

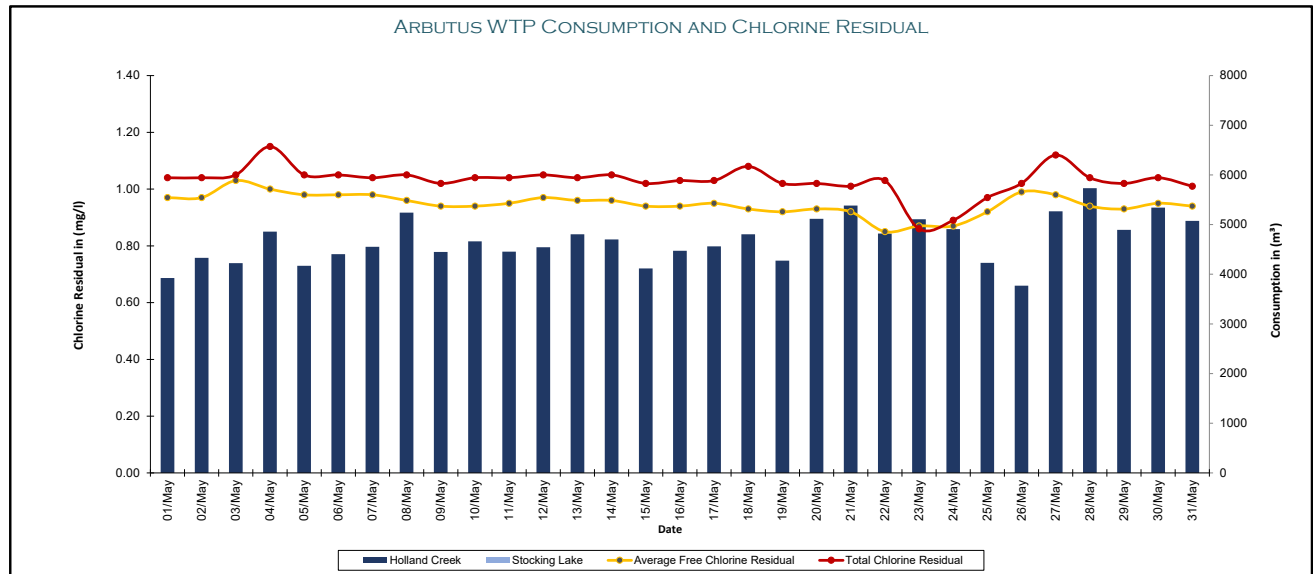
TOWN OF LADYSMITH - ARBUTUS WATER TREATMENT PLANT

MAY 2026 - MONTHLY REPORT

Date	Daily Flow			Chlorine Residual				CT*	External Lab Testing					
	Stocking Lake	Holland Creek	Combined Flow	Free Min	Free Max	Free Avg	Total		HPC	E.coli	Total Coliforms	Aluminum	THM	HAA
	m³	m³	m³	mg/l	mg/l	mg/l	mg/l		CFU	MPN	MPN	mg/l	mg/l	mg/l
01-May	0	3924	3924	0.93	0.98	0.97	1.04	122						
02-May	0	4329	4329	0.93	0.99	0.97	1.04	140						
03-May	0	4224	4224	0.96	1.04	1.03	1.05	96						
04-May	0	4857	4857	0.96	1.04	1.00	1.15	108						
05-May	0	4171	4171	0.96	1.00	0.98	1.05	77						
06-May	0	4405	4405	0.96	0.99	0.98	1.05	198	< 1	< 1	< 1	0.0157	0.0144	0.0092
07-May	0	4554	4554	0.93	0.98	0.98	1.04	186						
08-May	0	5242	5242	0.91	1.04	0.96	1.05	182						
09-May	0	4450	4450	0.92	0.97	0.94	1.02	173						
10-May	0	4662	4662	0.93	0.94	0.94	1.04	209						
11-May	0	4455	4455	0.95	0.95	0.95	1.04	208						
12-May	0	4543	4543	0.94	0.97	0.97	1.05	212	1	< 1	< 1			
13-May	0	4806	4806	0.94	0.97	0.96	1.04	250						
14-May	0	4702	4702	0.94	0.97	0.96	1.05	264						
15-May	0	4118	4118	0.93	0.96	0.94	1.02	265						
16-May	0	4473	4473	0.93	0.90	0.94	1.03	155						
17-May	0	4563	4563	0.92	0.96	0.95	1.03	158						
18-May	0	4804	4804	0.91	0.95	0.93	1.08	230						
19-May	0	4274	4274	0.92	0.95	0.92	1.02	130	< 1	< 1	< 1			
20-May	0	5115	5115	0.83	0.93	0.93	1.02	159						
21-May	0	5384	5384	0.85	0.93	0.92	1.01	161						
22-May	0	4821	4821	0.81	0.86	0.85	1.03	158						
23-May	0	5108	5108	0.86	0.88	0.87	0.86	159						
24-May	0	4908	4908	0.92	0.87	0.87	0.89	144						
25-May	0	4229	4229	0.98	0.93	0.92	0.97	163						
26-May	0	3770	3770	0.94	0.99	0.99	1.02	186						
27-May	0	5267	5267	0.92	1.02	0.98	1.12	191	< 1	< 1	< 1			
28-May	0	5733	5733	0.92	0.98	0.94	1.04	119						
29-May	0	4895	4895	0.92	0.95	0.93	1.02	130						
30-May	0	5341	5341	0.92	0.95	0.95	1.04	125						
31-May	0	5076	5076	0.92	0.95	0.94	1.01	135						

