



February 12, 2018 REVISED

Mr. Steven Lee  
Alameda Unified School District MOF  
2060 Challenger Drive  
Alameda, CA 94501

Transmitted via Email: [stlee@alameda.k12.ca.us](mailto:stlee@alameda.k12.ca.us)

**Re: Drinking Water Lead Sampling Results**  
**Alameda Unified School District (AUSD) – Maya Lin Elementary School Drinking Fountains**  
**825 Taylor Ave, Alameda, CA**  
*ACC Project No. 3007-119.00*

Dear Mr. Lee:

Enclosed please find the laboratory test results for the drinking water sampling performed at the above-referenced site on November 10, 2017. The sampling was performed to determine lead concentrations in drinking water at drinking fountain locations throughout the school.

The intent of the testing was to collect drinking water samples to determine if lead concentrations at drinking water locations exceed the EPA and California Lead Action Levels. The EPA and State of California Lead Action Levels for lead in drinking water are concentrations exceeding 15 parts per billion (ppb). ACC collected drinking water samples from twenty-four (24) locations at the school. At each location, ACC collected water samples as “first-draw” and “post-flush” samples. First-draw samples were collected after non-use for a minimum of eight (8) continuous hours. Post-flush samples were collected after running the tap for at least thirty (30) seconds. The samples were collected in 125 milliliter bottles preserved with nitric acid and were submitted under standard chain of custody protocols to Forensic Analytical of Hayward, California, an American Industrial Hygiene Association (AIHA) accredited laboratory, for analysis. Samples were analyzed for lead in accordance with the EPA SM3113B Test Method.

ACC collected a total of 48 drinking water samples at 24 drinking fountain locations for analysis. Copies of the laboratory results are attached.

#### **Drinking Water Sample Results**

The water samples were obtained from drinking fountain locations as listed herein. The sample numbers, locations, type of draw and lead concentrations are listed below. ACC collected drinking water samples from the main drinking water sources. Not all water sources were sampled.

Sample Number	Location	Type of Draw	Lead Concentration in Parts Per Billion (PPB)
WS-280-FD	Hallway Across from Room 12 Entrance	First Draw	<5
WS-280-PF		Post-Flush	<5

Sample Number	Location	Type of Draw	Lead Concentration in Parts Per Billion (PPB)
WS-281-FD	Multi-purpose Room	First Draw	<5
WS-281-PF		Post-Flush	<5
WS-282-FD	Room 10	First Draw	<5
WS-282-PF		Post-Flush	<5
WS-283-FD	Room 8	First Draw	<5
WS-283-PF		Post-Flush	<5
WS-284-FD	Room 7	First Draw	<5
WS-284-PF		Post-Flush	<5
WS-285-FD	Room 6	First Draw	<5
WS-285-PF		Post-Flush	<5
WS-286-FD	Room 5	First Draw	<5
WS-286-PF		Post-Flush	<5
WS-287-FD	Room 4	First Draw	<5
WS-287-PF		Post-Flush	<5
WS-288-FD	Room 3	First Draw	<5
WS-288-PF		Post-Flush	<5
WS-289-FD	Room 1	First Draw	<5
WS-289-PF		Post-Flush	<5
WS-290-FD	Outdoor Fountain Adjacent to Garden and West Hallway Entrance	First Draw	<5
WS-290-PF		Post-Flush	<5
<b>WS-291-FD</b>	<b>Room 21</b>	<b>First Draw</b>	<b>15</b>
WS-291-PF		Post-Flush	<5
WS-292-FD	Room 20	First Draw	<5
WS-292-PF		Post-Flush	<5
WS-293-FD	Room 23	First Draw	<5
WS-293-PF		Post-Flush	<5
WS-294-FD	Room 22	First Draw	<5
WS-294-PF		Post-Flush	<5
WS-295-FD	Room 25	First Draw	9
WS-295-PF		Post-Flush	<5
WS-296-FD	Room 26	First Draw	<5
WS-296-PF		Post-Flush	<5

