

LEAD IN DRINKING WATER TESTING REPORT

Conducted for:

Empowerment Academy Charter School 240 Ege Avenue Jersey City, New Jersey 07304

Conducted at:

Empowerment Academy Charter School 70 Claremont Avenue Jersey City, New Jersey 07305

Submitted by:

McCabe Environmental Services, L.L.C. 464 Valley Brook Avenue Lyndhurst, New Jersey 07071

REPORT DATE: December 29, 2022

MES Project No.: 22-04525

Prepared by:

Gerard Da

Gerard D'Alessio Environmental Scientist

Signed for the Company by:

John H. Chiaviello Vice President

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MES Project No.: 22-04525

Date: 12/29/2022

McCabe Environmental Services, L.L.C.

Client: Empowerment Academy Charter School – Lead in Drinking Water Testing

Date: 12/29/2022

1.0 INTRODUCTION

McCabe Environmental Services, L.L.C. (McCabe) was retained by Empowerment Academy Charter School to conduct lead in drinking water testing at 70 Claremont Ave, Jersey City, New Jersey 07305.

The project information is as follows:

<u>Client Name</u>: Empowerment Academy Charter School

Contact Person: Mr. Bobby Seetaram

<u>Project Name</u>: Empowerment Academy Charter School

<u>Project Location</u>: 70 Claremont Avenue

Jersey City, New Jersey 07305

<u>Date(s) of Service</u>: December 8, 2022

McCabe Personnel: Gerard D'Alessio

2.0 SCOPE OF WORK

Drinking water testing was performed at Empowerment Academy Charter School located at 70 Claremont Ave, Jersey City, New Jersey 07305 on December 8, 2022. The purpose of the testing was to determine if the building's plumbing was having an adverse impact on water quality, specifically with regard to lead concentrations. Samples were collected from various potential drinking water outlets located throughout the building.

3.0 PROCEDURES

After determining which outlets would be sampled, McCabe personnel collected a "first draw" sample at each location. A "first draw" is the initial water that is first to come out of the tap after a period of inactivity. Following the "first draw", a "30 second flush" sample was also collected where the main service line comes into the building. All samples were collected into 250 mL sterile bottles, labeled with a sample identification, and analyzed in accordance with EPA approved methods to determine the level of lead in drinking water. Samples were analyzed by an accredited laboratory.

The U.S. Environmental Protection Agency (EPA) has established National Primary Drinking Water Regulations (NPDWR) that set mandatory water quality standards for drinking water contaminants. These are enforceable standards called "maximum contaminant levels" or "MCL", which are established to protect the public against consumption of drinking water contaminants that present a risk to human health. An MCL is the maximum allowable amount of a contaminant in drinking water which is delivered to the consumer.

The EPA has established the Lead and Copper Rule that sets standards for state and public water systems. This rule has set an MCL for lead at 15 parts per billion (ppb) for a one-liter sample. However, the EPA also established the Lead in Drinking Water at Schools and Child Care Facilities in which the EPA recommends an MCL of 20 ppb for a 250 milliliter first draw sample. In order to be more stringent, for our report purposes we have compared all results to both the 15 ppb and the 20 ppb standards.

MES Project No.: 22-04525

MES Project No.: 22-04525 Client: Empowerment Academy Charter School - Lead in Drinking Water Testing Date: 12/29/2022

4.0 TABLE OF SAMPLE RESULTS

The following table presents all sample results in order of sample identification:

Sample ID	Sample Location	Lead Result	Exceeds (MCL 15 ppb)	Exceeds (MCL 20 ppb)
CA-01	1 st Floor Office Sink	1.8	Pass	Pass
CA-02	Teacher's Work Room Sink	17.3	Fail	Pass
CA-03	2 nd Floor Office Sink	4.6	Pass	Pass
CA-04	Bingo Hall Kitchen Sink	< 0.5	Pass	Pass

5.0 DISCUSSION AND CONCLUSION

A total of four (4) samples were collected from Empowerment Academy Charter School. One (1) sample was found to be greater than the EPA Lead and Copper Rule standard of 15 ppb. All other samples were found to be less than the EPA standards of 20 ppb and 15 ppb.

CA-02 - Teacher's Work Room Sink

The elevated lead concentration was observed from a "first draw" sample. Often "first draw" samples have higher concentrations because compounds leach from the surrounding pipe as water sits stagnant for a duration of time. The lead concentration found at this location indicates that there are potentially lead pipes, brass faucets or fittings, and/or solder which may contain some lead pipes within the Empowerment Academy Charter School.

McCabe recommends discontinued usage of the outlets which resulted in failed results until additional samples can be collected and analyzed and a permanent solution can be recommended.

In addition, McCabe Environmental recommends annual drinking water sampling to ensure that the building's plumbing is not having an adverse impact on water quality.

