

Limited Lead in Drinking Water Assessment

Longview Public Schools Longview, Washington Cascade Middle School



Assessment Date(s): June 7, 2022

Report Date: July 18th, 2022

Prepared for: Jason Reetz, Facilities Manager
Longview Public Schools

Facility Owner/Operator: Longview Public Schools



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



Limited Lead in Drinking Water Assessment

Introduction

Sterling Technologies (Sterling) has recently completed a limited lead in drinking water screening of the Cascade Middle School, Longview School District, located at 2821 Parkview Drive 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 77 drinking water sources at the school.

9 samples were found to NOT contain an elevated lead level as they were below 15 ppb.

3 samples were found to contain an elevated lead level above 15 ppb.

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.

Assessment Results

Analytical Results: Lead in Drinking Water

tem	Sample ID.	Location	Result (µ1.8/L)
1	C-1	Classroom 102, Sink Faucet	0.818
2	C-2	Classroom 102, Drinking Fountain	0.615
3	C-3	Classroom 103, Drinking Fountain	1.90
4	C-4	Classroom 103, Sink Faucet	1.95



tem	Sample ID.	Location	Result (µ1.8/L)
5	C-5	Classroom 104, Sink Faucet	0.650
6	C-6	Classroom 104, Drinking Fountain	0.537
7	C-7	Classroom 106, Sink Faucet	1.39
8	C-8	Classroom 108, Sink Faucet Left 1	0.881
9	C-9	Classroom 108, Sink Faucet Left 2	0.844
10	C-10	Classroom 108, Sink Faucet Left 3	0.518
11	C-11	Classroom 108, Sink Faucet Left 4	1.20
12	C-12	Classroom 108, Sink Faucet Left 5	0.780
13	C-13	Classroom 107, Sink Faucet	1.17
14	C-14	Classroom 107, Drinking Fountain	0.463
15	C-15	Classroom 110, Sink Faucet Left 1	3.85
16	C-16	Classroom 110, Sink Faucet Left 2	13.8
17	C-17	Classroom 110, Sink Faucet Left 3	19.4
18	C-18	Classroom 110, Sink Faucet Left 4	1.52
19	C-19	Classroom 110, Sink Faucet Left 5	55.1
20	C-20	Classroom 110, Sink Faucet Left 7	0.308
21	C-21	Classroom 116, Sink Faucet Left 1	0.293
22	C-22	Classroom 116, Sink Faucet Left 2	0.314
23	C-23	Classroom 116 Annex, Sink Faucet Right 1	0.334
24	C-24	Classroom 116 Annex, Sink Faucet Right 2	0.929
25	C-25	Classroom 117, Sink Faucet	0.454
26	C-26	Classroom 201, Sink Faucet Left 1	0.663
27	C-27	Classroom 201, Sink Faucet Left 2	0.341
28	C-28	Classroom 201, Sink Faucet Left 3	0.502
29	C-29	Classroom 201, Sink Faucet Left 4	0.300
30	C-30	Classroom 202, Sink Faucet	1.28
31	C-31	Classroom 211, Sink Faucet	1.14
32	C-32	Classroom 211, Sink Faucet	1.33
33	C-33	Classroom 218, Sink Faucet	0.516
34	C-34	Classroom 301, Sink Faucet	1.45
35	C-35	Girls Restroom by Cafeteria, Sink Faucet Right 1	0.221
36	C-36	Girls Restroom by Cafeteria, Sink Faucet Right 2	0.551
37	C-37	Boys Restroom by Cafeteria, Sink Faucet Left 1	0.805
38	C-38	Boys Restroom by Cafeteria, Sink Faucet Left 2	1.82
39	C-39	Restroom by Classroom 202, Sink Faucet	0.249
40	C-40	Drinking Fountain by Classroom 202	0.485
41	C-101	Gym Boys Locker Room, Faucet	2.58
42	C-102	Small Gym NRRL-2, Faucet	9.08
43	C-103	Small Gym Entry, Drinking Fountain	27.9
44	C-104	Girls Locker Room, Faucet	1.72



