

February 16, 2022

Mr. Colandus Francis Operations Manager Freire Schools 1617 JFK Blvd., Suite 1260 Philadelphia, PA 19103

RE: Lead (Pb) in Water Testing Freire Middle School 1026 Market St. Philadelphia, PA 19107 IEC Project # 2021.034.3

Dear Mr. Francis:

Indoor Environmental Concepts, LLC (IEC) was retained by the Freire Charter Schools to perform re-testing of the drinking water outlets servicing the Freire Middle 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 15 parts per billion (ppb) or 0.015 milligrams of lead per liter of water (mg/L). However, in order to guarantee that students have access to safe drinking water at Philadelphia schools, the School District of Philadelphia conducts water testing at every school on a five-year cycle. The most recent testing cycle started in 2018 and is ongoing. The action level used by the School District of Philadelphia 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. If water exceeded this action level, a Freire school representative was notified by IEC recommending that these drinking water outlets be shut-off immediately and an action plan developed. Physical signs should be affixed to these outlets that they should not be used for drinking water.

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 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. A copy of the laboratory analytical reports, certifications and chain of custodies can be found as attachments to this report.

First-draw sampling was performed by IEC at two (2) drinking water outlets on January 28, 2022. These two (2) outlets had results that exceeded the action level used by the School District of Philadelphia of 10 parts per billion (ppb) of lead that had been previously tested on the resampling event conducted on October 28, 2021. These two (2) outlets had new water lines installed. Of the two (2) outlets, (Basement Men's Bathroom, left and right sinks) produced water that was above the action level of 10 ppb. The valves serving these sink outlets were recommended to be immediately shut-off and remediated. IEC also recommended that "No Drinking, water should not be consumed" signs be posted above these sinks. Since these faucet fixtures and water lines were replaced, these results indicate that the source of the lead is coming from the interior plumbing behind the faucet/fixture itself and a licensed plumber should be consulted for continued targeted remediation.

Please see the table below with specific recommendation for each of these outlets that were tested during the 01/28/2022 sampling event:

Sample Date	Sample No.	Floor	Outlet Type	Sample Type	Outlet Description	Recommendations
						Shut off this outlet, post sign, remediate plumbing
1/28/2022	0128-1	В	WF	1	Basement Men's Restroom 023 - Left Sink	behind the fixture
						Shut off this outlet, post sign, remediate plumbing
1/28/2022	0128-2	В	WF	1	Basement Men's Restroom 023 - Right Sink	behind the fixture

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, open the faucets wide, and let the water run for 10 minutes.

Results Table Re-Test Event, 01/28/2022

	Comula No.	Песи	Outlet	Sample	Quitlet Description	Lead Result	RL	Action			
Sample Date	Sample No.	FIGOR	Туре	Туре	Outlet Description	(ppb)	(ppb)	Limit			
1/28/2022	0128-1	В	FT	1	Basement Men's Restroom 023 - Left Sink	nent Men's Restroom 023 - Left Sink 342					
1/28/2022	0128-2	В	FT	1	Basement Men's Restroom 023 - Right Sink	1900	10	AA			
Notes:					Outlet Types:						
AA = Above A	Action Limit of	10 ppb			WF = Water Fountain/Bubbler						
BA = Below Action Limit of 10 ppb HS = Hydration Station/Bottle Filling Station											
RL = Method Reporting Limit FT = Faucet/Tap											
MDL = Meth	od Detection L	imit			FP = Food Prep/Kitchen						
< = not detec	ted above the	RL			IM = Ice Maker						
ppb = parts p	er billion										
D = Sample r	equired a dilut	ion to cal	culate fina	l results							
ND = Indicate J = Results w MDL	es analyte was as below the re	not dete eporting l	cted at the imit, but al	RL pove the							
Sample Type	; 1 = 1st Draw	and F = 3	0 second fl	ush							

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.

It should be noted that this sampling was performed in accordance with current guidelines. Should the guidelines change, or legislation dictate other criteria, these results may need to be reevaluated. If you need any further assistance, please do not hesitate to contact our office.

