

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, (year)

Water System

Water System Owner

Primary Contact Name (Operator or Manager)

Phone Number (Operator or Manager)

E-mail (Operator or Manager)

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection?

Yes No

Chlorination Ultraviolet Light Ozone Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection?

Yes No

Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration?

Yes No

Check all boxes that apply

Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details:

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

Drinking Water System Annual Report

How do you Inform the System Users of the Annual Report?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

COMPLIANCE WITH OPERATING PERMIT

List the conditions that have been placed on your Operating Permit (if you have conditions, these will be stated on your permit):

Are you in compliance with the conditions listed on your Operating Permit? Yes No N/A

BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

How many bacteriological samples were collected during this reporting period? _____

What is the minimum required sampling frequency for this system? (#samples/month) _____

Additional sampling details: _____

Was the minimum required sampling frequency achieved? Yes No

Comments: _____

Bacteriological summary attached to this report? Yes No

If no, how do the users of the system view the results?

WATER QUALITY STANDARDS FOR POTABLE WATER

Parameter:	Standard:	Did this system meet standard?	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if only 1 sample collected in a 30 day period)	No detectable total coliform bacteria per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if more than 1 sample collected in a 30 day period)	No more than 10% of samples contain total coliform bacteria, and No sample has more than 10 total coliform bacteria per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.

Date	TC/100ml	E.coli/100ml	Reason	Corrective Action

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system?

(date) Don't Know Never

If yes, did all water samples meet the Guidelines for Canadian Drinking Water Quality?

Yes No

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Parameter	Result	Corrective Action / Treatment / Comments

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

Date	Water Quality Complaint	Corrective Action / Treatment

OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	
Annual maintenance of system	
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion

DATE COMPLETED:	COMPLETED BY:
------------------------	----------------------

Sample Range Report

Fraser Health Authority

Facility Name: Village Of Harrison Hot Springs WS

Date Range: Jan 1 2023 to Dec 31 2023

Operator: Tyler Simmonds
 BOX 160, 495 Hot Springs Rd
 Harrison Hot Springs, BC V0M 1K0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Boat Launch</u>				
<u>Washrooms,</u>				
<u>Harrison Hotsprings</u>				
	2-6-2023 10:00:00 AM	LT1	LT1	
	3-27-2023 8:00:00 AM	LT1	LT1	
	5-15-2023 9:50:00 AM	LT1	LT1	
	7-4-2023 11:10:00 AM	LT1	LT1	
	8-21-2023 10:45:00 AM	LT1	LT1	
	10-10-2023 11:00:00 AM	LT1	LT1	
	11-27-2023 10:10:00 AM	<u>LT1</u>	<u>LT1</u>	
	Total Positive:	0	0	0
<u>170 Cedar Avenue,</u>				
<u>170 Cedar Avenue</u>				
	1-30-2023 10:00:00 AM	LT1	LT1	
	3-20-2023 8:00:00 AM	LT1	LT1	
	5-8-2023 11:00:00 AM	LT1	LT1	
	6-26-2023 11:15:00 AM	LT1	LT1	
	8-14-2023 11:15:00 AM	LT1	LT1	
	10-3-2023 11:00:00 AM	LT1	LT1	
	11-20-2023 10:40:00 AM	<u>LT1</u>	<u>LT1</u>	
	Total Positive:	0	0	0
<u>459 Naismith West</u>				
<u>End, 459 Naismith</u>				

1-3-2023 11:00:00 AM	LT1	LT1	
2-21-2023 10:00:00 AM	LT1	LT1	
4-11-2023 8:00:00 AM	LT1	LT1	
5-30-2023 12:15:00 PM	LT1	LT1	
7-17-2023 11:30:00 AM	LT1	LT1	
9-5-2023 10:50:00 AM	LT1	LT1	
10-23-2023 10:45:00 AM	LT1	LT1	
12-11-2023 10:40:00 AM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

