



May 28, 2024

Mr. Johnny Mills
Operations Manager
1617 JFK Blvd., Suite 580
Philadelphia, PA 19103

RE: Lead (Pb) in Water Testing
Freire Charter High School
2027 Chestnut Street, Philadelphia, PA
IEC Project # 2024.059.1

Dear Mr. Mills:

Indoor Environmental Concepts, LLC (IEC) was retained by the Freire Charter Schools to perform an assessment and testing of the drinking water outlets servicing the Freire High School for the presence of lead (Pb). The lead in water testing was performed pursuant to the regulations and guidance documents from the Bureau of Safe Drinking Water of the Pennsylvania Department of Environmental Protection having principal responsibility to administer the programs and activities of the Federal Safe Drinking Water Act (40 CFR 141, 142 & 143) and the United States Environmental Protection Agency (EPA) protocols as recommended in their publication 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance. The EPA developed the 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance, which has been incorporated into this sampling protocol because the Agency is concerned about the potential for elevated lead levels in drinking water in schools.

Safe Drinking Water Compliance

The EPA recommends that schools collect 250 mL first-draw samples from water fountains, water bottle filler stations and potable water outlets for the analysis for lead (Pb). The EPA also recommends that these potable water outlets do not exceed 20 parts per billion (ppb) or 0.020 milligrams of lead per liter of water (mg/L). However, to guarantee that students have access to safe drinking water at Philadelphia schools, Philadelphia Codes Section A-703 (Ordinance Bill No. 180700 and Bill No. 160618) requires water testing at every school on a five-year cycle. The action level used by the Philadelphia Codes is **10 parts per billion** (ppb) of lead. The action level of 10 ppb of lead or less was used in the interpretation of results for the samples collected and analyzed at the Freire Charter Schools.

Lead Sampling Collection and Results

A trained technician collected samples from water outlets and the samples were sent to a laboratory certified by the Pennsylvania Department of Environmental Protection (PA DEP) for analysis. The samples were collected after an 8-to-18-hour stagnation period. All samples were taken before the facility opened and before any water was used by building occupants. Where practical and feasible,

samples were first collected at drinking water outlets that were as close as possible to the building water main. Cold water lines were sampled when possible. All water samples were collected in laboratory supplied, pre-cleaned 250 milliliter (mL) bottles preserved or treated at the laboratory with nitric acid (HNO₃). The bottles were labeled with a unique sample identification number and the sample location and time sampled were recorded on the chain of custody form. All samples were sealed immediately after collection and delivered to a PA DEP certified laboratory, in laboratory provided coolers, for the analysis of lead content via ICP/MS by EPA Method 200.8 or ASTM Method D3559-15D. A copy of the laboratory analytical reports, certifications, and chain of custody forms can be found as attachments to this report.

First-draw sampling was performed by IEC at eighteen (18) drinking water outlets on May 3, 2024. Of those outlets, all eighteen (18) outlets produced water that was below the action level of 10 ppb.

In general, an ongoing flushing program should be implemented as a routine practice to improve the overall water quality at this facility. Flushing involves opening taps and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time can vary by the type of outlet being cleared. The degree to which flushing helps reduce lead levels can also vary depending upon the age and condition of the plumbing and the corrosiveness of the water. Flushing individual outlets immediately prior to use is recommended in conjunction with signage and flushing schedules. In addition, EPA recommends locating the faucet furthest away from the service line on each wing and floor of the building, opening the faucets, and let the water run for 10 minutes.

In summary, the assessment and testing performed indicate that the lead levels of the drinking water outlets servicing the school currently meet federal and City of Philadelphia guidelines, following the recommendations and provisions described herein.