*CT - Recorded as the minimum value at the highest daily flow ** Manual Residual were not taken

Total	0	145203	145203											
Average	0	4684	4684	0.92	0.96	0.95	1.03	168	< 1	< 1	< 1	0.0157	0.0144	0.00917



Town of Ladysmith Arbutus DWTP
Monthly LRV and Turbidity Report
05/01/2026 - 06/01/2026

LRV Monthly Average

Asset	Parameter	Health	Avg	Std. Dev	Points	LL	L	%In	% bet ween L and LL	% < LL	Unit
UF 1	LRV		5.0	0.0	32	4.25	4.5	100 %	0 %	0 %	#
UF 2	LRV		5.0	0.0	32	4.25	4.5	100 %	0 %	0 %	#
UF 3	LRV		5.0	0.0	32	4.25	4.5	100 %	0 %	0 %	#

LRV Daily Values

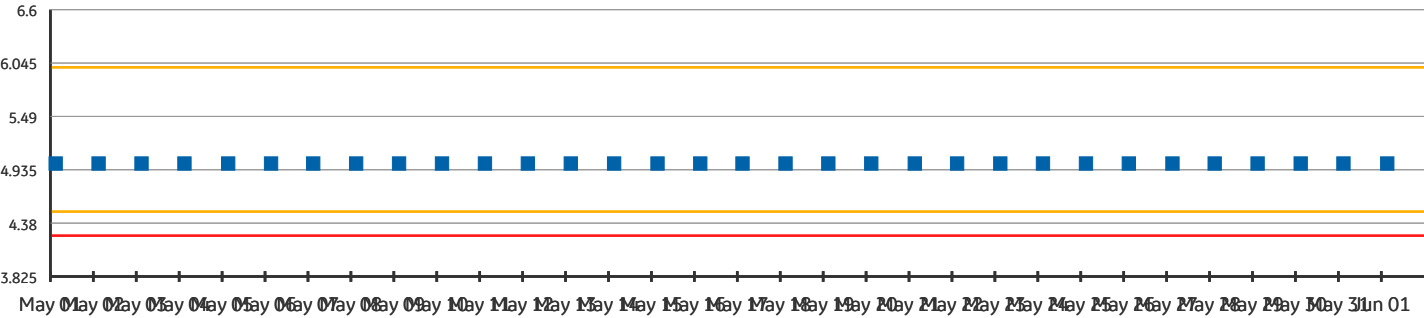
Asset	Parameter	May 01	May 02	May 03	May 04	May 05	May 06	May 07	May 08	May 09	May 10	May 11	May 12
UF 1	LRV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 2	LRV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 3	LRV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

Asset	May 13	May 14	May 15	May 16	May 17	May 18	May 19	May 20	May 21	May 22	May 23	May 24	May 25	May 26	May 27	May 28
UF 1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
UF 3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