Beach Washrooms,
Harrison Lake beach

1-9-2023 10:00:00 AM	LT1	LT1	
2-27-2023 10:00:00 AM	LT1	LT1	
4-17-2023 8:30:00 AM	LT1	LT1	
6-5-2023 10:45:00 AM	LT1	LT1	
7-24-2023 11:15:00 AM	LT1	LT1	
9-11-2023 8:05:00 AM	LT1	LT1	
10-30-2023 11:00:00 AM	LT1	LT1	
12-18-2023 10:10:00 AM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

526 Driftwood, 526
Driftwood

1-9-2023 10:00:00 AM	LT1	LT1	
2-27-2023 10:00:00 AM	LT1	LT1	
4-17-2023 8:45:00 AM	LT1	LT1	
6-5-2023 11:00:00 AM	LT1	LT1	
7-24-2023 11:00:00 AM	LT1	LT1	
9-11-2023 9:25:00 AM	LT1	LT1	
10-30-2023 10:45:00	LT1	LT1	

AM			
12-18-2023 10:25:00	<u>LT1</u>	<u>LT1</u>	
AM			
Total Positive:	0	0	0

973 Hotsprings Road
Tap, 973 Hotsprings
Road

1-16-2023 10:00:00	LT1	LT1	
AM			
3-6-2023 9:00:00 AM	LT1	LT1	
4-25-2023 10:30:00	LT1	LT1	
AM			
6-12-2023 11:10:00	LT1	LT1	
AM			
7-31-2023 11:30:00	LT1	LT1	
AM			
9-18-2023 10:36:00	LT1	LT1	
AM			
10-11-2023 8:30:00	LT1	LT1	
AM			
11-6-2023 10:45:00	<u>LT1</u>	<u>LT1</u>	
AM			
Total Positive:	0	0	0

Public Works Office,
Public Works Office

1-16-2023 10:00:00	LT1	LT1	
AM			
3-6-2023 8:30:00 AM	LT1	LT1	
4-25-2023 10:30:00	LT1	LT1	
AM			
6-12-2023 11:00:00	LT1	LT1	
AM			
7-31-2023 11:15:00	LT1	LT1	
AM			
9-18-2023 8:08:00	LT1	LT1	
AM			
11-6-2023 10:30:00	<u>LT1</u>	<u>LT1</u>	
AM			
Total Positive:	0	0	0

Water Treatment
Plant, Water
Treatment Plant

2-13-2023 10:00:00	QRWRT	QRWRT	
AM			
4-3-2023 8:00:00 AM	LT1	LT1	
5-23-2023 9:45:00	LT1	LT1	
AM			
7-10-2023 11:00:00	LT1	LT1	
AM			

8-28-2023 11:00:00 AM	LT1	LT1	
10-16-2023 10:40:00 AM	LT1	LT1	
12-4-2023 10:20:00 AM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

290 Esplanade, 290
Esplanade

1-3-2023 11:00:00 AM	LT1	LT1	
2-21-2023 10:00:00 AM	LT1	LT1	
4-11-2023 8:00:00 AM	LT1	LT1	
5-30-2023 11:40:00 AM	LT1	LT1	
7-17-2023 11:15:00 AM	LT1	LT1	
9-5-2023 11:00:00 AM	LT1	LT1	
10-23-2023 11:00:00 AM	LT1	LT1	
12-11-2023 10:15:00 AM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

Peace Park,

1-23-2023 10:00:00 AM	LT1	LT1	
3-13-2023 9:00:00 AM	LT1	LT1	
5-1-2023 11:00:00 AM	LT1	LT1	
6-19-2023 11:15:00 AM	LT1	LT1	
8-8-2023 11:00:00 AM	LT1	LT1	
9-25-2023 8:30:00 AM	LT1	LT1	
11-14-2023 10:50:00 AM	<u>LT1</u>	<u>LT1</u>	
Total Positive:	0	0	0

Echo Spring Park,

2-13-2023 10:00:00 AM	QRWRT	QRWRT	
4-3-2023 8:00:00 AM	LT1	LT1	
5-23-2023 10:00:00 AM	LT1	LT1	
7-10-2023 11:10:00	LT1	LT1	

AM			
8-28-2023 11:15:00	LT1	LT1	
AM			
10-16-2023 10:45:00	LT1	LT1	
AM			
12-4-2023 10:30:00	<u>LT1</u>	<u>LT1</u>	
AM			
Total Positive:	0	0	0

Community Gardens.