Sample Number	Location	Type of Draw	Lead Concentration in Parts Per Billion (PPB)
WS-297-FD	Room 24	First Draw	<5
WS-297-PF		Post-Flush	<5
WS-298-FD	Room 28	First Draw	<5
WS-298-PF		Post-Flush	<5
WS-299-FD	Room 29	First Draw	<5
WS-299-PF		Post-Flush	<5
WS-300-FD	Room 30	First Draw	<5
WS-300-PF		Post-Flush	<5
WS-301-FD	Room 32	First Draw	<5
WS-301-PF		Post-Flush	<5
WS-302-FD	Room 31	First Draw	<5
WS-302-PF		Post-Flush	<5
WS-303-FD	Outdoor Fountain Adjacent to Room 9 Playground Entrance	First Draw	<5
WS-303-PF		Post-Flush	<5

None of the first-draw and post-flush water sample concentrations exceeded the EPA and California Lead Action Level of 15 PPB. When the first-draw and post-flush samples are both elevated this may indicate leaching of lead from the fixture and distribution water lines in the building. When the pre-flush only is elevated, this usually indicates localized corrosion issues within the faucet, fittings and/or connections.

The EPA and California Lead Action Levels are used to protect the public from metals that can adversely affect their health. These laws require water systems to monitor lead levels at the consumers' taps. If Action Levels for lead (15 ppb) are exceeded, installation or modifications to corrosion control treatment is required. In addition, if the action level for lead is exceeded, public notification is required.

### Recommendations

Based on the results of the drinking water investigation, ACC makes the following recommendations:

- ACC recommends performing periodic water sampling to ensure lead in drinking water concentrations remain below the action level.

### Limitations

ACC shall not be responsible for claims that may arise out of failure to correct problems or to identify problems that may exist at this location. ACC assumes no responsibility for damages for work performed or errors in documentation or missing information. ACC does not guarantee the accuracy of information provided by other parties. All statements and/or recommendations are based on conditions observed and tested at the time of the inspection. The scope of the investigation for this report was to collect representative drinking water samples from several locations at the school. ACC has not investigated and does not possess any opinion regarding other drinking water locations within the building. This report does not intend to identify all hazards or unsafe conditions, or to indicate that other hazards or unsafe conditions do not exist at the subject site.

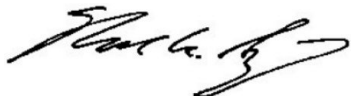
Please contact ACC Environmental offices at (510) 638-8400 if you have any questions.

Sincerely,

ACC ENVIRONMENTAL CONSULTANTS, INC.



Ben Schulte-Bisping  
Project Manager  
California Department of Public Health Lead I/A/M #24564



Mark A. Sanchez, CHMM  
President  
California Department of Public Health Lead I/A/M/S #5150

Attachments: Forensic Analytical Metals Analysis of Drinking Water Report #M191735, dated 11/28/17.

