Time on Test 2022-04-19 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	9	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-04-26	8:00 AM	Matrix DW

Date/Time on Test 2022-04-26 4:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-04-26	8:15 AM	Matrix DW

Date/Time on Test 2022-04-26 4:25 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-04-26	11:44 AM	Matrix DW

Date/Time on Test 2022-04-26 4:30 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-04-26	11:20 AM	Matrix DW

Date/Time on Test 2022-04-26 4:35 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-04-26	9:32 AM	Matrix SW

Date/Time on Test 2022-04-26 4:40 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
Fecal (Thermotolerant) Coliforms	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



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Attention Martin Grill

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

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	611 Vernon St	Sample #	1
Date/Time Sampled	2022-04-26	9:30 AM	Matrix DW

Date/Time on Test 2022-04-26 4:45 PM

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

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Fairview reservoir			Sample #	1
Date/Time Sampled	2022-04-28			Matrix	Temperature on Receipt
Date/Time on Test	2022-04-28 5:00 PM				6
<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
Fecal (Thermotolerant) Coliforms	less than 1			CFU/100mL	1

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



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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Matrix	DW	Sample #	1
Date/Time Sampled	2022-05-03			Temperature on Receipt	10
Date/Time on Test	2022-05-03	3:20 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	Silica st. Sampler	Matrix	DW	Sample #	2
Date/Time Sampled	2022-05-03			Temperature on Receipt	10
Date/Time on Test	2022-05-03	3:25 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	Sampler @ 3rd and Davies	Matrix	DW	Sample #	3
Date/Time Sampled	2022-05-03			Temperature on Receipt	8
Date/Time on Test	2022-05-03	3:30 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	Sampler @ Fell and 11th	Matrix	DW	Sample #	4
Date/Time Sampled	2022-05-03			Temperature on Receipt	8
Date/Time on Test	2022-05-03	3:35 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	Mtn. Station Reservoir - Raw	Matrix	SW	Sample #	5
Date/Time Sampled	2022-05-03			Temperature on Receipt	8
Date/Time on Test	2022-05-03	3:40 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		
Fecal (Thermotolerant) Coliforms	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
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-05-10	8:50 AM	Matrix DW

Date/Time on Test 2022-05-10 3:45 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-05-10	8:25 AM	Matrix DW

Date/Time on Test 2022-05-10 3:45 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-05-10	8:00 AM	Matrix DW

Date/Time on Test 2022-05-10 3:50 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-05-10	8:10 AM	Matrix DW

Date/Time on Test 2022-05-10 3:55 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-05-10	9:15 AM	Matrix SW

Date/Time on Test 2022-05-10 4:00 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
Fecal (Thermotolerant) Coliforms	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.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-05-17	7:50 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-05-17	3:05 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-05-17	8:35 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-05-17	3:10 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-05-17	11:38 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-05-17	3:15 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	11th and Fell	Sample #	4
Date/Time Sampled	2022-05-17	11:11 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-05-17	3:20 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-05-17	10:50 AM	Matrix SW
			Temperature on Receipt 11
Date/Time on Test	2022-05-18	3:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	10	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	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.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-05-24	8:15 AM	Matrix DW

Date/Time on Test 2022-05-24 3:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-05-24	8:30 AM	Matrix DW

Date/Time on Test 2022-05-24 3:25 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-05-24	9:00 AM	Matrix DW

Date/Time on Test 2022-05-24 3:30 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-05-24	8:50 AM	Matrix DW

Date/Time on Test 2022-05-24 3:35 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-05-24	9:30 AM	Matrix SW

Date/Time on Test 2022-05-24 3:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	2	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	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
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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-05-31	8:05 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-05-31	4:00 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-05-31	10:45 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-05-31	4:05 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-05-31	10:30 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-05-31	4:10 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-05-31	9:35 AM	Matrix DW
			Temperature on Receipt 10
Date/Time on Test	2022-05-31	4:15 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Mtn. Station Reservoir - Raw			Sample #	5
Date/Time Sampled	2022-05-31	9:20 AM	Matrix	SW	Temperature on Receipt 11
Date/Time on Test	2022-05-31	4:20 PM			
<u>Analyses</u>	<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total	16		CFU/100mL	1	
Verified E.coli	2		CFU/100mL	1	
Fecal (Thermotolerant) Coliforms	less than 1		CFU/100mL	1	

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



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passmorelaboratory.ca

Client City of Nelson
Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-06-07	8:15 AM	Matrix DW

Date/Time on Test 2022-06-07 3:25 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-06-07	8:40 AM	Matrix DW

Date/Time on Test 2022-06-07 3:30 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-06-07	10:56 AM	Matrix DW

Date/Time on Test 2022-06-07 3:35 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-06-07	10:35 AM	Matrix DW

Date/Time on Test 2022-06-07 3:40 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

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-06-07	11:25 AM	Matrix SW

Date/Time on Test 2022-06-07 3:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	20	CFU/100mL	1
Verified E.coli	1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Kimberly Mason

