



**MONTGOMERY COUNTY PUBLIC SCHOOLS DRINKING WATER TESTING 2018**

May 17, 2018

**Executive Summary:**  
**South Lake Elementary School**  
18201 Contour Road  
Gaithersburg, MD 20877

Round of Testing:	Initial
# of Outlets Tested:	89
# of Outlets ≥ 20 ppb:	8
Low Value (ppb):	< 1.0
High Value (ppb):	431.0
Follow-Up Testing Required (Samples ≥ 20 ppb):	Room 7 (28.6 ppb) Room 6 (66.1 ppb) Room 10 (431.0 ppb) Room 12C (25.3 ppb) Room 15 (28.4 ppb) Room 18 (97.6 ppb) Room 2 (54.3 ppb) Room 24 (174.0 ppb)

Round of Testing:	Follow-Up – 30 sec draw
# of Outlets Tested:	8

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

- Classroom 7 – Replace fixture (LW02321), in addition to supply line and valve located under sink
- Classroom 6 – Replace fixture (LW02325), in addition to supply line and valve located under sink
- Classroom 10 – Replace fixture (LW02419), in addition to supply line and valve located under sink
- Classroom 12C – Replace fixture (LW02433), in addition to supply line and valve located under sink
- Classroom 15 – Replace fixture (LW02437), in addition to supply line and valve located under sink
- Classroom 18 – Replace fixture (LW02443), in addition to supply line and valve located under sink
- Classroom 2 – Replace fixture (LW02474), in addition to supply line and valve located under sink
- Classroom 24 – Replace fixture (LW02482), in addition to supply line and valve located under sink



May 17, 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: South Lake Elementary School  
18201 Contour Road  
Gaithersburg, MD 20877

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 South Lake Elementary School, located at 18201 Contour Road in Gaithersburg, MD 20877.

**Scope of Services:**

PSI conducted lead in water testing at South Lake 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 2/15/18, 2/16/18, to collect samples from 89 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. Eight 30 second follow-up sample were collected on 4/10/18, 4/11/18, 5/7/18, and 5/8/18.

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 eight 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)
LW02321	Faucet – Room 7	2/16/18	28.6	4/11/18	<1.0
LW02325	Faucet – Room 6	2/16/18	66.1	5/8/18	3.0
LW02419	Faucet – Room 10	2/16/18	431.0	5/8/18	<1.0
LW02433	Bubbler Indoor – Room 12C	2/16/18	25.3	4/11/18	1.0
LW02437	Faucet – Room 15	2/16/18	28.4	4/11/18	47.6
LW02443	Faucet – Room 18	2/16/18	97.6	4/11/18	1.3
LW02474	Faucet – Room 2	2/16/18	54.3	4/11/18	1.6
LW02482	Faucet – Room 24	2/16/18	174.0	4/11/18	<1.0

The initial lead in water sample results (02/16/2018) and 30 second follow up results (4/11/18 and 5/8/18) 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.**

A handwritten signature in black ink that reads "Nand Kaushik". The signature is written in a cursive, flowing style.

Nand Kaushik, P.E.  
Department Manager, Environmental Services  
[Nand.Kaushik@psiusa.com](mailto:Nand.Kaushik@psiusa.com)

Attachments:           A – Lead in Water Test Summary Table

# ATTACHMENT A

## South Lake ES Water Test Summary Table

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

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

Initial Sample Results for South Lake Elementary School (2/16/18)