tem	Sample ID.	Location	Result (µ1.8/L)
45	C-105	Gym Boys Locker Room Staff Restroom, Faucet	0.953
46	C-106	Gym Boys Restroom, Faucet	1.22
47	C-107	Gym Entry NE, Drinking Fountain	0.208
48	C-108	Gym Weight Room 2 nd , Drinking Fountain	ND
49	C-109	Gym Girls Locker Room Office Restroom, Faucet	0.509
50	C-110	Gym NE Women's Restroom, Faucet	0.622
51	C-111	Gym S Entry, Drinking Fountain	0.236
52	C-112	Gym 2 nd NW, Faucet	2.19
53	C-113	Kitchen Center Sink West, Faucet	0.478
54	C-114	Upper Corridor/Kitchen, Drinking Fountain	0.474
55	C-115	Kitchen Ceramic Sink, Faucet	7.58
56	C-116	Kitchen Restroom, Faucet	2.61
57	C-117	Kitchen West Sink Wash, Faucet	5.73
58	C-118	Kitchen North Sink, Faucet	0.827
59	C-119	Guidance Health, Faucet	0.375
60	C-120	Guidance Boys Restroom, Faucet	0.947
61	C-121	Guidance Restroom, Faucet	0.670
62	C-122	Offices All Gender Restroom, Faucet	0.666
63	C-123	Guidance Health, Faucet	1.51
64	C-124	Entry Lower Level, Drinking Fountain	ND
65	C-125	Offices Restroom, Faucet	7.99
66	C-126	Upper Guidance Restroom, Drinking Fountain	ND
67	C-127	Sink Fountain by 202 Hall, Drinking Fountain	0.601
68	C-128	Girls Restroom Lower Entry, Faucet	1.08
69	C-129	Staff Lunch Restroom, Faucet	0.439
70	C-130	Staff Restroom by 218, Faucet	0.417
71	C-131	Staff Restroom by 103, Faucet	0.334
72	C-132	Staff Lunch, Sink Faucet	1.72
73	C-133	Boys Restroom by Library, Faucet	1.05
74	C-134	Upper Sink by 202, Faucet	0.360
75	C-135	Hall Faucet by 217	0.886
76	C-136	Lunchroom by 103, Drinking Fountain	0.946
77	C-137	Lunchroom by 103, Faucet	0.739

ND = Non-Detect

As highlighted () in the above table, the lab result for 3 of the 77 drinking water samples collected was found to be above the 15 ppb action level for lead in drinking water. The remaining drinking water samples were found to be below the 15 ppb action level.



Note: Drinking water sources with lead levels above an approximate background level of 2.0 ppb have also been highlighted ().

Conclusions and Recommendations

Three locations were noted to have elevated lead in drinking water—Classroom 110, Sink Faucets 3 and 5, and the drinking water fountain at the entrance to the small gym.

No elevated lead in drinking water levels were noted in the other locations that were sampled at the school, and the results were below the lead in drinking water EPA standard under the Safe Drinking Water Act of 15 ppb. Nine drinking water locations did have residual lead levels above a background level of 2.0 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 Cascade Middle School's plumbing systems (school built in 1970) and the residual levels of lead noted in the drinking water sources in the offices restroom, kitchen and Classroom 110 faucets, these need to be addressed.

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,

A handwritten signature in black ink, appearing to read "Nadernann". The signature is fluid and cursive, with the first letter 'N' being particularly large and stylized.

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*

<u>Certification #</u>	<u>Issuance Date</u>	<u>Expiration Date</u>
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*

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



Appendix B

Field Data

Laboratory Results





ANALYTICAL REPORT

Apex Laboratories, LLC

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

Friday, June 24, 2022

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

RE: A2F0227 - Drinking Water - 2022 - Cascade Middle School

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 A2F0227, 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
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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

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.