1-23-2023 10:00:00	LT1	LT1	
AM			
3-13-2023 9:00:00	LT1	LT1	
AM			
5-1-2023 11:15:00	LT1	LT1	
AM			
6-19-2023 11:00:00	LT1	LT1	
AM			
8-8-2023 11:15:00	LT1	LT1	
AM			
9-25-2023 11:00:00	LT1	LT1	
AM			
11-14-2023 10:40:00	<u>LT1</u>	<u>LT1</u>	
AM			
Total Positive:	0	0	0

442 Pine, 442 Pine

1-30-2023 10:00:00	LT1	LT1	
AM			
3-20-2023 8:00:00	LT1	LT1	
AM			
5-8-2023 11:00:00	LT1	LT1	
AM			
6-26-2023 11:00:00	LT1	LT1	
AM			
8-14-2023 11:00:00	LT1	LT1	
AM			
10-3-2023 10:45:00	LT1	LT1	
AM			
11-20-2023 10:15:00	<u>LT1</u>	<u>LT1</u>	
AM			
Total Positive:	0	0	0

843 Myng, 843 Myng

2-6-2023 10:00:00	LT1	LT1	
AM			
3-27-2023 8:00:00	LT1	LT1	
AM			
5-15-2023 9:40:00	LT1	LT1	
AM			
7-4-2023 10:55:00	LT1	LT1	

AM		
8-21-2023 11:00:00	LT1	LT1
AM		
10-10-2023 10:45:00	<u>LT1</u>	<u>LT1</u>
AM		
Total Positive:	0	0

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	102	

Comments:

Environmental Health Officer
Jan 25 2024

FOR FURTHER INFORMATION PLEASE CALL: David Fowler

CERTIFICATE OF ANALYSIS

Work Order	Page
: VA23B4198	: 1 of 4
Client	Laboratory
: Village of Harrison Hot Springs	: Vancouver - Environmental
Contact	Account Manager
: Tyler Simmonds	: Sneha Sansare
Address	Address
: PO Box 160 495 Hot Springs Road	: 8081 Lougheed Highway
: Harrison Hot Springs BC Canada V0M 1K0	: Burnaby BC Canada V5A 1W9
Telephone	Telephone
: -----	: +1 604 253 4188
Project	Date Samples Received
: WTP June 2023	: 22-Jun-2023 12:15
PO	Date Analysis Commenced
: 19520	: 22-Jun-2023
C-O-C number	Issue Date
: -----	: 04-Jul-2023 17:27
Sampler	
: -----	
Site	
: -----	
Quote number	
: Quote for Harrison Hot Springs	
No. of samples received	
: 4	
No. of samples analysed	
: 4	

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Caitlin Macey	Team Leader - Inorganics	Microbiology, Burnaby, British Columbia
Katrina Zwambag	Supervisor - HPLC	LCMS, Waterloo, Ontario
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Owen Cheng		Metals, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia



Page : 2 of 4
 Work Order : VA23B4198
 Client : Village of Harrison Hot Springs
 Project : WTP June 2023

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference. Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
CFU/100mL	colony forming units per hundred millilitres
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
NTU	nephelometric turbidity units
pH units	pH units

< : less than.

> : greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Drinking Water		Client sample ID						
(Matrix: Water)								
Analyte	CAS Number	Method/Lab	Client sampling date / time		RAW Water	Treated Water	Peace Park	Art Gallery
			LOR	Unit				
Physical Tests					Result	Result	Result	Result
Alkalinity, total (as CaCO3)	E290NA		1.0	mg/L	15.9	15.8	16.0	31.0
Colour, true	E329NA		5.0	CU	<5.0	<5.0	<5.0	<5.0
Conductivity	E100NA		2.0	µS/cm	48.8	53.5	53.7	83.7
pH	E108NA		0.10	pH units	7.45	7.46	7.46	7.56
Solids, total dissolved [TDS]	E162NA		10	mg/L	56	60	60	77
Turbidity	E121NA		0.10	NTU	0.66	<0.10	<0.10	0.49
Hardness (as CaCO3), from total Ca/Mg	EC100ANA		0.60	mg/L	20.9	20.7	20.2	34.3
Anions and Nutrients								
Chloride	16887-00-6	E235.C1NA	0.50	mg/L	0.63	1.69	1.70	2.36
Fluoride	16984-48-8	E235.F1NA	0.020	mg/L	<0.020	<0.020	0.023	0.020
Nitrate (as N)	14797-55-8	E235.NO3-LV	0.0050	mg/L	0.0633	0.0668	0.0672	0.123
Nitrite (as N)	14797-65-0	E235.NO2-LV	0.0010	mg/L	<0.0010	<0.0010	<0.0010	0.0029
Sulfate (as SO4)	14808-79-8	E235.SO4NA	0.30	mg/L	5.09	5.13	5.23	6.29
Microbiological Tests								
Coliforms, thermotolerant [fecal]		E012.FCNA	1	CFU/100mL	<1	<1	<1	<1
Coliforms, total		E010NA	1	MPN/100mL	8	<1	<1	<1
Coliforms, Escherichia coli [E. coli]		E010NA	1	MPN/100mL	<1	<1	<1	<1
Total Metals								
Aluminum, total	7429-90-5	E420NA	0.0100	mg/L	0.0503	0.0134	0.0131	<0.0100
Antimony, total	7440-36-0	E420NA	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050
Arsenic, total	7440-38-2	E420NA	0.00010	mg/L	0.00022	0.00018	0.00018	0.00020
Barium, total	7440-39-3	E420NA	0.0200	mg/L	<0.0200	<0.0200	<0.0200	<0.0200
Boron, total	7440-42-8	E420NA	0.100	mg/L	<0.100	<0.100	<0.100	<0.100
Cadmium, total	7440-43-9	E420NA	0.000200	mg/L	<0.000200	<0.000200	<0.000200	<0.000200
Calcium, total	7440-70-2	E420NA	0.100	mg/L	7.12	7.04	6.89	12.2
Chromium, total	7440-47-3	E420NA	0.00200	mg/L	<0.00200	<0.00200	<0.00200	<0.00200
Copper, total	7440-50-8	E420NA	0.00100	mg/L	<0.00100	0.00430	0.00137	0.107
Iron, total	7439-89-6	E420NA	0.030	mg/L	0.035	<0.030	<0.030	0.329



Analytical Results

Sub-Matrix: Drinking Water

(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID			
					RAW Water	Treated Water	Peace Park	Art Gallery
					22-Jun-2023	22-Jun-2023	22-Jun-2023	22-Jun-2023
					VA23B4198-001	VA23B4198-002	VA23B4198-003	VA23B4198-004
					Result	Result	Result	Result
Total Metals								
Lead, total	7439-92-1	E420VA	0.000500	mg/L	<0.000500	<0.000500	<0.000500	0.00888
Magnesium, total	7439-95-4	E420VA	0.100	mg/L	0.765	0.766	0.739	0.943
Manganese, total	7439-96-5	E420VA	0.00200	mg/L	<0.00200	<0.00200	<0.00200	0.108
Mercury, total	7439-97-6	E508VA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Potassium, total	7440-09-7	E420VA	0.100	mg/L	0.700	0.681	0.665	0.811
Selenium, total	7782-49-2	E420VA	0.00100	mg/L	<0.00100	<0.00100	<0.00100	<0.00100
Sodium, total	7440-23-5	E420VA	2.00	mg/L	<2.00	2.41	2.37	2.35
Uranium, total	7440-61-1	E420VA	0.000100	mg/L	<0.000100	<0.000100	<0.000100	<0.000100
Zinc, total	7440-66-6	E420VA	0.0500	mg/L	<0.0500	<0.0500	<0.0500	0.563
Haloacetic Acids								
Bromochloroacetic acid	5589-96-8	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Bromodichloroacetic acid	7113-14-7	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Chlorodibromoacetic acid	5278-95-5	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Dalapon	75-99-0	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Dibromoacetic acid	631-64-1	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Dichloroacetic acid	79-43-6	E750WT	1.00	µg/L	---	12.1	9.69	---
Iodoacetic acid	64-69-7	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Monobromoacetic acid	79-08-3	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Monochloroacetic acid	79-11-8	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Tribromoacetic acid	75-96-7	E750WT	1.00	µg/L	---	<1.00	<1.00	---
Trichloroacetic acid	76-03-9	E750WT	1.00	µg/L	---	16.3	17.7	---
Haloacetic acids, total [HAA5]	---	E750WT	5.00	µg/L	---	28.4	27.4	---
Haloacetic acids, total [HAA7]	---	E750WT	5.00	µg/L	---	28.4	27.4	---

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of any accreditation.



CERTIFICATE OF ANALYSIS

Work Order : VA23C8106	Page : 1 of 4
Client : Village of Harrison Hot Springs	Laboratory : ALS Environmental - Vancouver
Contact : Tyler Simmonds	Account Manager : Sneha Sansare
Address : PO Box 160 495 Hot Springs Road Harrison Hot Springs BC Canada V0M 1K0	Address : 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone : ----	Telephone : +1 604 253 4188
Project : WTP Nov 2023	Date Samples Received : 22-Nov-2023 12:40
PO : 19929	Date Analysis Commenced : 22-Nov-2023
C-O-C number : ----	Issue Date : 30-Nov-2023 17:19
Sampler : Bruce	
Site :	
Quote number : Quote for Harrison Hot Springs	
No. of samples received : 3	
No. of samples analysed : 3	

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	Position
Alex Thornton	Analyst
Brieanna Allen	Production/Validation Manager
Caitlin Macey	Team Leader - Inorganics
Janice Leung	Supervisor - Organics Instrumentation
Kevin Duarte	Supervisor - Metals ICP Instrumentation
Kevin Duarte	Supervisor - Metals ICP Instrumentation
Miles Gropen	Department Manager - Inorganics
Stephanie Pinheiro	Analyst

Laboratory Department

Metals, Burnaby, British Columbia
 Inorganics, Burnaby, British Columbia
 Microbiology, Burnaby, British Columbia
 Organics, Burnaby, British Columbia
 Inorganics, Burnaby, British Columbia
 Metals, Burnaby, British Columbia
 Inorganics, Burnaby, British Columbia
 LCMS, Waterloo, Ontario



Page : 2 of 4
 Work Order : VA23C8106
 Client : Village of Harrison Hot Springs
 Project : WTP Nov 2023

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference. Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Drinking Water