Sincerely, Indoor Environmental Concepts, LLC

Jol 1

Robert J. DeMalo, M.Sc. Vice President

cc: Michael P. Menz, CIH, CHMM

Attachments



Pace Analytical Services, LLC 575 Broad Hollow Road Melville, NY 11747 (631)694-3040

February 08, 2022

Robert J. DeMalo Indoor Environmental Concepts, LLC 117 N. Black Horse Pike Runnemede, NJ 08078

RE: Project: IEC# 2021.034.3 1/28 Pace Project No.: 70202471

Dear Robert DeMalo:

Enclosed are the analytical results for sample(s) received by the laboratory on February 01, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network: • Pace Analytical Services - Melville

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kimberley Mack

Kimberley M. Mack kimberley.mack@pacelabs.com (631)694-3040 Project Manager

Enclosures





Pace Analytical Services, LLC 575 Broad Hollow Road Melville, NY 11747 (631)694-3040

CERTIFICATIONS

 Project:
 IEC# 2021.034.3 1/28

 Pace Project No.:
 70202471

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747 Connecticut Certification #: PH-0435 Delaware Certification # NY 10478 Maryland Certification #: 208 Massachusetts Certification #: M-NY026 New Hampshire Certification #: 2987 New Jersey Certification #: NY158 New York Certification #: 10478 Primary Accrediting Body Pennsylvania Certification #: 68-00350 Rhode Island Certification #: LAO00340 Virginia Certification # 460302



ANALYTICAL RESULTS

Project: IEC# 2021.034.3 1/28

Pace Project No.: 70202471												
Sample: 0128-1	Lab ID: 702	02471001	Collected: 01/28/2	22 07:30	Received: 0	2/01/22 09:20	Matrix: Drinking Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual				
200.8 MET ICPMS Drinking Water	Analytical Method: EPA 200.8											
	Pace Analytica	I Services	Melville									
Lead	d 342 ug/L 1.0 1 02/07/22 18:28 7439-						28 7439-92-1					
Sample: 0128-2	Lab ID: 702	02471002	Collected: 01/28/2	22 07:30	Received: 0	2/01/22 09:20	Matrix: Drinking	Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual				
200.8 MET ICPMS Drinking Water	Analytical Meth Pace Analytica	nod: EPA 20 I Services -	00.8 Melville									
Lead	1900	ug/L	10.0	10		02/08/22 13:4	13 7439-92-1					



QUALITY CONTROL DATA

Project: IEC# 2021.034.3	1/28										
Pace Project No.: 70202471											
QC Batch: 243530		Analysis Metho	od:	EPA 200.8							
QC Batch Method: EPA 200.8		Analysis Descr	iption:	200.8 MET No P	rep Drinking Wa	ater					
		Laboratory:		Pace Analytical S	Services - Melvi	lle					
Associated Lab Samples: 7020247	1001, 70202471002										
METHOD BLANK: 1230441		Matrix: V	Vater								
Associated Lab Samples: 7020247	1001, 70202471002										
Demonstra	11-2-	Blank	Reporting	A	0						
Parameter		Result —	Limit	Analyzed		ers					
Lead	ug/L	<1.0	1.	.0 02/07/22 18:	09						
LABORATORY CONTROL SAMPLE:	1230442										
		Spike L0	CS	LCS	% Rec						
Parameter	Units	Conc. Re	sult	% Rec	Limits	Qualifiers					
Lead	ug/L	50	51.3	103	85-115						
MATRIX SPIKE SAMPLE:	1230445										
Parameter	Units	30456904001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers				
Lead	ug/L	ND	50	63.1	124	70-130					
MATRIX SPIKE SAMPLE:	1230447										
		30456904002	Spike	MS	MS	% Rec					
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers				
Lead	ug/L	ND		63.5							
SAMPLE DUPLICATE: 1230444											
		30456904001	Dup								
Parameter	Units	Result	Result	RPD	Qualifiers						
Lead	ug/L	ND	<1	.0							
SAMPLE DUPLICATE: 1230446											
		30456904002	Dup		e						
Parameter	Units	Result	Result	RPD	Qualifiers						
Lead	ug/L	ND	<1	.0							