Darrell Auvil, Client Services Manager

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: Cascade Middle School

Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

ANALYTICAL REPORT FOR SAMPLES**SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-1	A2F0227-01	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-2	A2F0227-02	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-3	A2F0227-03	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-4	A2F0227-04	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-5	A2F0227-05	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-6	A2F0227-06	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-7	A2F0227-07	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-8	A2F0227-08	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-9	A2F0227-09	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-10	A2F0227-10	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-11	A2F0227-11	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-12	A2F0227-12	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-13	A2F0227-13	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-14	A2F0227-14	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-15	A2F0227-15	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-16	A2F0227-16	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-17	A2F0227-17	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-18	A2F0227-18	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-19	A2F0227-19	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-20	A2F0227-20	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-21	A2F0227-21	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-22	A2F0227-22	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-23	A2F0227-23	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-24	A2F0227-24	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-25	A2F0227-25	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-26	A2F0227-26	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-27	A2F0227-27	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-28	A2F0227-28	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-29	A2F0227-29	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-30	A2F0227-30	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-31	A2F0227-31	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-32	A2F0227-32	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-33	A2F0227-33	Drinking Water	06/07/22 00:00	06/07/22 12:44

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Darrell Auvil, Client Services Manager



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503-718-2323
ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: Cascade Middle School
Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-34	A2F0227-34	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-35	A2F0227-35	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-36	A2F0227-36	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-37	A2F0227-37	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-38	A2F0227-38	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-39	A2F0227-39	Drinking Water	06/07/22 00:00	06/07/22 12:44
C-40	A2F0227-40	Drinking Water	06/07/22 00:00	06/07/22 12:44

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Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

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
C-1 (A2F0227-01) Matrix: Drinking Water								
Batch: 22F0540								
Lead	0.818	---	0.200	ug/L	1	06/15/22 16:33	EPA 200.8	
C-2 (A2F0227-02) Matrix: Drinking Water								
Batch: 22F0540								
Lead	0.615	---	0.200	ug/L	1	06/15/22 16:44	EPA 200.8	
C-3 (A2F0227-03) Matrix: Drinking Water								
Batch: 22F0540								
Lead	1.90	---	0.200	ug/L	1	06/15/22 16:47	EPA 200.8	
C-4 (A2F0227-04) Matrix: Drinking Water								
Batch: 22F0540								
Lead	1.95	---	0.200	ug/L	1	06/15/22 16:51	EPA 200.8	
C-5 (A2F0227-05) Matrix: Drinking Water								
Batch: 22F0540								
Lead	0.650	---	0.200	ug/L	1	06/15/22 16:55	EPA 200.8	
C-6 (A2F0227-06) Matrix: Drinking Water								
Batch: 22F0540								
Lead	0.537	---	0.200	ug/L	1	06/15/22 16:59	EPA 200.8	
C-7 (A2F0227-07) Matrix: Drinking Water								
Batch: 22F0540								
Lead	1.39	---	0.200	ug/L	1	06/15/22 17:02	EPA 200.8	
C-8 (A2F0227-08) Matrix: Drinking Water								
Batch: 22F0540								
Lead	0.881	---	0.200	ug/L	1	06/15/22 17:06	EPA 200.8	
C-9 (A2F0227-09) Matrix: Drinking Water								
Batch: 22F0540								
Lead	0.844	---	0.200	ug/L	1	06/15/22 17:09	EPA 200.8	
C-10 (A2F0227-10) Matrix: Drinking Water								
Batch: 22F0559								

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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
C-10 (A2F0227-10) Matrix: Drinking Water								
Lead	0.518	---	0.200	ug/L	1	06/15/22 19:19	EPA 200.8	
C-11 (A2F0227-11) Matrix: Drinking Water								
Batch: 22F0559								
Lead	1.20	---	0.200	ug/L	1	06/15/22 19:32	EPA 200.8	
C-12 (A2F0227-12) Matrix: Drinking Water								
Batch: 22F0559								
Lead	0.780	---	0.200	ug/L	1	06/15/22 19:43	EPA 200.8	
C-13 (A2F0227-13) Matrix: Drinking Water								
Batch: 22F0559								
Lead	1.17	---	0.200	ug/L	1	06/15/22 19:47	EPA 200.8	
C-14 (A2F0227-14) Matrix: Drinking Water								
Batch: 22F0559								
Lead	0.463	---	0.200	ug/L	1	06/15/22 19:50	EPA 200.8	
C-15 (A2F0227-15) Matrix: Drinking Water								
Batch: 22F0559								
Lead	3.85	---	0.200	ug/L	1	06/15/22 19:53	EPA 200.8	
C-16 (A2F0227-16) Matrix: Drinking Water								
Batch: 22F0545								
Lead	13.8	---	0.222	ug/L	1	06/15/22 21:09	EPA 200.8	DW-D, B
C-17 (A2F0227-17) Matrix: Drinking Water								
Batch: 22F0547								
Lead	19.4	---	0.200	ug/L	1	06/15/22 17:32	EPA 200.8	
C-18 (A2F0227-18) Matrix: Drinking Water								
Batch: 22F0547								
Lead	1.52	---	0.200	ug/L	1	06/15/22 17:45	EPA 200.8	
C-19 (A2F0227-19) Matrix: Drinking Water								
Batch: 22F0547								