(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID		
					RAW Water	Treated Water	Peace Park
Client sampling date / time					22-Nov-2023 09:00	22-Nov-2023 09:00	22-Nov-2023 09:00
Result					VA23C8106-001	VA23C8106-002	VA23C8106-003
Physical Tests							
Alkalinity, total (as CaCO3)	----	E290VA	1.0	mg/L	15.9	16.4	16.3
Colour, true	----	E329VA	5.0	CU	<5.0	<5.0	<5.0
Conductivity	----	E100VA	2.0	µS/cm	46.8	51.2	51.2
pH	----	E108VA	0.10	pH units	7.48	7.48	7.48
Solids, total dissolved [TDS]	----	E162VA	10	mg/L	31	36	30
Turbidity	----	E121VA	0.10	NTU	1.25	<0.10	<0.10
Hardness (as CaCO3), from total Ca/Mg	----	EC100AVA	0.60	mg/L	18.2	17.6	17.9
Anions and Nutrients							
Chloride	16887-00-6	E235.C1VA	0.50	mg/L	0.59	1.65	1.69
Fluoride	16984-48-8	E235.F1VA	0.020	mg/L	<0.020	<0.020	<0.020
Nitrate (as N)	14797-55-8	E235.NO3-LV	0.0050	mg/L	0.0375	0.0370	0.0375
Nitrite (as N)	14797-65-0	E235.NO2-LV	0.0010	mg/L	<0.0010	<0.0010	<0.0010
Sulfate (as SO4)	14808-79-8	E235.SO4VA	0.30	mg/L	5.19	5.17	5.18
Microbiological Tests							
Coliforms, total	----	E010VA	1	MPN/100mL	11	<1	<1
Coliforms, Escherichia coli [E. coli]	----	E010VA	1	MPN/100mL	2	<1	<1
Total Metals							
Aluminum, total	7429-90-5	E420VA	0.0100	mg/L	0.0381	<0.0100	<0.0100
Antimony, total	7440-36-0	E420VA	0.00050	mg/L	<0.00050	<0.00050	<0.00050
Arsenic, total	7440-38-2	E420VA	0.00010	mg/L	0.00018	0.00017	0.00017
Barium, total	7440-39-3	E420VA	0.0200	mg/L	<0.0200	<0.0200	<0.0200
Boron, total	7440-42-8	E420VA	0.100	mg/L	<0.100	<0.100	<0.100
Cadmium, total	7440-43-9	E420VA	0.000200	mg/L	<0.000200	<0.000200	<0.000200
Calcium, total	7440-70-2	E420VA	0.100	mg/L	6.20	5.96	6.10
Chromium, total	7440-47-3	E420VA	0.00200	mg/L	<0.00200	<0.00200	<0.00200
Copper, total	7440-50-8	E420VA	0.00100	mg/L	<0.00100	<0.00100	0.00196
Iron, total	7439-89-6	E420VA	0.030	mg/L	<0.030	<0.030	<0.030
Lead, total	7439-92-1	E420VA	0.000500	mg/L	<0.000500	<0.000500	<0.000500



Analytical Results

Sub-Matrix: Drinking Water

(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID		
					RAW Water	Treated Water	Peace Park
Client sampling date / time					22-Nov-2023 09:00	22-Nov-2023 09:00	22-Nov-2023 09:00
Result					VA23C8106-001	VA23C8106-002	VA23C8106-003
Total Metals							
Magnesium, total	7439-95-4	E420NA	0.100	mg/L	0.662	0.651	0.652
Manganese, total	7439-96-5	E420NA	0.00200	mg/L	<0.00200	<0.00200	<0.00200
Mercury, total	7439-97-6	E508NA	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050
Potassium, total	7440-09-7	E420NA	0.100	mg/L	0.611	0.594	0.600
Selenium, total	7782-49-2	E420NA	0.00100	mg/L	<0.00100	<0.00100	<0.00100
Sodium, total	7440-23-5	E420NA	2.00	mg/L	<2.00	2.01	<2.00
Uranium, total	7440-61-1	E420NA	0.000100	mg/L	<0.000100	<0.000100	<0.000100
Zinc, total	7440-66-6	E420NA	0.0500	mg/L	<0.0500	<0.0500	<0.0500
Volatile Organic Compounds [THMs]							
Bromodichloromethane	75-27-4	E611BNA	1.0	µg/L	----	<1.0	<1.0
Bromoform	75-25-2	E611BNA	1.0	µg/L	----	<1.0	<1.0
Chloroform	67-66-3	E611BNA	1.0	µg/L	----	20.8	25.1
Dibromochloromethane	124-48-1	E611BNA	1.0	µg/L	----	<1.0	<1.0
Trihalomethanes [THMs], total	----	----	2.0	µg/L	----	20.8	25.1
Volatile Organic Compounds [THMs] Surrogates							
Bromofluorobenzene, 4-	460-00-4	E611BNA	1.0	%	----	98.4	99.3
Difluorobenzene, 1,4-	540-36-3	E611BNA	1.0	%	----	105	104
Perfluoroalkyl Substances (PFAS)							
Perfluorooctanesulfonic acid [PFOS]	1763-23-1	E745BWT	0.010	µg/L	----	----	<0.010
Perfluorooctanoic acid [PFOA]	335-67-1	E745BWT	0.010	µg/L	----	----	<0.010
Perfluoroalkyl Substances (PFAS) Surrogates							
Perfluorooctanesulfonic acid [13C8-PFOS]	265893-05-6	E745BWT	1.00	%	----	----	86.8

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of any accreditation.