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-06-14	7:50 AM	Matrix DW
			Temperature on Receipt 10
Date/Time on Test	2022-06-14	4:40 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
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-06-14	8:20 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-06-14	4:45 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	3rd and Davies	Sample #	3
Date/Time Sampled	2022-06-14	10:28 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-06-14	4:50 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	11th and Fell	Sample #	4
Date/Time Sampled	2022-06-14	10:13 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-06-14	4:55 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	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2022-06-14	9:40 AM	Matrix SW
			Temperature on Receipt 9
Date/Time on Test	2022-06-14	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	20	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	Less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-06-21	10:00 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-06-21	3:45 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-06-21	10:15 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-06-21	3:50 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-06-21	10:30 AM	Matrix DW
			Temperature on Receipt 10
Date/Time on Test	2022-06-21	3:55 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-06-21	10:40 AM	Matrix DW
			Temperature on Receipt 10
Date/Time on Test	2022-06-21	4:00 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-06-21	8:15 AM	Matrix SW
			Temperature on Receipt 11
Date/Time on Test	2022-06-21	4:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	33	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-06-28	8:00 AM	Matrix DW

Date/Time on Test 2022-06-28 4:45 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-06-28	8:10 AM	Matrix DW

Date/Time on Test 2022-06-28 4:50 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-06-28	8:20 AM	Matrix DW

Date/Time on Test 2022-06-28 4:55 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-06-28	8:35 AM	Matrix DW

Date/Time on Test 2022-06-28 5:00 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-06-28	8:50 AM	Matrix SW

Date/Time on Test 2022-06-28 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	14	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	5	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-07-05	7:40 AM	Matrix DW

Date/Time on Test 2022-07-05 4:40 PM

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

Comments resampled on 7/6 - showed negative

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-07-05	8:12 AM	Matrix DW

Date/Time on Test 2022-07-05 4:45 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-07-05	11:14 AM	Matrix DW

Date/Time on Test 2022-07-05 4:50 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-07-05	11:10 AM	Matrix DW

Date/Time on Test 2022-07-05 4:55 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-07-05	10:05 AM	Matrix SW

Date/Time on Test 2022-07-05 5:00 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-07-06	1:36 PM	Matrix TW

Date/Time on Test 2022-07-06 2:35 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
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

Glossary of Terms

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-07-12	8:13 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2022-07-12	4:00 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-07-12	8:40 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-07-12	4:05 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-07-12	8:55 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-07-12	4:10 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-07-12	9:00 AM	Matrix DW
			Temperature on Receipt 10
Date/Time on Test	2022-07-12	4:20 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-07-12	10:45 AM	Matrix SW
			Temperature on Receipt 8
Date/Time on Test	2022-07-12	4:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	31	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-07-19	8:02 AM	Matrix DW

Date/Time on Test 2022-07-19 4:30 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-07-19	8:32 AM	Matrix DW

Date/Time on Test 2022-07-19 4:35 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-07-19	10:40 AM	Matrix DW

Date/Time on Test 2022-07-19 4:40 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

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-07-19	10:25 AM	Matrix DW

Date/Time on Test 2022-07-19 4:45 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-07-19	10:05 AM	Matrix SW

Date/Time on Test 2022-07-19 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	206	CFU/100mL	1
Verified E.coli	1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	0	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



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Client City of Nelson
Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-07-26	7:45 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-07-26	4:30 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-07-26	8:10 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-07-26	4:35 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-07-26	9:15 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-07-26	4:40 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
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-07-26	9:00 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-07-26	4:45 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-07-26	8:30 AM	Matrix SW
			Temperature on Receipt 8
Date/Time on Test	2022-07-26	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	135	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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APHA	American Public Health Association
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Lakeside Park Beach, Nelson, BC			Sample #	1
Date/Time Sampled	2022-07-26	7:35 AM	Matrix SW	Temperature on Receipt 9	

Date/Time on Test 2022-07-26 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	20	CFU/100mL	1
Verified E.coli	14	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	9	CFU/100mL	1

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



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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-08-02	8:13 AM	Matrix DW
			Temperature on Receipt 15
Date/Time on Test	2022-08-02	4:40 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
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-08-02	8:42 AM	Matrix DW
			Temperature on Receipt 16
Date/Time on Test	2022-08-02	4:45 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-08-02	11:32 AM	Matrix DW
			Temperature on Receipt 16
Date/Time on Test	2022-08-02	4:50 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-08-02	11:17 AM	Matrix DW
			Temperature on Receipt 16
Date/Time on Test	2022-08-02	4:55 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-08-02	9:51 AM	Matrix SW
			Temperature on Receipt 15
Date/Time on Test	2022-08-02	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	235	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	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
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Lakeside Park Beach, Nelson, BC			Sample #	1
Date/Time Sampled	2022-08-02	7:40 AM	Matrix	SW	Temperature on Receipt 11
Date/Time on Test	2022-08-02 5:00 PM				
<u>Analyses</u>	<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total	94		CFU/100mL	1	
Verified E.coli	6		CFU/100mL	1	
Fecal (Thermotolerant) Coliforms	3		CFU/100mL	1	

Glossary of Terms

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-08-09	7:40 AM	Matrix DW

Date/Time on Test 2022-08-09 4:10 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-08-09	8:04 AM	Matrix DW

Date/Time on Test 2022-08-09 4:15 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-08-09	9:15 AM	Matrix DW