MES Project No.: 22-04525 Client: Empowerment Academy Charter School – Lead in Drinking Water Testing Date: 12/29/2022

APPENDIX A

LABORATORY CERTIFICATES OF ANALYSIS SAMPLE CHAIN OF CUSTODY FORMS



Wednesday, December 14, 2022

Attn: Jarred Panecki McCabe Environmental Services, LLC 464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Project ID: 22-04525 SDG ID: GCN00724

Sample ID#s: CN00724 - CN00727

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #M-CT007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



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Sample Id Cross Reference

December 14, 2022

SDG I.D.: GCN00724

Project ID: 22-04525

Client Id	Lab Id	Matrix
CA-01	CN00724	DRINKING WATER
CA-02	CN00725	DRINKING WATER
CA-03	CN00726	DRINKING WATER
CA-04	CN00727	DRINKING WATER



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Analysis Report

December 14, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:12/08/229:06Location Code:MCCABE-PBReceived by:CP12/08/2216:15

Rush Request: Standard Analyzed by: see "By" below

Laboratory Data

Phoenix ID: CN00724

SDG ID: GCN00724

Project ID: 22-04525 Client ID: CA-01

RL/

Parameter Result **PQL** DIL Units AL MCL MCLG Date/Time Βv Reference Lead 1.8 0.5 ppb 15 12/13/22 MGH E200.8 12/10/22 **Total Metal Digestion** Completed AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

Comments:

P.O.#:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 14, 2022



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Analysis Report

December 14, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample InformationCustody InformationDateTimeMatrix:DRINKING WATERCollected by:12/08/229:10Location Code:MCCABE-PBReceived by:CP12/08/2216:15

Rush Request: Standard Analyzed by: see "By" below

Laboratory Data SDG ID: GCN00724

Phoenix ID: CN00725

Project ID: 22-04525 Client ID: CA-02

P.O.#:

RL/

Parameter Result PQL DIL Units AL MCL MCLG Date/Time By Reference
Lead 17.3 0.5 2 ppb 15 12/13/22 MGH E200.8

*** Lead exceeds Action Level of 15 ***

Total Metal Digestion Completed 12/10/22 AG E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.)
AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 14, 2022



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Analysis Report

December 14, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample Informa	<u>ation</u>	Custody Inforn	<u>nation</u>	<u>Date</u>	<u>Time</u>	
Matrix:	DRINKING WATER	Collected by:		12/08/22	9:15	
Location Code:	MCCABE-PB	Received by:	CP	12/08/22	16:15	
Rush Request:	Standard	Analyzed by:	see "Ry" helow			

Laboratory Data

SDG ID: GCN00724

Phoenix ID: CN00726

Project ID: 22-04525 Client ID: CA-03

RL/

Parameter	Result	PQL	DIL	Units	AL MCL	MCLG Date/Time	Ву	Reference
Lead	4.6	0.5	2	ppb	15	12/13/22	MGH	E200.8
Total Metal Digestion	Completed					12/10/22	AG	E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 14, 2022



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Analysis Report

December 14, 2022

FOR: Attn: Jarred Panecki

McCabe Environmental Services, LLC

464 Valley Brook Avenue Lyndhurst, New Jersey 07071

Sample Informa	<u>tion</u>	Custody Inform	nation	<u>Date</u>	<u>Time</u>
Matrix:	DRINKING WATER	Collected by:		12/08/22	9:25
Location Code:	MCCABE-PB	Received by:	CP	12/08/22	16:15
	6: 1 1				

Rush Request: Standard Analyzed by: see "By" below

P.O.#:

Laboratory Data

SDG ID: GCN00724
Phoenix ID: CN00727

Project ID: 22-04525 Client ID: CA-04

RI/

Parameter	Result	PQL	DIL	Units	AL MCL	MCLG Date/Time	Ву	Reference
Lead	< 0.5	0.5	2	ppb	15	12/13/22	MGH	E200.8
Total Metal Digestion	Completed					12/10/22	AG	E200.8

RL/PQL=Reporting/Practical Quantitation Level DIL=Dilution (analysis required diluting to evaluate) ND=Not Detected BRL=Below Reporting Level (less than the reporting level, the lowest amount the laboratory can detect and report.) AL = Action Level MCL = Maximum Contaminant Level MCLG = Maximum Contaminant Level Goal

Comments:

Action Level (AL): 40 CFR Part 141.80 Lead & Copper ALs.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director

December 14, 2022

Analysis Report - Summary

December 14, 2022

Attn: Jarred Panecki

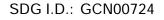
464 Valley Brook Avenue

Lyndhurst, New Jersey 07071

McCabe Environmental Services, LLC

Environmental Laboratories, Inc.

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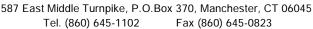
		Col					Date	
Sample	Client Id	Date	Parameter	Result	RL	CL Units	Analyzed	Reference
Project:	22-04525							
CN00724	CA-01	12/08/22	Lead	1.8	0.5	ppb	12/13/22	E200.8
CN00725	CA-02	12/08/22	Lead	17.3	0.5	ppb	12/13/22	E200.8
CN00726	CA-03	12/08/22	Lead	4.6	0.5	ppb	12/13/22	E200.8
CN00727	CA-04	12/08/22	Lead	< 0.5	0.5	ppb	12/13/22	E200.8

Comments:

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. ND=Not detected BDL=Below Detection Level RL=Reporting Level CL=Client Limit

December 14, 2022







QA/QC Report

December 14, 2022

QA/QC Data

SDG I.D.: GCN00724

												70	70
		Blk	Sample	Dup	Dup	LCS	LCSD	LCS	MS	MSD	MS	Rec	RPD
Parameter	Blank	RL	Result	Result	RPD	%	%	RPD	%	%	RPD	Limits	Limits

QA/QC Batch 655604A (mg/L), QC Sample No: CM99406 2X (CN00724, CN00725, CN00726, CN00727)

ICP MS Metals - Aqueous

Lead BRL 0.0001

105

99.8

Comment:

This batch does not include a duplicate.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

December 14, 2022

Wednesday, December 14, 2022

Sample Criteria Exceedances Report

GCN00724 - MCCABE-PB

State: NJ

Criteria: NJ: DW

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	Units
CN00725	PB-DW-MS	Lead	EPA / 40 CFR 141 DW / 141.80 Lead & Copper ALs	17.3	0.5	15	1	ppb

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

RΙ

Analysis



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Analysis Comments

December 14, 2022 SDG I.D.: GCN00724

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.