CERTIFICATE OF ANALYSIS

Work Order	: VA23C9398	Page	: 1 of 2
Client	: Village of Harrison Hot Springs	Laboratory	: ALS Environmental - Vancouver
Contact	: Tyler Simmonds	Account Manager	: Sneha Sansare
Address	: PO Box 160 495 Hot Springs Road Harrison Hot Springs BC Canada V0M 1K0	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: -----	Telephone	: +1 604 253 4188
Project	: WTP Nov 2023	Date Samples Received	: 07-Dec-2023 12:30
PO	: 19928	Date Analysis Commenced	: 11-Dec-2023
C-O-C number	: -----	Issue Date	: 13-Dec-2023 17:02
Sampler	: -----		
Site	: -----		
Quote number	: Quote for Harrison Hot Springs		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation
	<i>Laboratory Department</i>
	Organics, Waterloo, Ontario



Page : 2 of 2
 Work Order : VA23C9398
 Client : Village of Harrison Hot Springs
 Project : WTP Nov 2023

General Comments

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Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
µg/L	micrograms per litre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID				
					Peace Park				
					07-Dec-2023 09:30				
				Result	VA23C9398-001				
Pesticides									
Atrazine	1912-24-9	E660E-HWWT	0.10	µg/L		<0.10			
Pesticides Surrogates									
Fluorobiphenyl, 2-	321-60-8	E660E-HWWT	0.10	%		83.9			
Terphenyl-d14, p-	1718-51-0	E660E-HWWT	0.10	%		103			

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

CERTIFICATE OF ANALYSIS

Work Order : VA23C9396 **Page** : 1 of 2

Client : Village of Harrison Hot Springs **Laboratory** : ALS Environmental - Vancouver

Contact : Tyler Simmonds **Account Manager** : Sneha Sansare

Address : PO Box 160 495 Hot Springs Road
Harrison Hot Springs BC Canada V0M 1K0 **Address** : 8081 Lougheed Highway
Burnaby BC Canada V5A 1W9

Telephone : ---- **Telephone** : +1 604 253 4188

Project : WTP RAW re-sample Dec 2023 **Date Samples Received** : 07-Dec-2023 12:30

PO : 19939 **Date Analysis Commenced** : 07-Dec-2023

C-O-C number : ---- **Issue Date** : 08-Dec-2023 14:30

Sampler : ----

Site : ----

Quote number : Quote for Harrison Hot Springs

No. of samples received : 1

No. of samples analysed : 1

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories *Position*

Caitlin Macey

Team Leader - Inorganics

Laboratory Department

Microbiology, Burnaby, British Columbia



fraserhealth Better health.
Best in health care.

February 1, 2024

Water System Operators

Re: Metals in Drinking Water – “Flush” Message in Annual Reports

Fraser Health has recently revised its metals at the tap “Flush” message and we are asking all water systems to please include the following health message with your next annual reports to your users.

Anytime the water in a particular faucet has not been used for six hours or longer, “flush” your cold-water pipes by running the water until you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home’s pipes, the more lead it may contain.

Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead.

The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants.

If you have any questions, please contact our Drinking Water Program at 604-870-7903.