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Project Manager: Thomas Nadermann

Report ID:

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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
C-19 (A2F0227-19) Matrix: Drinking Water								
Lead	55.1	---	0.200	ug/L	1	06/15/22 17:49	EPA 200.8	
C-20 (A2F0227-20) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.308	---	0.200	ug/L	1	06/15/22 17:53	EPA 200.8	
C-21 (A2F0227-21) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.293	---	0.200	ug/L	1	06/15/22 17:57	EPA 200.8	
C-22 (A2F0227-22) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.314	---	0.200	ug/L	1	06/15/22 18:00	EPA 200.8	
C-23 (A2F0227-23) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.334	---	0.200	ug/L	1	06/15/22 18:03	EPA 200.8	
C-24 (A2F0227-24) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.929	---	0.200	ug/L	1	06/15/22 18:14	EPA 200.8	
C-25 (A2F0227-25) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.454	---	0.200	ug/L	1	06/15/22 18:18	EPA 200.8	
C-26 (A2F0227-26) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.663	---	0.200	ug/L	1	06/15/22 18:21	EPA 200.8	
C-27 (A2F0227-27) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.341	---	0.200	ug/L	1	06/15/22 18:24	EPA 200.8	
C-28 (A2F0227-28) Matrix: Drinking Water								
Batch: 22F0547								

Apex Laboratories

Darrell Auvil, Client Services Manager

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503-718-2323
ORELAP ID: OR100062**Sterling Technologies LLC**317 NE 144th St
Vancouver, WA 98685Project: **Drinking Water - 2022**Project Number: **Cascade Middle School**Project Manager: **Thomas Nadermann****Report ID:****A2F0227 - 06 24 22 1643****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
C-28 (A2F0227-28) Matrix: Drinking Water								
Lead	0.502	---	0.200	ug/L	1	06/15/22 18:28	EPA 200.8	
C-29 (A2F0227-29) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.300	---	0.200	ug/L	1	06/15/22 18:31	EPA 200.8	
C-30 (A2F0227-30) Matrix: Drinking Water								
Batch: 22F0547								
Lead	1.28	---	0.200	ug/L	1	06/15/22 18:34	EPA 200.8	
C-31 (A2F0227-31) Matrix: Drinking Water								
Batch: 22F0547								
Lead	1.14	---	0.200	ug/L	1	06/15/22 18:39	EPA 200.8	
C-32 (A2F0227-32) Matrix: Drinking Water								
Batch: 22F0547								
Lead	1.33	---	0.200	ug/L	1	06/15/22 18:42	EPA 200.8	
C-33 (A2F0227-33) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.516	---	0.200	ug/L	1	06/15/22 18:45	EPA 200.8	
C-34 (A2F0227-34) Matrix: Drinking Water								
Batch: 22F0547								
Lead	1.45	---	0.200	ug/L	1	06/15/22 18:57	EPA 200.8	
C-35 (A2F0227-35) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.221	---	0.200	ug/L	1	06/15/22 19:01	EPA 200.8	
C-36 (A2F0227-36) Matrix: Drinking Water								
Batch: 22F0547								
Lead	0.551	---	0.200	ug/L	1	06/15/22 19:04	EPA 200.8	
C-37 (A2F0227-37) Matrix: Drinking Water								
Batch: 22F0559								

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Darrell Auvil, Client Services Manager