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW00417	14B	Music		Faucet	3.9	Pass	Testing Complete
LW00419	14A	Music		Faucet	3.3	Pass	Testing Complete
LW00420	14 A	Music		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00421	30	Resource Center		Faucet	3.3	Pass	Testing Complete
LW00422	30	Resource Center		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00423	K-3	Kindergarten		Faucet	1.0	Pass	Testing Complete
LW00424	K-3	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00425	K-4	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW00426	K-4	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00427	K-5	Kindergarten		Faucet	<1.0	Pass	Testing Complete
LW00428	K-5	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00429	K-6	Kindergarten		Faucet	1.4	Pass	Testing Complete
LW00430	K-6	Kindergarten		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00431	CR 31	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00432	CR 31	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00433	CR 32	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00434	CR 32	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00435		Hallway	In Front Of Gym	Cooler	<1.0	Pass	Testing Complete
LW00436		Hallway	In Front Of Gym	Cooler	<1.0	Pass	Testing Complete
LW00437	CR 40	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00438	CR 40	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00439	CR 41	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00440	CR 41	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00441	CR 42	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00442	CR 42	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00443	CR 43	Classroom		Faucet	<1.0	Pass	Testing Complete
LW00444	CR 43	Classroom		Bubbler - Indoor	<1.0	Pass	Testing Complete
LW00445		Hallway	In Front Of Cr 41	Cooler	<1.0	Pass	Testing Complete
LW00446		Hallway	In Front Of Cr 41	Cooler	<1.0	Pass	Testing Complete

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW02321	CR 7	Classroom		Faucet	28.6	Fail	Follow-Up Testing Needed
LW02322	CR 7	Classroom		Bubbler - Indoor	4.1	Pass	Testing Complete
LW02323	CR 5	Classroom		Faucet	9.4	Pass	Testing Complete
LW02324	CR 5	Classroom		Bubbler - Indoor	5.3	Pass	Testing Complete
LW02325	CR 6	Classroom		Faucet	66.1	Fail	Follow-Up Testing Needed
LW02326	CR 6	Classroom		Bubbler - Indoor	5.5	Pass	Testing Complete
LW02327	CR 4	Classroom		Faucet	12.0	Pass	Testing Complete
LW02419	CR 10	Classroom		Faucet	431.0	Fail	Follow-Up Testing Needed
LW02420	CR 10	Classroom		Bubbler - Indoor	5.0	Pass	Testing Complete
LW02421		Media Center		Faucet	8.0	Pass	Testing Complete
LW02422	CR 9	Classroom		Faucet	5.6	Pass	Testing Complete
LW02423	CR 9	Classroom		Bubbler - Indoor	3.0	Pass	Testing Complete
LW02424	CR 8	Classroom		Faucet	4.8	Pass	Testing Complete
LW02425	CR 8	Classroom		Bubbler - Indoor	2.3	Pass	Testing Complete
LW02426	13B	Classroom		Faucet	5.8	Pass	Testing Complete
LW02427	13B	Classroom		Bubbler - Indoor	4.3	Pass	Testing Complete
LW02428	13C	Classroom		Faucet	17.3	Pass	Testing Complete
LW02429	13C	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW02430	12B	Classroom		Faucet	3.0	Pass	Testing Complete
LW02431	12B	Classroom		Bubbler - Indoor	4.0	Pass	Testing Complete
LW02432	12C	Classroom		Faucet	1.3	Pass	Testing Complete
LW02433	12C	Classroom		Bubbler - Indoor	25.3	Fail	Follow-Up Testing Needed
LW02434		Hallway	Right Of Cr 11	Cooler	<1.0	Pass	Testing Complete
LW02435	CR 14	Classroom		Faucet	6.2	Pass	Testing Complete
LW02436	CR 14	Classroom		Bubbler - Indoor	3.7	Pass	Testing Complete
LW02437	CR 15	Classroom		Faucet	28.4	Fail	Follow-Up Testing Needed
LW02438	CR 15	Classroom		Bubbler - Indoor	5.5	Pass	Testing Complete
LW02439	CR 16	Classroom		Faucet	4.1	Pass	Testing Complete
LW02440	CR 16	Classroom		Bubbler - Indoor	4.5	Pass	Testing Complete
LW02441	CR 17	Classroom		Faucet	11.4	Pass	Testing Complete
LW02442	CR 17	Classroom		Bubbler - Indoor	3.6	Pass	Testing Complete
LW02443	CR 18	Classroom		Faucet	97.6	Fail	Follow-Up Testing Needed
LW02444	CR 18	Classroom		Bubbler - Indoor	5.5	Pass	Testing Complete
LW02471	CR 4	Classroom		Bubbler - Indoor	2.8	Pass	Testing Complete
LW02472	CR 3	Classroom		Faucet	5.0	Pass	Testing Complete
LW02473	CR 3	Classroom		Bubbler - Indoor	2.2	Pass	Testing Complete
LW02474	CR 2	Classroom		Faucet	54.3	Fail	Follow-Up Testing Needed