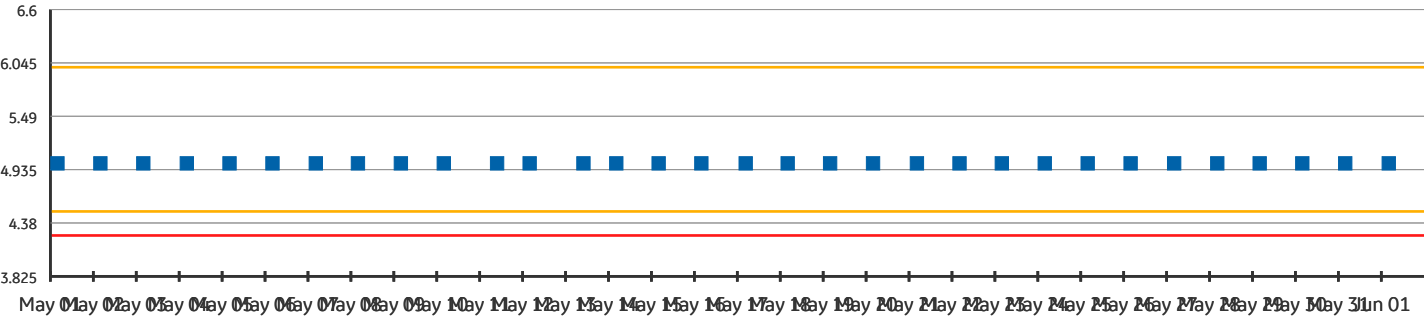
Asset	May 29	May 30	May 31	Jun 0 1
UF 1	5.0	5.0	5.0	5.0
UF 2	5.0	5.0	5.0	5.0
UF 3	5.0	5.0	5.0	5.0

LRV Raw Data

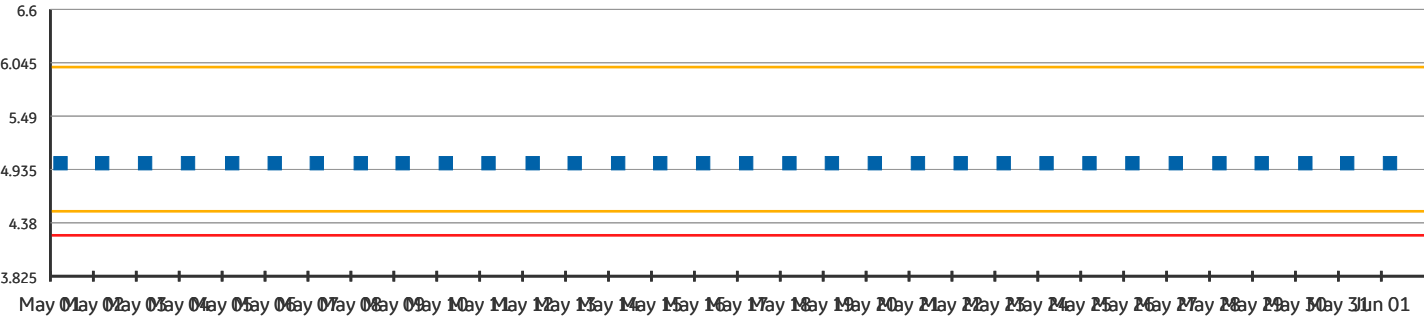
UF 1 - LRV (#)



UF 2 - LRV (#)



UF 3 - LRV (#)



Turbidity Monthly Average

Asset	Parameter	Health	Avg	Std. Dev	Points	H	HH	%In	% between H and HH	% > H	Unit
UF 1	PermeateTurbidity		0.017	0.0	45144	--	--	100 %	0 %	0 %	NTU
UF 2	PermeateTurbidity		0.017	0.0	45144	--	--	100 %	0 %	0 %	NTU
UF 3	PermeateTurbidity		0.017	0.0	45144	--	--	100 %	0 %	0 %	NTU
UF 1	PermeateTurbidityAfterBP	●	0.017	0.0	564	0.1	0.3	100 %	0 %	0 %	NTU
UF 2	PermeateTurbidityAfterBP	●	0.017	0.0	548	0.1	0.3	100 %	0 %	0 %	NTU
UF 3	PermeateTurbidityAfterBP	●	0.017	0.0	521	0.1	0.3	100 %	0 %	0 %	NTU