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: IEC# 2021.034.3 1/28

Pace Project No.: 70202471

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

 Project:
 IEC# 2021.034.3 1/28

 Pace Project No.:
 70202471

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70202471001 70202471002	0128-1 0128-2	EPA 200.8 EPA 200.8	243530 243530		

st Pace Workorder Number or 2471			7 MW	r sourum in	er(line)	sample Receipt Checklist; dup Seals Present/Intact <u>v</u> ONA	dy Signatures Present ON NA sctor Signature Present ON NA ies Intact	ect Bottles	- Headspace Acceptable Y N N N N N N N N N N N N N N N N N N	dual Chlorine Present Y N CA trips: Le pH Acceptable Lirps: Lirps: Y N CA	Acetate Strips:	Sample # / Comments: C	4 100	a we will be the second			54 0		Lab Sample Temperature Info:	Therm ID#: ///www.n. NA Therm ID#: ///www.7/ Cooler 1 Temp Upon Receipt: 10. 20C	Cooler 1 Therm Corr. Factor:oC Cooler 1 Corrected Temp:OOC	Comments:	Trin Blank Bereived: V N NA	HILP BIAIK RECEIVED: T N WA	Non Conformance(s): Page: 1 YES / NO of: 1
LAB USE ONLY. AF WO# : 70202		Contribute Descent		ervative Types: (1) nitric actid, (2) sulfuric actid, (3) hydrochloric actid, (4) hanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) asco	nonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other Analyses	Tab 5 Custo	Custo Colle Bottl	Corre Suffi Sampl	VOA - VOA - USDA USDA Sampl	Reaid C1 St Sampl PH St PH St Sullis	Tead TAB U	Lab 5							SHORT HOLDS PRESENT (<72 hours): Y N N/A	1758 9884 84832413091-nr	Samples-ceceived via: AFDSK UPS Client Courier Pace Courier	Date/Time: MTJL LAB USE ONLY	Date/Time: Acctnum:	Template: Prelogin:	Date/Time: PM; PB:
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Pace Analytical	Company:	Indeer ENV. C	Address: 17 N Black	REPORT TO: ROB DEMA	Copy To:	Customer Project Name/Number: エピィオーンのユーの3	Phone: Phone: 857 - 816 - 2125	Collected By (print):	Collected By (signature);	Sample Disposal: Moispose as appropriate [] Return [] Archive: [] Hold:	 Matrix Codes (Insert in Matrix box Product (P), Soil/Solid (SL), Oil (OL) 	fuctomor Camalo ID		0128-1	2-5210				Customer Remarks / Special Condition			Relinquisting by Jompany Signatur	Paginunichod hv/Commany. (Signature	National Account of T	Relinquished by/Company: (Signatu



Project Name: _	Freire Middle School	
Laboratory:	Pace Analytical	

File #: 2021.034.3

Analysis: Lead in Water (EPA 200.8 / ICP-MS)

Turnaround Time: \boxed{x} 2 Week \Box 1 Week \Box 72 hour \Box 48 hour \Box 24 hour

(*Please analyze all samples)

Collected by: Robert DeMalo Transmitted by: ____

Received by:

Date: 1/28/22

Date: _____

Date: 1/28/2022

Sample #	Location	Notes*	Time Sampled
0128-1	Basement Men's Restroom 023 - Left Sink	1 st Draw	0730
0128-2	Basement Men's Restroom 023 - Right Sink	1 st Draw	0730

DEPARTMENT OF ENVIRONMENTAL PROTECTION **COMMONWEALTH OF PENNSYLVANIA**



DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF LABORATORIES

Certifies That

68-00350 Pace Analytical Services, LLC - Melville, NY 575 Broad Hollow Road, Melville, NY, 11747-5076

Having duly met the requirement of The act of June 29, 2002 (P.L. 596, No. 90) dealing with Environmental Laboratories Accreditation (27 Pa. C.S. 4104-4113) and the National Environmental Laboratory Accreditation Program Standard



Accredited Laboratory

is hereby approved as an

to conduct analysis within the fields of accreditations more fully described in the attached Scope of Accreditation

(relating to proficiency test study requirements); Subchapter F (relating to assessment requirements); Subchapter G (relating to miscellaneous provisions); Section 252.307; and Section 252.401. following Subchapters and Sections of 25 Pa. Code Chapter 252: Subchapter A (relating to general provisions); Subchapter B (relating to application, fees and supporting documents); Subchapter E NELAP accreditation granted by the PA DEP to an environmental laboratory is conditioned upon continued compliance with the current edition of the NELAC Standard or TNI Standard and the

