



## MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018

June 27, 2018

**Executive Summary:**  
**Fox Chapel Elementary School**  
19315 Archdale Rd,  
Germantown, MD 20876

Round of Testing:	Initial
# of Outlets Tested:	78
# of Outlets $\geq$ 20 ppb:	5
Low Value (ppb):	< 1.0
High Value (ppb):	88.3
Follow-Up Testing Required (Samples $\geq$ 20 ppb):	Room 125 (88.3 ppb) Room 40 (51.3 ppb) Room 36 (29.2 ppb) Room 8 (21.8 ppb) Room 8 (87.0 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	5

### **Project Status** **Testing Complete: Remediation Plan**

- Classroom 125– Replace fixture (LW01897), in addition to supply line and valve located under sink
- Classroom 40– Replace fixture (LW01910), in addition to supply line and valve located under sink
- Classroom 36– Replace fixture (LW01917), in addition to supply line and valve located under sink
- Classroom 8– Replace fixture (M22275), in addition to supply line and valve located under sink
- Classroom 8– Replace fixture (M22276), in addition to supply line and valve located under sink



June 27, 2018

Mr. Brian Mullikin  
Environmental Team Leader  
Montgomery County Public Schools  
8301 Turkey Thicket Drive  
Building A, First Floor  
Gaithersburg, Maryland 20879

Re: Lead in Water Testing Service

Location: Fox Chapel Elementary School  
19315 Archdale Rd,  
Germantown, MD 20876

Dear Mr. Mullikin:

Professional Services Industries (PSI), Inc. is pleased to submit the following report to the Montgomery County Public Schools (MCPS) for completion of initial lead in water testing at Fox Chapel Elementary School, located at 19315 Archdale Rd, Germantown, MD 20876.

**Scope of Services:**

PSI conducted lead in water testing at Fox Chapel Elementary School in accordance with the Environmental Protection Agency (EPA) and Maryland House Bill (HB) 270. State regulation established an action level of 20 parts per billion (ppb) to evaluate lead levels in school buildings, a concentration EPA recommends that schools take action to reduce lead below this action level. Maryland requires periodic testing for the presence of lead in drinking water in occupied public and nonpublic school buildings. EPA developed the 3T's (Training, Testing, and Telling) to assist schools in reducing the lead concentrations in their drinking water. More information about 3T's can be found on the EPA website.

PSI visited the site on 4/16/18 and 4/17/18 to collect samples from 78 drinking water outlets in accordance with current criteria described by the Maryland Department of the Environment (MDE) Draft Lead in Drinking Water—Public and Nonpublic Schools, Title 26, Subtitle 16 Lead, Chapter 07. Five 30 second follow-up samples were collected on 5/24/18.

Samples were submitted to a laboratory for lead in water analysis using current US EPA methodology. The laboratory has been certified by the Maryland Department of the Environment to analyze drinking water for lead.

**Results:**

There were 5 results of the initial lead in water analysis at or above 20 parts per billion (ppb) and subsequent follow up 30 second results are highlighted in the summary table below:



Barcode ID	Sample Location	Date Collected	Initial Sample Result (ppb)	Date Collected	30 Second Follow Up Sample Result (ppb)
LW01897	Reading 125	4/17/18	88.3	5/24/18	14.5
LW01910	Classroom 40	4/17/18	51.3	5/24/18	3.6
LW01917	Classroom 36	4/17/18	29.2	5/24/18	16.9
M22275	Computer Lab 8	4/17/18	21.8	5/24/18	ND
M22276	Computer Lab 8	4/17/18	87.0	5/24/18	2.6

The initial lead in water sample results (4/17/18) and 30 second follow up results (5/24/18) are shown in Attachment A.

**Discussion:**

Lead is a naturally occurring element that can be harmful to humans when ingested or inhaled, particularly to children under the age of six. Lead can adversely affect the development of children’s brain potentially leading to detrimental alterations in intelligence and behavior. Lead has been historically used in plumbing, paint and other building materials. Lead is released into the environment from industrial sources and fuel combustion. Lead may also be found in consumer products (imported candy, medicines, toys, dishes, etc.).