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: Cascade Middle School

Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

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
C-37 (A2F0227-37)			Matrix: Drinking Water					
Lead	0.805	---	0.200	ug/L	1	06/15/22 19:57	EPA 200.8	
C-38 (A2F0227-38)			Matrix: Drinking Water					
Batch: 22F0559								
Lead	1.82	---	0.200	ug/L	1	06/15/22 20:01	EPA 200.8	
C-39 (A2F0227-39)			Matrix: Drinking Water					
Batch: 22F0559								
Lead	0.249	---	0.200	ug/L	1	06/15/22 20:05	EPA 200.8	
C-40 (A2F0227-40)			Matrix: Drinking Water					
Batch: 22F0559								
Lead	0.485	---	0.200	ug/L	1	06/15/22 20:08	EPA 200.8	

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Vancouver, WA 98685Project: Drinking Water - 2022Project Number: Cascade Middle School
Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

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 22F0540 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0540-BLK1)			Prepared: 06/15/22 11:04 Analyzed: 06/15/22 15:32									
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0540-BS1)			Prepared: 06/15/22 11:04 Analyzed: 06/15/22 15:36									
EPA 200.8												
Lead	14.4	---	0.201	ug/L	1	15.0	---	96	85-115%	---	---	
Duplicate (22F0540-DUP1)			Prepared: 06/15/22 11:04 Analyzed: 06/15/22 15:43									
QC Source Sample: Non-SDG (A2F0226-27)												
Lead	0.618	---	0.200	ug/L	1	---	0.601	---	---	3	20%	
Matrix Spike (22F0540-MS1)			Prepared: 06/15/22 11:04 Analyzed: 06/15/22 15:47									
QC Source Sample: Non-SDG (A2F0226-27)												
EPA 200.8												
Lead	14.2	---	0.201	ug/L	1	15.0	0.601	90	70-130%	---	---	
Matrix Spike (22F0540-MS2)			Prepared: 06/15/22 11:04 Analyzed: 06/15/22 17:13									
QC Source Sample: C-9 (A2F0227-09)												
EPA 200.8												
Lead	14.6	---	0.201	ug/L	1	15.0	0.844	92	70-130%	---	---	
Batch 22F0545 - EPA 3015A						Drinking Water						
Blank (22F0545-BLK1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:37									
EPA 200.8												
Lead	0.235	---	0.222	ug/L	1	---	---	---	---	---	---	E
LCS (22F0545-BS1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:42									
EPA 200.8												
Lead	16.6	---	0.222	ug/L	1	16.7	---	100	85-115%	---	---	E
Duplicate (22F0545-DUP1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:51									
QC Source Sample: Non-SDG (A2F0100-41)												

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Vancouver, WA 98685

Project: Drinking Water - 2022

Project Number: Cascade Middle School

Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

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 22F0545 - EPA 3015A						Drinking Water						
Duplicate (22F0545-DUP1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:51									
QC Source Sample: Non-SDG (A2F0100-41)												
Lead	21.3	---	0.222	ug/L	1	---	20.9	---	---	2	20%	B
Matrix Spike (22F0545-MS1)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 19:56									
QC Source Sample: Non-SDG (A2F0100-41)												
EPA 200.8												
Lead	36.5	---	0.222	ug/L	1	16.7	20.9	93	70-130%	---	---	B
Matrix Spike (22F0545-MS2)			Prepared: 06/15/22 11:56 Analyzed: 06/15/22 21:14									
QC Source Sample: C-16 (A2F0227-16)												
EPA 200.8												
Lead	30.3	---	0.222	ug/L	1	16.7	13.8	99	70-130%	---	---	B

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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 22F0547 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0547-BLK2)			Prepared: 06/15/22 12:11 Analyzed: 06/17/22 13:29									
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	Q-16
LCS (22F0547-BS1)			Prepared: 06/15/22 12:11 Analyzed: 06/15/22 17:28									
EPA 200.8												
Lead	15.0	---	0.201	ug/L	1	15.0	---	100	85-115%	---	---	
Duplicate (22F0547-DUP1)			Prepared: 06/15/22 12:11 Analyzed: 06/15/22 17:36									
QC Source Sample: C-17 (A2F0227-17)												
EPA 200.8												
Lead	18.8	---	0.200	ug/L	1	---	19.4	---	---	3	20%	
Matrix Spike (22F0547-MS1)			Prepared: 06/15/22 12:11 Analyzed: 06/15/22 17:41									
QC Source Sample: C-17 (A2F0227-17)												
EPA 200.8												
Lead	32.1	---	0.201	ug/L	1	15.0	19.4	84	70-130%	---	---	
Matrix Spike (22F0547-MS2)			Prepared: 06/15/22 12:11 Analyzed: 06/15/22 19:07									
QC Source Sample: C-36 (A2F0227-36)												
EPA 200.8												
Lead	13.7	---	0.201	ug/L	1	15.0	0.551	88	70-130%	---	---	