Turbidity Daily Averages

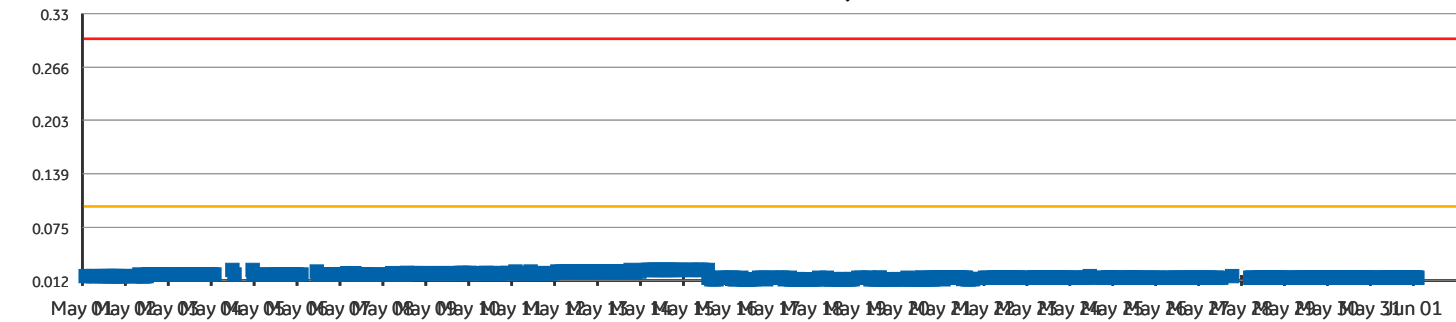
Asset	Parameter	May 01	May 02	May 03	May 04	May 05	May 06	May 07	May 08	May 09	May 10	May 11
UF 1	PermeateTurbidity	0.017	0.018	0.019	0.02	0.019	0.019	0.019	0.02	0.02	0.021	0.021
UF 2	PermeateTurbidity	0.014	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.016	0.016	0.016
UF 3	PermeateTurbidity	0.018	0.018	0.019	0.019	0.019	0.02	0.019	0.021	0.021	0.021	0.021
UF 1	PermeateTurbidityAfterBP	0.017	0.018	0.019	0.021	0.019	0.019	0.019	0.02	0.02	0.02	0.021
UF 2	PermeateTurbidityAfterBP	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.016
UF 3	PermeateTurbidityAfterBP	0.018	0.018	0.019	0.019	0.019	0.019	0.019	0.021	0.021	0.021	0.021

Asset	May 12	May 13	May 14	May 15	May 16	May 17	May 18	May 19	May 20	May 21	May 22	May 23	May 24	May 25	May 26
UF 1	0.022	0.023	0.024	0.02	0.013	0.013	0.014	0.014	0.014	0.015	0.015	0.015	0.015	0.015	0.015
UF 2	0.016	0.016	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.018	0.018	0.019	0.019
UF 3	0.021	0.022	0.023	0.019	0.013	0.013	0.014	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013
UF 1	0.022	0.022	0.024	0.02	0.014	0.014	0.013	0.014	0.014	0.014	0.015	0.015	0.015	0.015	0.015
UF 2	0.015	0.016	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.017	0.018	0.019	0.019	0.019
UF 3	0.022	0.023	0.023	0.019	0.013	0.014	0.014	0.013	0.014	0.013	0.013	0.014	0.013	0.013	0.013

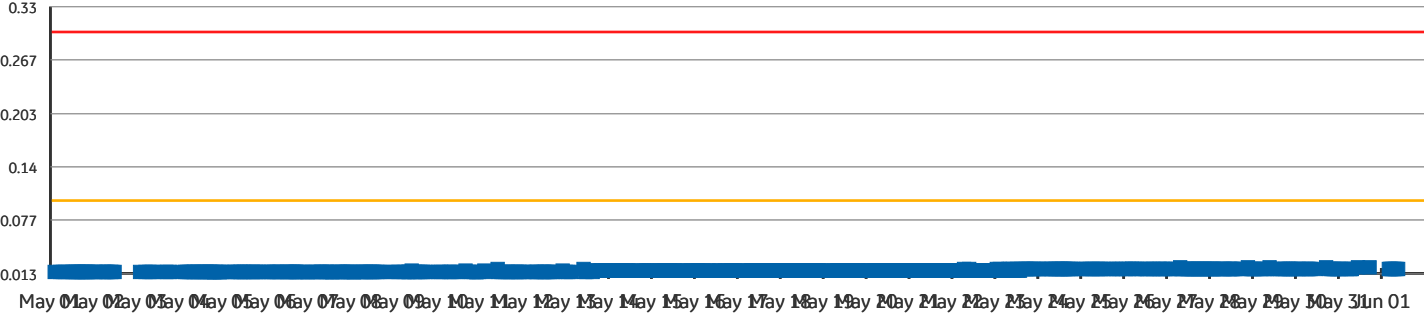
Asset	May 27	May 28	May 29	May 30	May 31	Jun 01
UF 1	0.015	0.015	0.015	0.015	0.015	0.016
UF 2	0.019	0.019	0.019	0.019	0.02	0.018
UF 3	0.013	0.013	0.013	0.013	0.013	0.013
UF 1	0.015	0.015	0.015	0.015	0.015	0.015
UF 2	0.019	0.019	0.019	0.019	0.019	0.019
UF 3	0.013	0.013	0.013	0.013	0.013	0.013

