

April 30, 2019

Ms. Rhonda Munford
Energy Specialist/ Admin. Associate III Operations
Prince George Elementary School
4101 Courthouse Road
Prince George, Virginia 23875
Rmunford@pgs.k12.va.us



**RE: Lead Drinking Water Sampling
Prince George Public Schools
Moore Middle School
Project No.: ENRI190005.03**

Dear Ms. Munford:

The EI Group, Inc (EI) was contracted to perform drinking water sampling at the following school:

- Moore Middle School 11455 Prince George Drive, Disputanta, VA 23842

This survey was performed by Mr. Chadwick Bowman and Ms. Holly Monger, Industrial Hygienists for EI, on April 19, 2019. The purpose of this assessment was to determine if drinking water for the above building contained lead in excess of the regulated levels.

During the assessment, forty-two (42) samples were collected from each cold-water supply fixture used for drinking or cooking, as well as fixtures used for emergency eye wash stations. Each sample was sealed in its own plastic jar and delivered on the day of the survey to Environmental Hazards Services, LLC (EHS) in Richmond, Virginia. EHS is accredited by the Virginia Environmental Laboratory Accreditation Program (VELAP) for Drinking Water (VELAP ID 460172).

Sample results indicate water samples meet all regulatory guidelines and regulations, with the exception of four samples taken from the eyewash stations in A Wing Room A15, B Wing Room 115, Lab C11, and Lab C12 at Moore Middle School. See Table 1: Drinking Water Sampling Results, below for specific sampling locations and results.

Procedures and Standards

Lead is a toxic metal that is detrimental to human health. There is no known value of lead for the human body. Lead can remain in the bloodstream and bodily organs for up to a few months. Any amount of lead that is not excreted is absorbed into the bones, where it will collect indefinitely. Young children, 6 years of age and younger are at high risk for lead exposure due to frequent hand-to-mouth activity, and because their nervous systems are still undergoing development. There is currently no safe blood lead level for children, and the degree of harm from lead exposure can vary due to a number of factors such as the frequency, duration, and dose of exposure.

On the day of the survey, EI collected water samples in 250 mL plastic bottles at first draw. First draw refers to collecting a water sample after the water has been sitting in the pipes for at least 8 hours, and no longer than 18 hours prior to sampling. A total of forty-two (42) water samples were collected at first draw throughout the building.

Sample Results

The water sampling was conducted by the EI Group on April 19, 2019. The samples were submitted to EHS in Chesterfield, Virginia for analysis using the EPA recommended method SM 3113B-2010. EHS participates in the NELAC Accreditation Program, and the VA Environmental Laboratory Accreditation program (VELAP) for drinking water (VELAP ID 460172). Table 1 on the following page presents the results of the water samples analyzed by EHS on fixtures that were known and accessible to EI during the survey. The laboratory reports are attached in the Appendices.