# Metals Analysis of Drinking Water

ACC Environmental Consultants

Ben Schulte Bisping

7977 Capwell Dr., Suite 100

Oakland, CA 94621

**Client ID:** 1117

**Report Number:** M191735

**Date Received:** 11/16/17

**Date Analyzed:** 11/22/17

**Date Printed:** 11/27/17

**First Reported:** 11/27/17

**Job ID / Site:** 3007-119.00, AUSD Water Sampling, Maya Lin Elementary, 825 Taylor Ave

**Date(s) Collected:** 11/10/17

**FALI Job ID:** 1117

**Total Samples Submitted:** 48

**Total Samples Analyzed:** 48

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
WS-280-FD	30785224	Pb	< 5	ppb	5	SM 3113B
WS-280-PF	30785225	Pb	< 5	ppb	5	SM 3113B
WS-281-FD	30785226	Pb	< 5	ppb	5	SM 3113B
WS-281-PF	30785227	Pb	< 5	ppb	5	SM 3113B
WS-282-FD	30785228	Pb	< 5	ppb	5	SM 3113B
WS-282-PF	30785229	Pb	< 5	ppb	5	SM 3113B
WS-283-FD	30785230	Pb	< 5	ppb	5	SM 3113B
WS-283-PF	30785231	Pb	< 5	ppb	5	SM 3113B
WS-284-FD	30785232	Pb	< 5	ppb	5	SM 3113B
WS-284-PF	30785233	Pb	< 5	ppb	5	SM 3113B
WS-285-FD	30785234	Pb	< 5	ppb	5	SM 3113B
WS-285-PF	30785235	Pb	< 5	ppb	5	SM 3113B
WS-286-FD	30785236	Pb	< 5	ppb	5	SM 3113B
WS-286-PF	30785237	Pb	< 5	ppb	5	SM 3113B
WS-287-FD	30785238	Pb	< 5	ppb	5	SM 3113B
WS-287-PF	30785239	Pb	< 5	ppb	5	SM 3113B
WS-288-FD	30785240	Pb	< 5	ppb	5	SM 3113B
WS-288-PF	30785241	Pb	< 5	ppb	5	SM 3113B
WS-289-FD	30785242	Pb	< 5	ppb	5	SM 3113B
WS-289-PF	30785243	Pb	< 5	ppb	5	SM 3113B
WS-290-FD	30785244	Pb	< 5	ppb	5	SM 3113B
WS-290-PF	30785245	Pb	< 5	ppb	5	SM 3113B
WS-291-FD	30785246	Pb	15	ppb	5	SM 3113B
WS-291-PF	30785247	Pb	< 5	ppb	5	SM 3113B
WS-292-FD	30785248	Pb	< 5	ppb	5	SM 3113B
WS-292-PF	30785249	Pb	< 5	ppb	5	SM 3113B
WS-293-FD	30785250	Pb	< 5	ppb	5	SM 3113B

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**Total Samples Analyzed:** 48

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
WS-293-PF	30785251	Pb	< 5	ppb	5	SM 3113B
WS-294-FD	30785252	Pb	< 5	ppb	5	SM 3113B
WS-294-PF	30785253	Pb	< 5	ppb	5	SM 3113B
WS-295-FD	30785254	Pb	9	ppb	5	SM 3113B
WS-295-PF	30785255	Pb	< 5	ppb	5	SM 3113B
WS-296-FD	30785256	Pb	< 5	ppb	5	SM 3113B
WS-296-PF	30785257	Pb	< 5	ppb	5	SM 3113B
WS-297-FD	30785258	Pb	< 5	ppb	5	SM 3113B
WS-297-PF	30785259	Pb	< 5	ppb	5	SM 3113B
WS-298-FD	30785260	Pb	< 5	ppb	5	SM 3113B
WS-298-PF	30785261	Pb	< 5	ppb	5	SM 3113B
WS-299-FD	30785262	Pb	< 5	ppb	5	SM 3113B
WS-299-PF	30785263	Pb	< 5	ppb	5	SM 3113B
WS-300-FD	30785264	Pb	< 5	ppb	5	SM 3113B
WS-300-PF	30785265	Pb	< 5	ppb	5	SM 3113B
WS-301-FD	30785266	Pb	< 5	ppb	5	SM 3113B
WS-301-PF	30785267	Pb	< 5	ppb	5	SM 3113B
WS-302-FD	30785268	Pb	< 5	ppb	5	SM 3113B
WS-302-PF	30785269	Pb	< 5	ppb	5	SM 3113B
WS-303-FD	30785270	Pb	< 5	ppb	5	SM 3113B
WS-303-PF	30785271	Pb	< 5	ppb	5	SM 3113B



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\* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

*Daniele Siu*

Daniele Siu, Laboratory Supervisor, Hayward Laboratory

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# BULK SAMPLE CHAIN-OF-CUSTODY

Report to:	Ben Schulte Bisping	Email:	Bshulte@accenv.com	Phone:	510.773.0708
Project Name:	AUSD Water Sampling				
Project Address:	Maya Lin Elementary, 825 Taylor Ave			Project Number:	3007-119.00
Collected by:	Gus Valerian			Date Collected:	11/10/2017
Sample Analysis:	PLM	<input checked="" type="checkbox"/> Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-280-FD	POTABLE WATER- FIRST DRAW	Hallway, directly across hall from room 12 entrance	Dual silver fountains, right side		
WS-280-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-281-FD	POTABLE WATER- FIRST DRAW	Multi purpose room	White solo fountain		
WS-281-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-282-FD	POTABLE WATER- FIRST DRAW	Room 10	Fountain		
WS-282-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-283-FD	POTABLE WATER- FIRST DRAW	Room 8	Fountain		
WS-283-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-284-FD	POTABLE WATER- FIRST DRAW	Room 7	Fountain		
WS-284-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-285-FD	POTABLE WATER- FIRST DRAW	Room 6	Fountain		
WS-285-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:			Date:	Time:
Received:	Signature:			Date:	Time:
					
