



City of Nelson 2021 Annual Drinking Water Report

2021 Monitoring Year

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Photo Credit: Matthew Block

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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
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 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:

- Cross-Connection Control Program,
- Water Master Plan,
- Capital Works Plan,
- Emergency Response Plan, and
- Maintenance of Environmental Operators Certification Program training for the City's drinking water 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 maintained in the transmission lines at all times to ensure the water in those portions of the distribution system does not become stagnant or freeze.

Five Mile Creek and Selous Creek feed 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 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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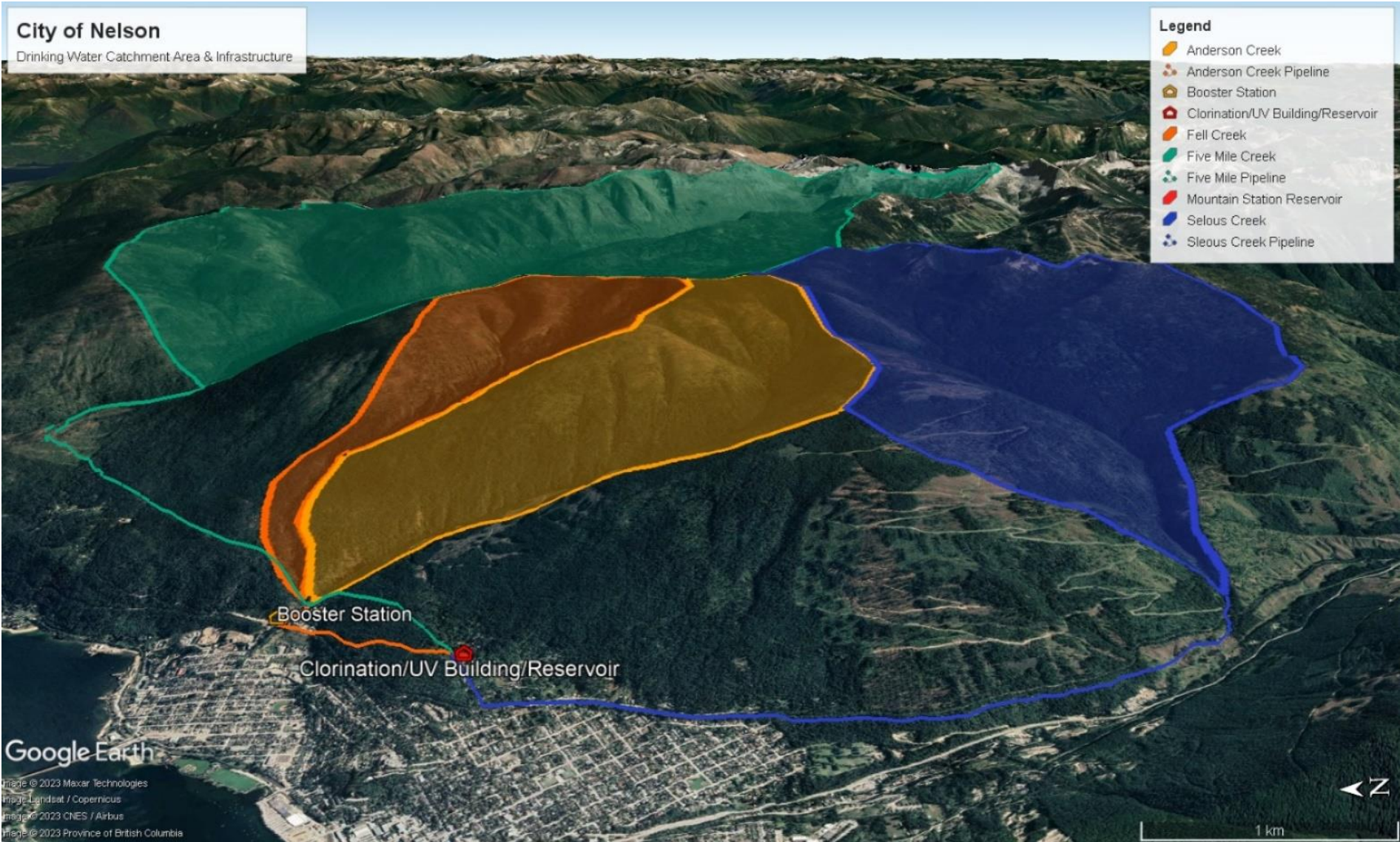


Figure 1: City of Nelson Catchments & Drinking Water Infrastructure as of 2023.

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3 2021 Water Consumption

The City consumed 1,846,496 m³ of water in 2021. Figure 2 shows the City's monthly water consumption, while Figure 3 shows the daily water consumption by source.

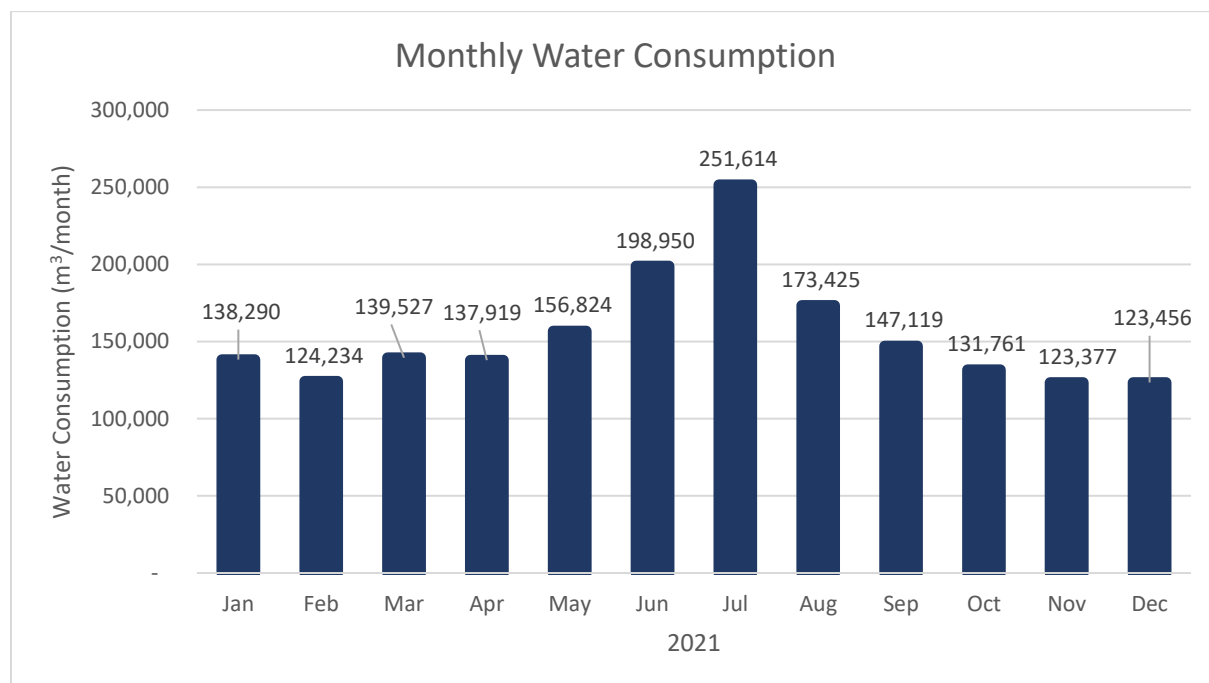


Figure 2: Monthly Water Consumption

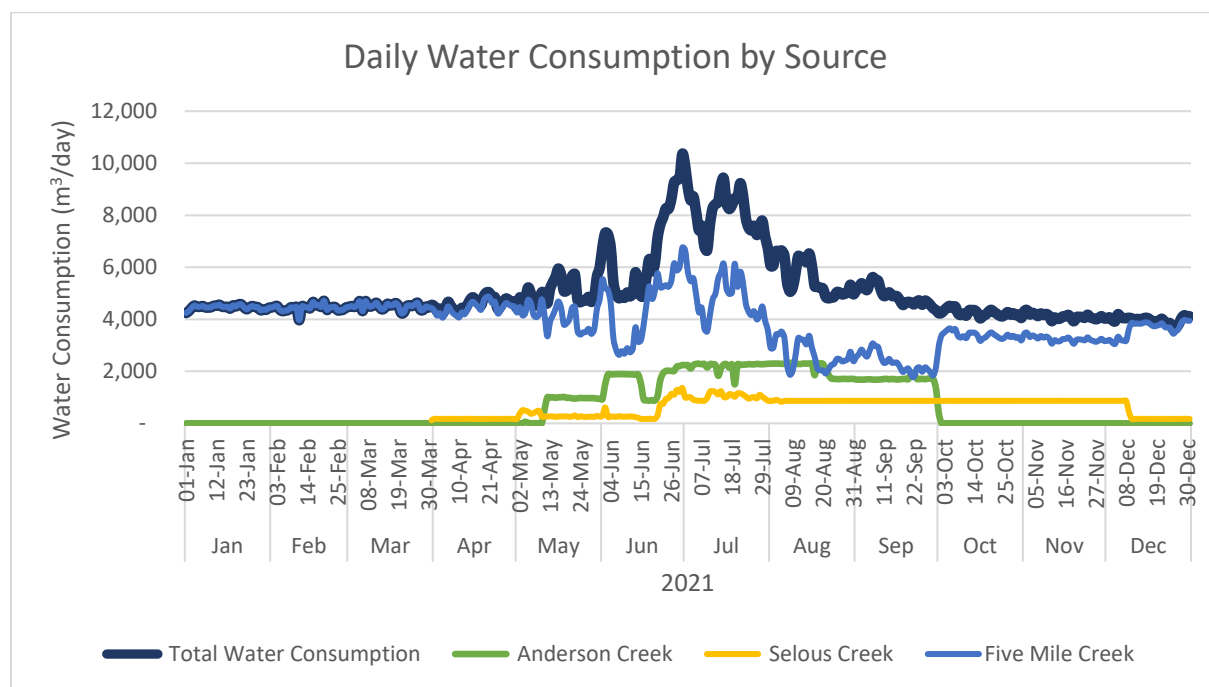


Figure 3: Daily Water Consumption by Source

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,
- Silica Street,
- 3rd Street & Davies Street, and
- Fell Street & 11th Street.

Tables 1 and 2 below show the bacteriological sampling results which Passmore Laboratories completed. The original reports from Passmore Laboratories can be found in Appendix B.

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Table 1: Weekly Coliform Results (Jan - Jun 2021)

Weekly Coliform Results (Jan to Jun 2021)

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	Coliforms, Total	Verified E.coli	Fecal (Thermotolerant) Coliforms
2021-01-05	0	0	0	0	0	0	0	0			14	0	0
2021-01-12	0	0	0	0	0	0	0	0			18	1	1
2021-01-19	0	0	0	0	0	0	0	0			8	0	0
2021-01-26	0	0	0	0	0	0	0	0			7	0	0
2021-02-02	0	0	0	0	0	0	0	0			3	0	0
2021-02-09	0	0	0	0	0	0	0	0			6	0	0
2021-02-16	0	0	0	0	0	0	0	0			9	0	0
2021-02-23	0	0	0	0	0	0	0	0			1	0	0
2021-03-02	0	0	0	0	0	0	0	0			7	0	0
2021-03-09	0	0	0	0	0	0	0	0			4	0	0
2021-03-16	0	0	0	0	0	0	0	0			0	0	0
2021-03-23	0	0	0	0	0	0	0	0			4	0	0
2021-03-30	0	0	0	0	0	0	0	0			4	0	0
2021-04-06	0	0	0	0	0	0	0	0			1	0	0
2021-04-13	0	0	0	0	0	0	0	0			0	0	0
2021-04-20	0	0	0	0	0	0	0	0			5	0	0
2021-04-27	0	0	0	0	0	0	0	0			10	0	0
2021-05-04	0	0	0	0	0	0	0	0	0	0	7	0	0
2021-05-11	0	0	0	0	0	0	0	0	0	0	11	0	0
2021-05-18	0	0	0	0	0	0	0	0	0	0	17	0	0
2021-05-25	0	0	0	0	0	0	0	0	0	0	11	0	1
2021-06-01	0	0	0	0	0	0	0	0	0	0	16	3	3
2021-06-08	0	0	0	0	0	0	0	0	0	0	43	1	4
2021-06-15	0	0	0	0	0	0	0	0	0	0	19	3	3
2021-06-22	0	0	0	0	0	0	0	0	0	0	21	1	1
2021-06-29	0	0	0	0	0	0	0	0	0	0	48	4	1

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Table 2: Weekly Coliform results (Jul - Dec 2021)

Weekly Coliform Results (Jul to Dec 2021)

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	Coliforms, Total	Verified E.coli	Fecal (Thermotolerant) Coliforms
2021-07-06	0	0	0	0	0	0	0	0	0	0	48	0	5
2021-07-13	0	0	0	0	0	0	0	0	0	0	30	1	0
2021-07-20	0	0	0	0	0	0	0	0	0	0	74	6	7
2021-07-27	0	0	0	0	0	0	0	0	0	0	101	14	6
2021-08-03	0	0	0	0	0	0	0	0	0	0	81	2	2
2021-08-10	0	0	0	0	0	0	0	0	0	0	65	25	34
2021-08-17	0	0	0	0	0	0	0	0	0	0	188	0	2
2021-08-24	0	0	0	0	0	0	0	0	0	0	125	9	21
2021-08-31	0	0	0	0	0	0	0	0	0	0	80	0	2
2021-09-07	0	0	0	0	0	0	0	0	0	0	50	0	2
2021-09-14	0	0	0	0	0	0	0	0	0	0	106	0	0
2021-09-21	0	0	0	0	0	0	0	0	0	0	72	0	
2021-09-28	0	0	0	0	0	0	0	0	0	0	47	0	1
2021-10-05	0	0	0	0	0	0	0	0			2	2	2
2021-10-12	0	0	0	0	0	0	0	0			18	0	0
2021-10-19	0	0	0	0	0	0	0	0			107	0	0
2021-10-26	0	0	0	0	0	0	0	0			52	0	0
2021-11-02	0	0	0	0	0	0	0	0			84	0	0
2021-11-09	0	0	0	0	0	0	0	0			21	0	0
2021-11-16	0	0	0	0	0	0	0	0			133	0	0
2021-11-23	0	0	0	0	0	0	0	0			57	0	0
2021-11-30	0	0	0	0	0	0	0	0			10	0	0
2021-12-07	0	0	0	0	0	0	0	0			23	0	
2021-12-14	0	0	0	0	0	0	0	0			10	0	
2021-12-21	0	0	0	0	0	0	0	0			13	0	0
2021-12-28	0	0	0	0	0	0	0	0			9	0	

The 2021 bacteriological sampling results show that no total coliforms or E. coli were observed in any of the treated drinking water samples within the City's distribution system. However, some raw water samples from the Mountain Station reservoir had positive results for total coliforms, fecal

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(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 months and are diligently 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.