Table 1: Lead Drinking Water Sampling Results Moore Middle School – Prince George County Survey Date: April 19, 2019			
Sample No.	Sample Location	Result (ppb)	Exceedance
19-04-03192-011	Room E8 Sink	1.97	NO
19-04-03192-012	Room E2 Main	3.01	NO
19-04-03192-013	Room E2 Sink Far Right	3.58	NO
19-04-03192-014	Room E2 Sink Far Right Wall	2.84	NO
19-04-03192-015	Room E2 Sink Left	2.15	NO
19-04-03192-016	Room E2 Sink 2nd from Left Wall	1.83	NO
19-04-03192-017	Choir Room Fountain	<1.00	NO
19-04-03192-018	B Wing Teacher's Lounge Sink	6.26	NO
19-04-03192-019	E Wing Work RM 1 Teacher's Lounge Sink	11.9	NO
19-04-03192-020	C14 Work Room Sink	5.54	NO
19-04-03192-021	A8 Work Room Sink	1.82	NO
19-04-03192-022	Tech Lab Fountain	<1.00	NO
19-04-03192-023	Voc Lab Fountain	<1.00	NO
19-04-03192-024	Front Office Sink	3.01	NO
19-04-03192-025	Band Room Fountain	3.42	NO
19-04-03192-026	Short Fountain at Road Runner Intersection Left of Clock	<1.00	NO
19-04-03192-027	Tall Fountain at Road Runner Intersection Left of Clock	<1.00	NO
19-04-03192-028	Short Fountain at Road Runner Intersection Right of Clock	<1.00	NO
19-04-03192-029	Tall Fountain at Road Runner Intersection Right of Clock	<1.00	NO
19-04-03192-030	Tall Fountain A Wing Hallway Hurricane St Left of Clock	<1.00	NO
19-04-03192-031	Short Fountain A Wing Hallway Hurricane St Right of Clock	2.24	NO
19-04-03192-032	Short Fountain A Wing Hallway Hurricane St Left of Clock	<1.00	NO
19-04-03192-033	Girl's Locker Room Short Fountain	<1.00	NO
19-04-03192-034	Boy's Locker Room Short Fountain	<1.00	NO
19-04-03192-035	Boy's Locker Room Tall Fountain	<1.00	NO
19-04-03192-036	Gym Fountain	<1.00	NO

19-04-03192-037	A Wing A15 Lab Eyewash Station	28.7	YES
19-04-03192-038	B Wing Room 115 Eyewash Station	15.1	YES
19-04-03192-039	Short Fountain C Wing Hallway by Outside Door #14	<1.00	NO
19-04-03192-040	Tall Fountain C Wing Hallway by Outside Door #14	<1.00	NO
19-04-03192-041	Short Fountain C Wing Hallway by Outside Door #17	<1.00	NO
19-04-03192-042	Tall Fountain C Wing Hallway by Outside Door #17	<1.00	NO
19-04-03192-043	Café Short Fountain near Kitchen	<1.00	NO
19-04-03192-044	Café Tall Fountain near Kitchen	<1.00	NO
19-04-03192-045	Café Short Fountain near Windows	<1.00	NO
19-04-03192-046	Café Tall Fountain near Windows	<1.00	NO
19-04-03192-047	Short Fountain outside Café Hallway	<1.00	NO
19-04-03192-048	Tall Fountain outside Café Hallway	<1.00	NO
19-04-03192-049	Left Kitchen Sink	<1.00	NO
19-04-03192-050	Right Kitchen Sink	3.78	NO
19-04-03192-051	C11 Lab Eyewash Station	20.4	YES
19-04-03192-052	C12 Lab Eyewash Station	19.3	YES
ug/L = ppb ug/L = micrograms per liter ppb = Parts Per Billion EPA – Maximum Contaminant Level for Lead in Drinking Water – 15 ppb BOLD = Exceedance of EPA Limit			

Recommendations

Based on the high lead level found at the eyewash stations in the Labs on A Wing Room A15, B Wing Room 115, Lab C11, and Lab C12, EI recommends follow-up flush sampling in order to pinpoint the source (fixtures, or interior plumbing) of each eyewash station's water contamination. It is important to note that variations in lead concentration may be found among individual outlets in a building due to differences in the flow rates of those outlets, or the building materials used. EI further recommends that this fixture not be used until follow-up flush sampling has been completed.

Disclaimer

This inspection and report is written for and intended for the use of Prince George Public Schools and their clients only. EI will not be held liable for any interpretations made, opinions formed, or conclusions drawn by any third party as a result of examining the lab results, inspection results or this report. Any interpretations, opinions, and conclusions will be those made, formed, and drawn solely by that third party.

We have endeavored to complete the services identified herein in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality and under similar conditions at this project. Should conditions change, future sampling may need to be conducted. No other representation, express or implied, is included or intended, and no warranty or guarantee is included or intended in this agreement, or any report, opinion, document, or other instrument of service.