<b>EMSL Analytical, Inc. (EMSL):</b> 464 McCormick Street, San Leandro, California 94577, (510) 895-3675 <b>Lab Info:</b> <input checked="" type="checkbox"/> <b>Forensic Analytical Laboratories, Inc. (FALI):</b> 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828					



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Collected by:	Gus Valerian			Date Collected:	11/10/2017
Sample Analysis:	PLM	✓ Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-286-FD	POTABLE WATER- FIRST DRAW	Room 5	Fountain		
WS-286-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-287-FD	POTABLE WATER- FIRST DRAW	Room 4	Fountain		
WS-287-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-288-FD	POTABLE WATER- FIRST DRAW	Room 3	Fountain		
WS-288-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-289-FD	POTABLE WATER- FIRST DRAW	Room 1	Fountain		
WS-289-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-290-FD	POTABLE WATER- FIRST DRAW	Out door fountain, adjacent to garden and Western most hallway entrance	Blue base, double fountain, short fountain testes		
WS-290-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-291-FD	POTABLE WATER- FIRST DRAW	Room 21	Fountain		
WS-291-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:			Date:	Time:
Received:	Signature:			Date:	Time:
					
<b>EMSL Analytical, Inc. (EMSL):</b> 454 McCormick Street, San Leandro, California 94577, (510) 895-3675 <b>Lab Info:</b> ✓ <b>Forensic Analytical Laboratories, Inc. (FALI):</b> 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828					

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Collected by:	Gus Valerian			Date Collected:	11/10/2017
Sample Analysis:	PLM	<input checked="" type="checkbox"/> Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-292-FD	POTABLE WATER- FIRST DRAW	Room 20	Fountain		
WS-292-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-293-FD	POTABLE WATER- FIRST DRAW	Room 23	Fountain		
WS-293-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-294-FD	POTABLE WATER- FIRST DRAW	Room 22	Fountain		
WS-294-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-295-FD	POTABLE WATER- FIRST DRAW	Room 25	Fountain		
WS-295-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-296-FD	POTABLE WATER- FIRST DRAW	Room 26	Fountain		
WS-296-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-297-FD	POTABLE WATER- FIRST DRAW	Room 24	Fountain		
WS-297-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:			Date:	Time:
Received:	Signature:			Date:	Time:
					
<b>EMSL Analytical, Inc. (EMSL):</b> 464 McCormick Street, San Leandro, California 94577, (510) 895-3675 <b>Lab Info:</b> <input checked="" type="checkbox"/> <b>Forensic Analytical Laboratories, Inc. (FALI):</b> 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828					

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Sample Analysis:	PLM	✓ Lead	GFAA	Stop at 1 <sup>st</sup> Positive Layer	Turnaround Time: 5 Day
Comments:	ANALYZE WATER SAMPLES FOR LEAD VIA GFAA				
Sample ID	Material Size-Color-Pattern-Material-Post Description	Material Location [Quantity] Building or Floor: Area(s) - Component	Sample Location Area - Component	Size	
WS-298-FD	POTABLE WATER- FIRST DRAW	Room 28	Fountain		
WS-298-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-299-FD	POTABLE WATER- FIRST DRAW	Room 29	Fountain Note : warm water		
WS-299-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-300-FD	POTABLE WATER- FIRST DRAW	Room 30	Fountain		
WS-300-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-301-FD	POTABLE WATER- FIRST DRAW	Room 32	Fountain		
WS-301-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-302-FD	POTABLE WATER- FIRST DRAW	Room 31	Fountain		
WS-302-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
WS-303-FD	POTABLE WATER- FIRST DRAW	Outdoor fountain, adjacent to room 9s playground entrance	Dual silver wall mount fountains, right side		
WS-303-PF	POTABLE WATER- POST FLUSH	SAME AS ABOVE	SAME AS ABOVE		
Released:	Signature:			Date:	Time:
Received:	Signature:			Date:	Time:
					
<b>EMSL Analytical, Inc. (EMSL):</b> 164 McCormick Street, San Leandro, California 94577, (510) 895-3675 <b>Lab Info:</b> ✓ <b>Forensic Analytical Laboratories, Inc. (FALI):</b> 3777 Depot Road # 409, Hayward, California 94545, (510) 887-8828					