Date/Time on Test 2022-08-09 4:20 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-08-09	9:20 AM	Matrix DW

Date/Time on Test 2022-08-09 4:25 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-08-09	9:00 AM	Matrix SW

Date/Time on Test 2022-08-09 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	114	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-08-16	9:30 AM	Matrix DW

Date/Time on Test 2022-08-16 4:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-08-16	8:40 AM	Matrix DW

Date/Time on Test 2022-08-16 4:25 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-08-16	8:20 AM	Matrix DW

Date/Time on Test 2022-08-16 4:30 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-08-16	8:30 AM	Matrix DW

Date/Time on Test 2022-08-16 4:35 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-08-16	8:55 AM	Matrix SW

Date/Time on Test 2022-08-16 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	235	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Elwyn-Fell Street LOOP 3	Sample #	1
Date/Time Sampled	2022-08-16 9:00 AM	Matrix	DW

Date/Time on Test 2022-08-16 4:45 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

Glossary of Terms

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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

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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

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

A handwritten signature in black ink that reads "Jennifer Yeow".

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ANALYTICAL RESULTS

Sample ID	Observatory main extension	Sample #	1
Date/Time Sampled	2022-08-16 9:30 AM	Matrix	DW

Date/Time on Test 2022-08-16 4:50 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

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
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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-08-23	7:42 AM	Matrix DW

Date/Time on Test 2022-08-23 4:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-08-23	8:00 AM	Matrix DW

Date/Time on Test 2022-08-23 4:25 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-08-23	8:30 AM	Matrix DW

Date/Time on Test 2022-08-23 4:30 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-08-23	8:40 AM	Matrix DW

Date/Time on Test 2022-08-23 4:35 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-08-23	10:50 AM	Matrix SW

Date/Time on Test 2022-08-23 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	162	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	2	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



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Client City of Nelson

Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-08-30	7:48 AM	Matrix DW

Date/Time on Test 2022-08-30 3:30 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-08-30	8:25 AM	Matrix DW

Date/Time on Test 2022-08-30 3:35 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-08-30	11:03 AM	Matrix DW

Date/Time on Test 2022-08-30 3:40 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

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-08-30	10:55 AM	Matrix DW

Date/Time on Test 2022-08-30 3:45 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-08-30	10:30 AM	Matrix SW

Date/Time on Test 2022-08-30 3:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	274	CFU/100mL	1
Verified E.coli	1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek Res			Sample #	6
Date/Time Sampled	2022-08-30	11:50 AM	Matrix	DW	Temperature on Receipt 11
Date/Time on Test	2022-08-30 3:55 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	

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

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Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Lakeside Park Beach, Nelson, BC		Sample #	1
Date/Time Sampled	2022-08-30		Matrix	SW

Date/Time on Test 2022-08-30 4:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Verified E.coli	12	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	4	CFU/100mL	1

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



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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.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Anderson Creek Res	Matrix	DW	Sample #	1
Date/Time Sampled	2022-09-07	1:10 PM		Temperature on Receipt	24

Date/Time on Test 2022-09-07 5:00 PM

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



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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-09-13	9:45 AM	Matrix DW
			Temperature on Receipt 10
Date/Time on Test	2022-09-13	4:40 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
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-09-13	9:00 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-09-13	4:45 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-09-13	8:30 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-09-13	4:50 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-09-13	8:45 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-09-13	4:55 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-09-13	9:20 AM	Matrix SW
			Temperature on Receipt 9
Date/Time on Test	2022-09-13	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	194	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek Res/ Fairview			Sample #	6
Date/Time Sampled	2022-09-13	9:05 AM	Matrix	DW	Temperature on Receipt 11
Date/Time on Test	2022-09-13	5:05 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	

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



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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-09-20	7:40 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-09-20	5:20 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-09-20	8:15 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-09-20	5:20 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-09-20	9:00 AM	Matrix DW
			Temperature on Receipt 11
Date/Time on Test	2022-09-20	5:25 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-09-20	8:50 AM	Matrix DW
			Temperature on Receipt 12
Date/Time on Test	2022-09-20	5:25 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-09-20	9:30 AM	Matrix SW
			Temperature on Receipt 12
Date/Time on Test	2022-09-20	5:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	99	CFU/100mL	1
Verified E.coli	14	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	14	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek Res	Sample #	6
Date/Time Sampled	2022-09-20	Matrix	DW
			Temperature on Receipt
Date/Time on Test	2022-09-20	5:30 PM	11
<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

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
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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	
Date/Time Sampled	2022-09-27	7:45 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-09-27	4:55 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-09-27	8:15 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-09-27	5:00 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-09-27	9:20 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2022-09-27	5:05 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-09-27	9:10 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2022-09-27	5:10 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	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2022-09-27	8:30 AM	Matrix SW
			Temperature on Receipt 8
Date/Time on Test	2022-09-27	5:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	165	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	3	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek Res			Sample #	6
Date/Time Sampled	2022-09-27	8:50 AM	Matrix	DW	Temperature on Receipt 10
Date/Time on Test	2022-09-27	5:20 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	

Glossary of Terms

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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

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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-10-04	8:05 AM	Matrix DW