Turbidity Raw Data

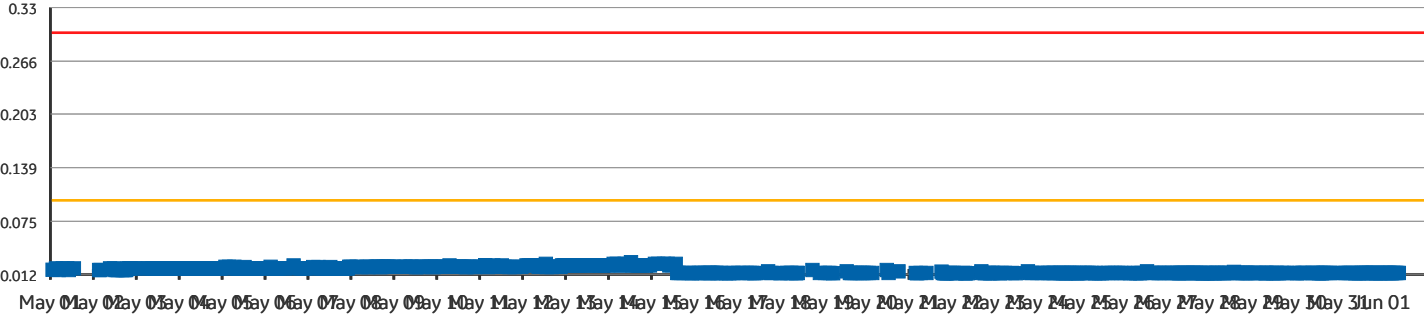
UF 1 - PermeateTurbidityAfterBP (NTU)



UF 2 - PermeateTurbidityAfterBP (NTU)



UF 3 - PermeateTurbidityAfterBP (NTU)



CERTIFICATE OF ANALYSIS

Work Order	: VA26B1031	Laboratory	: ALS Environmental - Vancouver
Client	: Town of Ladysmith	Account Manager	: Kevin Bhikadia
Contact	: Shawn Baker	Address	: 8081 Lougheed Highway
Address	: 410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2		: Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	: Arbutus Water Treatment Plant - Monthly Sampling	Telephone	: +1 604 253 4188
PO	: 10940	Date Samples Received	: 06-May-2026 10:30
C-O-C number	: ----	Date Analysis Commenced	: 08-May-2026
Sampler	: ----	Issue Date	: 19-May-2026 11:34
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer		
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>	<i>Laboratory Department</i>
Catherine DeMone	Laboratory Analyst	LCMS, Waterloo, Ontario
Ilnaz Badbezanchi	Supervisor - Metals Prep	Metals, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Organics, Burnaby, British Columbia



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
mg/L	milligrams per litre
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)

Client sample ID					Treated Water (post reservoir)	----	----	----	----
Client sampling date / time					06-May-2026 10:30	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA26B1031-001	----	----	----	----
					Result	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/VA	0.0030	mg/L	0.0157	----	----	----	----
Volatile Organic Compounds [THMs]									
Bromodichloromethane	75-27-4	E611B/VA	1.0	µg/L	1.2	----	----	----	----
Bromoform	75-25-2	E611B/VA	1.0	µg/L	<1.0	----	----	----	----
Chloroform	67-66-3	E611B/VA	1.0	µg/L	13.2	----	----	----	----
Dibromochloromethane	124-48-1	E611B/VA	1.0	µg/L	<1.0	----	----	----	----
Trihalomethanes [THMs], total	----	E611B/VA	2.0	µg/L	14.4	----	----	----	----
Volatile Organic Compounds [THMs] Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611B/VA	1.0	%	93.7	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611B/VA	1.0	%	100	----	----	----	----
Haloacetic Acids									
Bromochloroacetic acid	5589-96-8	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Dibromoacetic acid	631-64-1	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Dichloroacetic acid	79-43-6	E750/WT	1.00	µg/L	4.61	----	----	----	----
Monobromoacetic acid	79-08-3	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Monochloroacetic acid	79-11-8	E750/WT	1.00	µg/L	<1.00	----	----	----	----
Trichloroacetic acid	76-03-9	E750/WT	1.00	µg/L	4.56	----	----	----	----
Haloacetic acids, total [HAA5]	n/a	E750/WT	5.00	µg/L	9.17	----	----	----	----

