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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 – Bus Garage – 4550 Roger Street, Port Alberni, BC

Introduction

Island EHS Ltd has collected four (4) water samples from taps at the **Bus Garage**, located at 4550 Roger Street, Port Alberni, BC. The purpose of the sampling is to evaluate potential lead exposure risk from water consumed from the taps throughout the building. The samples were collected on October 9, 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	**0.0063** **0.0080**	**Kitchen Sink**
02-S **02-F**	0.005	**0.0048** **0.0055**	**Shop Sink**

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

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 two (2) locations from which water samples were collected by Island EHS on October 9, 2026, within the bus Garage, located at 4550 Roger Street, Port Alberni, BC, one (1) location (Kitchen Sink) was found to have an average lead concentration which exceeded the maximum acceptable concentration (MAC) in the first draw bottle. Both locations (Kitchen Sink & Shop Sink) were above the MAC after a 30 second flush.

This indicates that there is a source of lead in the pipes and/or fixtures. The results for most sampling locations indicate that a daily 30-second flush before using the water for drinking or cooking should be sufficient to reliably reduce the concentration of lead to below the MAC, however, for the two (2) locations which exceeded the maximum acceptable concentration even after a 30 second flush, additional measures should be considered.

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
- Re-testing the two (2) locations which exceeded the maximum acceptable concentration even after the 30 second flush after a longer flushing period (i.e., five (5) minutes instead of thirty (30) seconds); or
- Disconnect the two (2) locations which exceeded the maximum acceptable concentration, even after the 30 second flush, and replace with water cooler units; 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 once a suitable flushing time has been determined,
- 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 all locations 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 campus 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.





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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 #	78264
Site Address	Bus Garage	Report Date	2026-10-22
Collection Date	2026-10-09	Analysis Date	2026-10-21
Received by Lab	2026-10-13	PO	
Collected By	MBdlG	Notes	

Analysis Summary: Lead - Stagnant/Flush

Sample #	1	Result (mg/L)	0.0063	Stagnant
Location	Kitchen Sink	Result (mg/L)	0.0080	Flush
Sampling Time	6:00 AM	Comments		
Sample #	2	Result (mg/L)	0.0048	Stagnant
Location	Shop Sink	Result (mg/L)	0.0055	Flush
Sampling Time	6:02 AM	Comments		

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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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Quality Control Report

	Result	Unit	Limits	Pass/Fail?
Duplicate	2	Rel. % Diff	0 - 15 %	**PASS**
LFM	103	% Recovery	85-115%	**PASS**
LRB	<0.0002	mg/L	<0.0044 mg/L	**PASS**
LFB	114	% 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