Date/Time on Test 2022-10-04 4:40 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

Sample ID Sampler @ Silica and Stanley Sample # 2

Date/Time Sampled	2022-10-04	10:30 AM	Matrix DW	Temperature on Receipt	18
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Date/Time on Test 2022-10-04 4:45 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 3rd and Davies Sample # 3

Date/Time Sampled	2022-10-04	10:30 AM	Matrix DW	Temperature on Receipt	16
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Date/Time on Test 2022-10-04 4:50 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 11th and Fell Sample # 4

Date/Time Sampled	2022-10-04	9:30 AM	Matrix DW	Temperature on Receipt	18
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Date/Time on Test 2022-10-04 4:50 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 Mountain Station Reservoir Sample # 5

Date/Time Sampled	2022-10-04	11:15 AM	Matrix UGW	Temperature on Receipt	18
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Date/Time on Test 2022-10-04 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	88	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek			Sample #	6
Date/Time Sampled	2022-10-04	10:00 AM	Matrix	DW	Temperature on Receipt 17
Date/Time on Test	2022-10-04	5:00 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	

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



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Client City of Nelson
Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-10-11	8:00 AM	Matrix TW

Date/Time on Test 2022-10-11 4:40 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

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-10-11	8:15 AM	Matrix TW

Date/Time on Test 2022-10-11 4:45 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	3rd and Davies	Sample #	3
Date/Time Sampled	2022-10-11	8:35 AM	Matrix TW

Date/Time on Test 2022-10-11 4:50 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	11th and Fell	Sample #	4
Date/Time Sampled	2022-10-11	8:25 AM	Matrix TW

Date/Time on Test 2022-10-11 4:50 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	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2022-10-11	9:40 AM	Matrix UGW

Date/Time on Test 2022-10-11 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	82	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek			Sample #	6
Date/Time Sampled	2022-10-11	9:05 AM	Matrix	TW	Temperature on Receipt 11
Date/Time on Test	2022-10-11	4:50 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	

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.
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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

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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-10-18	8:45 AM	Matrix TW

Date/Time on Test 2022-10-18 4:40 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

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-10-18	8:43 AM	Matrix TW

Date/Time on Test 2022-10-18 4:45 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-10-18	8:30 AM	Matrix TW

Date/Time on Test 2022-10-18 4:50 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-10-18	8:20 AM	Matrix TW

Date/Time on Test 2022-10-18 4:50 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-10-18	9:20 AM	Matrix UGW

Date/Time on Test 2022-10-18 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	48	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek Res			Sample #	6
Date/Time Sampled	2022-10-18	8:10 AM	Matrix	TW	Temperature on Receipt 10
Date/Time on Test	2022-10-18	5:00 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	

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.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-10-25	7:45 AM	Matrix TW

Date/Time on Test 2022-10-25 4:00 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	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-10-25	8:05 AM	Matrix TW

Date/Time on Test 2022-10-25 4:05 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-10-25	8:20 AM	Matrix TW

Date/Time on Test 2022-10-25 4:05 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-10-25	8:35 AM	Matrix TW

Date/Time on Test 2022-10-25 4:10 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-10-25	9:10 AM	Matrix UGW

Date/Time on Test 2022-10-25 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	134	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek Res			Sample #	6	
Date/Time Sampled	2022-10-25	8:25 AM	Matrix	TW	Temperature on Receipt	8
Date/Time on Test	2022-10-25	4:20 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		

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



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Attention Martin Grill

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

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

A handwritten signature in black ink that reads "Jennifer Yeow".

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

ANALYTICAL RESULTS

Sample ID	100 blk Baker Street	Sample #	1
Date/Time Sampled	2022-10-26	11:15 AM	Matrix DW
Date/Time on Test	2022-10-26	12:00 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

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



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Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	
Date/Time Sampled	2022-11-01	8:20 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2022-11-01	4:35 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	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-11-01	8:52 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2022-11-01	4:35 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	3rd and Davies	Sample #	3
Date/Time Sampled	2022-11-01	10:40 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2022-11-01	4:40 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
Sample ID	11th and Fell	Sample #	4
Date/Time Sampled	2022-11-01	10:30 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2022-11-01	4:40 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
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-11-01	9:56 AM	Matrix UGW
			Temperature on Receipt 5
Date/Time on Test	2022-11-01	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	75	CFU/100mL	1
Verified E.coli	1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek			Sample #	6	
Date/Time Sampled	2022-11-01	10:20 AM	Matrix	TW	Temperature on Receipt	6
Date/Time on Test	2022-11-01	5:00 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		

Glossary of Terms

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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

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-11-08	8:05 AM	Matrix TW

Date/Time on Test 2022-11-08 4:30 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	Silica st. Sampler	Sample #	2
Date/Time Sampled	2022-11-08	8:16 AM	Matrix TW

Date/Time on Test 2022-11-08 4:35 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-11-08	10:53 AM	Matrix TW

Date/Time on Test 2022-11-08 4:40 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

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-11-08	10:42 AM	Matrix TW

Date/Time on Test 2022-11-08 4:40 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

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2022-11-08	9:03 AM	Matrix UGW

