Limited Lead in Drinking Water Assessment

Longview Public Schools
Longview, Washington
Business Office

LONGVIEW
PUBLIC SCHOOLS
CREATING THE FUTURE TODAY

Assessment Date(s): June 3, 2022

Report Date: July 18th, 2022

Prepared for: Jason Reetz, Facilities Manager
Longview Public Schools

Facility Owner/Operator: Longview Public Schools

Indoor Air Quality ASSOCIATION MEMBER

Prepared By:

Sterling Technologies, LLC
317 NE 144th Street
Vancouver, WA 98685

AIHA MEMBER

Limited Lead in Drinking Water Assessment

Introduction

Sterling Technologies (Sterling) has recently completed a limited lead in drinking water screening of the Longview Public Schools' business office located at 2715 Lilac Street in Longview, Washington. The purpose of the investigation was to identify the levels of lead in the various sources of drinking water throughout the school. Sample locations included drinking water fountains, classroom sink water faucets, restroom sink water faucets, and kitchen sink water faucets.

Background

The school district may be considered a water supply system from a water distribution perspective and may need to comply with the federal guidelines for water monitoring as specified in the Lead & Copper Rule (Federal Register: June 30, 1994, Part 5. 40 CFR Parts 141 and 142; Drinking Water; Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper) and be compelled to monitor the drinking water within the district on an ongoing basis after an effective treatment approach is implemented (56FR 26460 – Lead Copper Rule). Within 30 days of learning the lead level results, all water systems (schools in this case) must provide individual lead tap results to the people who receive water from the sites that were sampled, regardless of whether the results exceed the Lead Action Level, as required by 40 CFR 141.85(d).

Results Summary

Water samples were collected from 7 drinking water sources in the building.

None of the samples were found to contain lead above the 15 ppb action level.

Sampling

The samples were collected by EPA accredited inspectors provided by Sterling. Samples included representative amounts of water. The lead in drinking water samples were analyzed by Apex Laboratories by EPA Method 200.8. The sampling guidelines followed were based on the federal school standard with emphasis on the Lead Copper Rule for sampling sites chosen.

Report continued on the next page…

Assessment Results

Analytical Results: Lead in Drinking Water

Item	Sample ID.	Location	Result (µ/L)
1	BUS-1	Hall by Print Center, Drinking Fountain	0.525
2	BUS-2	Print Center, Sink Faucet	1.20
3	BUS-3	Break Room, Sink Faucet	0.465
4	BUS-4	Women's Restroom Left Side, Sink Faucet	0.230
5	BUS-5	Women's Restroom Right Side, Sink Faucet	ND
6	BUS-6	Men's Restroom Right Side, Sink Faucet	0.389
7	BUS-7	Men's Restroom Left Side, Sink Faucet	ND

ND = Non-Detect

All drinking water samples were found to be below the 15 ppb action level.

Conclusions and Recommendations

None of the locations were noted to have elevated lead levels in drinking water as the results were below the lead in drinking water EPA standard under the Safe Drinking Water Act of 15 ppb.

It is our recommendation that the Longview School District consider the installation of a combination drinking fountain and motion sensor water filling system using an ANSI 53 certified filter by the National Science Foundation (NSF). The Elkay EZH20 is a popular fixture and is advertised online for about $1,500 per unit. Note that fixtures with refrigeration jump in price to around $4,000. These systems have proven effective for the removal of lead particulates with our other school district clients.

Given the age of the older school plumbing systems and the residual levels of lead noted in the print center sink, Sterling recommends that the district consider replacement of all water fountains at the campus with fixtures that include a suitable lead filtration system. As the existing drinking water fountains do not have an electrical source, a mechanical system would be preferable. With the mechanical fixtures, required filter changes are noted on a counter that is based on the volume of water passed through the filter.

The district might also consider instituting an administrative policy that only those drinking water sources that include a lead filtration system be used for drinking water; discourage use of unfiltered water sources (e.g., classroom sink water faucets).

Limitations

This report is for the exclusive use of the client, applies only to the specific subject property detailed above, and shall not be relied upon by any other party without the prior written consent of the undersigned.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices in this area at the time this report was prepared. No other hazardous materials/wastes were investigated. No other conditions, expressed or implied, should be understood.