Most lead leaches into drinking water from contact with plumbing components such as faucets and valves made of brass or lead-containing solder. The physical and chemical interaction that occurs between the plumbing and water directly contributes to the amount of lead that is released into the water. Although plumbing components installed prior to the 1990’s could contain more lead than newer materials, the amount of lead in the drinking water cannot be predicted by the age of building. The purpose of this regulation is to establish a program to minimize the risk of exposure to lead in drinking water outlets at schools.

Simple steps like keeping your home clean and well-maintained will go a long way in preventing lead exposure. These steps include inspecting and maintaining all painted surfaces to prevent paint deterioration, using only cold water to prepare food and drinks, flushing water outlets used for drinking or food preparation, and cleaning around painted areas where friction can generate dust, such as doors, windows, and drawers. Wipe these areas with a wet sponge or rag to remove paint chips or dust, and wash children's hands, bottles, pacifiers and toys often.

Respectfully Submitted,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**

Nand Kaushik, P.E.  
Department Manager, Environmental Services  
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Attachments:           A – Lead in Water Test Summary Table

# ATTACHMENT A

## Fox Chapel ES Water Test Summary Table

**Contractor:** Professional Services Industries, Inc.

**Certified Laboratory:** Microbac Laboratories, Inc.

Initial Sample Results for Fox Chapel Elementary School (4/17/18)

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01879	111	Classroom		Faucet	5.6	Pass	Testing Complete
LW01880	111	Classroom		Bubbler - Indoor	6.2	Pass	Testing Complete
LW01881	112	Classroom		Faucet	5.7	Pass	Testing Complete
LW01883		Hallway		Cooler	<1.0	Pass	Testing Complete
LW01884		Administration		Faucet	4.2	Pass	Testing Complete
LW01885	100	Health Room		Faucet	3.0	Pass	Testing Complete
LW01886	104	Classroom		Faucet	10.3	Pass	Testing Complete
LW01887	104	Classroom		Bubbler - Indoor	6.9	Pass	Testing Complete
LW01888	103	Classroom		Faucet	7.2	Pass	Testing Complete
LW01890	101	Classroom		Bubbler - Indoor	5.1	Pass	Testing Complete
LW01891	101	Classroom		Bubbler - Indoor	1.2	Pass	Testing Complete
LW01892	102	Classroom		Faucet	9.6	Pass	Testing Complete
LW01894	124	Classroom		Faucet	10.4	Pass	Testing Complete
LW01896	125	Reading		Faucet	16.3	Pass	Testing Complete
LW01897	125	Reading		Bubbler - Indoor	88.3	Fail	Follow-Up Testing Needed
LW01899	120	Media Center		Faucet	6.0	Pass	Testing Complete
LW01900	164	Classroom		Faucet	5.9	Pass	Testing Complete
LW01901	164	Classroom		Bubbler - Indoor	1.5	Pass	Testing Complete
LW01902	162	Classroom		Faucet	4.2	Pass	Testing Complete
LW01903	162	Classroom		Bubbler - Indoor	6.2	Pass	Testing Complete
LW01904	160	Classroom		Faucet	12.2	Pass	Testing Complete
LW01905	160	Classroom		Bubbler - Indoor	18.3	Pass	Testing Complete
LW01906	159	Classroom		Faucet	6.9	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01908	161	Classroom		Faucet	7.3	Pass	Testing Complete
LW01909	159	Classroom		Bubbler - Indoor	17.4	Pass	Testing Complete
LW01910	40	Classroom		Faucet	51.3	Fail	Follow-Up Testing Needed
LW01911	40	Classroom		Bubbler - Indoor	15.7	Pass	Testing Complete
LW01912	41	Classroom		Faucet	9.9	Pass	Testing Complete
LW01913	41	Classroom		Bubbler - Indoor	10.5	Pass	Testing Complete
LW01914		Music		Faucet	17.3	Pass	Testing Complete
LW01915		Music		Faucet	5.3	Pass	Testing Complete
LW01916	36	Classroom		Faucet	7.5	Pass	Testing Complete
LW01917	36	Classroom		Bubbler - Indoor	29.2	Fail	Follow-Up Testing Needed
LW01918	32	Classroom		Faucet	9.1	Pass	Testing Complete
LW01920	30	Classroom		Faucet	11.7	Pass	Testing Complete
LW01922	28	Classroom		Faucet	9.7	Pass	Testing Complete
LW01924	27	Classroom		Faucet	4.8	Pass	Testing Complete
LW01926	26	Classroom		Faucet	12.2	Pass	Testing Complete
LW01927	26	Classroom		Bubbler - Indoor	6.0	Pass	Testing Complete
LW01964	24	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01965	24	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01966	20	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01967	20	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01968		Hallway	Across From CR 20	Cooler	<1.0	Pass	Testing Complete
LW01969		Hallway	Across From CR 20	Cooler	<1.0	Pass	Testing Complete
LW01970	16	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01971	16	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01972	14	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01973	14	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01974	10	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01975	10	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