Date/Time on Test 2022-11-08 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	37	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek			Sample #	6	
Date/Time Sampled	2022-11-08	10:30 AM	Matrix	TW	Temperature on Receipt	6
Date/Time on Test	2022-11-08	4:45 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		

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

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-11-15	8:02 AM	Matrix TW
			Temperature on Receipt 3
Date/Time on Test	2022-11-15	4:10 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
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-11-15	8:35 AM	Matrix TW
			Temperature on Receipt 3
Date/Time on Test	2022-11-15	4:15 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	3rd and Davies	Sample #	3
Date/Time Sampled	2022-11-15	9:53 AM	Matrix TW
			Temperature on Receipt 4
Date/Time on Test	2022-11-15	4:15 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	11th and Fell	Sample #	4
Date/Time Sampled	2022-11-15	9:45 AM	Matrix TW
			Temperature on Receipt 4
Date/Time on Test	2022-11-15	4:20 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-11-15	9:07 AM	Matrix UGW
			Temperature on Receipt 3
Date/Time on Test	2022-11-15	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	16	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson PRV			Sample #	6	
Date/Time Sampled	2022-11-15	9:32 AM	Matrix	TW	Temperature on Receipt	3
Date/Time on Test	2022-11-15			4:25 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		

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



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250-226-7339
test@passmorelaboratory.ca
passmorelaboratory.ca

Client City of Nelson

Attention Martin Grill

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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-11-22	7:30 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2022-11-22	4:40 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
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-11-22	7:55 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2022-11-22	4:40 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
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-11-22	9:40 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2022-11-22	4:45 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-11-22	9:30 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2022-11-22	4:45 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-11-22	8:05 AM	Matrix UGW
			Temperature on Receipt 6
Date/Time on Test	2022-11-22	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	55	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	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.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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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.

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Cedar St @Lakeside Drive	Sample #	1
Date/Time Sampled	2022-11-22 11:00 AM	Matrix	TW

Date/Time on Test 2022-11-22 4:55 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

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.
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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

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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.

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-12-06	8:10 AM	Matrix TW

Date/Time on Test 2022-12-06 4:15 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	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-12-06	9:40 AM	Matrix TW

Date/Time on Test 2022-12-06 4:20 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-12-06	10:30 AM	Matrix TW

Date/Time on Test 2022-12-06 4:20 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-12-06	10:50 AM	Matrix TW

Date/Time on Test 2022-12-06 4:25 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-12-06	8:50 AM	Matrix UGW

Date/Time on Test 2022-12-06 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	24	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-12-12	7:40 AM	Matrix TW

Date/Time on Test 2022-12-13 3:50 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	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-12-12	8:00 AM	Matrix TW

Date/Time on Test 2022-12-13 3:55 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-12-12	9:12 AM	Matrix TW

Date/Time on Test 2022-12-13 4:00 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-12-12	9:20 AM	Matrix TW

Date/Time on Test 2022-12-13 4:00 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	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2022-12-12	10:15 AM	Matrix UGW

Date/Time on Test 2022-12-13 4:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	23	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2022-12-20	8:20 AM	Matrix TW

Date/Time on Test 2022-12-20 4:20 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	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2022-12-20	9:00 AM	Matrix TW

Date/Time on Test 2022-12-20 4:25 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	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2022-12-20	10:40 AM	Matrix TW

Date/Time on Test 2022-12-20 4:30 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	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2022-12-20	10:26 AM	Matrix TW

Date/Time on Test 2022-12-20 4:30 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	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2022-12-20	10:00 AM	Matrix SW

Date/Time on Test 2022-12-20 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	19	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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References

City of Nelson 2022 Annual Drinking Water Report

Appendix C: Annual Full Comprehensive Raw Water Analysis



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	22L2681
ATTENTION	Martin Grill	RECEIVED / TEMP	2022-12-29 09:30 / 0.7°C
PO NUMBER	5030	REPORTED	2023-01-09 12:21
PROJECT	General Potability	COC NUMBER	40837.5581
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



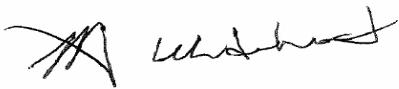
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If you have any questions or concerns, please contact me at bwhitehead@caro.ca

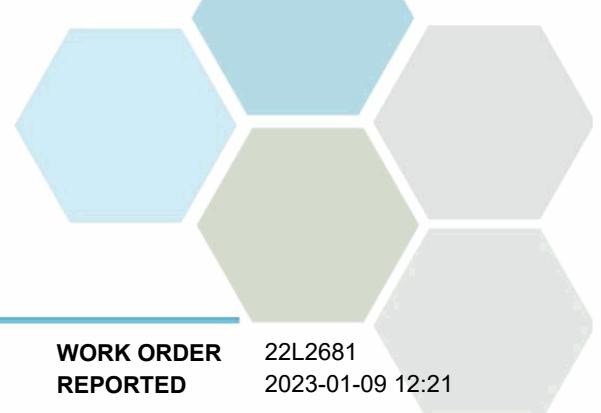
Authorized By:

Brent Whitehead
Account Manager



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TEST RESULTS

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 22L2681
REPORTED 2023-01-09 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Anderson Ck_Source Water (22L2681-01) Matrix: Water Sampled: 2022-12-27 13:33						
Anions						
Chloride	0.45	AO ≤ 250	0.10	mg/L	2022-12-30	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2022-12-30	
Nitrate (as N)	0.027	MAC = 10	0.010	mg/L	2022-12-30	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2022-12-30	
Sulfate	5.4	AO ≤ 500	1.0	mg/L	2022-12-30	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	27.6	None Required	0.500	mg/L	N/A	
Langelier Index	-2.3	N/A	-5.0		2023-01-09	CT6
Solids, Total Dissolved	45.7	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	43.7	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Bicarbonate (as CaCO ₃)	43.7	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Colour, True	6.9	AO ≤ 15	5.0	CU	2022-12-29	
Conductivity (EC)	66.2	N/A	2.0	µS/cm	2023-01-03	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-01-03	
pH	6.58	7.0-10.5	0.10	pH units	2023-01-03	HT2
Temperature, at pH	23.0	N/A	°C		2023-01-03	HT2
Turbidity	0.61	OG < 1	0.10	NTU	2022-12-30	
Total Metals						
Aluminum, total	0.0207	OG < 0.1	0.0050	mg/L	2023-01-06	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-01-06	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-01-06	
Barium, total	0.0168	MAC = 2	0.0050	mg/L	2023-01-06	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-01-06	
Cadmium, total	0.000038	MAC = 0.005	0.000010	mg/L	2023-01-06	
Calcium, total	9.55	None Required	0.20	mg/L	2023-01-06	
Chromium, total	0.00129	MAC = 0.05	0.00050	mg/L	2023-01-06	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-01-06	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2023-01-06	
Iron, total	0.020	AO ≤ 0.3	0.010	mg/L	2023-01-06	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-01-06	
Magnesium, total	0.909	None Required	0.010	mg/L	2023-01-06	
Manganese, total	0.00071	MAC = 0.12	0.00020	mg/L	2023-01-06	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-01-06	
Molybdenum, total	0.00073	N/A	0.00010	mg/L	2023-01-06	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-01-06	
Potassium, total	1.10	N/A	0.10	mg/L	2023-01-06	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-01-06	

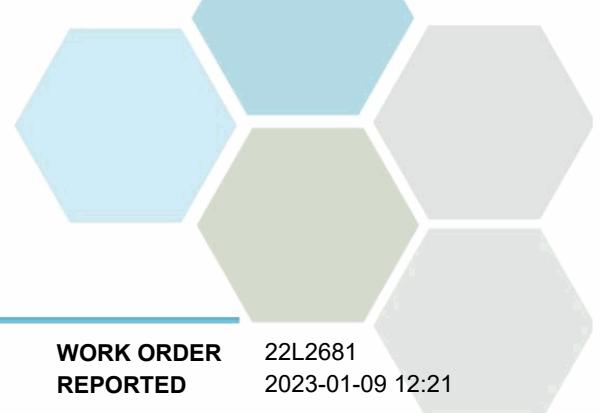


TEST RESULTS

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 22L2681
REPORTED 2023-01-09 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Anderson Ck_Source Water (22L2681-01) Matrix: Water Sampled: 2022-12-27 13:33, Continued						
Total Metals, Continued						
Sodium, total	1.48	AO ≤ 200	0.10	mg/L	2023-01-06	
Strontium, total	0.0686	MAC = 7	0.0010	mg/L	2023-01-06	
Uranium, total	0.000613	MAC = 0.02	0.000020	mg/L	2023-01-06	
Zinc, total	0.0041	AO ≤ 5	0.0040	mg/L	2023-01-06	
5-Mile Ck @ Reservoir_Source Water (22L2681-02) Matrix: Water Sampled: 2022-12-27 14:12						
Anions						
Chloride	0.26	AO ≤ 250	0.10	mg/L	2022-12-30	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2022-12-30	
Nitrate (as N)	0.025	MAC = 10	0.010	mg/L	2022-12-30	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2022-12-30	
Sulfate	3.3	AO ≤ 500	1.0	mg/L	2022-12-30	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	20.8	None Required	0.500	mg/L	N/A	
Langelier Index	-2.7	N/A	-5.0		2023-01-09	CT6
Solids, Total Dissolved	25.6	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	19.3	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Bicarbonate (as CaCO ₃)	19.3	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Colour, True	9.4	AO ≤ 15	5.0	CU	2022-12-29	
Conductivity (EC)	48.2	N/A	2.0	µS/cm	2023-01-03	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-01-03	
pH	6.64	7.0-10.5	0.10	pH units	2023-01-03	HT2
Temperature, at pH	22.8	N/A	°C		2023-01-03	HT2
Turbidity	0.57	OG < 1	0.10	NTU	2022-12-30	
Total Metals						
Aluminum, total	0.0221	OG < 0.1	0.0050	mg/L	2023-01-06	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-01-06	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-01-06	
Barium, total	0.0118	MAC = 2	0.0050	mg/L	2023-01-06	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-01-06	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010	mg/L	2023-01-06	
Calcium, total	7.24	None Required	0.20	mg/L	2023-01-06	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-01-06	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-01-06	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2023-01-06	
Iron, total	0.016	AO ≤ 0.3	0.010	mg/L	2023-01-06	