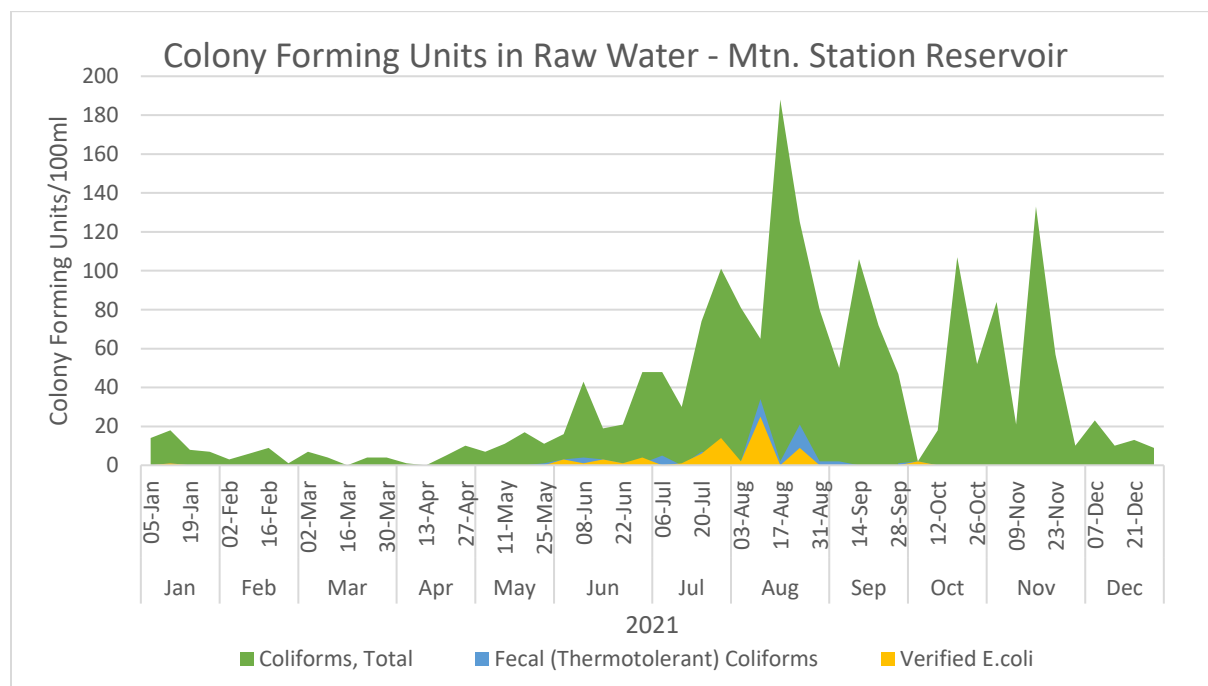


Figure 4: Colony Forming Units in Raw Untreated Water at Mtn. Station Reservoir

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 weekly samples from the previous six months (British Columbia, 2022a). Since only one sample returned a value greater than 20 CFU for *E. coli* (35 CFU on 2021-08-10) in the raw water and no coliforms of any sort in the distribution system, the City met the filtration exemption criteria for bacteriological monitoring.

4.2 Continuous Raw Water Turbidity

The City conducts in-line turbidity monitoring at Anderson Creek and the Mountain Station reservoir. A turbidity sensor was also installed at Selous Creek in March of 2021. The Province's filtration exclusion 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 exclusion criteria for turbidity on all occasions in 2021 at Anderson Creek and the Mountain Station reservoir, which are the two locations where raw water enters the distribution system.

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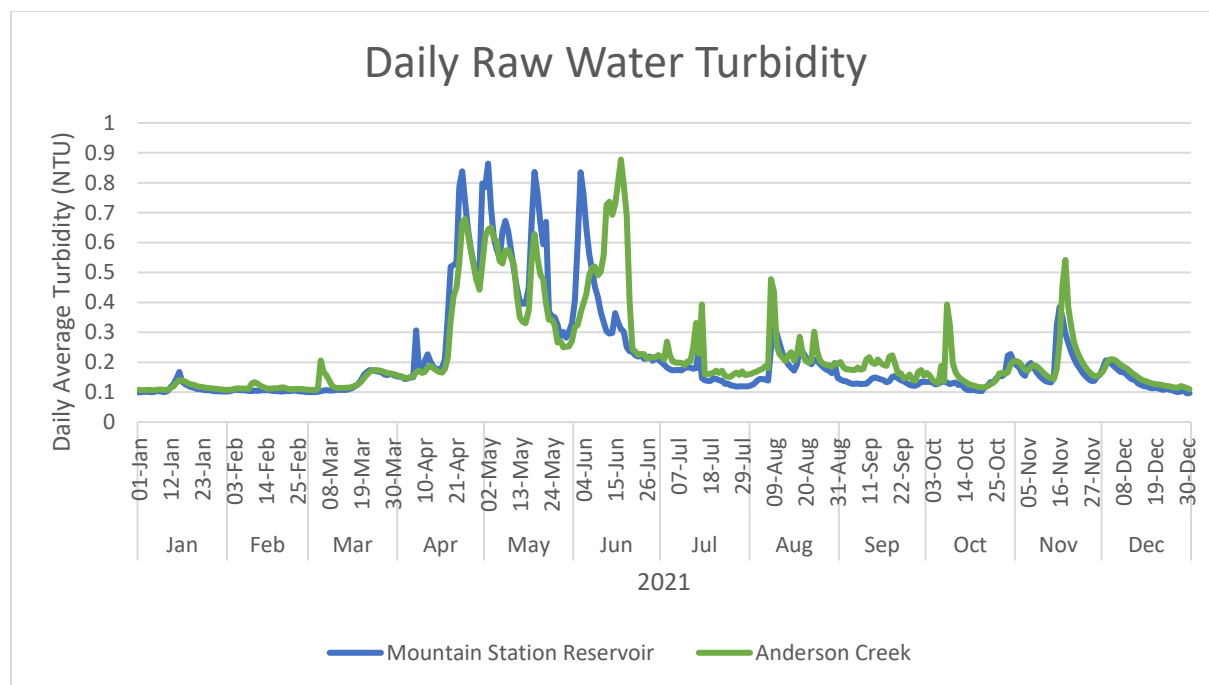


Figure 5: Daily Raw Water Turbidity

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 prioritizes sourcing drinking water from Five Mile Creek and Anderson Creek.

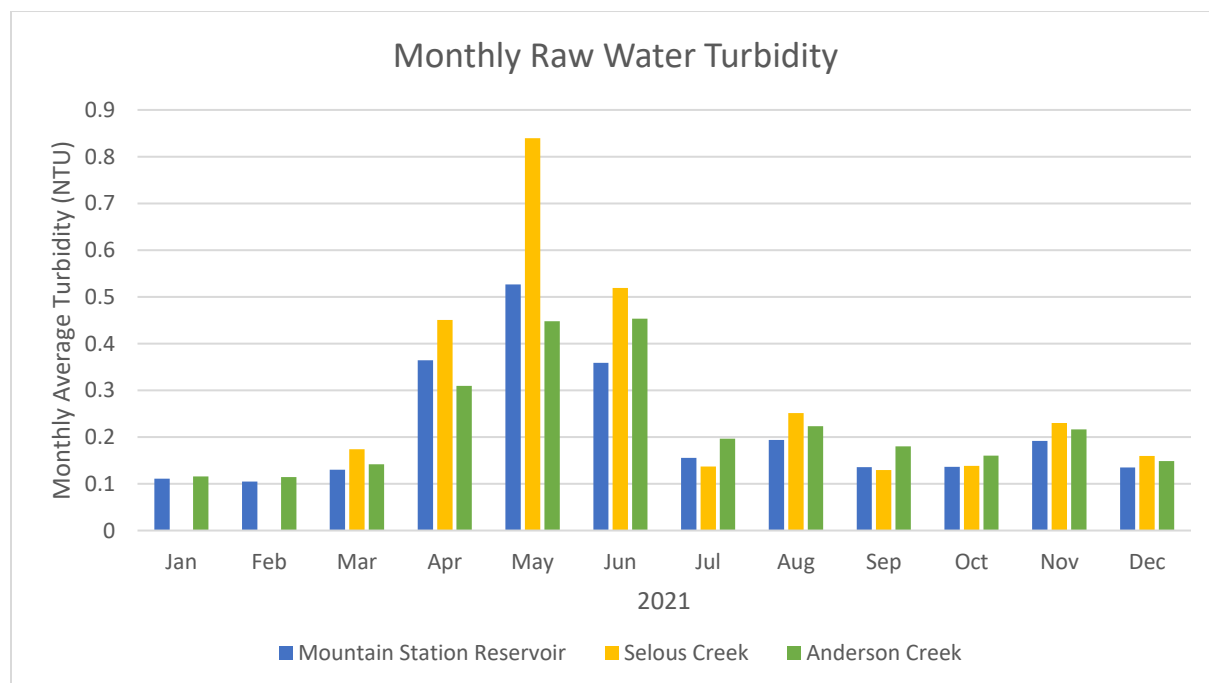


Figure 6: Monthly Raw Water Turbidity

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4.3 Continuous Ultraviolet Performance

Ultraviolet 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 of 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 2021 the treated water at Mountain Station continuously had greater than 72% UVT, as is shown in Figure 7.

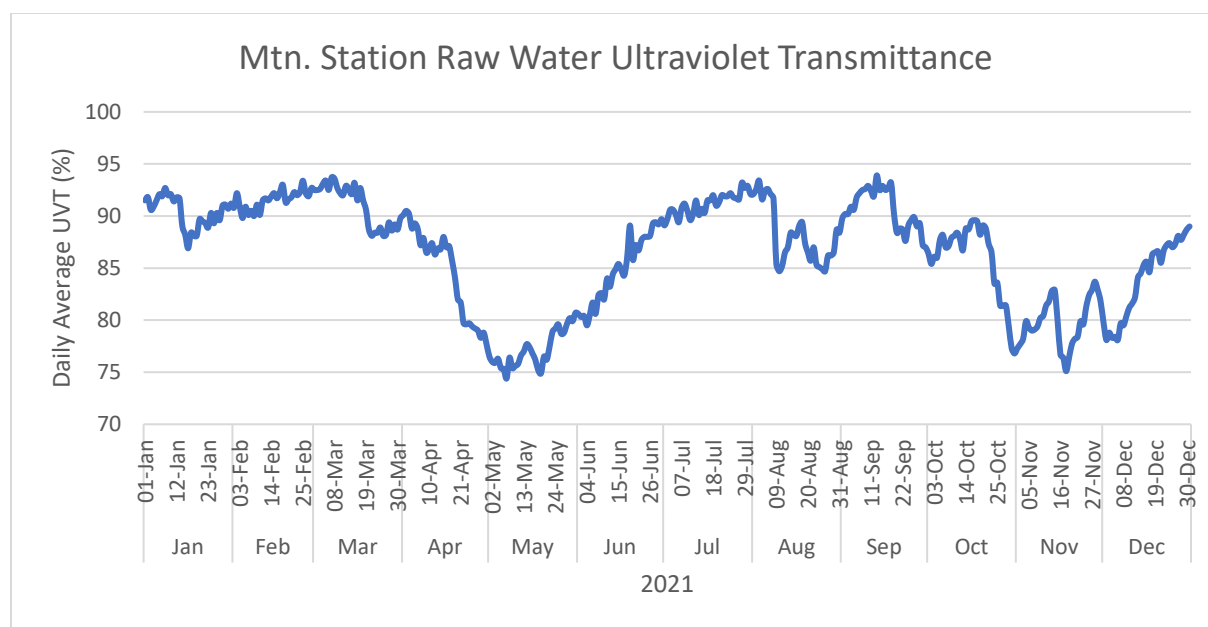


Figure 7: Mtn. Station Raw Water Ultraviolet Transmittance

4.4 Quarterly Trihalomethanes and Haloacetic Acids Testing

The Guidelines for Canadian Drinking Water Quality published by Health Canada establishes Maximum Acceptable Concentration Limits (MACs) for THMs and HAAs. The MACs for HAAs and THMs are calculated over an average of the previous four calendar quarters at a designated location within the distribution system, 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 2021 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

2021 Q4 Locational Running Annual Average

		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	RL***	Std (CDWQG*)
Analyte									
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	0.081875	0.07205	0.0672	0.078425	0.03575	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	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Monobromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Dichloroacetic Acid	0.02175	0.0209	0.0204	0.021625	0.01173333	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0248333	0.028625	0.027875	0.028425	0.01043333	mg/L	0.002	N/A
	Dibromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0506	0.0496	0.0483	0.0500	0.0219	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0819	0.0723	0.0675	0.0784	0.0361	mg/L	0.004	MAC=0.1
Total Metals	Manganese, total	0.0009	0.0012	0.0006	0.0026	0.0028	mg/L	0.0002	MAC=0.12

2021 Q3 Locational Running Annual Average

		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	RL***	Std (CDWQG*)
Analyte									
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	0.065725	0.055925	0.052275	0.062	0.03575	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	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Monobromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Dichloroacetic Acid	0.020825	0.019925	0.01845	0.020175	0.01173333	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0239	0.02765	0.02545	0.026675	0.01043333	mg/L	0.002	N/A
	Dibromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0490	0.0476	0.0439	0.0468	0.0219	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0657	0.0562	0.0523	0.0620	0.0361	mg/L	0.004	MAC=0.1
Total Metals	Manganese, total	0.0008	0.0013	0.0006	0.0022	0.0026	mg/L	0.0002	MAC=0.12

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Table 4: Q2 & Q1 THM & HAA LRAA Results

2021 Q2 Locational Running Annual Average

		Rosemont	3rd St &	Fell St &	Silica St &	Mountain	Units	RL***	Std (CDWQG*)
Analyte		Reservoir	Davies St	11th St	Stanley St	Station Res			
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	0.072025	0.062975	0.056225	0.0627	0.04	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	0.003275	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Monobromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Dichloroacetic Acid	0.02195	0.02085	0.0175	0.0196	0.0115	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0304	0.03055	0.025325	0.02715	0.01063333	mg/L	0.002	N/A
	Dibromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0549	0.0514	0.0429	0.0467	0.0218	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0720	0.0633	0.0562	0.0627	0.0404	mg/L	0.004	MAC=0.1
Total Metals	Manganese, total	0.0008	0.0012	0.0006	0.0019	0.0028	mg/L	0.0002	MAC=0.12

2021 Q1 Locational Running Annual Average

		Rosemont	3rd St &	Fell St &	Silica St &	Mountain	Units	RL***	Std (CDWQG*)
Analyte		Reservoir	Davies St	11th St	Stanley St	Station Res			
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	0.0714	0.0672	0.0603	0.06315	0.04095	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	0.0040333	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Monobromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Dichloroacetic Acid	0.0229	0.0219333	0.0183333	0.01976667	0.0115	mg/L	0.002	N/A
	Trichloroacetic Acid	0.0328	0.0331667	0.0272667	0.02833333	0.01063333	mg/L	0.002	N/A
	Dibromoacetic Acid	0.001	0.001	0.001	0.001	0.001	mg/L	0.002	N/A
	Total Haloacetic Acids (HAA5)	0.0590	0.0551	0.0457	0.0481	0.0218	mg/L	0.002	MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0714	0.0672	0.0603	0.0632	0.0413	mg/L	0.004	MAC=0.1
Total Metals	Manganese, total	0.0006	0.0013	0.0007	0.0017	0.0024	mg/L	0.0002	MAC=0.12

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4.5 Annual Full Comprehensive Raw Water Analysis

A raw water analysis of Five Mile, Anderson and Selous Creeks, were taken on February 16, 2021, the results of which 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, published by Health Canada, for all parameters.

CARO Labs conducted the raw water analysis and reported on the following parameters:

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

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.

City of Nelson 2021 Annual Drinking Water Report

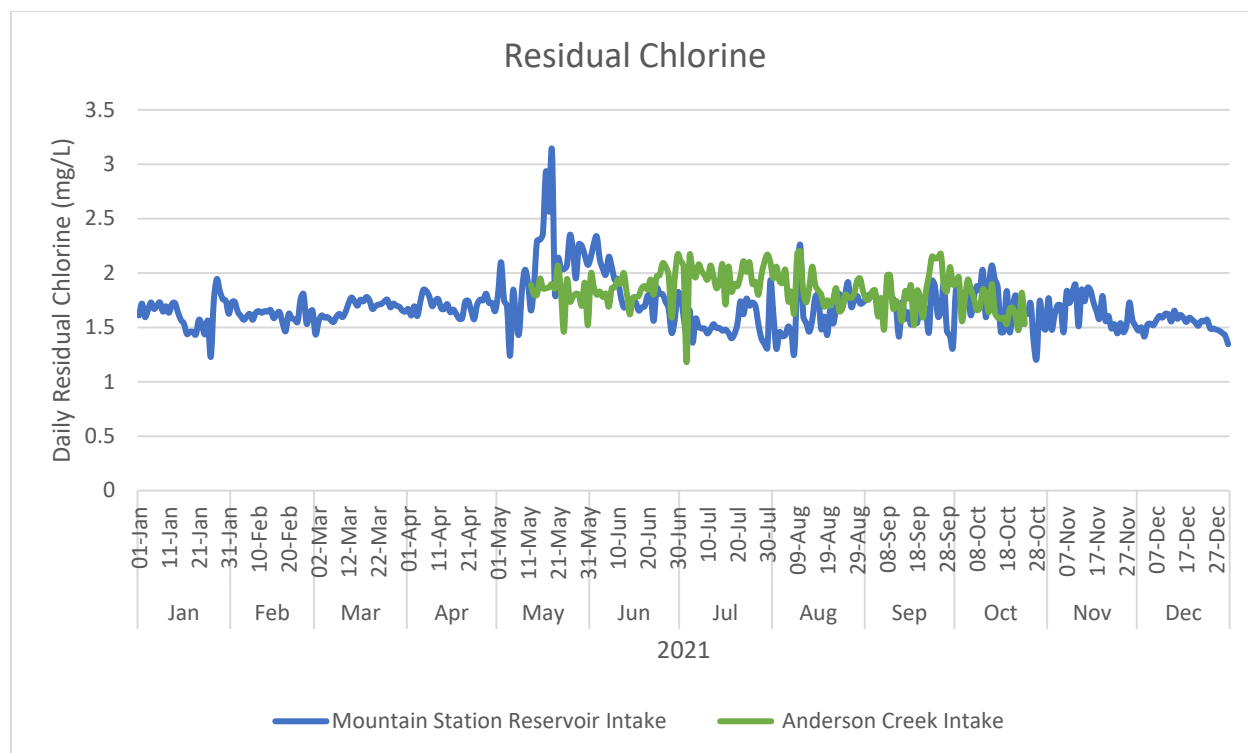


Figure 8: Daily Handheld Residual Chlorine Readings

5 Water Emergency Response Plan

Emergency response planning is an essential part of managing a drinking water system. Most public water systems have routine operating emergencies such as pipe breaks, pump malfunctions, bacteriological contamination, and 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, 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 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 waterworks system from potential sources of contamination, including cross-connection protection, provision of backflow protection, and access to properties for inspection by a qualified person.

7 Water Master Plan Summary

The original City of Nelson Water Master Plan was completed in 2007 and updated in 2017, with final Council approval in 2018. A copy of the Master Plan is available here:

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

City of Nelson 2021 Annual Drinking Water Report

8 Water Distribution System Capital Works Summary

In 2021, the City installed the water mains listed in Table 5.

Table 5: Water Distribution System Capital Works

Material	Water Main Diameter (mm)	Water Main Length (m)	Street
PVC	150	59	900 Front St
PVC	200	19	900 Front St
PVC	400	1,194	Anderson Creek Transmission Line
PVC	400	7	Anderson Creek Transmission Line
PVC	400	240	Anderson Creek Transmission Line
PVC	150	7	600 Kokanee Ave
PVC	200	11	700 Fell St
PVC	200	130	700 Fourth St
PVC	150	7	700 Fourth St
PVC	200	7	700 Kokanee Ave
PVC	200	119	800 Fourth St
PVC	200	10	800 Fourth St
PVC	200	138	800 Fourth St
PVC	200	71	100 Herridge Lane
PVC	200	70	400 Falls St
PVC	200	5	500 Herridge Lane
PVC	200	49	500 Josephine St
PVC	200	4	500 Victoria St
PVC	200	52	600 Herridge Lane
PVC	200	6	600 Josephine St

9 Environmental Operators Certification Program Training

The City's water treatment plant and water distribution system operators are all trained and certified by the Environmental Operators Certification Program (EOCP). The current levels of each certified operator are documented in Table 6.

Table 6: Operator EOCP Certificates

Operator	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

10 Water Conservation Measures

10.1 Water Loss Mitigation Study

In 2021 Kootenay Environmental Innovations (KEI) was retained by the City to investigate and mitigate 49 instances of continuous water consumption within institutional, commercial and industrial businesses. The sources of continuous water consumption varied in complexity.

For example, some properties only had leaky toilets, which were easily fixed by lowering the water level in the tank, replacing the flapper valve, or replacing the fill valve. On the other end of the spectrum, many properties have once-through water-cooled (WC) compressors, which the City of Nelson bylaw No. 3293 section 7.1 (d) prohibits as they consume large volumes of water. The source of the continuous consumption by primary business type can be seen in Figure 9.

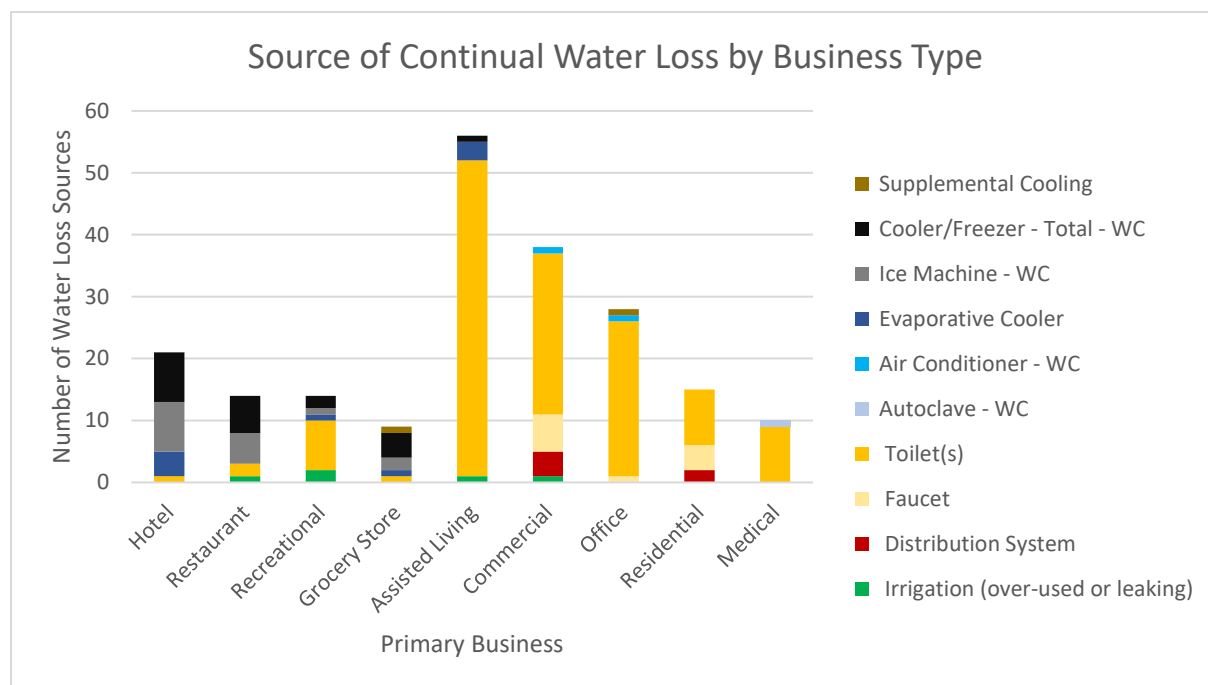


Figure 9: Source of Continuous Water Consumption by Primary Business Type

The Water Loss Mitigation Project solved most water losses from toilets, sinks, irrigation systems, and leaks in distribution systems. For water-based cooling systems, malfunctioning units were addressed by having the units inspected and maintained by professional heating and cooling contractors.

The study achieved the following savings:

- 63% reduction of each building's total water use equaling 67,160,000 L/year.
- 93% reduction of the water consumed while the building is not in use, e.g. at night.

The study also documented 17 water-cooled walk-in coolers/freezers, with a calculated consumption of 20,022,070 L/year. Similarly, 14 water-cooled ice machines were found, resulting in a calculated consumption of 4,450,445 L/year (KEI, 2021).

City of Nelson 2021 Annual Drinking Water Report

10.2 Watering Restrictions

Table 7 shows the 2021 dates that the City enacted watering restrictions, while the restrictions associated with each stage are shown in Figure 10.