./1• PHONE: (201)438-4839 FAX: (201)438-1798

2.1.20.1.2

LEAD in DRINKING WATER

CHAIN-OF-CUSTODY FORM

SITE ADDRESS: 70 Claremont Ave, Jersey City, NJ TURNAROUND TIME REQUESTED: 2 Week SAMPLE DATE: 1306,1003 6 D J NAME: Gerard D'Alessio & Brandon Soto ent Academy Charter School 4: 22-04525

٠	SAMPLEID	SAMPLE LOCATION	TIME COLLECTED	ANALYSIS REQUESTED
*	(A-0)	FD-First floor office Sink	9:06 DOISY	LEAD - 200.8
DW	(A-02	FD - TEACHON'S WORK ROOPS SINK	9:10 00138	LEAD - 200.8
DW	(A.O.3.	FD - Seconal Floor Office Sink	9:15 DOTZE	LEAD - 200.8
DW	CA-04	FD-Bings Hall Killing Sink	9.25 00727	LEAD - 200.8
DW)			LEAD - 200.8
DW				LEAD - 200.8
DW				LEAD - 200.8
DW				LEAD - 200.8
DW				LEAD - 200.8
DW				LEAD - 200.8
Relinquish	Relinquished by (Print) $\mathcal{C}_{\mathcal{O}^{\mathcal{C}_{2}}}$	Date: Time: Received by: (Print)		Date: Time:
Signature:		2001 (2:03 signature:		
Relinquish	Relinquished by (Print)	Pate: Time: Received by: (Print)	Ta.	Date: Time:
Signature:		Signature:	1	51:01 72.871
Laboratory	Laboratory Analysis Performed by (Analyst Signature, L	Analyst Signature, Laboratory Name & Location): Phoenix Environmental Laboratories)	

recid 1-250mc thous per somple

NJ Certified WBE

McCabe Environmental Services, L.L.C.

Client: Empowerment Academy Charter School – Lead in Drinking Water Testing

Date: 12/29/2022

MES Project No.: 22-04525

APPENDIX B

SAMPLING PLAN ATTACHMENTS

Attachment A – Empowerment Academy Charter School Priority for Sampling

SSUGGI NAME	DATE OF	CERTIFIED	NOTES
SCHOOL NAME	SAMPLING	LABORATORY	
	December 8,	Phoenix	
Empowerment Academy Charter School	2022	Environmental	
	2022	Laboratories Inc.	

Attachment B - Plumbing Profile

Note: Complete for each school. For additional information see the USEPA publication, "The 3Ts for Reducing Lead in Drinking Water in Schools"

Name of School: Empowerment Academy Charter School ___ Grade Levels: TBD

Address: 70 Claremont Avenue, Jersey City, NJ 07304

Individual school project officer Signature: _____ Date: 12/28/2022

Questions	Answers					
Background Information						
What year was the original building constructed? Were any buildings or additions added to the original facility?	1930					
If the building was constructed or repaired after 1986, was lead-free plumbing and solder utilized? What type of solder was used? Document all locations where lead solder was used.	Unknown					
3. Where are the most recent plumbing repairs and replacements?	Location: Boiler Room	Description: Copper Drain Pipe Replaced				
4. With what materials is the service connection (the pipe that carries water to the school from the public water	Material: Copper					
system's main in the street) made? Where is the Service Line located? (This is the POE location.)	Location: Sub-Basement					
5. Is there point of entry (POE) or point of use (POU) treatment in use?	Y / N Type: Location:					

Questions	Answers
6. Are there tanks in your plumbing system (pressure tanks, gravity storage tanks)?	Y / N
7. Does the school have a filter maintenance and operation program? If so, who is responsible for this program? What is the process for adding filters?	No
8. Have accessible screens or aerators on outlets that provide drinking water been cleaned? Does the school have a screen or aerator maintenance program?	Y / N
9. Have there been any complaints about bad (metallic) taste? Note location(s).	Y / N Location:
 10. Review records and consult with the public water supplier to determine whether any water samples have been taken in the building for any contaminants. If so, identify: Name of contaminant(s) Concentrations found pH level Is testing done regularly at the building? 	N/A
 11. Other plumbing background questions include: Are blueprints of the building available? Are there known plumbing "dead-ends", low use areas, existing leaks or other "problem areas"? Are renovations planned for any of the plumbing system? 	No No Yes, the kitchen plumbing is to be relaced.