TEST RESULTS

REPORTED TO Nelson, City of
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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
5-Mile Ck @ Reservoir_Source Water (22L2681-02) Matrix: Water Sampled: 2022-12-27 14:12, Continued						
Total Metals, Continued						
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-01-06	
Magnesium, total	0.653	None Required	0.010	mg/L	2023-01-06	
Manganese, total	0.00064	MAC = 0.12	0.00020	mg/L	2023-01-06	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-01-06	
Molybdenum, total	0.00069	N/A	0.00010	mg/L	2023-01-06	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-01-06	
Potassium, total	0.81	N/A	0.10	mg/L	2023-01-06	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-01-06	
Sodium, total	1.43	AO ≤ 200	0.10	mg/L	2023-01-06	
Strontium, total	0.0532	MAC = 7	0.0010	mg/L	2023-01-06	
Uranium, total	0.000700	MAC = 0.02	0.000020	mg/L	2023-01-06	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-01-06	
Selous Ck_Source Water (22L2681-03) Matrix: Water Sampled: 2022-12-27 15:24						
Anions						
Chloride	0.30	AO ≤ 250	0.10	mg/L	2022-12-30	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2022-12-30	
Nitrate (as N)	0.075	MAC = 10	0.010	mg/L	2022-12-30	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2022-12-30	
Sulfate	9.4	AO ≤ 500	1.0	mg/L	2022-12-30	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	46.4	None Required	0.500	mg/L	N/A	
Langelier Index	-1.9	N/A	-5.0		2023-01-09	CT6
Solids, Total Dissolved	56.6	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	42.6	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Bicarbonate (as CaCO ₃)	42.6	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Colour, True	10	AO ≤ 15	5.0	CU	2022-12-29	
Conductivity (EC)	99.2	N/A	2.0	µS/cm	2023-01-03	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-01-03	
pH	6.79	7.0-10.5	0.10	pH units	2023-01-03	HT2
Temperature, at pH	22.7	N/A	°C		2023-01-03	HT2
Turbidity	0.37	OG < 1	0.10	NTU	2022-12-30	
Total Metals						
Aluminum, total	0.0517	OG < 0.1	0.0050	mg/L	2023-01-06	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-01-06	

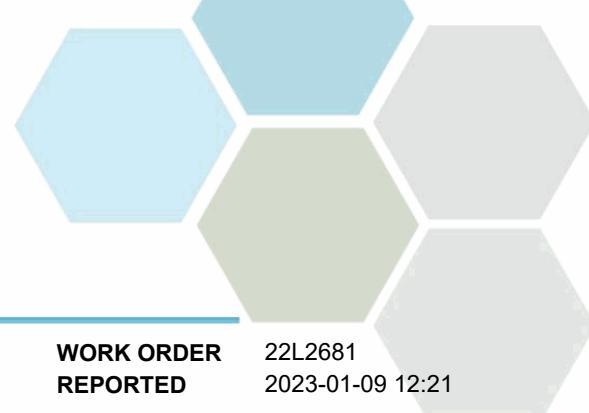


TEST RESULTS

REPORTED TO Nelson, City of
PROJECT General Potability

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Selous Ck_Source Water (22L2681-03) Matrix: Water Sampled: 2022-12-27 15:24, Continued						
Total Metals, Continued						
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-01-06	
Barium, total	0.0238	MAC = 2	0.0050	mg/L	2023-01-06	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-01-06	
Cadmium, total	0.000013	MAC = 0.005	0.000010	mg/L	2023-01-06	
Calcium, total	16.5	None Required	0.20	mg/L	2023-01-06	
Chromium, total	0.00124	MAC = 0.05	0.00050	mg/L	2023-01-06	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-01-06	
Copper, total	0.00069	MAC = 2	0.00040	mg/L	2023-01-06	
Iron, total	0.031	AO ≤ 0.3	0.010	mg/L	2023-01-06	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-01-06	
Magnesium, total	1.24	None Required	0.010	mg/L	2023-01-06	
Manganese, total	0.00214	MAC = 0.12	0.00020	mg/L	2023-01-06	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-01-06	
Molybdenum, total	0.00073	N/A	0.00010	mg/L	2023-01-06	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-01-06	
Potassium, total	1.54	N/A	0.10	mg/L	2023-01-06	
Selenium, total	0.00059	MAC = 0.05	0.00050	mg/L	2023-01-06	
Sodium, total	1.24	AO ≤ 200	0.10	mg/L	2023-01-06	
Strontium, total	0.0641	MAC = 7	0.0010	mg/L	2023-01-06	
Uranium, total	0.000153	MAC = 0.02	0.000020	mg/L	2023-01-06	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-01-06	
Mtn. Stn. Reservoir_Source Water (22L2681-04) Matrix: Water Sampled: 2022-12-27 11:32						
Anions						
Chloride	0.19	AO ≤ 250	0.10	mg/L	2022-12-30	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2022-12-30	
Nitrate (as N)	0.038	MAC = 10	0.010	mg/L	2022-12-30	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2022-12-30	
Sulfate	4.8	AO ≤ 500	1.0	mg/L	2022-12-30	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	25.9	None Required	0.500	mg/L	N/A	
Langelier Index	-2.3	N/A	-5.0		2023-01-09	CT6
Solids, Total Dissolved	44.8	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	44.8	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Bicarbonate (as CaCO ₃)	44.8	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-01-03	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2022-12-29	