Table 7: 2021 Watering Restrictions

Watering Restriction Level	Start Date
Normal Regulations	Start of Year
Stage 1	August 5
Stage 2	August 25
Stage 1	September 1
Normal Regulations	November 1

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

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

Appendix A: THM and HAA Quarterly Lab Results

City of Nelson 2021 Annual Drinking Water Report

2021 Q4 Results - Sampled 2021-12-14

		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	RL***
Analyte								
Volatile Organic Compounds (VOC)	Bromodichloromethane	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Bromoform	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Chloroform	0.104	0.102	0.095	0.102	<0.0010	mg/L	0.001
	Dibromochloromethane	<0.0010	<0.0010	0.0012	<0.0010	<0.0010	mg/L	0.001
Haloacetic Acids	Monochloroacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Monobromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Dichloroacetic Acid	0.0213	0.0216	0.0238	0.0207	<0.0020	mg/L	0.002
	Trichloroacetic Acid	0.0303	0.0329	0.0347	0.0299	<0.0020	mg/L	0.002
	Dibromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Total Haloacetic Acids (HAA5)	0.0516	0.0546	0.0585	0.0506	<0.00200	mg/L	0.002
Trihalomethanes	Total Trihalomethanes	0.104	0.102	0.0962	0.102	<0.00400	mg/L	0.004
Total Metals	Manganese, total	0.00082	0.0009	0.00064	0.00294	0.00102	mg/L	0.0002

2021 Q3 Results - Sampled 2021-09-21

		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	RL***
Analyte								
Volatile Organic Compounds (VOC)	Bromodichloromethane	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Bromoform	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Chloroform	0.0958	0.0768	0.0774	0.0919	0.0675	mg/L	0.001
	Dibromochloromethane	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
Haloacetic Acids	Monochloroacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Monobromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Dichloroacetic Acid	0.0329	0.0292	0.0286	0.0326	0.0231	mg/L	0.002
	Trichloroacetic Acid		0.0336	0.0334	0.0402	0.0202	mg/L	0.002
	Dibromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Total Haloacetic Acids (HAA5)	0.0738	0.0628	0.062	0.0727	0.0434	mg/L	0.002
Trihalomethanes	Total Trihalomethanes	0.0958	0.0768	0.0774	0.0919	0.0675	mg/L	0.004
Total Metals	Manganese, total	0.00083	0.00164	0.00071	0.00321	0.0023	mg/L	0.0002

City of Nelson 2021 Annual Drinking Water Report

2021 Q2 Results - Sampled 2021-06-28

		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	RL***
Analyte								
Volatile Organic Compounds (VOC)	Bromodichloromethane	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Bromoform	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Chloroform	0.0873	0.0715	0.0612	0.0832	0.0494	mg/L	0.001
	Dibromochloromethane	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	mg/L	0.001
Haloacetic Acids	Monochloroacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020		mg/L	0.002
	Monobromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020		mg/L	0.002
	Dichloroacetic Acid	0.0191	0.0176	0.015	0.0191		mg/L	0.002
	Trichloroacetic Acid	0.0232	0.0227	0.0195	0.0236		mg/L	0.002
	Dibromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020		mg/L	0.002
	Total Haloacetic Acids (HAA5)	0.0424	0.0403	0.0345	0.0427		mg/L	0.002
Trihalomethanes	Total Trihalomethanes	0.0873	0.0726	0.0612	0.0832	0.0494	mg/L	0.004
Total Metals	Manganese, total	0.00148	0.00135	0.00075	0.00309	0.00372	mg/L	0.0002

2021 Q1 Results - Sampled 2021-03-16

		Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	RL***
Analyte								
Volatile Organic Compounds (VOC)	Bromodichloromethane	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Bromoform	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
	Chloroform	0.0404	0.0379	0.0352	0.0366	0.0256	mg/L	0.001
	Dibromochloromethane	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001
Haloacetic Acids	Monochloroacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Monobromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Dichloroacetic Acid	0.0137	0.0152	0.0142	0.0141	0.0111	mg/L	0.002
	Trichloroacetic Acid	0.021	0.0253	0.0239	0.02	0.0101	mg/L	0.002
	Dibromoacetic Acid	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002
	Total Haloacetic Acids (HAA5)	0.0346	0.0405	0.0381	0.0341	0.0212	mg/L	0.002
Trihalomethanes	Total Trihalomethanes	0.0404	0.0379	0.0352	0.0366	0.0256	mg/L	0.004
Total Metals	Manganese, total	0.00038	0.00099	0.00042	0.00126	0.0042	mg/L	0.0002

Appendix B: Weekly Bacteriological Sampling



Report# 3163
Filename 210105CN.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
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: 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	1/5/2021	8:20 AM	Matrix	DW	Temperature on Receipt	4
Date/Time on Test	1/5/2021	8:30 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	1/5/2021	8:45 AM	Matrix	DW	Temperature on Receipt	4
Date/Time on Test	1/5/2021	8:35 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	1/5/2021	9:15 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	1/5/2021	8:40 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	1/5/2021	9:00 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	1/5/2021	8:45 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	1/5/2021	9:50 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	1/5/2021	8:50 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		14		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# 3190
Filename 210112CN.pdf

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

Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

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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: 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	1/12/2021	10:50 AM	Matrix	DW		Temperature on Receipt	
Date/Time on Test	1/12/2021	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	Silica st. Sampler					Sample #	2
Date/Time Sampled	1/12/2021	10:35 AM	Matrix	DW		Temperature on Receipt	
Date/Time on Test	1/12/2021	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	Sampler @ 3rd and Davies					Sample #	3
Date/Time Sampled	1/12/2021	10:23 AM	Matrix	DW		Temperature on Receipt	
Date/Time on Test	1/12/2021	5:15 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	1/12/2021	10:10 AM	Matrix	DW		Temperature on Receipt	
Date/Time on Test	1/12/2021	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	Mtn. Station Reservoir - Raw					Sample #	5
Date/Time Sampled	1/12/2021	9:49 AM	Matrix	SW		Temperature on Receipt	
Date/Time on Test	1/12/2021	5:25 PM					
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>	
Coliforms, Total		18		CFU/100mL		1	
Verified E.coli		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
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

4240 Passmore Upper Road, Winlaw BC, V0G2J0

250-226-7339

test@passmorelaboratory.ca

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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: 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	1/19/2021	8:15 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	1/19/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	1/19/2021	8:52 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	1/19/2021	5:40 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	1/19/2021	11:00 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	1/19/2021	5:45 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	1/19/2021	10:40 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	1/19/2021	5:50 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	1/19/2021	11:15 AM	Matrix	SW	Temperature on Receipt	6
Date/Time on Test	1/19/2021	5:55 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
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# 3221
Filename 210126CN.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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Zach Yeow

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	1/26/2021	7:50 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	1/26/2021	8:55 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	1/26/2021	8:10 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	1/26/2021	9:00 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	1/26/2021	8:25 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	1/26/2021	9:05 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	1/26/2021	9:30 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	1/26/2021	9:10 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	1/26/2021	9:00 AM	Matrix	SW	Temperature on Receipt	7
Date/Time on Test	1/26/2021	9:15 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

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
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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: Zach Yeow

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	2/2/2021	7:58 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	2/2/2021	5:45 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	2/2/2021	8:31 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/2/2021	5:50 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	2/2/2021	9:05 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	2/2/2021	5:55 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	2/2/2021	9:17 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/2/2021	6:00 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	2/2/2021	8:15 AM	Matrix	SW	Temperature on Receipt	9
Date/Time on Test	2/2/2021	6:05 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

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
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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

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

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.					Sample #	1
Date/Time Sampled	2/9/2021	8:50 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	2/9/2021	5:40 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	2/9/2021	9:20 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	2/9/2021	5:45 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	2/9/2021	9:55 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	2/9/2021	5:50 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	2/9/2021	9:45 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	2/9/2021	5:55 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	2/9/2021	10:40 AM	Matrix	SW	Temperature on Receipt		
Date/Time on Test	2/9/2021	6:00 PM					
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>		
Coliforms, Total		6		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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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: Zach Yeow

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	2/16/2021	8:10 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/16/2021	10:05 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	2/16/2021	8:20 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	2/16/2021	10:10 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	2/16/2021	9:10 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/16/2021	10:15 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	2/16/2021	9:02 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/16/2021	10:20 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	2/16/2021	8:40 AM	Matrix	SW	Temperature on Receipt	9
Date/Time on Test	2/16/2021	10:25 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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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# 3295
Filename 210223CN.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
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Zach Yeow

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	2/23/2021	8:15 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	2/23/2021	6:05 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	2/23/2021	8:40 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	2/23/2021	6:10 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	2/23/2021	9:15 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/23/2021	6:15 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	2/23/2021	9:00 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	2/23/2021	6:20 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	2/23/2021	9:30 AM	Matrix	SW	Temperature on Receipt	6
Date/Time on Test	2/23/2021	6:25 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
Fecal (Thermotolerant) Coliforms		less than 1		CFU/100mL		1

ANALYTICAL RESULTS

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

References



Report# 3321
Filename 210302CN.pdf

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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: Zach Yeow

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	3/2/2021	8:10 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	3/2/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	3/2/2021	8:30 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	3/2/2021	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	3/2/2021	9:00 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	3/2/2021	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	3/2/2021	8:45 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	3/2/2021	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	3/2/2021	9:30 AM	Matrix	SW	Temperature on Receipt	5
Date/Time on Test	3/2/2021	4:55 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

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# 3339
Filename 210309CN.pdf

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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: 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	3/9/2021	8:15 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	3/9/2021	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	3/9/2021	8:40 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	3/9/2021	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	3/9/2021	9:20 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	3/9/2021	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	3/9/2021	9:00 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	3/9/2021	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	3/9/2021	9:30 AM	Matrix	SW	Temperature on Receipt	5
Date/Time on Test	3/9/2021	4:05 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
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# 3357
Filename 210316CN.pdf

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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: 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	3/16/2021	8:15 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	3/16/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	3/16/2021	8:50 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	3/16/2021	5:40 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	3/16/2021	9:40 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	3/16/2021	5:45 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	3/16/2021	9:15 AM	Matrix	DW	Temperature on Receipt	4
Date/Time on Test	3/16/2021	5:55 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	3/16/2021	10:00 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	3/16/2021	6:00 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.
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# 3368
Filename 210323CN.pdf

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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: 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	3/23/2021	8:20 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	3/23/2021	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	Silica st. Sampler					Sample #	2
Date/Time Sampled	3/23/2021	8:45 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	3/23/2021	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 @ 3rd and Davies					Sample #	3
Date/Time Sampled	3/23/2021	9:15 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	3/23/2021	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	Sampler @ Fell and 11th					Sample #	4
Date/Time Sampled	3/23/2021	9:05 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	3/23/2021	5:40 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	3/23/2021	9:35 AM	Matrix	SW	Temperature on Receipt		
Date/Time on Test	3/23/2021	5:45 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		
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# 3390
Filename 210330CN.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
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: 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	3/30/2021	8:00 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	3/30/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	3/30/2021	8:20 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	3/30/2021	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 @ 3rd and Davies				Sample #	3
Date/Time Sampled	3/30/2021	9:12 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	3/30/2021	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	Sampler @ Fell and 11th				Sample #	4
Date/Time Sampled	3/30/2021	8:38 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	3/30/2021	5:40 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	3/30/2021	9:26 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	3/30/2021	5:45 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
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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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: 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	4/6/2021	8:10 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	4/6/2021	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	4/6/2021	8:30 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	4/7/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	4/6/2021	9:00 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	4/6/2021	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	4/6/2021	8:47 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	4/6/2021	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	4/6/2021	9:15 AM	Matrix	RW	Temperature on Receipt	10
Date/Time on Test	4/6/2021	4:40 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	
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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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: Zach Yeow

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	4/13/2021	8:30 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	4/13/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	4/13/2021	8:50 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	4/13/2021	5:40 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	4/13/2021	9:15 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	4/13/2021	5:45 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	4/13/2021	9:05 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	4/13/2021	5:50 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	4/13/2021	9:30 AM	Matrix	SW	Temperature on Receipt	6
Date/Time on Test	4/13/2021	5:55 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
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# 3442
Filename 210420CN.pdf

4240 Passmore Upper Road, Winlaw BC, V0G2J0
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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: 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	4/20/2021	8:00 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	4/20/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	4/20/2021	8:25 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	4/20/2021	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 @ 3rd and Davies				Sample #	3
Date/Time Sampled	4/20/2021	8:55 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	4/20/2021	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	Sampler @ Fell and 11th				Sample #	4
Date/Time Sampled	4/20/2021	8:40 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	4/20/2021	5:40 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	4/20/2021	9:10 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	4/20/2021	5:45 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		5		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# 3464
Filename 210427CN.pdf

4240 Passmore Upper Road, Winlaw BC, V0G2J0
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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: 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	4/27/2021	8:25 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	4/27/2021	6:00 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	4/27/2021	9:35 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	4/27/2021	6:05 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	4/27/2021	9:25 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	4/27/2021	6:10 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	4/27/2021	9:10 AM	Matrix	DW	Temperature on Receipt		
Date/Time on Test	4/27/2021	6:15 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	4/27/2021	8:45 AM	Matrix	SW	Temperature on Receipt		
Date/Time on Test	4/27/2021	6:20 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.
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# 3483
Filename 210504CN.pdf

4240 Passmore Upper Road, Winlaw BC, V0G2J0
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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: 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	5/4/2021	8:15 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	5/4/2021	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	5/4/2021	8:35 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	5/4/2021	4:22 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	5/4/2021	9:05 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	5/4/2021	4:24 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	5/4/2021	8:55 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	5/4/2021	4:26 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	5/4/2021	9:20 AM	Matrix	SW	Temperature on Receipt	10
Date/Time on Test	5/4/2021	4:28 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

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	5/4/2021 11:30 AM	Matrix	DW
		Temperature on Receipt	10

Date/Time on Test	5/4/2021 4:30 PM
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<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

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: Isabella Kroker
Kimber

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	5/11/2021	8:15 AM	Matrix	DW	Temperature on Receipt	9

Date/Time on Test 5/11/2021 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	5/11/2021	9:40 AM	Matrix	DW	Temperature on Receipt	9