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

Quality Control Interpretive Report

Work Order : VA26B1031

Client : Town of Ladysmith
Contact : Shawn Baker
Address : 410 Esplanade PO Box 220
Ladysmith BC Canada V9G 1A2
Telephone : ----
Project : Arbutus Water Treatment Plant - Monthly Sampling
PO : 10940
C-O-C number : ----
Sampler : ----
Site : Town of Ladysmith
Quote number : Town of Ladysmith Standing Offer
No. of samples received : 1
No. of samples analysed : 1

Laboratory : ALS Environmental - Vancouver
Account Manager : Kevin Bhikadia
Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 06-May-2026 10:30
Issue Date : 19-May-2026 11:34

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	: VA26B1019		
Client	: Town of Ladysmith	Laboratory	: ALS Environmental - Vancouver
Contact	: Shawn Baker	Account Manager	: Kevin Bhikadia
Address	: 410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2	Address	: 8081 Lougheed Highway Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Telephone	: +1 604 253 4188
PO	: 10940	Date Samples Received	: 06-May-2026 10:30
C-O-C number	: ----	Date Analysis Commenced	: 06-May-2026
Sampler	: ----	Issue Date	: 13-May-2026 11:58
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer		
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
Hdeep Kaur	Lab Assistant	Inorganics, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia



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.

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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
-	no units
CFU/mL	colony forming units per millilitre
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
µS/cm	microsiemens per centimetre

<: 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.

Workorder Comments

SAMPLE NAME " Treated Water (post reservoir)": Exceeded Recommended Holding Time prior to receipt at the lab for Microbiology analysis. Please check with AM for any other concerns.

Work Order : VA26B1019
Client : Town of Ladysmith
Project : Arbutus Water Treatment Plant - Weekly Sampling





Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
Client sampling date / time						06-May-2026 10:30	06-May-2026 10:30	06-May-2026 10:30	06-May-2026 10:30	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B1019-001	VA26B1019-002	VA26B1019-003	VA26B1019-004	----
						Result	Result	Result	Result	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	lab	----	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	----	----	----	----	13.8	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	----	59.4	----
pH	----	E108/VA	0.10	pH units	----	----	----	----	7.46	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	----	<0.10	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.48	1.19	0.97	----	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.39	1.13	0.88	----	----	----
Microbiological Tests										
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	----	<1	----

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

Quality Control Interpretive Report

Work Order : VA26B1019

Client : Town of Ladysmith
Contact : Shawn Baker
Address : 410 Esplanade PO Box 220
Ladysmith BC Canada V9G 1A2
Telephone : ----
Project : Arbutus Water Treatment Plant - Weekly Sampling
PO : 10940
C-O-C number : ----
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Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 06-May-2026 10:30
Issue Date : 13-May-2026 11:58

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

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CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	: VA26B1855	Laboratory	: ALS Environmental - Vancouver
Client	: Town of Ladysmith	Account Manager	: Kevin Bhikadia
Contact	: Shawn Baker	Address	: 8081 Lougheed Highway
Address	: 410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2		: Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Telephone	: +1 604 253 4188
PO	: 10940	Date Samples Received	: 13-May-2026 11:10
C-O-C number	: ----	Date Analysis Commenced	: 13-May-2026
Sampler	: ----	Issue Date	: 19-May-2026 17:04
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer		
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
Miles Gropen	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
Monica Ko	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia



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
-	no units
CFU/mL	colony forming units per millilitre
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
µS/cm	microsiemens per centimetre

<: 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.

Workorder Comments

Sample name " Treated Water (post-reservoir" exceeded the recommended holding time prior to receipt at the lab for Microbiology analysis. Please check the PM for any other concerns.