TEST RESULTS

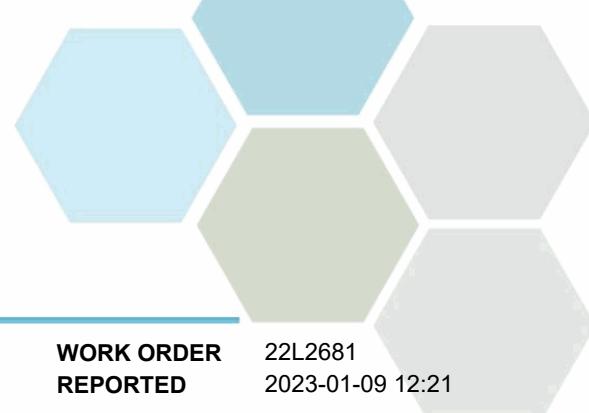
REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 22L2681
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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Mtn. Stn. Reservoir_Source Water (22L2681-04) Matrix: Water Sampled: 2022-12-27 11:32, Continued						
<i>General Parameters, Continued</i>						
Conductivity (EC)	66.4	N/A	2.0	µS/cm	2023-01-03	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-01-03	
pH	6.61	7.0-10.5	0.10	pH units	2023-01-03	HT2
Temperature, at pH	22.8	N/A		°C	2023-01-03	HT2
Turbidity	0.47	OG < 1	0.10	NTU	2022-12-30	
<i>Total Metals</i>						
Aluminum, total	0.0157	OG < 0.1	0.0050	mg/L	2023-01-06	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-01-06	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-01-06	
Barium, total	0.0140	MAC = 2	0.0050	mg/L	2023-01-06	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-01-06	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010	mg/L	2023-01-06	
Calcium, total	9.06	None Required	0.20	mg/L	2023-01-06	
Chromium, total	0.00115	MAC = 0.05	0.00050	mg/L	2023-01-06	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-01-06	
Copper, total	0.0157	MAC = 2	0.00040	mg/L	2023-01-06	
Iron, total	0.014	AO ≤ 0.3	0.010	mg/L	2023-01-06	
Lead, total	0.00123	MAC = 0.005	0.00020	mg/L	2023-01-06	
Magnesium, total	0.780	None Required	0.010	mg/L	2023-01-06	
Manganese, total	0.00095	MAC = 0.12	0.00020	mg/L	2023-01-06	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-01-06	
Molybdenum, total	0.00075	N/A	0.00010	mg/L	2023-01-06	
Nickel, total	0.00151	N/A	0.00040	mg/L	2023-01-06	
Potassium, total	0.92	N/A	0.10	mg/L	2023-01-06	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-01-06	
Sodium, total	1.57	AO ≤ 200	0.10	mg/L	2023-01-06	
Strontium, total	0.0594	MAC = 7	0.0010	mg/L	2023-01-06	
Uranium, total	0.000707	MAC = 0.02	0.000020	mg/L	2023-01-06	
Zinc, total	0.0118	AO ≤ 5	0.0040	mg/L	2023-01-06	

Sample Qualifiers:

CT6 Results were based on lab temperature & lab pH.
 HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



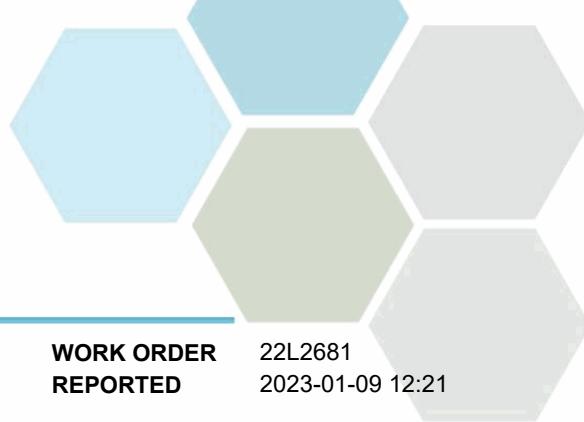
APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	22L2681
PROJECT	General Potability	REPORTED	2023-01-09 12:21
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Analysis Description	Method Ref.	Technique	Accredited
Alkalinity in Water	SM 2320 B* (2017)	Titration with H ₂ SO ₄	✓
Anions in Water	SM 4110 B (2017)	Ion Chromatography	✓
Colour, True in Water	SM 2120 C (2017)	Spectrophotometry (456 nm)	✓
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	✓
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓
Hardness in Water	SM 2340 B* (2017)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓
Langelier Index in Water	SM 2330 B (2017)	Calculation	N/A
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓
Solids, Total Dissolved in Water	SM 1030 E (2017)	SM 1030 E (2011)	N/A
Total Metals in Water	EPA 6020B	BrCl ₂ Oxidation / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓
Turbidity in Water	SM 2130 B (2017)	Nephelometry	✓
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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

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 22L2681
REPORTED 2023-01-09 12:21

General Comments:

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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.