Questions	Answers
Walk-Through These questions should be addressed during the walk-through of the faci	lity, while Attachment C- Drinking Water Outlet Inventory is being completed.
Confirm the material of Service Line visually.	Υ
2. Confirm the presence of POE or POU treatment.	N/A
3. What are the potable water pipes made of in your facility?	Copper
• Lead	
Plastic	
Galvanized Metal	
Cast Iron	
Copper	
• Other	
Note the water flow through the building and the areas that	
receive water first, and which areas receive water last.	
4. Are electrical wires grounded to Water Pipes?	Y / N
Note location(s).	
	Location:
5. Are brass fittings, faucets, or valves used in your drinking	Complete in "Brass" Column in Attachment C- Water Outlet Inventory.
water system?	No
Note that most faucets are brass on the inside.	
Document the locations of any brass water outlet to be	
sampled.	
6. Locate all drinking water outlets (i.e. water coolers,	Complete in Attachment C-Water Outlet Inventory.
bubblers, ice machines, kitchen/ food prep sinks, etc.) in the facility.	Yes

Questions	Answers	
7. Have the brands and models of the water coolers in the	Y / N	
school been compared to the list of recalled water coolers in the Toolkit?		
Recalled Drinking Water Fountains		
Make and Model	Туре	
8. Have signs of corrosion, such as frequent leaks, rust-	Complete in "Signs of Corrosion"	column in Attachment C- Drinking
colored water, or stained fixtures, dishes, or laundry been	Water Outlet Inventory.	
detected?	No	
Note the locations of water outlets.		
9. Are there any outlets that are not operational and	Y / <mark>N</mark>	
therefore out of service? Permanently? Temporarily?	Complete "Operational	
	Column" in Attachment C-	
	Drinking Water Outlet	
	Inventory.	
	Type/ Location	Description
Permanently		
Temporarily		

Attachment B.i: Plumbing Profile Instructions

Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
The questions in this column will help you determine whether lead is likely to be a problem in your facility, and will enable you to prioritize your sampling effort.	This column discusses the significance of possible answers to the plumbing profile questions.
Background Information	
1. When was the original building constructed? Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.	Older Buildings – Through the early 1900s, lead pipes were commonly used for interior plumbing in certain parts of the country in public buildings and private homes. Plumbing installed before 1930 is more likely to contain lead than newer pipes. Between 1920 and 1950, galvanized pipes were also used for plumbing. After 1930, copper generally replaced lead as the most commonly used material for water pipes. Up until the mid- to late-1980s (until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect), lead solder was typically used to join these copper pipes. The efforts of your public water supplier over the years to minimize the corrosiveness of the water may have resulted in mineral deposits forming a coating on the inside of the water pipes (passivation). This coating insulates the water from the plumbing and results in decreased lead levels in water. If the coating does not exist or is disturbed, the water is in direct contact with any lead in the plumbing system. Newer Buildings – New buildings are not likely to have lead pipes in their plumbing systems, but they are very likely to have copper pipes with solder joints. Buildings constructed prior to the late 1980s, before the lead-free requirements of the 1986 Safe Drinking Water Act Amendments, may have joints made of lead solder. Buildings constructed after this period should have joints made of lead-free solders. Even if "lead-free" materials were used in new construction and/or plumbing repairs, lead leaching may occur.

	W(()
Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
2. If built or repaired after 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments? What type of solder has been used?	The 1986 Amendments to the Safe Drinking Water Act banned plumbing components that contained elevated levels of lead. Lead-free solder and flux (not more than 0.2% lead) and pipe, pipe fittings, and fixtures (not more than 8% lead) must now be used. The leaching potential of lead-free (i.e., tinantimony) solder is much less than lead solder. The leaching potential of lead-free pipe, pipe fittings, and fixtures is also less, but leaching is still possible.
Was lead solder used in your plumbing system? Note the locations of lead solder.	If lead-free materials were not used in new construction and/or plumbing repairs, elevated lead levels can be produced. If the film resulting from passivation does not exist or has not yet adequately formed, any lead that is present is in direct contact with the water.
	In some areas of the country, it is possible that high-lead materials were used until 1988 or perhaps even later. Your local plumbing code authority or building inspector may be able to provide guidance regarding when high-lead materials were last used on a regular basis in your area.
3. When were the most recent plumbing repairs and replacements made (note locations)?	Corrosion occurs (1) as a reaction between the water and the pipes and (2) as a reaction between the copper and solder (metal-to-metal). This latter reaction is known as galvanic corrosion, which can be vigorous in new piping. If lead solders were used in the piping or if brass faucets, valves, and fittings containing alloys of lead were installed (see response to Walk Through Question 5 below for further discussion of brass), lead levels in the water may be high. After about 5 years, however, this type of reaction (galvanic corrosion) slows down and lead gets into water mainly as a result of water being corrosive. If the water is non-corrosive, passivation is likely to have occurred and to have reduced opportunities for lead to get into the water system.
	For these reasons, if the building (or an addition, new plumbing, or repair) is less than 5 years old and lead solder or other materials (e.g., brass faucets containing lead alloys) were used, you may have elevated lead levels. If water supplied to the building is corrosive, lead can remain a problem regardless of the plumbing's age.
4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made? Note the location where the service connection enters the building and connects to the interior plumbing. (This is the POE location)	Lead piping was often used for the service connections that join buildings to public water systems. The service connection is the pipe that carries drinking water from a public water main to a building. Some localities actually required the use of lead service connections up until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect. Although a protective layering of minerals may have formed on these pipes, vibrations can cause flaking of any protective build-up and, allowing lead contamination to occur.

Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
5. Is there point of entry (POE) or point of use (POU) treatment in use?	Are there water treatment units in your plumbing system? Treatment units could be, but are not limited to, ion exchange units, filter cartridge, reserve osmosis, etc.
6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)? Note the location of any tanks, and any available information about the tank; e.g., manufacturer, date of installation.	Some older tanks may contain coatings that are high in lead content. Tanks may accumulate sediment that could be flushed back into the plumbing system under certain circumstances. You may wish to contact the supplier or manufacturer to obtain information about coatings. You may also wish to hire a plumber or tank service contractor to inspect your tanks, especially gravity storage tanks that are located outside of the building.
7. Does the school have a filter maintenance and operation program? If so, who is responsible for this program? What is the process for adding filters?	A program for the maintenance and the upkeep of filters on drinking water outlets is necessary to ensure the effectiveness of the filters. Most filters recommend replacement after six months. If the filters need replacement every six months, the program will include a procedure for ensuring that every six month old filter is replaced. An individual should be responsible for ensuring that this filter maintenance program is followed. If the school would like to add a filter to a water outlet, what is the process? Does a request form have to be completed and submitted to the individual in charge of maintenance? Do all filters need to be added at
8. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations. Have these screens been cleaned? Note the locations.	a certain time of year to follow the maintenance program? Lead-containing sediments that are trapped on screens can be a significant source of lead contamination. Sediments should be tested for the presence of lead, and your facility should create a routine maintenance program to clean the screens frequently. If sediment has been a reoccurring problem regular cleaning of the screens and additional investigating into why the debris is accumulating is appropriate. However, the manufacturer or water service provider should be contacted to obtain instructions.
9. Have there been any complaints about water taste (metallic, etc.) or rusty appearance? Note the locations.	Although you cannot see, taste, or smell lead dissolved in water, the presence of a metallic taste or rusty appearance may indicate corrosion and possible lead contamination.

Plumbing Profile Questions 10. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier).	What Your Answers to the Plumbing Profile Questions Mean Lead testing may have previously been done voluntarily under the Lead Contamination Control Act. Results of analyses of general water quality, such as measures of pH, calcium hardness, and carbonate alkalinity, can provide important clues about the corrosiveness of the water. Generally, the higher the values of these parameters, the less likely it is that your water is corrosive. If you have no data from your school, your public water system should at least be able to provide information about the general water
 Name of contaminant(s)? What concentrations of these contaminants were found? What was the pH level of the water? Is testing done regularly at your facility? 	quality.
 Other plumbing questions: Are blueprints of the building available? Are there known plumbing "dead• ends," low use areas, existing leaks or other "problem areas"? Are renovations being planned for part or all of the plumbing system? 	
Walk-Through	
Confirm the material that the service line is made of visually	See Background Information Question #4.
Confirm the presence of POE or POU treatment.	See Background Information Question #5

P	lum	hina	Profile	Questions	2
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- 3. Specifically, what are the potable water pipes made of in your facility (note the locations)?
 - Lead
 - Plastic
 - Galvanized Metal
 - Cast Iron
 - Copper
 - Other

Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.

4. Is any electrical equipment grounded to water pipes? Note the locations.

What Your Answers to the Plumbing Profile Questions Mean

Survey your building for exposed pipes, preferably accompanied by an experienced plumber who should be able to readily identify the composition of pipes on site. Most buildings have a combination of different plumbing materials:

- Lead pipes are dull gray in color and may be easily scratched by an object such as a knife or key. Lead pipes are a major source of lead contamination in drinking water.
- Galvanized metal pipes are gray or silver-gray in color and are usually fitted together with threaded joints. In some instances, compounds containing lead have been used to seal the threads joining the pipes. Debris from this material, which has fallen inside the pipes, may be a source of contamination.
- Copper pipes are red-brown in color. Corroded portions may show green deposits. Copper pipe
 joints were typically joined together with lead solders until the lead-free requirements of the 1986
 Safe Drinking Water Act Amendments took effect.
- Plastic pipes, especially those manufactured abroad, may contain lead. If plastic pipes are used, be sure they meet NSF International standards. (Note: NSF International is an independent, thirdparty testing organization. Product listings can be obtained by visiting their Web site at http://www.nsf.org/ business/search_listings/index/asp.)

If electrical equipment, such as telephones, has been installed using water pipes as a ground, the electric current traveling through the ground wire will accelerate the corrosion of any interior plumbing containing lead. The practice should be avoided, if possible. However, if existing wires are already grounded to water pipes, the wires *should not be removed* from the pipes unless a qualified electrician installs an alternative grounding system. Check with your local building inspector on this matter. Your state or local building code may require grounding of the wires to the water pipes. Improper grounding of electrical equipment may cause severe shock.

Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
5. Are brass fittings, faucets, or valves used in your drinking water system? (Note: Most faucets are brass on the inside.) You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.	Brass fittings, faucets, and valves are golden yellow in color, similar to copper in appearance, or are plated with chrome. Brass is composed primarily of two metals, copper and zinc. Most brasses contain lead ranging from 2 percent to 8 percent. That lead can contaminate the water contact surface when it is smeared on the machined surfaces during production. After 1996, brass fittings installed in drinking water outlets such as faucets and water coolers must meet NSF standards for lead content. While this percentage is considered lead-free under the 1986 Safe Drinking Water Act Amendments, some contamination problems still may occur. Older brass faucets may contain higher percentages of lead and lead solder in their interior construction and pose contamination problems. Note that your state or local government may have imposed this standard prior to 1988. The degree to which lead will leach from brass products containing alloys with less than 8 percent lead is dependent upon the corrosiveness of the water and the manufacturing process used to develop the product. A study revealed that fabricated faucets tend to contribute less lead to the water than faucets
	In response to a requirement of the 1996 SDWA, EPA worked with the plumbing industry and NSF International to develop a voluntary industry standard that is designed to minimize the amounts of lead being leached from these products. This standard is NSF/ANSI Standard 61, Section 9. Since 1998, all plumbing fixtures for use as drinking water supply must meet this standard. You should require NSF/ ANSI 61 certification on all drinking water system products purchased. Include a copy of the NSF/ ANSI 61 certificate as a requirement on your purchase orders. The distributor or manufacturer can provide you with a list of certified products. You should require NSF/ANSI 61 certification on all drinking water system products used in new construction and inform your architects and revise your building specifications.
6. How many of the following outlets provide water for consumption? Note the locations	In addition to lead components in the plumbing system, lead solders or lead in the brass fittings and valves used in some taps, bubblers, and refrigerated water coolers may be sources of lead. It is important to

- for consumption? Note the locations.
 - Water Coolers
 - Bubblers
 - Ice Makers
 - Kitchen Taps
 - **Drinking Fountains or Taps**

used in some taps, bubblers, and refrigerated water coolers may be sources of lead. It is important to identify the locations of all such drinking water outlets. Faucets in restrooms should not be used to obtain water for drinking. Although they may be adequate for washing hands, they may not be appropriate for drinking purposes. You may consider posting "do not drink" signs.

Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
7. Has your school checked the brands and models of water coolers and compared them to the list of recalled water coolers in Appendix H.i Note the locations of any recalled coolers.	Water coolers may be a major source of lead contamination. The Federal Consumer Product Safety Commission negotiated an agreement with Halsey Taylor through a consent order agreement published in June 1990 to provide a replacement or refund program that addresses all the water coolers listed by EPA as having lead-lined tanks. Halsey Taylor was the only company identified by EPA as manufacturing some water coolers with lead-lined tanks. Additionally, some coolers manufactured by EBCO had a bubbler valve and one soldered joint that contained lead. See Attachment H.i of this document for a summary of EPA's list of water coolers found to contain lead. Use the list to help prioritize your sampling. If your water cooler is listed as having a lead-lined tank, you should not use the water for drinking, and you should remove the cooler immediately as these coolers
	pose the highest risk of contamination.
8. Are there any signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.	Frequent leaks, rust-colored water, and stains on fixtures, dishes, and laundry are signs of corrosive water. Blue-green deposits on pipes and sinks indicate copper corrosion; brown stains result from the corrosion of iron. Where such signs occur, high levels of lead, copper, and iron may be present in the water. Lead can accumulate with iron, which can form sediments that are hard to remove.
9. Are there any outlets that are not operational and therefore out of service? Permanently? Temporarily?	Permanently out of service water outlets are outlets that are no longer being used and the facility plans to decommission in the future.
- r ,	Temporarily out of service water outlets are outlets that require repair or replacement and will be put back in service once they are operational.

Attachment C - Drinking Water Outlet Inventory

(Complete for each school)

Name of School: __Empowerment Academy Charter School

Address: 70 Claremont Avenue Jersey City, NJ 07305

Grade Levels: 4-8 Year School Constructed: 1928 Renovated/Additions: N/A

Individual school project officer Name/Signature: <u>Bobby Seetaram</u> Date Completed: <u>12/15/2022</u>

#1	Type	Location	Code	Operational	Signs of	Filter ⁴	Brass	Aerator/	Motion	Chiller	Water Cooler		Comments
				2	Corrosion	(Y/N)	Fittings,	Screen	Activated	(Y/N)	Make	Model	
				(Y/N)	3		Faucets	(Y/N)	(Y/N)				
					(Y/N)		or						
							valves?						
							(Y/N)						
1	Sink	1st Floor Office	CA-01	Y	N	N	N	Y	N	N	N/A	N/A	
													Eclectic
2	Sink	Teacher's Work	CA-02	Y	N	N	v	v	N N	N/A	N/A	Water	
2	Silik	Room	CA-02	1	11	1	1	1	11	11	IV/A	IV/A	Heater
													Under Sink
3	Sink	2 nd Floor Office	CA-O3	Y	N	N	N	Y	N	N	N/A	N/A	
4	Sink	Bingo Hall	CA-04	Y	N	N	N	v	N	N	N/A	N/A	
4	SIIK	Kitchen	CA-04	1	11	11	11	1	11	11	IN/A	IN/A	

¹ Number outlets starting at the closest outlet to the Point of Entry (POE).

² Document if permanently or temporarily out of service on the Attachment B- Plumbing Profile.

³ Signs of corrosion detected, such as but not limited to frequent leaks, rust-colored water, or stained fixtures, dishes, or laundry.

⁴ Document on Attachment D- Filter Inventory.