Barcode ID	Room Number	Location	Location Notes	Equipment Type	Result (PPB)*	Pass/Fail	Status
LW01976	04	Classroom		Faucet	<1.0	Pass	Testing Complete
LW01977	04	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW01978		Hallway	Across From Gym	Cooler	<1.0	Pass	Testing Complete
M22261		Hallway	Across from CR 3	Cooler	<1.0	Pass	Testing Complete
M22275	8	Computer Lab		Faucet	21.8	Fail	Follow-Up Testing Needed
M22276	8	Computer Lab		Bubbler - Indoor	87.0	Fail	Follow-Up Testing Needed
M22279		Hallway	Across from CR 8	Cooler	2.0	Pass	Testing Complete
M22306		Hallway	Across from CR 19	Cooler	<1.0	Pass	Testing Complete
M50627	118	Break Room		Faucet	<1.0	Pass	Testing Complete
M50628	108	Classroom	Inside CR 108	Cooler	<1.0	Pass	Testing Complete
M50629	108	Classroom		Faucet	<1.0	Pass	Testing Complete
M50630	108	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50631	109	Classroom		Faucet	<1.0	Pass	Testing Complete
M50632	110	Classroom		Faucet	<1.0	Pass	Testing Complete
M50633	110	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50640		Hallway	Across from CR 138	Cooler	<1.0	Pass	Testing Complete
M50641		Hallway	Across from CR 138	Cooler	<1.0	Pass	Testing Complete
M50645	138	Classroom		Faucet	<1.0	Pass	Testing Complete
M50646	138	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50647	142	Classroom		Faucet	<1.0	Pass	Testing Complete
M50648	142	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50649	144	Classroom		Faucet	<1.0	Pass	Testing Complete
M50650	144	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50651	148	Classroom		Faucet	<1.0	Pass	Testing Complete
M50652	148	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
M50653	150	Classroom		Faucet	<1.0	Pass	Testing Complete
M50654	150	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete

\*ppb = parts per billion

**Contractor:** Professional Services Industries, Inc.  
**Certified Laboratory:** Microbac Laboratories, Inc.

Follow Up Sample Results for Fox Chapel Elementary School (5/24/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW01897	125	Reading	Bubbler	26.1	14.5	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01910	40	Classroom	Faucet	28.5	3.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW01917	36	Classroom	Bubbler	32.9	16.9	Remediation required – replace fixture, in addition to supply line and valve located under sink
M22275	8	Computer Lab	Faucet	12.5	ND	Remediation required – replace fixture, in addition to supply line and valve located under sink
M22276	8	Computer Lab	Bubbler	51.3	2.6	Remediation required – replace fixture, in addition to supply line and valve located under sink

\*ppb = parts per billion  
 ND = Non Detect

Note: Fixture(s) with elevated test results were immediately removed from service. Subsequent 2nd round testing was performed on these fixture(s) for further diagnostics for remediation. Because the fixture was shut off after the first test, the subsequent test results may not be representative of an in-use fixture because of stagnant water in the supply line and the operation of shut off valves prior to the tests. All fixtures with elevated test results are to be remediated. After remediation, post remediation testing will be conducted before the fixture is returned to service.