Recordkeeping

Additional copies of this report are available from Sterling Technologies upon request. Unless otherwise requested, samples will be retained for a period of 30 days, after which they will be discarded. If you have any questions about these results or would like additional information, please feel free to call our office.

Sterling Technologies thanks you for this opportunity to be of service.

Sincerely,

Thomas Nadermann, M.S., Principal
AHERA Inspector #155212, Lead Risk Assessor #0493

Appendix A

Inspector’s Certification

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Thomas Heinrich Nadermann

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead-based paint activities as a

Risk Assessor

Certification #	Issuance Date	Expiration Date
0493	02/08/2021	10/22/2023

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Edwin L Wilson

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead-based paint activities as a

Risk Assessor

Certification #	Issuance Date	Expiration Date
8040	08/26/2021	07/22/2024

Appendix B

Field Data

Laboratory Results

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Monday, June 27, 2022

Thomas Nadermann
Sterling Technologies LLC
317 NE 144th St
Vancouver, WA 98685

RE: A2F0296 - Drinking Water - 2022 - Business Office

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2F0296, which was received by the laboratory on 6/7/2022 at 12:44:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1	19.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Darrell Auvil, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

Sterling Technologies LLC	Project: **Drinking Water - 2022**	
317 NE 144th St	Project Number: **Business Office**	**Report ID:**
Vancouver, WA 98685	Project Manager: **Thomas Nadermann**	**A2F0296 - 06 27 22 1526**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BUS-1	A2F0296-01	Drinking Water	06/03/22 00:00	06/07/22 12:44
BUS-2	A2F0296-02	Drinking Water	06/03/22 00:00	06/07/22 12:44
BUS-3	A2F0296-03	Drinking Water	06/03/22 00:00	06/07/22 12:44
BUS-4	A2F0296-04	Drinking Water	06/03/22 00:00	06/07/22 12:44
BUS-5	A2F0296-05	Drinking Water	06/03/22 00:00	06/07/22 12:44
BUS-6	A2F0296-06	Drinking Water	06/03/22 00:00	06/07/22 12:44
BUS-7	A2F0296-07	Drinking Water	06/03/22 00:00	06/07/22 12:44

Apex Laboratories

Darrell Auvil, Client Services Manager

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ANALYTICAL REPORT

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317 NE 144th St	Project Number: **Business Office**	**Report ID:**
Vancouver, WA 98685	Project Manager: **Thomas Nadermann**	**A2F0296 - 06 27 22 1526**

ANALYTICAL SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
BUS-1 (A2F0296-01)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	**0.525**	---	0.200	ug/L	1	06/17/22 15:10	EPA 200.8	
BUS-2 (A2F0296-02)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	**1.20**	---	0.200	ug/L	1	06/17/22 15:21	EPA 200.8	
BUS-3 (A2F0296-03)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	**0.465**	---	0.200	ug/L	1	06/17/22 15:25	EPA 200.8	
BUS-4 (A2F0296-04)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	**0.230**	---	0.200	ug/L	1	06/17/22 15:28	EPA 200.8	
BUS-5 (A2F0296-05)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	ND	---	0.200	ug/L	1	06/17/22 15:31	EPA 200.8	
BUS-6 (A2F0296-06)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	**0.389**	---	0.200	ug/L	1	06/17/22 15:35	EPA 200.8	
BUS-7 (A2F0296-07)				**Matrix: Drinking Water**				
Batch: 22F0621								
Lead	ND	---	0.200	ug/L	1	06/17/22 15:46	EPA 200.8	

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ANALYTICAL REPORT

Sterling Technologies LLC	Project:	Drinking Water - 2022
317 NE 144th St	Project Number:	Business Office
Vancouver, WA 98685	Project Manager:	Thomas Nadermann