Attachment D - Filter Inventory

(Complete for each school)

Name of School: Empowerment Academy Charter School

Grade Levels: N/A

Address: 70 Claremont Ave, Jersey City, New Jersey 07305

Individual School Project Officer Signature: <u>Bobby Seetaram</u> Date: <u>12/15/2022</u>

Sample Location / Code	Brand	Type (Make & Model)	Date Installed or Replaced	Replacem ent Frequency	NSF Certified for Lead Reduction
					Y/N
CA-01	N/A	N/A	N/A	N/A	N
CA-02	N/A	N/A	N/A	N/A	N
CA-03	N/A	N/A	N/A	N/A	N
CA-04	N/A	N/A	N/A	N/A	N

Attachment E - Flushing Log (Complete for each school as applicable)

Name of School: Empowerment Academy Charter School

Address: 70 Claremont Ave, Jersey City, New Jersey 07305

Grade Levels: N/A

Individual School Project Officer Signature: Bobby Seetaram Date: <u>12/15/2022</u>

Sample Location Description	Sample Location Code	Date	Time	Duration of Flushing	Reason for Flushing
1st Floor Office Sink	CA-01	12/07/22	3:00 pm	2 minutes	Water Testing
Teacher's Work Room Sink	CA-02	12/07/22	3:00 pm	2 minutes	Water Testing
2nd Floor Office Sink	CA-03	12/07/22	3:00 pm	2 minutes	Water Testing
Bingo Hall Kitchen Sink	CA-04	12/07/22	3:00 pm	2 minutes	Water Testing

Attachment F - Pre – Sampling Water Use Certification (Complete for each school)

TO BE COMPLETED BY THE EMPOWERMENT ACADEMY COMMUNITY CHATER SCHOOL DISTRICT REPRESENTATIVE:

School Name: Empowerment Academy Charter School

Sample collection address: 70 Claremont Ave, Jersey City, New Jersey 07305

Water was last used: Time: 3:00 pm Date: 12/07/2022

Sample commencement: Time: 9:06 am Date: 12/15/2022

I have read the Empowerment Academy Community Charter School Lead Drinking Water Testing Sampling Plan and Quality Assurance Project Plan and I am certifying that samples were collected in accordance with these plans.

Bobby Seetaram 12/15/022

Signature Date

Attachment G - Example of a Sample Flush Tag

FLUSH TAG Water outlet sampling in progress. Please do not use water School District Name: Empowerment Academy Community Charter School Date Flushed: School Name: Flushing Process **Start Time:** School Address: End Time: Location of flushed outlet: Is the fountain front cover removed for the sampler to determine the reservoir type (circle one): YES / NO Person responsible for the flushing process (print name): Signature: * Water within the school distribution system should sit in the pipes unused for at least eight (8) hours after flushing but not more than 48 hours before a sample is taken.*

Note to the person responsible for the flushing process:

- A. Turn-off lawn sprinkler outlet(s) until water sampling is complete.
- B. Make sure sampling outlets are accessible.

Attachment H - Sampling Toolkit

H.i: Recalled Water Cooler List

USEPA's Water Cooler Recall List

Tables from EPA's 3Ts for Reducing Lead in Drinking Water in Schools Revised Technical Guidance

<u>Table E-1</u> <u>Halsey Taylor Water Coolers With Lead-Lined Tanks</u>²

The following six model numbers have one or more units in the model series with leadlined tanks:

WM8A WT8A GC10ACR GC10A GC5A RWM13A

The following models and serial numbers contain lead-lined tanks:

WM14A Serial No. WM14A Serial No. WT11A Serial No. 222650

<u>843034</u> <u>843006</u>

WT21A Serial No. WT21A Serial No. LL14A Serial No. 64346908

<u>64309550</u> <u>64309542</u>

²Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

<u>Table E-2</u> Water Coolers With Other Lead Components

EBCO Manufacturing

All pressure bubbler water coolers with shipping dates from 1962 through 1977 have a bubbler valve containing lead. The units contain a single, 50-50 tin-lead solder joint on the bubbler valve. Model numbers for coolers in this category are not available.

The following models of pressure bubbler coolers produced from 1978 through 1981 contain one 50-50 tin-lead solder joint each.

CP3	DP15W	DPM8	<u>7P</u>	<u>13P</u>	DPM8H	DP15M	DP3R	DP8A
DP16M	DP5S	C10E	PX-10	DP7S	DP13SM	<u>DP7M</u>	<u>DP7MH</u>	<u>DP7WMD</u>
WTC10	DP13M-60	DP14M	CP10-50	CP5	CP5M	DP15MW	DP3R	DP14S
DP20-50	DP7SM	DP10X	DP13A	DP13A-50	EP10F	DP5M	DP10F	CP3H
CP3-50	DP13M	DP3RH	DP5F	CP3M	EP5F	<u>13PL</u>	DP8AH	DP13S
CP10	DP20	DP12N	DP7WM	DP14A-50/60				

Halsey Taylor

1. Lead solder was used in these models of water coolers manufactured between 1978 and the last week of 1987;

WMA-1	SCWT/SCWT-A	SWA-1	DC/DHC-1
S3/5/10D	BFC-4F/7F/4FS/7FS	S300/500/100D	

2. The following coolers manufactured for Haws Drinking Faucet Company (Haws) by Halsey Taylor from November 1984 through December 18, 1987, are not lead-free because they contain 2 tin-lead solder joints. The model designations for these units are as follows:

HC8WT	HC14F	HC6W	HWC7D	HC8WTH	<u>HC14F</u> <u>H</u>	HC8W	HC2F	HC14WT
HC14FL	HC14W	HC2FH	HC14WTH	HC8FL	HC4F	HC5F	$\underline{\text{HC14WL}}$	HCBF7D
HC4FH	HC10F	HC16WT	HCBF7HO	HC8F	HC8FH	HC4W	HWC7	

Sample Collection Procedures:

• Initial Screening Sample 1E

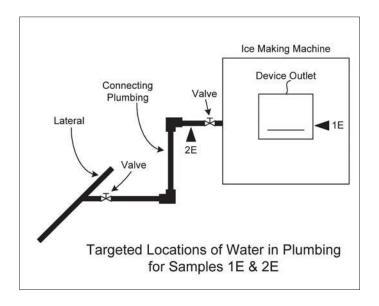
Fill a suitable container (250 mL or larger, wide-mouthed bottle or other container) provided by the laboratory at least three- quarters full of ice. Do not touch the ice with your hands. Use the non-metal scoop or disposable plastic gloves provided by the laboratory to place the ice in the container.

If the lead level in Sample 1E exceeds 15 μ g/L (ppb), collect a follow-up sample to determine if the source of the lead is the plumbing or the ice machine itself.

Follow-Up Sample 2E

Disconnect the ice machine from the plumbing and look for a screen at the inlet. Remove the screen. If debris is present, forward a sample of the debris to the laboratory for analysis and clean out the remaining debris. The laboratory will determine whether lead solder is present. Clean the screen routinely to avoid accumulations of debris.

Collect the sample from the disconnected plumbing as close to the ice machine as possible. Fill the sample container with 250 mL of water. If no outlet is available, contact the ice machine manufacturer for recommendations that will minimize disruption of existing plumbing. Adding outlets or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61, section 8. If a sample outlet or valve is available, collect the sample immediately after opening the outlet or valve.



H.iii: School Wide Flushing Procedure

Each drinking water outlet should be flushed individually; flushing a toilet will not flush your water fountains. All flushing should be recorded in the Flushing Log (Attachment E) for each school and completed prior to sampling.

- Locate 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. This 10-minute time frame is considered adequate for most buildings.
- Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.
- Let the water run on all refrigerated water fountains for 15 minutes.
- Open all kitchen faucets (and other faucets where water will be used for drinking and/or food preparation) and let the water run for 30 seconds to one minute, or until cold.

H.iv: Sampling Event Checklist

To be completed the day of sampling

Before Beginning Sampling:

- Review and Sign QAPP.
- ➤ Review School packet prior to sampling- including floor plan with sample locations, outlet inventory including all outlets to be sampled, filter inventory including which water coolers & drinking water fountains have filters, and if applicable pre-sampling event flushing schedule [includes which outlets were flushed, the duration of flushing, and when they were flushed].
- ➤ Perform a walk-through of the facility prior to sampling. Identify all outlets to be sampled, and label each outlet with its unique sample location code as it is found in the water outlet inventory.
- Verify that the water has been stagnant for at least 8 hours, but no longer than 48 hours.

Sampling:

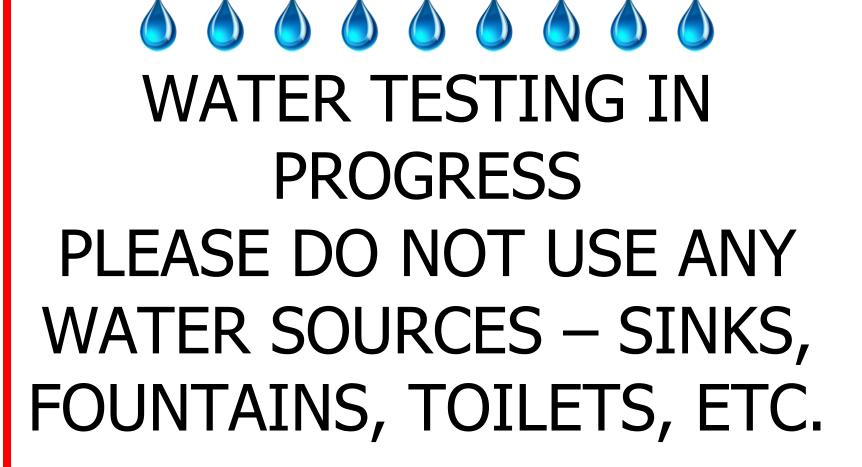
- Field Blank
- > Start sampling at the outlet closest to the point of entry.
- For each sampling location record the time that sampling begins.
- ➤ Wearing gloves, collect samples into a 250 ml pre-cleaned bottle.
- Record the time all samples are collected.
- ➤ AFTER all other samples have been collected, for follow-up flush sampling, collect fifteen minute flushed samples from water coolers.
- Indicate on the Chain of Custody (COC) if the outlet is leaking, the water is discolored, the outlet is turned on, the outlet is not working, or the outlet has a filter.
- Label all Follow-Up Flush Samples with "FLUSH" after their unique sample location code. (e.g. WHS- and WHS ---FLUSH)

After Sampling:

- > Record the time that sampling ends.
- ➤ Count sampling bottles to make sure all water outlets on the inventory were sampled.

Project Officer: —			
	Print Name	Signature	Date
Sampler:			
. —	Print Name	Signature	 Date

H.v: Sample Signs



DO NOT DRINK



SAFE FOR HANDWASHING