Work Order : VA26B1855
Client : Town of Ladysmith
Project : Arbutus Water Treatment Plant - Weekly Sampling





Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

					Client sample ID	Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
Client sampling date / time						12-May-2026 10:30	12-May-2026 10:30	12-May-2026 10:30	12-May-2026 10:30	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B1855-001	VA26B1855-002	VA26B1855-003	VA26B1855-004	----
						Result	Result	Result	Result	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/VA	-	-		field	field	field	----	----
Physical Tests										
Alkalinity, total (as CaCO ₃)	----	E290/VA	1.0	mg/L		----	----	----	14.2	----
Colour, true	----	E329/VA	5.0	CU		----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm		----	----	----	57.6	----
pH	----	E108/VA	0.10	pH units		----	----	----	7.44	----
Turbidity	----	E121/VA	0.10	NTU		----	----	----	<0.10	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L		2.01	0.93	0.88	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L		2.17	1.01	0.95	----	----
Microbiological Tests										
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL		----	----	----	1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL		----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL		----	----	----	<1	----

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

Quality Control Interpretive Report

Work Order : VA26B1855

Client : Town of Ladysmith
Contact : Shawn Baker
Address : 410 Esplanade PO Box 220
Ladysmith BC Canada V9G 1A2
Telephone : ----
Project : Arbutus Water Treatment Plant - Weekly Sampling
PO : 10940
C-O-C number : ----
Sampler : ----
Site : Town of Ladysmith
Quote number : Town of Ladysmith Standing Offer
No. of samples received : 4
No. of samples analysed : 4

Laboratory : ALS Environmental - Vancouver
Account Manager : Kevin Bhikadia
Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 13-May-2026 11:10
Issue Date : 19-May-2026 17:04

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

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DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	: VA26B2463	Laboratory	: ALS Environmental - Vancouver
Client	: Town of Ladysmith	Account Manager	: Kevin Bhikadia
Contact	: Shawn Baker	Address	: 8081 Lougheed Highway
Address	: 410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2		: Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	: Arbutus Water Treatment Plant-Weekly Sampling	Telephone	: +1 604 253 4188
PO	: 10977	Date Samples Received	: 20-May-2026 11:18
C-O-C number	: ----	Date Analysis Commenced	: 20-May-2026
Sampler	: ----	Issue Date	: 27-May-2026 17:38
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer		
No. of samples received	: 4		
No. of samples analysed	: 4		

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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>
Brieanna Allen	Production/Validation Manager	Inorganics, Burnaby, British Columbia
Hdeep Kaur	Lab Assistant	Inorganics, Burnaby, British Columbia
Kate Dimitrova	Supervisor - Inorganic	Inorganics, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Microbiology, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia



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.

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Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
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Unit	Description
-	no units
CFU/mL	colony forming units per millilitre
CU	colour units (1 cu = 1 mg/l pt)
mg/L	milligrams per litre
MPN/100mL	most probable number per hundred millilitres
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pH units	pH units
µS/cm	microsiemens per centimetre

<: 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.

Work Order : VA26B2463
Client : Town of Ladysmith
Project : Arbutus Water Treatment Plant-Weekly Sampling





Analytical Results

Sub-Matrix: Water
 (Matrix: Water)

Client sample ID					Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
Client sampling date / time					19-May-2026 10:10	19-May-2026 10:10	19-May-2026 10:10	19-May-2026 10:10	----
Analyte	CAS Number	Method/Lab	LOR	Unit	VA26B2463-001	VA26B2463-002	VA26B2463-003	VA26B2463-004	----
					Result	Result	Result	Result	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	----	----
Physical Tests									
Alkalinity, total (as CaCO ₃)	----	E290/VA	1.0	mg/L	----	----	----	14.8	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	59.6	----
pH	----	E108/VA	0.10	pH units	----	----	----	7.25	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	<0.10	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.35	0.96	0.95	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.33	1.05	0.91	----	----
Microbiological Tests									
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	<1	----

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

Quality Control Interpretive Report

Work Order : VA26B2463

Client : Town of Ladysmith
Contact : Shawn Baker
Address : 410 Esplanade PO Box 220
Ladysmith BC Canada V9G 1A2
Telephone : ----
Project : Arbutus Water Treatment Plant-Weekly Sampling
PO : 10977
C-O-C number : ----
Sampler : ----
Site : Town of Ladysmith
Quote number : Town of Ladysmith Standing Offer
No. of samples received : 4
No. of samples analysed : 4

Laboratory : ALS Environmental - Vancouver
Account Manager : Kevin Bhikadia
Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 20-May-2026 11:18
Issue Date : 27-May-2026 17:38

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- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

CERTIFICATE OF ANALYSIS

Work Order	: VA26B3438	Laboratory	: ALS Environmental - Vancouver
Client	: Town of Ladysmith	Account Manager	: Kevin Bhikadia
Contact	: Shawn Baker	Address	: 8081 Lougheed Highway
Address	: 410 Esplanade PO Box 220 Ladysmith British Columbia Canada V9G 1A2		: Burnaby BC Canada V5A 1W9
Telephone	: ----	E-mail	: Kevin.Bhikadia@alsglobal.com
Project	: Arbutus Water Treatment Plant - Weekly Sampling	Telephone	: +1 604 253 4188
PO	: 10940	Date Samples Received	: 28-May-2026 11:00
C-O-C number	: ----	Date Analysis Commenced	: 28-May-2026
Sampler	: ----	Issue Date	: 03-Jun-2026 13:27
Site	: Town of Ladysmith		
Quote number	: Town of Ladysmith Standing Offer		
No. of samples received	: 4		
No. of samples analysed	: 4		

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<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Lia Xie	Lab Assistant	Inorganics, Burnaby, British Columbia
Lindsay Gung	Department Manager - Inorganics	Microbiology, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Inorganics, Burnaby, British Columbia
Miles Gropen	Department Manager - Inorganics	Microbiology, Burnaby, British Columbia



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pH units	pH units
µS/cm	microsiemens per centimetre

<: 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.

Workorder Comments

sample name " Treated Water (post reservoir)" : Exceeded Recommended Holding Time prior to receipt at the lab for Microbiology analysis.

Work Order : VA26B3438
Client : Town of Ladysmith
Project : Arbutus Water Treatment Plant - Weekly Sampling





Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	Raw Water ----	DAF Effluent ----	UF Effluent ----	Treated Water (post reservoir) ----	----
Client sampling date / time						27-May-2026 10:30	27-May-2026 10:30	27-May-2026 10:30	27-May-2026 10:30	----
Analyte	CAS Number	Method/Lab	LOR	Unit		VA26B3438-001	VA26B3438-002	VA26B3438-003	VA26B3438-004	----
						Result	Result	Result	Result	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/VA	-	-	lab	lab	lab	lab	----	----
Physical Tests										
Alkalinity, total (as CaCO3)	----	E290/VA	1.0	mg/L	----	----	----	----	14.1	----
Colour, true	----	E329/VA	5.0	CU	----	----	----	----	<5.0	----
Conductivity	----	E100/VA	2.0	µS/cm	----	----	----	----	56.4	----
pH	----	E108/VA	0.10	pH units	----	----	----	----	6.97	----
Turbidity	----	E121/VA	0.10	NTU	----	----	----	----	<0.10	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/VA	0.50	mg/L	2.19	1.06	1.05	----	----	----
Carbon, total organic [TOC]	----	E355-L/VA	0.50	mg/L	2.18	1.02	1.18	----	----	----
Microbiological Tests										
Heterotrophic plate count [HPC]	----	E020/VA	1	CFU/mL	----	----	----	----	<1	----
Coliforms, Escherichia coli [E. coli]	----	E010/VA	1	MPN/100 mL	----	----	----	----	<1	----
Coliforms, total	----	E010/VA	1	MPN/100 mL	----	----	----	----	<1	----

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

Quality Control Interpretive Report

Work Order : VA26B3438

Client : Town of Ladysmith
Contact : Shawn Baker
Address : 410 Esplanade PO Box 220
Ladysmith BC Canada V9G 1A2
Telephone : ----
Project : Arbutus Water Treatment Plant - Weekly Sampling
PO : 10940
C-O-C number : ----
Sampler : ----
Site : Town of Ladysmith
Quote number : Town of Ladysmith Standing Offer
No. of samples received : 4
No. of samples analysed : 4

Laboratory : ALS Environmental - Vancouver
Account Manager : Kevin Bhikadia
Address : 8081 Lougheed Highway
Burnaby British Columbia Canada V5A 1W9
Telephone : +1 604 253 4188
Date Samples Received : 28-May-2026 11:00
Issue Date : 03-Jun-2026 13:26

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LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

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- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Laboratory Control Sample Duplicate (LCSD) outliers occur
- No Matrix Spike outliers occur.
- No Matrix Spike Duplicate (MSD) outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.