Confinued accreditation status depends on successful ongoing purticipation in the program Certificate not transferable Surrender upon revocation To be conspicuously displayed at the Laboratory Not valid unless accompanied by a valid Scope of Accreditation Shall not be used to imply endorsement by the Commonwealth of Pennsylvania Customers are urged to verify the laboratory's current accreditation status PA DEP is a NELAP recognized accreditation body

> Expiration Date: 07/31/2022 Certificate Number: 020

Unnmerie Beach

Annmarie Beach, Chief Laboratory Accreditation Program Bureau of Laboratories



Laboratory Scope of Accreditation



Attached to Certificate of Accreditation 020-003 expiration date 07/31/2022. This listing of accredited analytes should be used only when associated with a valid certificate of accreditation.

Pace Analytical Services, LLC - Melville, NY 575 Broad Hollow Road Melville, NY 11747-5076 (631) 694-3040

DEP Laboratory ID: 68-00350 EPA Lab Code: NY00026 TNI Code: TNI01559 PADWIS ID: 68350

Matrix: Drinking Water

Method	Revision	Analyte	Accreditation Type	Primary State	Effective Date
EPA 120.1		Conductivity	NELAP	NY	07/16/2014
EPA 1664	A	Non-polar material	NELAP	PA	04/11/2019
EPA 1664	А	Oil and grease	NELAP	PA	04/11/2019
EPA 180.1		Turbidity	NELAP	NY	07/16/2014
EPA 200.7	4.4	Aluminum	NELAP	NY	07/16/2014
EPA 200.7	4.4	Barium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Beryllium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Boron	NELAP	NY	07/16/2014
EPA 200.7	4.4	Cadmium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Calcium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Chromium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Cobalt	NELAP	PA	07/19/2019
EPA 200.7	4.4	Copper	NELAP	NY	07/16/2014
EPA 200.7	4.4	Iron	NELAP	NY	07/16/2014
EPA 200.7	4.4	Lithium	NELAP	PA	04/11/2019
EPA 200.7	4.4	Magnesium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Manganese	NELAP	NY	07/16/2014
EPA 200.7	4.4	Phosphorus, total	NELAP	PA	07/19/2019
EPA 200.7	4.4	Potassium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Silica, as SiO2	NELAP	NY	07/16/2014
EPA 200.7	4.4	Silver	NELAP	NY	07/16/2014
EPA 200.7	4.4	Sodium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Strontium	NELAP	PA	04/11/2019
EPA 200.7	4.4	Tin	NELAP	PA	07/19/2019
EPA 200.7	4.4	Vanadium	NELAP	NY	07/16/2014
EPA 200.7	4.4	Zinc	NELAP	NY	07/16/2014
EPA 200.8	5.4	Aluminum	NELAP	NY	07/16/2014
EPA 200.8	5.4	Antimony	NELAP	NY	07/16/2014
EPA 200.8	5.4	Arsenic	NELAP	NY	07/16/2014
EPA 200.8	5.4	Barium	NELAP	NY	07/16/2014
EPA 200.8	5.4	Beryllium	NELAP	NY	07/16/2014
EPA 200.8	5.4	Cadmium	NELAP	NY	07/16/2014
EPA 200.8	5.4	Chromium	NELAP	NY	07/16/2014
EPA 200.8	5.4	Cobalt	NELAP	PA	07/19/2019
EPA 200.8	5.4	Copper	NELAP	NY	07/16/2014
EPA 200.8	5.4	Lead	NELAP	NY	07/16/2014
EPA 200.8	5.4	Manganese	NELAP	NY	07/16/2014
EPA 200.8	5.4	Mercury	NELAP	NY	03/02/2016
EPA 200.8	5.4	Molybdenum	NELAP	NY	07/16/2014
EPA 200.8	5.4	Nickel	NELAP	NY	07/16/2014
EPA 200.8	5.4	Selenium	NELAP	NY	07/16/2014
EPA 200.8	5.4	Silver	NELAP	NY	07/16/2014

annmarie Beach

The Pennsylvania Department of Environmental Protection Laboratory Accreditation Program is a NELAP recognized Accreditation Body. Customers are urged to verify the laboratory's current accreditation standing.