Date/Time on Test 5/11/2021 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	3rd and Davies				Sample #	3
Date/Time Sampled	5/11/2021	9:00 AM	Matrix	DW	Temperature on Receipt	9

Date/Time on Test 5/11/2021 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	5/11/2021	8:45 AM	Matrix	DW	Temperature on Receipt	9

Date/Time on Test 5/11/2021 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	5/11/2021	9:30 AM	Matrix	SW	Temperature on Receipt	9

Date/Time on Test 5/11/2021 3:20 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

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	5/11/2021 10:50 AM	Matrix	DW
		Temperature on Receipt	9

Date/Time on Test	5/11/2021 3:25 PM
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<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: Isabella Kroker
Kimber

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	5/18/2021	7:50 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	5/18/2021	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	5/18/2021	8:09 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	5/18/2021	3:48 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	5/18/2021	9:00 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	5/18/2021	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	5/18/2021	8:50 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	5/18/2021	3:52 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	5/18/2021	9:30 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	5/18/2021	5:55 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		17		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	5/18/2021 8:40 AM	Matrix	DW
		Temperature on Receipt	12

Date/Time on Test	5/18/2021 4:00 PM
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<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

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: Isabella Kroker
Kimber

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	5/25/2021	7:50 AM	Matrix	DW	Temperature on Receipt	11

Date/Time on Test 5/25/2021 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	5/25/2021	8:00 AM	Matrix	DW	Temperature on Receipt	11

Date/Time on Test 5/25/2021 3:18 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	5/25/2021	9:20 AM	Matrix	DW	Temperature on Receipt	11

Date/Time on Test 5/25/2021 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 @ Fell and 11th				Sample #	4
Date/Time Sampled	5/25/2021	8:45 AM	Matrix	DW	Temperature on Receipt	11

Date/Time on Test 5/25/2021 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	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	5/25/2021	8:20 AM	Matrix	SW	Temperature on Receipt	11

Date/Time on Test 5/25/2021 3:28 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	1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	5/25/2021 8:35 AM	Matrix	DW
		Temperature on Receipt	11

Date/Time on Test	5/25/2021 3:30 PM
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<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

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.

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Processed by: Isabella Kroker
Kimber

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	6/1/2021	8:05 AM	Matrix	DW	Temperature on Receipt	10

Date/Time on Test 6/1/2021 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	6/1/2021	8:30 AM	Matrix	DW	Temperature on Receipt	10

Date/Time on Test 6/1/2021 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	3rd and Davies				Sample #	3
Date/Time Sampled	6/1/2021	9:20 AM	Matrix	DW	Temperature on Receipt	10

Date/Time on Test 6/1/2021 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	6/1/2021	8:47 AM	Matrix	DW	Temperature on Receipt	10

Date/Time on Test 6/1/2021 3:12 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	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	6/1/2021	9:35 AM	Matrix	DW	Temperature on Receipt	10

Date/Time on Test 6/1/2021 3:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	16	CFU/100mL	1
Verified E.coli	3	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	3	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	6/1/2021 9:10 AM	Matrix	DW
		Temperature on Receipt	10

Date/Time on Test	6/1/2021 3:20 PM
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<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

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: Isabella Kroker
Kimber

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	6/8/2021	7:50 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/8/2021	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	6/8/2021	8:03 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/8/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	6/8/2021	8:35 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/8/2021	3:22 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	6/8/2021	8:17 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/8/2021	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	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	6/8/2021	8:50 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	6/8/2021	3:28 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		43		CFU/100mL		1
Verified E.coli		1		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		4		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	6/8/2021 8:20 AM	Matrix	DW
		Temperature on Receipt	8

Date/Time on Test	6/8/2021 3:30 PM
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<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

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: Isabella Kroker
Kimber

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	6/15/2021	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/15/2021	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	6/15/2021	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/15/2021	3:18 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	6/15/2021	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/15/2021	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 @ Fell and 11th			Sample #	4
Date/Time Sampled	6/15/2021	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/15/2021	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	Mtn. Station Reservoir - Raw			Sample #	5
Date/Time Sampled	6/15/2021	Matrix	SW	Temperature on Receipt	11
Date/Time on Test	6/15/2021	3:30 PM			
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>	
Coliforms, Total		19	CFU/100mL	1	
Verified E.coli		3	CFU/100mL	1	
Fecal (Thermotolerant) Coliforms		3	CFU/100mL	1	

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	6/15/2021	Matrix	DW
		Temperature on Receipt	11

Date/Time on Test	6/15/2021	3:35 PM
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<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



Report# 3633
Filename 210621CN.pdf

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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: Jennifer Yeow

Jennifer Yeow,
Lab Manager

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

ANALYTICAL RESULTS

Sample ID	4th and Fell			Sample #	1
Date/Time Sampled	6/18/2021	12:30 PM	Matrix	Main	Temperature on Receipt

Date/Time on Test 6/18/2021 2:30 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

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: Isabella Kroker
Kimber

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	6/22/2021	7:59 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/22/2021	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	6/22/2021	8:18 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/22/2021	4:18 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	6/22/2021	10:46 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/22/2021	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	6/22/2021	10:33 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	6/22/2021	4:22 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	6/22/2021	9:45 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	6/22/2021	4:25 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total		21		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	6/22/2021 10:23 AM	Matrix	DW
		Temperature on Receipt	8

Date/Time on Test	6/22/2021 4:28 PM
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<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: Isabella Kroker
Kimber

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	6/29/2021	9:30 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/29/2021	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	6/29/2021	9:10 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/29/2021	3:18 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	6/29/2021	8:25 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/29/2021	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 @ Fell and 11th				Sample #	4
Date/Time Sampled	6/29/2021	8:00 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	6/29/2021	3:22 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	6/29/2021	8:50 AM	Matrix	SW	Temperature on Receipt	11
Date/Time on Test	6/29/2021	3:28 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		48		CFU/100mL		1
Verified E.coli		4		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		1		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	6/29/2021 8:15 AM	Matrix	DW
		Temperature on Receipt	11

Date/Time on Test	6/29/2021 3:30 PM
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<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>
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: Isabella Kroker
Kimber

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	7/6/2021	8:00 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	7/6/2021	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	7/6/2021	8:30 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	7/6/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	7/6/2021	9:15 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	7/6/2021	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	7/6/2021	9:00 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	7/6/2021	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	7/6/2021	9:25 AM	Matrix	SW	Temperature on Receipt	12
Date/Time on Test	7/6/2021	3:45 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		5		CFU/100mL	1	

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	7/6/2021 8:45 AM	Matrix	DW
		Temperature on Receipt	12

Date/Time on Test	7/6/2021 3:50 PM
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<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

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: Isabella Kroker
Kimber

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	7/13/2021	7:50 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	7/13/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	7/13/2021	8:20 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	7/13/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	7/13/2021	9:00 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	7/13/2021	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 @ Fell and 11th				Sample #	4
Date/Time Sampled	7/13/2021	8:40 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	7/13/2021	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	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	7/13/2021	9:15 AM	Matrix	SW	Temperature on Receipt	8
Date/Time on Test	7/13/2021	3:55 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		30		CFU/100mL		1
Verified E.coli		1		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		less than 1		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	7/13/2021 8:45 AM	Matrix	DW
		Temperature on Receipt	8

Date/Time on Test	7/13/2021 4:00 PM
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<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

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: Isabella Kroker
Kimber

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	7/20/2021	7:45 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	7/20/2021	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	7/20/2021	8:20 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	7/20/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	7/20/2021	9:50 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	7/20/2021	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	7/20/2021	9:40 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	7/20/2021	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	7/20/2021	10:15 AM	Matrix	SW	Temperature on Receipt	10
Date/Time on Test	7/20/2021	3:25 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		74		CFU/100mL		1
Verified E.coli		6		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		7		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	7/20/2021 9:15 AM	Matrix	DW
		Temperature on Receipt	10

Date/Time on Test	7/20/2021 3:30 PM
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<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: Isabella Kroker
Kimber

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	7/27/2021	8:20 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	7/27/2021	2:55 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	7/27/2021	8:52 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	7/27/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	7/27/2021	9:25 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	7/27/2021	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 @ Fell and 11th				Sample #	4
Date/Time Sampled	7/27/2021	9:15 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	7/27/2021	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	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	7/27/2021	9:38 AM	Matrix	SW	Temperature on Receipt	13
Date/Time on Test	7/27/2021	3:15 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		101		CFU/100mL		1
Verified E.coli		14		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		6		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	7/27/2021 9:00 AM	Matrix	DW
		Temperature on Receipt	13

Date/Time on Test	7/27/2021 3:20 PM
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<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: Isabella Kroker
Kimber

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	8/3/2021	7:50 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	8/3/2021	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	8/3/2021	8:05 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	8/3/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	8/3/2021	8:21 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	8/3/2021	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	8/3/2021	9:10 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	8/3/2021	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	8/3/2021	9:20 AM	Matrix	SW	Temperature on Receipt	10
Date/Time on Test	8/3/2021	3:25 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		81		CFU/100mL		1
Verified E.coli		2		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		2		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	8/3/2021 8:30 AM	Matrix	DW
		Temperature on Receipt	10

Date/Time on Test	8/3/2021 3:30 PM
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<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>
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: Isabella Kroker
Kimber

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	8/10/2021	9:50 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	8/10/2021	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	8/10/2021	9:35 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	8/10/2021	3:28 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	8/10/2021	8:50 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	8/10/2021	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	8/10/2021	8:40 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	8/10/2021	3:32 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	8/10/2021	9:30 AM	Matrix	SW	Temperature on Receipt	12
Date/Time on Test	8/10/2021	3:35 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total		65		CFU/100mL	1	
Verified E.coli		25		CFU/100mL	1	
Fecal (Thermotolerant) Coliforms		34		CFU/100mL	1	

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	8/10/2021 8:20 AM	Matrix	DW
		Temperature on Receipt	12

Date/Time on Test	8/10/2021 3:40 PM
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<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: Isabella Kroker
Kimber

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	8/17/2021	7:50 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/17/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	8/17/2021	8:06 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/17/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	8/17/2021	10:20 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/17/2021	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	8/17/2021	10:30 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/17/2021	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	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	8/17/2021	8:20 AM	Matrix	SW	Temperature on Receipt	9
Date/Time on Test	8/17/2021	4:10 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		188		CFU/100mL		1
Verified E.coli		less than 1		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		2		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	8/17/2021 8:40 AM	Matrix	DW
		Temperature on Receipt	9

Date/Time on Test	8/17/2021 4:15 PM
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<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

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: Carol Leung

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	8/24/2021	8:00 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/24/2021	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

Sample ID	Silica st. Sampler				Sample #	2
Date/Time Sampled	8/24/2021	8:25 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/24/2021	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
Fecal (Thermotolerant) Coliforms		Less than 1		CFU/100mL		1

Sample ID	3rd and Davies				Sample #	3
Date/Time Sampled	8/24/2021	9:00 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/24/2021	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
Fecal (Thermotolerant) Coliforms		Less than 1		CFU/100mL		1

Sample ID	Sampler @ Fell and 11th				Sample #	4
Date/Time Sampled	8/24/2021	8:50 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/24/2021	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
Fecal (Thermotolerant) Coliforms		Less than 1		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Mtn. Station Reservoir - Raw				Sample #	5
Date/Time Sampled	8/24/2021	9:20 AM	Matrix	SW	Temperature on Receipt	9
Date/Time on Test	8/24/2021	4:00 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		125		CFU/100mL		1
Verified E.coli		9		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		21		CFU/100mL		1
Comments	Background growth detected.					

Sample ID	Anderson Creek				Sample #	6
Date/Time Sampled	8/24/2021	8:40 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/24/2021	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

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: Carol Leung

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	8/31/2021	8:00 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	8/31/2021	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	8/31/2021	8:15 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	8/31/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	8/31/2021	10:12 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	8/31/2021	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	8/31/2021	10:00 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	8/31/2021	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	8/31/2021	8:35 AM	Matrix	SW	Temperature on Receipt	12
Date/Time on Test	8/31/2021	4:15 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		80		CFU/100mL		1
Verified E.coli		less than 1		CFU/100mL		1
Fecal (Thermotolerant) Coliforms		2		CFU/100mL		1

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	8/31/2021 9:35 AM	Matrix	DW
		Temperature on Receipt	12

Date/Time on Test 8/31/2021 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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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: 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	9/7/2021	8:00 AM	Matrix TW	Temperature on Receipt	10
Date/Time on Test	9/7/2021	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	9/7/2021	8:30 AM	Matrix TW	Temperature on Receipt	12
Date/Time on Test	9/7/2021	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	3rd and Davies			Sample #	3
Date/Time Sampled	9/7/2021	9:00 AM	Matrix TW	Temperature on Receipt	11
Date/Time on Test	9/7/2021	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	11th and Fil			Sample #	4
Date/Time Sampled	9/7/2021	8:55 AM	Matrix TW	Temperature on Receipt	11
Date/Time on Test	9/7/2021	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	9/8/2021	9:20 AM	Matrix UGW	Temperature on Receipt	10
Date/Time on Test	9/7/2021	5:00 PM			
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>	
Coliforms, Total		50	CFU/100mL	1	
Verified E.coli		Less than 1	CFU/100mL	1	
Fecal (Thermotolerant) Coliforms		2	CFU/100mL	1	

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	9/7/2021 8:40 AM	Matrix	TW
		Temperature on Receipt	9

Date/Time on Test	9/7/2021 5:05 PM
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<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

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: Carol Leung

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	9/14/2021	7:38 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	9/14/2021	4:31 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	9/14/2021	8:24 AM	Matrix	DW	Temperature on Receipt	12
Date/Time on Test	9/14/2021	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	9/14/2021	11:40 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	9/14/2021	4:36 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 Fil				Sample #	4
Date/Time Sampled	9/14/2021	11:30 AM	Matrix	DW	Temperature on Receipt	14
Date/Time on Test	9/14/2021	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	9/14/2021	10:34 AM	Matrix	SW	Temperature on Receipt	13
Date/Time on Test	9/14/2021	4:41 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		106		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	9/14/2021 11:10 AM	Matrix	DW
		Temperature on Receipt	13

Date/Time on Test	9/14/2021 4:45 PM
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<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



Report# 3946
Filename 210924CN.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

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Processed by: Jennifer 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	9/21/2021	10:04 AM	Matrix TW	Temperature on Receipt	8
Date/Time on Test	9/21/2021	4:42 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	Silica st. Sampler			Sample #	2
Date/Time Sampled	9/21/2021	9:14 AM	Matrix TW	Temperature on Receipt	8
Date/Time on Test	9/21/2021	4:44 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	
Comments	Light background growth				

Sample ID	3rd and Davies			Sample #	3
Date/Time Sampled	9/21/2021	8:55 AM	Matrix TW	Temperature on Receipt	8
Date/Time on Test	9/21/2021	4:46 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 Fil			Sample #	4
Date/Time Sampled	9/21/2021	8:33 AM	Matrix TW	Temperature on Receipt	8
Date/Time on Test	9/21/2021	4:48 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	9/21/2021	9:32 AM	Matrix SW	Temperature on Receipt	9
Date/Time on Test	9/21/2021	4:50 PM			
<u>Analyses</u>		<u>Result</u>	<u>Units</u>	<u>RDL</u>	
Coliforms, Total		72	CFU/100mL	1	
Verified E.coli		Less than 1	CFU/100mL	1	

ANALYTICAL RESULTS

Sample ID	Anderson Creek	Sample #	6
Date/Time Sampled	9/21/2021 8:20 AM	Matrix	TW
		Temperature on Receipt	9

Date/Time on Test	9/21/2021 4:52 PM
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<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



Report# 3962
Filename 210928CN.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
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: 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	9/28/2021	10:25 AM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	9/28/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	9/28/2021	9:22 AM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	9/28/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	9/28/2021	9:14 AM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	9/28/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	9/28/2021	9:05 AM	Matrix	TW	Temperature on Receipt	10
Date/Time on Test	9/28/2021	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	9/28/2021	8:20 AM	Matrix	SW	Temperature on Receipt	10
Date/Time on Test	9/28/2021	4:05 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total		47		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	Sample #	6
Date/Time Sampled	9/28/2021 8:50 AM	Matrix	TW
		Temperature on Receipt	10

Date/Time on Test	9/28/2021 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

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: Diana Quisobony

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	10/5/2021	7:55 AM	Matrix	DW	Temperature on Receipt	15
Date/Time on Test	10/5/2021	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	10/5/2021	8:43 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	10/5/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	10/5/2021	11:41 AM	Matrix	DW	Temperature on Receipt	13
Date/Time on Test	10/5/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	10/5/2021	11:25 AM	Matrix	DW	Temperature on Receipt	15
Date/Time on Test	10/5/2021	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	10/5/2021	10:35 AM	Matrix	SW	Temperature on Receipt	14
Date/Time on Test	10/5/2021	4:35 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		2		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

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: Diana Quisobony

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	10/12/2021	8:30 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	10/12/2021	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	10/12/2021	9:00 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	10/12/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	10/12/2021	9:30 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	10/12/2021	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	11th and FII				Sample #	4
Date/Time Sampled	10/12/2021	9:15 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	10/12/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	10/12/2021	9:45 AM	Matrix	SW	Temperature on Receipt	7
Date/Time on Test	10/12/2021	3:35 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total		18		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# 4028
Filename 211019CN.pdf

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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: Diana Quisobony

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	10/19/2021	7:45 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	10/19/2021	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	10/19/2021	8:15 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	10/19/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	10/19/2021	9:45 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	10/19/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	10/19/2021	10:20 AM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	10/19/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	10/19/2021	11:00 AM	Matrix	SW	Temperature on Receipt	11
Date/Time on Test	10/19/2021	3:40 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		107		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# 4044
Filename 211026CN.pdf

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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: Diana Quisobony

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	10/26/2021	10:16 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	10/26/2021	2:30 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	10/26/2021	10:25 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	10/26/2021	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	

Sample ID	3rd and Davies				Sample #	3
Date/Time Sampled	10/26/2021	10:35 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	10/26/2021	2:40 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 Fil				Sample #	4
Date/Time Sampled	10/26/2021	10:45 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	10/26/2021	2:45 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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	10/26/2021	10:55 AM	Matrix	SW	Temperature on Receipt	10
Date/Time on Test	10/26/2021	2:50 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total		52		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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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: Diana Quisobony

Jennifer Yeow,
Lab Manager



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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	11/2/2021	8:04 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	11/2/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	11/2/2021	9:55 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	11/2/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	11/2/2021	9:05 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	11/2/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	11/2/2021	8:40 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	11/2/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	11/2/2021	9:42 AM	Matrix	SW	Temperature on Receipt	9
Date/Time on Test	11/2/2021	4:00 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		84		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# 4089
Filename 211109CN.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
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: Diana Quisobony

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	11/9/2021	8:30 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/9/2021	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	Silica st. Sampler				Sample #	2
Date/Time Sampled	11/9/2021	9:00 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/9/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	11/9/2021	11:30 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/9/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	11/9/2021	11:45 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	11/9/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	11/9/2021	9:30 AM	Matrix	SW	Temperature on Receipt	7
Date/Time on Test	11/9/2021	3:55 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total		21		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 Pubic 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: Diana Quisobony

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	11/16/2021	8:00 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/16/2021	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	11/16/2021	8:20 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/16/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	11/16/2021	10:30 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/16/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	11/16/2021	10:15 AM	Matrix	DW	Temperature on Receipt	6
Date/Time on Test	11/16/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	11/16/2021	11:20 AM	Matrix	SW	Temperature on Receipt	7
Date/Time on Test	11/16/2021	3:40 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		133		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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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: Diana Quisobony

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	11/23/2021	7:50 AM	Matrix	DW	Temperature on Receipt	8
Date/Time on Test	11/23/2021	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	11/23/2021	8:30 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/23/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	11/23/2021	11:20 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/23/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	11/23/2021	11:40 AM	Matrix	DW	Temperature on Receipt	7
Date/Time on Test	11/23/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	11/23/2021	10:55 AM	Matrix	SW	Temperature on Receipt	7
Date/Time on Test	11/23/2021	3:45 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		57		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# 4148
Filename 211130CN.pdf

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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: Diana Quisobony

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	11/30/2021	8:02 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	11/30/2021	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	11/30/2021	8:30 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	11/30/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	11/30/2021	12:10 PM	Matrix	DW	Temperature on Receipt	11
Date/Time on Test	11/30/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	11/30/2021	10:03 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	11/30/2021	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	Mountain Station Reservoir				Sample #	5
Date/Time Sampled	11/30/2021	11:57 AM	Matrix	SW	Temperature on Receipt	9
Date/Time on Test	11/30/2021	3:50 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.
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# 4169
Filename 211207CN.pdf

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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	12/7/2021	8:00 AM	Matrix	DW	Temperature on Receipt	7

Date/Time on Test 12/7/2021 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	12/7/2021	8:30 AM	Matrix	DW	Temperature on Receipt	6

Date/Time on Test 12/7/2021 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	3rd and Davies				Sample #	3
Date/Time Sampled	12/7/2021	9:10 AM	Matrix	DW	Temperature on Receipt	6

Date/Time on Test 12/7/2021 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 FII				Sample #	4
Date/Time Sampled	12/7/2021	9:00 AM	Matrix	DW	Temperature on Receipt	7

Date/Time on Test 12/7/2021 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	12/7/2021	11:00 AM	Matrix	SW	Temperature on Receipt	7

Date/Time on Test 12/7/2021 4:30 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

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# 4207
Filename 211221CN.pdf

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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

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	12/21/2021	7:50 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	12/21/2021	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	12/21/2021	8:12 AM	Matrix	DW	Temperature on Receipt	5
Date/Time on Test	12/21/2021	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	3rd and Davies				Sample #	3
Date/Time Sampled	12/21/2021	8:25 AM	Matrix	DW	Temperature on Receipt	4
Date/Time on Test	12/21/2021	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	11th and Fil				Sample #	4
Date/Time Sampled	12/21/2021	8:35 AM	Matrix	DW	Temperature on Receipt	4
Date/Time on Test	12/21/2021	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	12/21/2021	9:00 AM	Matrix	SW	Temperature on Receipt	4
Date/Time on Test	12/21/2021	4:10 PM				
<u>Analyses</u>		<u>Result</u>		<u>Units</u>		<u>RDL</u>
Coliforms, Total		13		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# 4188
Filename 211214CN.pdf

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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	12/14/2021	8:00 AM	Matrix	DW	Temperature on Receipt	7

Date/Time on Test 12/14/2021 3:30 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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Comments Sample meets drinking water guidelines for the tests performed.

Sample ID	Silica st. Sampler				Sample #	2
Date/Time Sampled	12/14/2021	8:10 AM	Matrix	DW	Temperature on Receipt	7

Date/Time on Test 12/14/2021 3:35 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
------------------	-------------	-----------	---

Verified E.coli	less than 1	CFU/100mL	1
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Comments Sample meets drinking water guidelines for the tests performed.

Sample ID	3rd and Davies				Sample #	3
Date/Time Sampled	12/14/2021	8:45 AM	Matrix	DW	Temperature on Receipt	7

Date/Time on Test 12/14/2021 3:40 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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Comments Sample meets drinking water guidelines for the tests performed.

Sample ID	11th and FII				Sample #	4
Date/Time Sampled	12/14/2021	8:30 AM	Matrix	DW	Temperature on Receipt	7

Date/Time on Test 12/14/2021 3:45 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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Comments Sample meets drinking water guidelines for the tests performed.

ANALYTICAL RESULTS

Sample ID	Mtn. Station Reservoir - Raw			Sample #	5	
Date/Time Sampled	12/14/2021	9:00 AM	Matrix	SW	Temperature on Receipt	7

Date/Time on Test	12/14/2021	3:55 PM
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<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

Comments	Sample does not meet drinking water guidelines for the tests performed.
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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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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



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

ANALYTICAL RESULTS

Sample ID	Rosemont Res.				Sample #	1
Date/Time Sampled	12/28/2021	8:00 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	12/28/2021	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	
Comments	Sample meets drinking water guidelines for tests performed.					

Sample ID	Silica st. Sampler				Sample #	2
Date/Time Sampled	12/28/2021	8:15 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	12/28/2021	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	
Comments	Sample meets drinking water guidelines for tests performed.					

Sample ID	3rd and Davies				Sample #	3
Date/Time Sampled	12/28/2021	9:20 AM	Matrix	DW	Temperature on Receipt	9
Date/Time on Test	12/28/2021	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	
Comments	Sample meets drinking water guidelines for tests performed.					

Sample ID	11th and FII				Sample #	4
Date/Time Sampled	12/28/2021	9:34 AM	Matrix	DW	Temperature on Receipt	10
Date/Time on Test	12/28/2021	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	
Comments	Sample meets drinking water guidelines for tests performed.					

ANALYTICAL RESULTS

Sample ID	Mtn. Station Reservoir - Raw			Sample #	5	
Date/Time Sampled	12/28/2021	11:05 AM	Matrix	SW	Temperature on Receipt	10

Date/Time on Test	12/28/2021	4:30 PM
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<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

Comments	Sample does not meet drinking water guidelines for tests performed.
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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

Appendix C: Annual Full Comprehensive Raw Water Analysis

CERTIFICATE OF ANALYSIS

REPORTED TO	Urban Systems - Nelson Office Suite 204 - 625 Front St NELSON, BC V1L 4B6	WORK ORDER	21B1924
ATTENTION	Dean Thompson	RECEIVED / TEMP	2021-02-17 09:15 / 3°C
PO NUMBER	38623	REPORTED	2021-02-24 17:05
PROJECT	City of Nelson Water Sampling	COC NUMBER	No Number
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 tmaxwell@caro.ca

Authorized By:

Taylor Maxwell
Junior Account Manager



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

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

TEST RESULTS

REPORTED TO PROJECT Urban Systems - Nelson Office
City of Nelson Water Sampling

WORK ORDER REPORTED 21B1924
2021-02-24 17:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Selous Creek (21B1924-01) | Matrix: Water | Sampled: 2021-02-16 10:00

Anions

Chloride	0.14	AO ≤ 250	0.10	mg/L	2021-02-18	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2021-02-18	
Nitrate (as N)	0.056	MAC = 10	0.010	mg/L	2021-02-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2021-02-18	
Sulfate	12.7	AO ≤ 500	1.0	mg/L	2021-02-18	

Calculated Parameters

Hydrogen Sulfide	< 0.01	N/A	0.01	mg/L	2021-02-24	
Hardness, Total (as CaCO ₃)	62.9	None Required	0.500	mg/L	N/A	
Langelier Index	-0.6	N/A	-5.0		2021-02-24	
Solids, Total Dissolved	74.2	AO ≤ 500	1.00	mg/L	N/A	

General Parameters

Alkalinity, Total (as CaCO ₃)	55.3	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Bicarbonate (as CaCO ₃)	55.3	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Carbon, Total Organic	0.94	N/A	0.50	mg/L	2021-02-19	
Colour, True	5.6	AO ≤ 15	5.0	CU	2021-02-19	
Conductivity (EC)	124	N/A	2.0	µS/cm	2021-02-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2021-02-19	
pH	7.75	7.0-10.5	0.10	pH units	2021-02-22	HT2
Solids, Total Suspended	< 2.0	N/A	2.0	mg/L	2021-02-20	
Sulfide, Total	< 0.020	AO ≤ 0.05	0.020	mg/L	2021-02-23	
Temperature, at pH	21.6	N/A		°C	2021-02-22	HT2
Turbidity	0.12	OG < 1	0.10	NTU	2021-02-19	
UV Transmittance @ 254 nm - Unfiltered	91.4	N/A	0.10	% T	2021-02-19	
UV Transmittance @ 254nm	91.4	N/A	0.10	% T	2021-02-19	

Total Metals

Aluminum, total	0.0116	OG < 0.1	0.0050	mg/L	2021-02-22	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2021-02-22	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2021-02-22	
Barium, total	0.0296	MAC = 2	0.0050	mg/L	2021-02-22	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2021-02-22	
Cadmium, total	0.000016	MAC = 0.005	0.000010	mg/L	2021-02-22	
Calcium, total	22.1	None Required	0.20	mg/L	2021-02-22	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-02-22	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2021-02-22	
Copper, total	0.00076	MAC = 2	0.00040	mg/L	2021-02-22	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2021-02-22	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2021-02-22	
Magnesium, total	1.84	None Required	0.010	mg/L	2021-02-22	

TEST RESULTS

REPORTED TO PROJECT Urban Systems - Nelson Office
City of Nelson Water Sampling

WORK ORDER REPORTED 21B1924
2021-02-24 17:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Selous Creek (21B1924-01) | Matrix: Water | Sampled: 2021-02-16 10:00, Continued

Total Metals, Continued

Manganese, total	0.00146	MAC = 0.12	0.00020	mg/L	2021-02-22	
Mercury, total	< 0.000040	MAC = 0.001	0.000040	mg/L	2021-02-22	
Molybdenum, total	0.00078	N/A	0.00010	mg/L	2021-02-22	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2021-02-22	
Potassium, total	1.85	N/A	0.10	mg/L	2021-02-22	
Selenium, total	0.00052	MAC = 0.05	0.00050	mg/L	2021-02-22	
Sodium, total	1.51	AO ≤ 200	0.10	mg/L	2021-02-22	
Strontium, total	0.0834	7	0.0010	mg/L	2021-02-22	
Uranium, total	0.000220	MAC = 0.02	0.000020	mg/L	2021-02-22	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2021-02-22	

Anderson Creek (21B1924-02) | Matrix: Water | Sampled: 2021-02-16 11:00

Anions

Chloride	0.17	AO ≤ 250	0.10	mg/L	2021-02-18	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2021-02-18	
Nitrate (as N)	0.021	MAC = 10	0.010	mg/L	2021-02-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2021-02-18	
Sulfate	5.0	AO ≤ 500	1.0	mg/L	2021-02-18	

Calculated Parameters

Hydrogen Sulfide	< 0.01	N/A	0.01	mg/L	2021-02-24	
Hardness, Total (as CaCO ₃)	28.5	None Required	0.500	mg/L	N/A	
Langelier Index	-1.5	N/A	-5.0		2021-02-24	
Solids, Total Dissolved	36.5	AO ≤ 500	1.00	mg/L	N/A	

General Parameters

Alkalinity, Total (as CaCO ₃)	29.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Bicarbonate (as CaCO ₃)	29.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Carbon, Total Organic	1.03	N/A	0.50	mg/L	2021-02-19	
Colour, True	6.0	AO ≤ 15	5.0	CU	2021-02-19	
Conductivity (EC)	62.0	N/A	2.0	µS/cm	2021-02-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2021-02-19	
pH	7.47	7.0-10.5	0.10	pH units	2021-02-22	HT2
Solids, Total Suspended	< 2.0	N/A	2.0	mg/L	2021-02-20	
Sulfide, Total	< 0.020	AO ≤ 0.05	0.020	mg/L	2021-02-23	
Temperature, at pH	21.7	N/A		°C	2021-02-22	HT2
Turbidity	0.18	OG < 1	0.10	NTU	2021-02-19	
UV Transmittance @ 254 nm - Unfiltered	92.2	N/A	0.10	% T	2021-02-19	
UV Transmittance @ 254nm	92.4	N/A	0.10	% T	2021-02-19	

TEST RESULTS

REPORTED TO PROJECT Urban Systems - Nelson Office
City of Nelson Water Sampling

WORK ORDER REPORTED 21B1924
2021-02-24 17:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Anderson Creek (21B1924-02) Matrix: Water Sampled: 2021-02-16 11:00, Continued						
Total Metals						
Aluminum, total	0.0243	OG < 0.1	0.0050	mg/L	2021-02-22	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2021-02-22	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2021-02-22	
Barium, total	0.0154	MAC = 2	0.0050	mg/L	2021-02-22	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2021-02-22	
Cadmium, total	0.000013	MAC = 0.005	0.000010	mg/L	2021-02-22	
Calcium, total	9.72	None Required	0.20	mg/L	2021-02-22	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-02-22	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2021-02-22	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2021-02-22	
Iron, total	0.010	AO ≤ 0.3	0.010	mg/L	2021-02-22	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2021-02-22	
Magnesium, total	1.01	None Required	0.010	mg/L	2021-02-22	
Manganese, total	0.00220	MAC = 0.12	0.00020	mg/L	2021-02-22	
Mercury, total	< 0.000040	MAC = 0.001	0.000040	mg/L	2021-02-22	
Molybdenum, total	0.00073	N/A	0.00010	mg/L	2021-02-22	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2021-02-22	
Potassium, total	1.12	N/A	0.10	mg/L	2021-02-22	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-02-22	
Sodium, total	1.72	AO ≤ 200	0.10	mg/L	2021-02-22	
Strontium, total	0.0699	7	0.0010	mg/L	2021-02-22	
Uranium, total	0.000648	MAC = 0.02	0.000020	mg/L	2021-02-22	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2021-02-22	

Mountain Station (5 Mile Creek) (21B1924-03) | Matrix: Water | Sampled: 2021-02-16 10:30

Anions						
Chloride	0.13	AO ≤ 250	0.10	mg/L	2021-02-18	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2021-02-18	
Nitrate (as N)	0.017	MAC = 10	0.010	mg/L	2021-02-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2021-02-18	
Sulfate	2.1	AO ≤ 500	1.0	mg/L	2021-02-18	

Calculated Parameters						
Hydrogen Sulfide	< 0.01	N/A	0.01	mg/L	2021-02-24	
Hardness, Total (as CaCO ₃)	16.8	None Required	0.500	mg/L	N/A	
Langelier Index	-2.2	N/A	-5.0		2021-02-24	
Solids, Total Dissolved	21.6	AO ≤ 500	1.00	mg/L	N/A	

General Parameters						
Alkalinity, Total (as CaCO ₃)	17.3	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Bicarbonate (as CaCO ₃)	17.3	N/A	1.0	mg/L	2021-02-22	

TEST RESULTS

REPORTED TO PROJECT Urban Systems - Nelson Office
City of Nelson Water Sampling

WORK ORDER REPORTED 21B1924
2021-02-24 17:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Mountain Station (5 Mile Creek) (21B1924-03) | Matrix: Water | Sampled: 2021-02-16 10:30, Continued

General Parameters, Continued

Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2021-02-22	
Colour, True	7.3	AO ≤ 15	5.0	CU	2021-02-19	
Conductivity (EC)	37.0	N/A	2.0	μS/cm	2021-02-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2021-02-19	
pH	7.27	7.0-10.5	0.10	pH units	2021-02-22	HT2
Solids, Total Suspended	< 2.0	N/A	2.0	mg/L	2021-02-20	
Sulfide, Total	< 0.020	AO ≤ 0.05	0.020	mg/L	2021-02-23	
Temperature, at pH	21.8	N/A		°C	2021-02-22	HT2
Turbidity	0.14	OG < 1	0.10	NTU	2021-02-19	

Total Metals

Aluminum, total	0.0216	OG < 0.1	0.0050	mg/L	2021-02-22	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2021-02-22	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2021-02-22	
Barium, total	0.0097	MAC = 2	0.0050	mg/L	2021-02-22	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2021-02-22	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010	mg/L	2021-02-22	
Calcium, total	5.74	None Required	0.20	mg/L	2021-02-22	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-02-22	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2021-02-22	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2021-02-22	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2021-02-22	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2021-02-22	
Magnesium, total	0.592	None Required	0.010	mg/L	2021-02-22	
Manganese, total	0.00031	MAC = 0.12	0.00020	mg/L	2021-02-22	
Mercury, total	< 0.000040	MAC = 0.001	0.000040	mg/L	2021-02-22	
Molybdenum, total	0.00068	N/A	0.00010	mg/L	2021-02-22	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2021-02-22	
Potassium, total	0.75	N/A	0.10	mg/L	2021-02-22	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2021-02-22	
Sodium, total	1.63	AO ≤ 200	0.10	mg/L	2021-02-22	
Strontium, total	0.0486	7	0.0010	mg/L	2021-02-22	
Uranium, total	0.000795	MAC = 0.02	0.000020	mg/L	2021-02-22	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2021-02-22	

Nelson Office Faucet (21B1924-04) | Matrix: Water | Sampled: 2021-02-16 09:30

Calculated Parameters

Total Trihalomethanes	0.0312	MAC = 0.1	0.00400	mg/L	N/A	
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Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2021-02-23	CT8
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TEST RESULTS

REPORTED TO PROJECT Urban Systems - Nelson Office
City of Nelson Water Sampling

WORK ORDER REPORTED 21B1924
2021-02-24 17:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Nelson Office Faucet (21B1924-04) Matrix: Water Sampled: 2021-02-16 09:30, Continued						
Volatile Organic Compounds (VOC), Continued						CT8
Bromoform	< 0.0010	N/A	0.0010	mg/L	2021-02-23	
Chloroform	0.0312	N/A	0.0010	mg/L	2021-02-23	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2021-02-23	
Surrogate: Toluene-d8	89		70-130	%	2021-02-23	
Surrogate: 4-Bromofluorobenzene	93		70-130	%	2021-02-23	

Sample Qualifiers:

CT8 Headspace in sample container is greater than 5% volume - VOC results may be compromised
HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Urban Systems - Nelson Office
City of Nelson Water Sampling

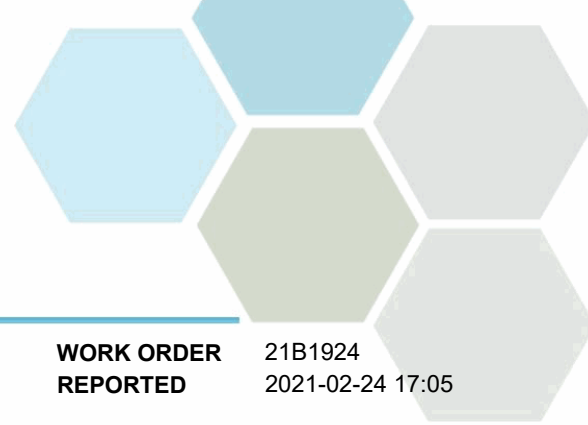
WORK ORDER REPORTED 21B1924
2021-02-24 17:05

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2017)	Titration with H ₂ SO ₄	✓	Kelowna
Anions in Water	SM 4110 B (2017)	Ion Chromatography	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2017)	Combustion, Infrared CO ₂ Detection	✓	Kelowna
Colour, True in Water	SM 2120 C (2017)	Spectrophotometry (456 nm)	✓	Kelowna
Conductivity in Water	SM 2510 B (2017)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
Hardness in Water	SM 2340 B* (2017)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Hydrogen Sulfide in Water	SM 4500-S ₂ H (2017)	Calculation		N/A
Langelier Index in Water	SM 2330 B (2017)	Calculation		N/A
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2017)	SM 1030 E (2011)		N/A
Solids, Total Suspended in Water	SM 2540 D* (2017)	Gravimetry (Dried at 103-105C)	✓	Kelowna
Sulfide, Total in Water	SM 4500-S ₂ D* (2017)	Colorimetry (Methylene Blue)	✓	Edmonton
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Transmittance at 254 nm - Unfiltered in Water	SM 5910 B* (2017)	Ultraviolet Absorption	✓	Kelowna
Transmittance at 254 nm in Water	SM 5910 B* (2017)	Ultraviolet Absorption	✓	Kelowna
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond
Turbidity in Water	SM 2130 B (2017)	Nephelometry	✓	Kelowna

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

Glossary of Terms:

RL	Reporting Limit (default)
% T	Percent Transmittance
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CU	Colour Units (referenced against a platinum cobalt standard)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
pH units	pH < 7 = acidic, pH > 7 = basic
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



APPENDIX 1: SUPPORTING INFORMATION

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General Comments:

The results in this report apply to the 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.