Barcode ID	Room #	Location	Location Notes	Equipment Type	Results	Pass/Fail	Status
LW02475	CR 2	Classroom		Bubbler - Indoor	6.3	Pass	Testing Complete
LW02476	CR 1	Classroom		Faucet	5.2	Pass	Testing Complete
LW02477	CR 1	Classroom		Bubbler - Indoor	3.5	Pass	Testing Complete
LW02478		Hallway	In Front Of Cr 1	Cooler	1.7	Pass	Testing Complete
LW02479		Work Room Administration		Faucet	10.1	Pass	Testing Complete
LW02480		Break Room Administration		Faucet	3.1	Pass	Testing Complete
LW02481		Hallway	In Front Of Cr 24	Cooler	<1.0	Pass	Testing Complete
LW02482	CR 24	Classroom		Faucet	174.0	Fail	Follow-Up Testing Needed
LW02483	23	Classroom		Faucet	6.7	Pass	Testing Complete
LW02484	CR 2	Classroom		Faucet	4.8	Pass	Testing Complete
LW02485	CR 21	Classroom		Faucet	7.4	Pass	Testing Complete
LW02486	CR 20	Classroom		Faucet	6.5	Pass	Testing Complete
LW02487	CR 19	Classroom		Faucet	7.4	Pass	Testing Complete
LW02488		Hallway	In Front Of Cr 19	Cooler	<1.0	Pass	Testing Complete
LW02489		Kitchen		Faucet	11.7	Pass	Testing Complete
LW02490		Kitchen		Faucet	3.1	Pass	Testing Complete
LW02491	K-2	Classroom		Faucet	1.1	Pass	Testing Complete
LW02492	K-2	Classroom		Bubbler - Indoor	2.1	Pass	Testing Complete
LW02493	K-1	Classroom		Faucet	5.1	Pass	Testing Complete
LW02494	K-1	Classroom		Bubbler - Indoor	2.0	Pass	Testing Complete
LW02495	CR 11	Classroom		Faucet	4.0	Pass	Testing Complete
LW02496	CR 11	Classroom		Bubbler - Indoor	8.7	Pass	Testing Complete
M22471		Kitchen		Faucet	10.4	Pass	Testing Complete

\*ppb = parts per billion

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

Follow Up Sample Results for South Lake Elementary School (4/11/18 and 5/8/18)

Barcode ID	Room Number	Location	Equipment Type	Initial draw (2 <sup>nd</sup> ) (PPB)	Initial draw (3 <sup>rd</sup> ) (PPB)	30 Second Draw (PPB)	Status
LW02419	CR 10	Classroom	Faucet	8.5	3.4	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02482	CR 24	Classroom	Faucet	DNS	12.3	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02443	CR 18	Classroom	Faucet	DNS	13.1	1.3	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02325	CR 6	Classroom	Faucet	20.1	15.6	3.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02474	CR 2	Classroom	Faucet	12.6	10.2	1.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02321	CR 7	Classroom	Faucet	36.8	2.3	<1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02437	CR 15	Classroom	Faucet	DNS	69.70	47.6	Remediation required – replace fixture, in addition to supply line and valve located under sink
LW02433	12C	Classroom	Faucet	DNS	2.0	1.0	Remediation required – replace fixture, in addition to supply line and valve located under sink

\*ppb = parts per billion  
 DNS= Did Not Sample

Note: Fixture(s) with elevated test results were immediately removed from service. Subsequent 2nd and 3rd 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.