Background

The Philadelphia Codes Section A-703 (Ordinance Bill No. 180700 and Bill No. 160618) provides lead paint and water testing requirements for educational facilities as follows:

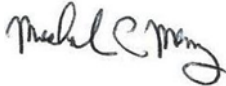
- That all schools and day care facilities in Philadelphia test all potable water outlets for lead and ensure that pipes and fixtures connecting schools and day care centers to the city's water supply do not compromise children's health.
- That all educational facilities areas that are regularly occupied by children within school buildings built prior to 1978 must be assessed as safe from lead paint hazards by a certified lead inspector. The educational facilities must initially be in compliance with the water testing before April 1, 2018 and the subsequent test results are due every 5 years.
- All water outlet tests must be analyzed by certified PA Department of Environmental Protection laboratory.
- Any water outlet determined to exceed 10 ppb or more shall be taken out of service within 24 hours of the notification of the relevant test and an action plan must be submitted the Philadelphia Department of Public Health Lead and Healthy Homes Program (LHHP) for review.

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- All educational areas where children occupy shall be safe from lead paint hazards and free from any condition that may cause exposure to lead contaminant paint dust or debris.
- Institution Management shall ensure no fewer than 10 days to notify pending inspection and scope of work to staff employees and parents of children.

Given the health effects of lead, EPA advocates that any school conducting sampling for lead make public any test results. In addition, such schools should identify activities they are pursuing to correct any lead problems. Advice, suggestions, and samples to assist in the public notification process is available from the EPA in their 3Ts for Reducing Lead in Drinking Water in Schools. This publication is available online on the EPA's website.

Indoor Environmental Concepts, LLC



Michael P. Menz, CIH, CHMM
President
Attachments



AC116142

Project Name: Freire Charter High School

File #: 2024.059.1

Laboratory: EMSL

Analysis: Lead in Drinking Water -200.8/6020A

Turnaround Time: 2 week

Collected by: Mike C May

Date: 5/3/24

Transmitted by: mpm

Date: 5/3/24 9:35AM

Received by: [Signature]

Date: 5/3/24 9:40am

Sample #	Location	Fixture Type	Time sampled
0503- 1	men's Lavatory 012	S	6:26 AM
0503- 2	water fountain o/s women lav. left	C	6:27
0503- 3	" " " " right	C	6:28
0503- 4	bottle filler	BF	6:29
0503- 5	women's lavatory 010	S	6:29
0503- 6	staff lavatory 090	S	6:30 AM
0503- 7	women's lavatory A013	S	6:33
0503- 8	men's lavatory A015	S	6:34 A
0503- 9	staff lavatory 100 C	S	6:35
0503- 10	bathroom 102	S	6:38 A
0503- 11	gym (room 105) water fountain	C	6:39
0503- 12	bathroom 201C	S	6:42 AM
0503- 13	staff bathroom 202A	S	6:43 A
0503- 14	Left water fountain o/s closet 308	C	6:46 AM
0503- 15	right " " " " "	C	6:46 AM
0503- 16	bottle filler " " "	BF	6:47
0503- 17	women lavatory 307	S	6:48
0503- 18	men lavatory 305	S	6:49 A

Email results to: labresults@indoorenvconcepts.com

Annunzio 5/03/24 9:40am

Page 1 of 1

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Preserved 5/3/24 at 2pm
with HNO₃
CB

**EMSL Analytical, Inc.**

200 Route 130, Cinnaminson, NJ, 08077
 Telephone: 856-858-4800 Fax:856-786-5974
 EMSL-CIN-01

EMSL Order ID: 012416142
LIMS Reference ID: AC16142
EMSL Customer ID: INDA25

Attention: Michael Menz
 Indoor Environmental Concepts, LLC [INDA25]
 117 N Black Horse Pike
 Runnemede, NJ 08078
 (856) 628-6020
 mpmenz@indoorenvconcepts.com

Project Name: Freire Charter High School

Customer PO:
EMSL Sales Rep: Gary Perlmutter
Received: 05/03/2024 09:40
Reported: 05/17/2024 17:59