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: tmaxwell@caro.ca

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

APPENDIX 2: QUALITY CONTROL RESULTS

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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

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

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

Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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Anions, Batch B1B1689

Blank (B1B1689-BLK1)			Prepared: 2021-02-18, Analyzed: 2021-02-19						
Chloride	< 0.10	0.10 mg/L							
Fluoride	< 0.10	0.10 mg/L							
Nitrate (as N)	< 0.010	0.010 mg/L							
Nitrite (as N)	< 0.010	0.010 mg/L							
Sulfate	< 1.0	1.0 mg/L							
LCS (B1B1689-BS1)			Prepared: 2021-02-18, Analyzed: 2021-02-19						
Chloride	16.1	0.10 mg/L	16.0		101	90-110			
Fluoride	3.96	0.10 mg/L	4.00		99	88-108			
Nitrate (as N)	4.00	0.010 mg/L	4.00		100	90-110			
Nitrite (as N)	2.01	0.010 mg/L	2.00		100	85-115			
Sulfate	16.1	1.0 mg/L	16.0		100	90-110			

General Parameters, Batch B1B1580

Blank (B1B1580-BLK1)			Prepared: 2021-02-19, Analyzed: 2021-02-19						
Carbon, Total Organic	< 0.50	0.50 mg/L							
Blank (B1B1580-BLK2)			Prepared: 2021-02-19, Analyzed: 2021-02-19						
Carbon, Total Organic	< 0.50	0.50 mg/L							
Blank (B1B1580-BLK3)			Prepared: 2021-02-19, Analyzed: 2021-02-19						
Carbon, Total Organic	< 0.50	0.50 mg/L							
LCS (B1B1580-BS1)			Prepared: 2021-02-19, Analyzed: 2021-02-19						
Carbon, Total Organic	9.83	0.50 mg/L	10.0		98	78-116			
LCS (B1B1580-BS2)			Prepared: 2021-02-19, Analyzed: 2021-02-19						
Carbon, Total Organic	10.2	0.50 mg/L	10.0		102	78-116			
LCS (B1B1580-BS3)			Prepared: 2021-02-19, Analyzed: 2021-02-19						
Carbon, Total Organic	9.94	0.50 mg/L	10.0		99	78-116			

General Parameters, Batch B1B1696

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B1B1696, Continued									
Blank (B1B1696-BLK1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Cyanide, Total	< 0.0020	0.0020 mg/L							
Blank (B1B1696-BLK2)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Cyanide, Total	< 0.0020	0.0020 mg/L							
LCS (B1B1696-BS1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Cyanide, Total	0.0192	0.0020 mg/L	0.0200		96	82-120			
LCS (B1B1696-BS2)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Cyanide, Total	0.0223	0.0020 mg/L	0.0200		112	82-120			
LCS Dup (B1B1696-BSD1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Cyanide, Total	0.0187	0.0020 mg/L	0.0200		94	82-120	3	10	
LCS Dup (B1B1696-BSD2)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Cyanide, Total	0.0218	0.0020 mg/L	0.0200		109	82-120	2	10	

General Parameters, Batch B1B1722

Blank (B1B1722-BLK1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
UV Transmittance @ 254 nm - Unfiltered	< 0.10	0.10 % T							
UV Transmittance @ 254nm	< 0.10	0.10 % T							
LCS (B1B1722-BS1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
UV Transmittance @ 254 nm - Unfiltered	37.1	0.10 % T	36.2		102	95-105			
UV Transmittance @ 254nm	37.1	0.10 % T	36.2		102	95-105			
Duplicate (B1B1722-DUP1)				Source: 21B1924-01		Prepared: 2021-02-19, Analyzed: 2021-02-19			
UV Transmittance @ 254 nm - Unfiltered	91.4	0.10 % T		91.4			< 1	10	
UV Transmittance @ 254nm	91.4	0.10 % T		91.4			< 1	10	

General Parameters, Batch B1B1731

Blank (B1B1731-BLK1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Turbidity	< 0.10	0.10 NTU							
Blank (B1B1731-BLK2)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Turbidity	< 0.10	0.10 NTU							
LCS (B1B1731-BS1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Turbidity	37.6	0.10 NTU	40.0		94	90-110			
LCS (B1B1731-BS2)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Turbidity	38.5	0.10 NTU	40.0		96	90-110			

General Parameters, Batch B1B1778

Blank (B1B1778-BLK1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Colour, True	< 5.0	5.0 CU							
LCS (B1B1778-BS1)				Prepared: 2021-02-19, Analyzed: 2021-02-19					
Colour, True	21	5.0 CU	20.0		103	85-115			

General Parameters, Batch B1B1841

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B1B1841, Continued									
Blank (B1B1841-BLK1)				Prepared: 2021-02-20, Analyzed: 2021-02-20					
Solids, Total Suspended	< 2.0	2.0 mg/L							
Blank (B1B1841-BLK2)				Prepared: 2021-02-20, Analyzed: 2021-02-20					
Solids, Total Suspended	< 2.0	2.0 mg/L							
LCS (B1B1841-BS1)				Prepared: 2021-02-20, Analyzed: 2021-02-20					
Solids, Total Suspended	88.0	10.0 mg/L	100		88	85-115			
LCS (B1B1841-BS2)				Prepared: 2021-02-20, Analyzed: 2021-02-20					
Solids, Total Suspended	86.0	10.0 mg/L	100		86	85-115			
General Parameters, Batch B1B1935									
Blank (B1B1935-BLK1)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
Blank (B1B1935-BLK2)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Alkalinity, Total (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Bicarbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	1.0 mg/L							
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	1.0 mg/L							
Conductivity (EC)	< 2.0	2.0 µS/cm							
LCS (B1B1935-BS1)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Alkalinity, Total (as CaCO ₃)	108	1.0 mg/L	100		108	80-120			
LCS (B1B1935-BS2)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Alkalinity, Total (as CaCO ₃)	107	1.0 mg/L	100		107	80-120			
LCS (B1B1935-BS3)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Conductivity (EC)	1430	2.0 µS/cm	1410		101	95-104			
LCS (B1B1935-BS4)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Conductivity (EC)	1420	2.0 µS/cm	1410		100	95-104			
Reference (B1B1935-SRM1)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
pH	6.99	0.10 pH units	7.01		100	98-102			
Reference (B1B1935-SRM2)				Prepared: 2021-02-22, Analyzed: 2021-02-22					
pH	6.99	0.10 pH units	7.01		100	98-102			
General Parameters, Batch B1B2141									
Blank (B1B2141-BLK1)				Prepared: 2021-02-23, Analyzed: 2021-02-23					
Sulfide, Total	< 0.020	0.020 mg/L							
LCS (B1B2141-BS1)				Prepared: 2021-02-23, Analyzed: 2021-02-23					
Sulfide, Total	0.411	0.020 mg/L	0.470		87	80-120			
Duplicate (B1B2141-DUP1)				Source: 21B1924-02 Prepared: 2021-02-23, Analyzed: 2021-02-23					
Sulfide, Total	< 0.020	0.020 mg/L		< 0.020					

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
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General Parameters, Batch B1B2141, Continued

Matrix Spike (B1B2141-MS1)		Source: 21B1924-03		Prepared: 2021-02-23, Analyzed: 2021-02-23					
Sulfide, Total	0.435	0.020 mg/L	0.470	< 0.020	93	70-130			

Total Metals, Batch B1B1980

Blank (B1B1980-BLK1)		Prepared: 2021-02-22, Analyzed: 2021-02-22							
Aluminum, total	< 0.0050	0.0050 mg/L							
Antimony, total	< 0.00020	0.00020 mg/L							
Arsenic, total	< 0.00050	0.00050 mg/L							
Barium, total	< 0.0050	0.0050 mg/L							
Boron, total	< 0.0500	0.0500 mg/L							
Cadmium, total	< 0.000010	0.000010 mg/L							
Calcium, total	< 0.20	0.20 mg/L							
Chromium, total	< 0.00050	0.00050 mg/L							
Cobalt, total	< 0.00010	0.00010 mg/L							
Copper, total	< 0.00040	0.00040 mg/L							
Iron, total	< 0.010	0.010 mg/L							
Lead, total	< 0.00020	0.00020 mg/L							
Magnesium, total	< 0.010	0.010 mg/L							
Manganese, total	< 0.00020	0.00020 mg/L							
Mercury, total	< 0.000040	0.000040 mg/L							
Molybdenum, total	< 0.00010	0.00010 mg/L							
Nickel, total	< 0.00040	0.00040 mg/L							
Potassium, total	< 0.10	0.10 mg/L							
Selenium, total	< 0.00050	0.00050 mg/L							
Sodium, total	< 0.10	0.10 mg/L							
Strontium, total	< 0.0010	0.0010 mg/L							
Uranium, total	< 0.000020	0.000020 mg/L							
Zinc, total	< 0.0040	0.0040 mg/L							

LCS (B1B1980-BS1)		Prepared: 2021-02-22, Analyzed: 2021-02-22							
Aluminum, total	0.0222	0.0050 mg/L	0.0199		111	80-120			
Antimony, total	0.0212	0.00020 mg/L	0.0200		106	80-120			
Arsenic, total	0.0206	0.00050 mg/L	0.0200		103	80-120			
Barium, total	0.0206	0.0050 mg/L	0.0198		104	80-120			
Boron, total	< 0.0500	0.0500 mg/L	0.0200		104	80-120			
Cadmium, total	0.0210	0.000010 mg/L	0.0199		105	80-120			
Calcium, total	2.25	0.20 mg/L	2.02		111	80-120			
Chromium, total	0.0214	0.00050 mg/L	0.0198		108	80-120			
Cobalt, total	0.0207	0.00010 mg/L	0.0199		104	80-120			
Copper, total	0.0225	0.00040 mg/L	0.0200		113	80-120			
Lead, total	0.0222	0.00020 mg/L	0.0199		111	80-120			
Magnesium, total	2.24	0.010 mg/L	2.02		111	80-120			
Manganese, total	0.0203	0.00020 mg/L	0.0199		102	80-120			
Mercury, total	0.00107	0.000040 mg/L	0.00100		107	80-120			
Molybdenum, total	0.0201	0.00010 mg/L	0.0200		100	80-120			
Nickel, total	0.0215	0.00040 mg/L	0.0200		107	80-120			
Potassium, total	2.15	0.10 mg/L	2.02		106	80-120			
Selenium, total	0.0209	0.00050 mg/L	0.0200		104	80-120			
Sodium, total	2.20	0.10 mg/L	2.02		109	80-120			
Strontium, total	0.0203	0.0010 mg/L	0.0200		101	80-120			
Uranium, total	0.0203	0.000020 mg/L	0.0200		101	80-120			
Zinc, total	0.0223	0.0040 mg/L	0.0200		112	80-120			

Reference (B1B1980-SRM1)		Prepared: 2021-02-22, Analyzed: 2021-02-22							
Aluminum, total	0.308	0.0050 mg/L	0.299		103	70-130			
Antimony, total	0.0510	0.00020 mg/L	0.0517		99	70-130			

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Analyte	Result	RL Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B1B1980, Continued									
Reference (B1B1980-SRM1), Continued				Prepared: 2021-02-22, Analyzed: 2021-02-22					
Arsenic, total	0.124	0.00050 mg/L	0.119		104	70-130			
Barium, total	0.769	0.0050 mg/L	0.801		96	70-130			
Boron, total	3.99	0.0500 mg/L	4.11		97	70-130			
Cadmium, total	0.0497	0.000010 mg/L	0.0503		99	70-130			
Calcium, total	10.1	0.20 mg/L	10.7		95	70-130			
Chromium, total	0.253	0.00050 mg/L	0.250		101	70-130			
Cobalt, total	0.0389	0.00010 mg/L	0.0384		101	70-130			
Copper, total	0.509	0.00040 mg/L	0.487		105	70-130			
Iron, total	0.465	0.010 mg/L	0.504		92	70-130			
Lead, total	0.280	0.00020 mg/L	0.278		101	70-130			
Magnesium, total	3.98	0.010 mg/L	3.59		111	70-130			
Manganese, total	0.106	0.00020 mg/L	0.111		95	70-130			
Mercury, total	0.00603	0.000040 mg/L	0.00581		104	70-130			
Molybdenum, total	0.195	0.00010 mg/L	0.196		100	70-130			
Nickel, total	0.255	0.00040 mg/L	0.248		103	70-130			
Potassium, total	6.30	0.10 mg/L	5.89		107	70-130			
Selenium, total	0.123	0.00050 mg/L	0.120		102	70-130			
Sodium, total	9.27	0.10 mg/L	8.71		106	70-130			
Strontium, total	0.386	0.0010 mg/L	0.393		98	70-130			
Uranium, total	0.0342	0.000020 mg/L	0.0344		100	70-130			
Zinc, total	2.62	0.0040 mg/L	2.50		105	70-130			

Volatile Organic Compounds (VOC), Batch B1B2093

Blank (B1B2093-BLK1)				Prepared: 2021-02-23, Analyzed: 2021-02-23					
Bromodichloromethane	< 0.0010	0.0010 mg/L							
Bromoform	< 0.0010	0.0010 mg/L							
Chloroform	< 0.0010	0.0010 mg/L							
Dibromochloromethane	< 0.0010	0.0010 mg/L							
Surrogate: Toluene-d8	0.0242	mg/L	0.0265		91	70-130			
Surrogate: 4-Bromofluorobenzene	0.0244	mg/L	0.0249		98	70-130			
LCS (B1B2093-BS1)				Prepared: 2021-02-23, Analyzed: 2021-02-23					
Bromodichloromethane	0.0207	0.0010 mg/L	0.0200		103	70-130			
Bromoform	0.0214	0.0010 mg/L	0.0201		106	70-130			
Chloroform	0.0215	0.0010 mg/L	0.0201		107	70-130			
Dibromochloromethane	0.0212	0.0010 mg/L	0.0202		105	70-130			
Surrogate: Toluene-d8	0.0252	mg/L	0.0265		95	70-130			
Surrogate: 4-Bromofluorobenzene	0.0242	mg/L	0.0249		97	70-130			