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317 NE 144th St
Vancouver, WA 98685Project: Drinking Water - 2022

Project Number: Cascade Middle School

Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

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 22F0559 - EPA 200.8 Direct Analysis						Drinking Water						
Blank (22F0559-BLK1)			Prepared: 06/15/22 15:31		Analyzed: 06/15/22 19:11							
EPA 200.8												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (22F0559-BS1)			Prepared: 06/15/22 15:31		Analyzed: 06/15/22 19:15							
EPA 200.8												
Lead	14.2	---	0.201	ug/L	1	15.0	---	95	85-115%	---	---	
Duplicate (22F0559-DUP1)			Prepared: 06/15/22 15:31		Analyzed: 06/15/22 19:22							
QC Source Sample: C-10 (A2F0227-10)												
EPA 200.8												
Lead	0.517	---	0.200	ug/L	1	---	0.518	---	---	0.2	20%	
Matrix Spike (22F0559-MS1)			Prepared: 06/15/22 15:31		Analyzed: 06/15/22 19:26							
QC Source Sample: C-10 (A2F0227-10)												
EPA 200.8												
Lead	13.9	---	0.201	ug/L	1	15.0	0.518	89	70-130%	---	---	
Matrix Spike (22F0559-MS2)			Prepared: 06/15/22 15:31		Analyzed: 06/15/22 21:01							
QC Source Sample: Non-SDG (A2F0228-10)												
EPA 200.8												
Lead	28.2	---	0.201	ug/L	1	15.0	15.4	85	70-130%	---	---	

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317 NE 144th St

Vancouver, WA 98685

Project: **Drinking Water - 2022**Project Number: **Cascade Middle School**Project Manager: **Thomas Nadermann****Report ID:****A2F0227 - 06 24 22 1643****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: 22F0540							
A2F0227-01	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-02	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-03	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-04	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-05	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-06	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-07	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-08	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
A2F0227-09	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:04	10mL/10mL	10mL/10mL	1.00
Batch: 22F0547							
A2F0227-17	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-18	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-19	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-20	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-21	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-22	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-23	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-24	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-25	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-26	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-27	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-28	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-29	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-30	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-31	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-32	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-33	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-34	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-35	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
A2F0227-36	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 12:11	10mL/10mL	10mL/10mL	1.00
Batch: 22F0559							
A2F0227-10	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-11	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-12	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-13	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00

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503-718-2323

ORELAP ID: OR100062

Sterling Technologies LLC

317 NE 144th St

Vancouver, WA 98685

Project: **Drinking Water - 2022**Project Number: **Cascade Middle School**Project Manager: **Thomas Nadermann****Report ID:****A2F0227 - 06 24 22 1643****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
A2F0227-14	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-15	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-37	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-38	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-39	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00
A2F0227-40	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 15:31	10mL/10mL	10mL/10mL	1.00

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 22F0545</u>							
A2F0227-16	Drinking Water	EPA 200.8	06/07/22 00:00	06/15/22 11:56	45mL/50mL	10mL/10mL	1.11

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Project Number: **Cascade Middle School**

Project Manager: **Thomas Nadermann**

Report ID:

A2F0227 - 06 24 22 1643

QUALIFIER DEFINITIONS

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

Apex Laboratories

- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- DW-D** Turbidity greater than 1 NTU. Sample was digested per EPA Method 200.8.
- Q-16** Reanalysis of an original Batch QC sample.

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

Sterling Technologies LLC

317 NE 144th St
Vancouver, WA 98685

Project: **Drinking Water - 2022**

Project Number: **Cascade Middle School**
Project Manager: **Thomas Nadermann**

Report ID:

A2F0227 - 06 24 22 1643

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

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.