Analytical Results

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Analyst Initials	Prep /Analytical Method
Sample: 0503-1/Men's Lavatory 012 Lims Reference ID: AC16142-01 Matrix: Drinking Water Sampled: 05/03/24 06:26:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:38	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-2/Water fountain 0/5 women lav left Lims Reference ID: AC16142-02 Matrix: Drinking Water Sampled: 05/03/24 06:27:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:44	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-3/Water fountain 0/5 women lav right Lims Reference ID: AC16142-03 Matrix: Drinking Water Sampled: 05/03/24 06:28:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:46	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-4/Bottle filler Lims Reference ID: AC16142-04 Matrix: Drinking Water Sampled: 05/03/24 06:29:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:48	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-5/Women's lavatory 010 Lims Reference ID: AC16142-05 Matrix: Drinking Water Sampled: 05/03/24 06:29:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:49	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-6/Staff lavatory 090 Lims Reference ID: AC16142-06 Matrix: Drinking Water Sampled: 05/03/24 06:30:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:51	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-7/Women's lavatory A013 Lims Reference ID: AC16142-07 Matrix: Drinking Water Sampled: 05/03/24 06:33:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:53	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-8/Men's lavatory A015 Lims Reference ID: AC16142-08 Matrix: Drinking Water Sampled: 05/03/24 06:34:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 10:59	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-9/Staff lavatory 100 C Lims Reference ID: AC16142-09 Matrix: Drinking Water Sampled: 05/03/24 06:35:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:01	LXK	EPA 200.8 (DA)/EPA 200.8

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Analytical Results (Continued)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Analyst Initials	Prep /Analytical Method
Sample: 0503-10/Bathroom 102 Lims Reference ID: AC16142-10 Matrix: Drinking Water Sampled: 05/03/24 06:38:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:03	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-11/gym (Room 105) water fountain Lims Reference ID: AC16142-11 Matrix: Drinking Water Sampled: 05/03/24 06:39:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:05	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-12/Bathroom 201 C Lims Reference ID: AC16142-12 Matrix: Drinking Water Sampled: 05/03/24 06:42:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:11	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-13/Staff bathroom 202 A Lims Reference ID: AC16142-13 Matrix: Drinking Water Sampled: 05/03/24 06:43:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:13	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-14/Left water fountain o/s closest 308 Lims Reference ID: AC16142-14 Matrix: Drinking Water Sampled: 05/03/24 06:46:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:15	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-15/Right water fountain o/s closest 308 Lims Reference ID: AC16142-15 Matrix: Drinking Water Sampled: 05/03/24 06:46:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:17	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-16/Bottle filler water fountain o/s closest 308 Lims Reference ID: AC16142-16 Matrix: Drinking Water Sampled: 05/03/24 06:47:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:23	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-17/Women lavatory 307 Lims Reference ID: AC16142-17 Matrix: Drinking Water Sampled: 05/03/24 06:48:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:24	LXK	EPA 200.8 (DA)/EPA 200.8
Sample: 0503-18/Men lavatory 305 Lims Reference ID: AC16142-18 Matrix: Drinking Water Sampled: 05/03/24 06:49:00									
Metals									
Lead	<1.00		1	1.00	µg/L	05/08/24 10:38	05/09/24 11:26	LXK	EPA 200.8 (DA)/EPA 200.8



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Analytical Results
(Continued)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Analyst Initials	Prep /Analytical Method
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Sample: 0503-18/Men lavatory 305 (Continued) Lims Reference ID: AC16142-18 Matrix: Drinking Water Sampled: 05/03/24 06:49:00

Metals (Continued)

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Certified Analyses included in this Report

Analyte	Certifications
EPA 200.8 in Drinking Water	
Lead	NJDEP

List of Certifications

Code	Description	Number	Expires
PADEP	Pennsylvania Department of Environmental Protection	68-00367	11/30/2024
NYSDOH	New York State Department of Health	10872	04/01/2025
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2024
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2024
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2024
California ELAP	California Water Boards	1877	06/30/2024
AIHA LAP	EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited	100194	01/01/2025
A2LA	A2LA Environmental Certificate	2845.01	07/31/2024

Please see the specific Field of Testing (FOT) on www.emsl.com <<http://www.emsl.com>> for a complete listing of parameters for which EMSL is certified.



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Notes and Definitions

Item	Definition
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
Q	Qualifier
RL	Reporting Limit
Wet	Sample is not dry weight corrected.

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

Owen McKenna Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted."