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October 26, 2026

School District 70
4690 Roger Street
Port Alberni, BC V9Y 3Z4

Attention: Alex Taylor

Reference: Potable Water Lead Testing – Ucluelet Elementary School – 1350 Peninsula Road, Ucluelet, BC

Introduction

Island EHS Ltd has collected thirty (30) water samples from taps at **Ucluelet Elementary School**, located at 1350 Peninsula Road, Ucluelet, BC. The purpose of the sampling is to evaluate potential lead exposure risk from water consumed from the taps throughout the school. The samples were collected on October 5, 2026, and we report the following.

Sampling Methodology

Sampling locations were selected by the client. All samples were taken from cold water lines.

The lead samples were collected using the methodology taken from "Guidelines on Evaluating and Mitigating lead in Drinking Water Supplies, Schools, Daycares & Other Buildings" (published April 2019 by the British Columbia Health Protection Branch), using the Random Daytime Sampling method. A 125mL First Draw sample was followed by a 125mL sample taken after a 30-second flush. This methodology was conducted to determine if a 30-second flush is sufficient to reduce the lead concentrations to below the Maximum Acceptable Concentration (MAC).

The samples were collected in an appropriate bottle supplied by an accredited laboratory. The samples were chilled and immediately submitted to the testing laboratory and tested for lead.

Samples were analyzed by the Island EHS in-house laboratory, using procedures based on methods recommended by the American Public Health Association (APHA) and the US Environmental Protection Agency (US-EPA) (EPA 200.9). Our laboratory is accredited by CALA to ISO/IEC 17025:2017 standards. Results were compared to the latest edition of the Canadian Drinking Water Quality Guidelines (CDWQG) published by Health Canada's Water Quality and Health Bureau.

Results

Table 1: Lead concentrations from tested locations for First Draw and Flushed Sampling, compared to the Maximum Allowable Concentration (MAC) for Lead (0.005 mg/L).

Sample Location	MAC[1] (mg/L)	Random Daytime Sample (mg/L)	Comments
01-S **01-F**	0.005	**0.0013** **<0.0002**	**Kitchen 110**
02-S **02-F**	0.005	**0.0026** **<0.0002**	**Work Room 112**
03-S **03-F**	0.005	**0.0049** **0.0011**	**Office 106**
04-S **04-F**	0.005	**<0.0002** **<0.0002**	**Fountain Near Office**
05-S **05-F**	0.005	**<0.0002** **<0.0002**	**Fountain Near Gym**
06-S **06-F**	0.005	**0.0065** **0.0003**	**Classroom 132**
07-S **07-F**	0.005	**0.0131** **0.0006**	**Classroom 131**
08-S **08-F**	0.005	**0.0074** **0.0010**	**Classroom 134**
09-S **09-F**	0.005	**0.0053** **<0.0002**	**Classroom 135**
10-S **10-F**	0.005	**<0.0002** **<0.0002**	**Upstairs Fountain**
11-S **11-F**	0.005	**0.0174** **0.0009**	**Classroom 203**
12-S **12-F**	0.005	**0.0191** **0.0003**	**Classroom 204**
13-S **13-F**	0.005	**0.0036** **0.0004**	**Classroom 206**
14-S **14-F**	0.005	**0.0053** **<0.0002**	**Classroom 205**
15-S **15-F**	0.005	**0.0181** **0.0003**	**Classroom 133**

1. MAC = Maximum acceptable concentrations
2. S = Stagnant first draw sample
3. F = Flushed sample
4. Results in RED indicate values that exceed the CDWQG
5. < = Less than the limit of detection (LOD)

Full analytical results can be found in Appendix A

Discussion

The building is supplied by the municipal potable water distribution system. According to the BC Health Protection Branch, “Lead is usually not found in drinking water when it leaves the treatment plant. Instead lead tends to leach out of pipes and fixtures in buildings…” Until 1989, the BC Building Code did not have provisions for restricting the use of lead-containing materials in potable water lines. Under the Canadian Standards Association (CSA) B125.1 standard, plumbing, fitting and fixtures produced as recently as 2012 that were considered “lead-free” could contain as much as 8% lead by weight. Since 2012, the maximum percent of lead in fixtures that are considered “lead-free” is 0.25%.

Conclusions and Recommendations

Of the fifteen (15) locations from which water samples were collected by Island EHS on October 5, 2026, within the Ucluelet Elementary School, located at 1350 Peninsula Road, Ucluelet, BC, the following eight (8) locations were found to have a lead concentration which exceeded the maximum acceptable concentration (MAC) in the first draw bottle:

1. Classroom 132
2. Classroom 131
3. Classroom 134
4. Classroom 135
5. Classroom 203
6. Classroom 204
7. Classroom 205
8. Classroom 133

This indicates that there is a source of lead in the pipes and/or fixtures.

As the drinking water locations are accessible by children, it is important to note that lead mitigation should be focused on engineering controls (e.g., plumbing replacement and filter installation) rather than administrative controls (e.g., signage) wherever possible. This is because not only are children most vulnerable to health effects related to lead, but they are also less likely than adults to read and follow directions.

The client may wish to consider the following suggestions to further address lead water service pipes:

- Replace as much as possible of the plumbing pipes, fixtures and fittings between the water main and the tap itself for the locations that were found to have exceedances, *or*
- Where practicable, install in-line filters just before point of use. Ensure the filters are certified to NSF/ANSI 53 for reduction of contaminants that cause health effects. The filters must be changed on a schedule recommended by the manufacturer,
- Employ a flushing program. Run each tap that is used for consumption for at least 30 seconds, or until cold.
- Affix permanent signage directing users to alternate water sources such as water coolers or filtered water, to remind users to adequately flush the lines (“run until cold”) prior to drinking, or to indicate that the water is not potable; and
- Advise occupants to use cold water for cooking and drinking, even after flushing the pipes. Lead in pipes moves more readily into hot water than into cold water.

Following implementation of select recommendations, additional sampling should be conducted at the location that exceeded the Guideline to ensure that levels are no longer in exceedance. As part of this testing, it is recommended that biannual testing for lead be conducted on sources where potable water is consumed. Following implementation of this recommendation and subsequent results, this could be reduced to annual testing from select locations.

Limitations

This report has been prepared in accordance with established Industrial Hygiene practices. It is intended for the exclusive use of School District 70 to assist in the assessment of the drinking water quality in the sampled locations. The use of this document for any other purposes is at the sole risk of the users.

Island Environmental Health & Safety Ltd.



Matt Boyer de la Giroday, CRST, RSE
Occupational Hygiene Technologist
Field Work and Report



Ashlee McGiffin, B.Env.Sc
Senior Occupational Hygienist
Report Review

Appendix A:
Analytical Results

Island Environmental Health and Safety
201 - 990 Hillside Avenue
Victoria B.C, V8T 2A1
(778)406-0933
admin@islandehs.ca

Certificate of Analysis

Client Name	School District 70	Report #	78258
Site Address	Ucluelet Elementary School	Report Date	2026-10-22
Collection Date	2026-10-05	Analysis Date	2026-10-20
Received by Lab	2026-10-13	PO	
Collected By	MBdlG	Notes	

Analysis Summary: Lead - Stagnant/Flush

Sample #	1	Result (mg/L)	0.0013	Stagnant
Location	Kitchen 110	Result (mg/L)	<0.0002	Flush
Sampling Time	6:10 AM	Comments		
Sample #	2	Result (mg/L)	0.0026	Stagnant
Location	Work Room 112	Result (mg/L)	<0.0002	Flush
Sampling Time	6:11 AM	Comments		
Sample #	3	Result (mg/L)	0.0049	Stagnant
Location	Office 106	Result (mg/L)	0.0011	Flush
Sampling Time	6:11 AM	Comments		
Sample #	4	Result (mg/L)	<0.0002	Stagnant
Location	Fountain Near Office	Result (mg/L)	<0.0002	Flush
Sampling Time	6:12 AM	Comments		
Sample #	5	Result (mg/L)	<0.0002	Stagnant
Location	Fountain Near Gym	Result (mg/L)	<0.0002	Flush
Sampling Time	6:13 AM	Comments		
Sample #	6	Result (mg/L)	0.0065	Stagnant
Location	Classroom 132	Result (mg/L)	0.0003	Flush
Sampling Time	6:14 AM	Comments		

Notes

Results are compared to the latest Canadian Drinking Water Quality Guideline (CDWQG), published by Health Canada

Results in green are at or below the CDWQG limit of 0.005 mg/L
Results in red are above the CDWQG limit of 0.005 mg/L

Analysed using EPA 200.9

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Analysis Summary: Lead - Stagnant/Flush

Sample #	7	Result (mg/L)	0.0131	Stagnant
Location	Classroom 131	Result (mg/L)	0.0006	Flush
Sampling Time	6:14 AM	Comments		
Sample #	8	Result (mg/L)	0.0074	Stagnant
Location	Classroom 134	Result (mg/L)	0.0010	Flush
Sampling Time	6:15 AM	Comments		
Sample #	9	Result (mg/L)	0.0053	Stagnant
Location	Classroom 135	Result (mg/L)	<0.0002	Flush
Sampling Time	6:16 AM	Comments		
Sample #	10	Result (mg/L)	<0.0002	Stagnant
Location	Upstairs Fountain	Result (mg/L)	<0.0002	Flush
Sampling Time	6:18 AM	Comments		
Sample #	11	Result (mg/L)	0.0174	Stagnant
Location	Classroom 203	Result (mg/L)	0.0009	Flush
Sampling Time	6:19 AM	Comments		
Sample #	12	Result (mg/L)	0.0191	Stagnant
Location	Classroom 204	Result (mg/L)	0.0003	Flush
Sampling Time	6:20 AM	Comments		

Notes

Results are compared to the latest Canadian Drinking Water Quality Guideline (CDWQG), published by Health Canada

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Collected By	MBdlG	Notes	

Analysis Summary: Lead - Stagnant/Flush

Sample #	13	Result (mg/L)	0.0036	Stagnant
Location	Classroom 206	Result (mg/L)	0.0004	Flush
Sampling Time	6:20 AM	Comments		
Sample #	14	Result (mg/L)	0.0053	Stagnant
Location	Classroom 205	Result (mg/L)	<0.0002	Flush
Sampling Time	6:21 AM	Comments		
Sample #	15	Result (mg/L)	0.0181	Stagnant
Location	Classroom 133	Result (mg/L)	0.0003	Flush
Sampling Time	6:21 AM	Comments		

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Island Environmental Health & Safety Ltd.

Notes

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Results in green are at or below the CDWQG limit of 0.005 mg/L
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Quality Control Report

	Result	Unit	Limits	Pass/Fail?
Duplicate	13	Rel. % Diff	0 - 15 %	**PASS**
LFM	105	% Recovery	85-115%	**PASS**
LRB	<0.0002	mg/L	<0.0044 mg/L	**PASS**
LFB	105	% Recovery	85-115%	**PASS**

Duplicate: Paired analysis of two portions of the same sample. Used to evaluate the variance in the measurement and homogenity of the sample.
Laboratory Fortified Matrix (LFM): A client sample that has been fortified with a known amount of analyte. Used to evaluate matrix effects.
Laboratory Reagent Blank (LRB): A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Laboratory Fortified Blank (LFB): A blank matrix to which a known amount of analyte is added. Used to verify instrument calibration.

Results relate only to the items tested

This report is issued by Island EHS, accredited by CALA to ISO/IEC 17025:2017 standards for the scope of testing.

CALA
Testing
Accreditation No. 1005043

Laura Martin
Laboratory Analyst

Sandy Munoz de la Nava, CRSP
Occupational Hygiene Technologist
Report Review

End of Report