Darrell Auvil, Client Services Manager



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
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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
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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Sterling Technologies LLC

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Chain of Custody

Field Sampling Log

AP 0227
Sterling Technologies, LLC
Providing technical consulting support to the
environmental and manufacturing industries
317 NE 144th Street Vancouver, WA 98685
360.376.6331
pg 2 of 4

Project Name:

Site Location:

Date:

Project Contact:

Turnaround Time:

Normal: ☒

Other:

Cascade Middle School
2821 Parkview Drive, Longview, WA
6.7.2022
T. Nadermann

Sample ID	Location/Description	Analysis	Comments
C-14	Class 107, Drinking Fountain	Pb	
C-15	" 110, Sink Faucet Left 1	Pb	
C-16	" 110, " Left 2	Pb	
C-17	" 110, " Left 3	Pb	
C-18	" 110, " Left 4	Pb	
C-19	" 110, " Left 5	Pb	
C-20	" 110, " Left 7	Pb	
C-21	" 116, " Left 1	Pb	
C-22	" 116, " Left 2	Pb	
C-23	" 116, " Right 1	Pb	
C-24	" 116, " Right 2	Pb	
C-25	" 117, " #	Pb	
C-26	" 201, " Left 1	Pb	

Sampled by:

T. Nadermann
E. Wilson
6.7.22
1244 St NW Date: 6.7.2022
Shawn Thompson 1245 Apex Labs

Sterling Technologies LLC

 317 NE 144th St
 Vancouver, WA 98685

 Project: Drinking Water - 2022

 Project Number: Cascade Middle School

 Project Manager: Thomas Nadermann

Report ID:

A2F0227 - 06 24 22 1643

Chain of Custody

Field Sampling Log

A2F0227

Sterling Technologies, LLC

 Providing technical consulting support to the
 environmental and manufacturing industries

 317 NE 144th Street Vancouver, WA 98685
 360.576.6331

Pg 3 of

Cascade Park Middle School

2821 Parkview Drive, Longview, WA

6.7.2022

T. Nadermann

Project Name:

Site Location:

Date:

Project Contact:

Turnaround Time:

 Normal: ☒

Other:

Sample ID	Location/Description	Analysis	Comments
C-27	Class Room #201 Sink	Pb	
C-28	" " " " - Left 3	Pb	
C-29	" " " " - Left 4	Pb	
C-30	" " " " - 202	Pb	
C-31	" " " " - 211	Pb	
C-32	" " " " - 211	Pb	
C-33	" " " " - 218	Pb	
C-34	" " " " - 301	Pb	
C-35	Girls Rest Rm by Cafeteria	Pb	Sink Faucet - Right 1
C-36	" " " " " "	Pb	" " - Right 2
C-37	Boys Rest Rm by " "	Pb	" " - Left 1
C-38	" " " " " "	Pb	" " - Left 2
C-39	Rest. by Class. 202 Sink Faucet	Pb	

Sampled by:

T. Nadermann

1244 SP Date:

6.7.2022

6/6/22

1244 SP Date:

6.7.2022

6/6/22

6/6/22

6/6/22

6/6/22

6/6/22



ANALYTICAL REPORT

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APEX LABS COOLER RECEIPT FORM

Client: Sterling Element WO#: A2 F0227Project/Project #: CASCADE MIDDLE SCHOOL

Delivery Info:

Date/time received: 6-7-22 @ 1244 By: SATDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐Cooler Inspection Date/time inspected: 6-7-22 @ 1421 By: SATChain of Custody included? Yes ☒ No ☐ Custody seals? Yes ☐ No ☒Signed/dated by client? Yes ☒ No ☐Signed/dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>19.8</u>						
Received on ice? (Y/N)	<u>N</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>N/A</u>						
Condition:	<u>Good</u>						

Cooler out of temp? ☒ (N) Possible reason why: Drinking WaterGreen dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 6/8/22 @ 955 By: LSAll samples intact? Yes ☒ No ☐ Comments: _____Bottle labels/COCs agree? Yes ☒ No ☐ Comments: _____COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments: _____Do VOA vials have visible headspace? Yes ☐ No ☐ NA ☒

Comments: _____

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☒ No ☐ NA ☐

Comments: _____

Additional information: _____

Labeled by: LS Witness: TS Cooler Inspected by: LS

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