Sincerely,

Drinking Water Program
Fraser Health Authority
HPLand@fraserhealth.ca

Village of Harrison Hot Springs

Water Sample Schedule 2024

Date	Site 1	Site 2	Site 3	
January				
2	290 Esplanade	459 naismith	98 Rockwell Dr	
8	Beach Washrooms	526 Driftwood		
15	Public Works Office	973 Hotsprings Rd/Tap	98 Rockwell Dr	
22	Peace Park	Community Garden		
29	170 Cedar	442 Pine	98 Rockwell Dr	
Febuary				
5	Boatlaunch Washrooms	843 Myng		
12	Echo (Spring Park)	Water Treatment Plant	98 Rockwell Dr	
20	290 Esplanade	459 naismith		
26	Beach Washrooms	526 Driftwood	98 Rockwell Dr	
March				
4	Public Works Office	973 Hotsprings Rd/Tap		
11	Peace Park	Community Garden	98 Rockwell Dr	
18	170 Cedar	442 Pine		
25	Boatlaunch Washrooms	843 Myng	98 Rockwell Dr	
April				
2	Echo (Spring Park)	Water Treatment Plant		
8	290 Esplanade	459 naismith	98 Rockwell Dr	
15	Beach Washrooms	526 Driftwood		
22	Public Works Office	973 Hotsprings Rd/Tap	98 Rockwell Dr	
29	Peace Park	Community Garden		
May				
6	170 Cedar	442 Pine		Lake Samples x5
13	Boatlaunch Washrooms	843 Myng	98 Rockwell Dr	Lake Samples x5
21	Echo (Spring Park)	Water Treatment Plant		Lake Samples x5
27	290 Esplanade	459 naismith	98 Rockwell Dr	Lake Samples x5
June				
3	Beach Washrooms	526 Driftwood		Lake Samples x5
10	Public Works Office	973 Hotsprings Rd/Tap	98 Rockwell Dr	Lake Samples x5
17	Peace Park	Community Garden		Lake Samples x5
24	170 Cedar	442 Pine	98 Rockwell Dr	Lake Samples x5
July				
2	Boatlaunch Washrooms	843 Myng		Lake Samples x5
8	Echo (Spring Park)	Water Treatment Plant	98 Rockwell Dr	Lake Samples x5
15	290 Esplanade	459 naismith		Lake Samples x5
22	Beach Washrooms	526 Driftwood	98 Rockwell Dr	Lake Samples x5
29	Public Works Office	973 Hotsprings Rd/Tap		Lake Samples x5
August				
6	Peace Park	Community Garden	98 Rockwell Dr	Lake Samples x5
12	170 Cedar	442 Pine		Lake Samples x5
19	Boatlaunch Washrooms	843 Myng	98 Rockwell Dr	Lake Samples x5
26	Echo (Spring Park)	Water Treatment Plant		Lake Samples x5

Village of Harrison Hot Springs

Water Sample Schedule 2024

<u>Water Sample Schedule 2024</u>				
September				
3	290 Esplanade	459 naismith	98 Rockwell Dr	Lake Samples x5
9	Beach Washrooms	526 Driftwood		Lake Samples x5
16	Public Works Office	973 Hotsprings Rd/Tap	98 Rockwell Dr	Lake Samples x5
23	Peace Park	Community Garden		Lake Samples x5
October				
1	170 Cedar	442 Pine	98 Rockwell Dr	
7	Boatlaunch Washrooms	843 Myng		
14	Echo (Spring Park)	Water Treatment Plant	98 Rockwell Dr	
21	290 Esplanade	459 naismith		
28	Beach Washrooms	526 Driftwood	98 Rockwell Dr	
November				
4	Public Works Office	973 Hotsprings Rd/Tap		
12	Peace Park	Community Garden	98 Rockwell Dr	
18	170 Cedar	442 Pine		
25	Boatlaunch Washrooms	843 Myng	98 Rockwell Dr	
December				
2	Echo (Spring Park)	Water Treatment Plant		
9	290 Esplanade	459 naismith	98 Rockwell Dr	
16	Beach Washrooms	526 Driftwood		
23	Public Works Office	973 Hotsprings Rd/Tap	98 rockwell Dr	
30	Peace Park	Community Garden		