Report ID:
A2F0296 - 06 27 22 1526

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22F0621 - EPA 200.8 Direct Analysis									Drinking Water			
Blank (22F0621-BLK1)			Prepared: 06/16/22 16:25		Analyzed: 06/17/22 15:02							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0621-BS1)			Prepared: 06/16/22 16:25		Analyzed: 06/17/22 15:06							
EPA 200.8												
Lead	14.2	---	0.201	ug/L	1	15.0	---	95	85-115%	---	---	
Duplicate (22F0621-DUP1)			Prepared: 06/16/22 16:25		Analyzed: 06/17/22 15:13							
QC Source Sample: BUS-1 (A2F0296-01)												
EPA 200.8												
Lead	**0.510**	---	0.200	ug/L	1	---	0.525	---	---	3	20%	
Matrix Spike (22F0621-MS1)			Prepared: 06/16/22 16:25		Analyzed: 06/17/22 15:16							
QC Source Sample: BUS-1 (A2F0296-01)												
EPA 200.8												
Lead	13.9	---	0.201	ug/L	1	15.0	0.525	89	70-130%	---	---	
Matrix Spike (22F0621-MS2)			Prepared: 06/16/22 16:25		Analyzed: 06/17/22 16:43							
QC Source Sample: Non-SDG (A2F0301-13)												
EPA 200.8												
Lead	13.9	---	0.201	ug/L	1	15.0	0.399	90	70-130%	---	---	

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ANALYTICAL REPORT

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317 NE 144th St	Project Number: **Business Office**	**Report ID:**
Vancouver, WA 98685	Project Manager: **Thomas Nadermann**	**A2F0296 - 06 27 22 1526**

SAMPLE PREPARATION INFORMATION

Total Metals in Drinking Water by EPA 200.8 (ICPMS)

Prep: EPA 200.8 Direct Analysis

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22F0621							
A2F0296-01	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00
A2F0296-02	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00
A2F0296-03	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00
A2F0296-04	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00
A2F0296-05	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00
A2F0296-06	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00
A2F0296-07	Drinking Water	EPA 200.8	06/03/22 00:00	06/16/22 16:25	10mL/10mL	10mL/10mL	1.00

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

There are No Qualifiers on Sample or QC Data for this report

Darrell Auvil, Client Services Manager

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories, LLC
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ANALYTICAL REPORT

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317 NE 144th St	Project Number: **Business Office**	**Report ID:**
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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) - EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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A2F0296

Sterling Technologies, LLC
Providing technical consulting support to the environmental and manufacturing industries
317 NE 144th Street Vancouver, WA 98685
360.576.6331

Chain of Custody
Field Sampling Log

Project Name: Business Office
Site Location: 2715 Lilac ST, Longview, WA
Date: 6.3.2022
Project Contact: T. Nadermann

Turnaround Time:
Normal: X
Other:

Sample ID	Location/Description	Analysis	Comments
BUS-1	Hall Drinking Fountain by Print Center	Pb	
BUS-2	Print Center - Sink Faucet	Pb	
BUS-3	Break Room - "	Pb	
BUS-4	Womens Rest Room - " - Left Side	Pb	
BUS-5	Womens Rest Room - " - Right Side	Pb	
BUS-6	Men's Rest Room - " - "	Pb	
BUS-7	" - " - Left Side	Pb	

Sampled by: T. Naderman, E. Wilson Date: 6.3.2022

6-7-22 Shawn Thompson st ~~1245~~ 1244 Apex

Apex Laboratories, LLC
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APEX LABS COOLER RECEIPT FORM

Client: Sterling Element WO#: A2 F0296

Project/Project #: BUSINESS OFFICE - 2715 LICAC ST.

Delivery Info:
Date/time received: 6-7-22 @ 1244 By: SAT
Delivered by: Apex X Client ___ ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___
Cooler Inspection Date/time inspected: 6-7-22 @ 1421 By: SAT
Chain of Custody included? Yes X No ___ Custody seals? Yes ___ No X
Signed/dated by client? Yes X No ___
Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	19.8						
Received on ice? (Y/N)	N						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	~~NA~~ NONE						
Condition:	~~Good~~ out						

Cooler out of temp? (Y/N) Possible reason why: Drinking Water
Green dots applied to out of temperature samples? Yes/No
Out of temperature samples form initiated? Yes/No
Sample Inspection: Date/time inspected: 6/7/22 @ 945 By: [illegible]
All samples intact? Yes X No ___ Comments: ___
Bottle labels/COCs agree? Yes X No ___ Comments: ___
COC/container discrepancies form initiated? Yes ___ No X
Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___
Do VOA vials have visible headspace? Yes ___ No ___ NA X
Comments ___
Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes X No ___ NA ___
Comments: ___
Additional information: ___
Labeled by: [illegible] Witness: [illegible] Cooler Inspected by: [illegible]

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