EI appreciates the opportunity to provide these environmental services for Prince George Public Schools. Please feel free to call us at (804) 320-9300 if you have any questions or are in need of further assistance.

Sincerely,
The EI Group, Inc



Chadwick Bowman
Manager, Richmond Operations



Holly Monger
Industrial Hygienist, Richmond

Appendices:
Appendix A –EHS Laboratory Reports



Environmental Hazards Services, L.L.C.
 7469 Whitepine Rd
 Richmond, VA 23237
 Telephone: 800.347.4010

Lead in Drinking Water Analysis Report

Client: The EI Group Inc. - Glen Allen
 4186 Innslake Dr
 Glen Allen, VA 23060

Report Number: 19-04-03192
 Received Date: 04/19/2019
 Reported Date: 04/29/2019
 Sampled By: Bowman/Monger
 Tech Certification #:

Project/Test Address: Moore Middle School; 11455 Prince George Drive; Prince George VA 23875

Client Number:
 48-1920

Laboratory Results

Fax Number:
 804-320-9302

Lab Sample Number	Client Sample ID	Collection Date	Collection Location	Concentration ug/L (ppb)	Analysis Date	Narrative ID
19-04-03192-011	MM-11	04/19/2019	RM E8 SINK	1.97	04/24/2019	
19-04-03192-012	MM-12	04/19/2019	RM E2 MAIN	3.01	04/24/2019	
19-04-03192-013	MM-13	04/19/2019	RM E2 SINK FAR RIGHT	3.58	04/24/2019	
19-04-03192-014	MM-14	04/19/2019	RM E2 SINK FAR RIGHT WALL	2.84	04/24/2019	
19-04-03192-015	MM-15	04/19/2019	RM E2 SINK LEFT	2.15	04/24/2019	
19-04-03192-016	MM-16	04/19/2019	RM E2 SINK 2ND FROM LEFT WALL	1.83	04/24/2019	
19-04-03192-017	MM-17	04/19/2019	CHOIR RM FOUNTAIN	<1.00	04/24/2019	
19-04-03192-018	MM-18	04/19/2019	B WING TEACHERS LOUNGE SINK	6.26	04/24/2019	
19-04-03192-019	MM-19	04/19/2019	E WING WORK RM 1 TEACHERS LOUNGE SINK	11.9	04/24/2019	
19-04-03192-020	MM-20	04/19/2019	C14 WORK RM SINK	5.54	04/24/2019	
19-04-03192-021	MM-21	04/19/2019	A8 WORK RM SINK	1.82	04/24/2019	
19-04-03192-022	MM-22	04/19/2019	TECH LAB FOUNTAIN	<1.00	04/24/2019	
19-04-03192-023	MM-23	04/19/2019	VOC LAB FOUNTAIN	<1.00	04/24/2019	

Environmental Hazards Services, L.L.C

Client Number: 48-1920
 Project/Test Address: Moore Middle School; 11455 Prince George Drive;
 Prince George VA 23875

Report Number: 19-04-03192

Lab Sample Number	Client Sample ID	Collection Date	Collection Location	Concentration ug/L (ppb)	Analysis Date	Narrative ID
19-04-03192-024	MM-24	04/19/2019	FRONT OFFICE SINK	3.01	04/24/2019	
19-04-03192-025	MM-25	04/19/2019	BAND RM FOUNTAIN	3.42	04/24/2019	
19-04-03192-026	MM-26	04/19/2019	FOUNTAIN @ ROAD RUNNER T INTERSECTION LEFT OF CLOCK SHORT	<1.00	04/25/2019	
19-04-03192-027	MM-27	04/19/2019	FOUNTAIN @ ROAD RUNNER T INTERSECTION LEFT OF CLOCK TALL	<1.00	04/25/2019	
19-04-03192-028	MM-28	04/19/2019	FOUNTAIN @ ROAD RUNNER T INTERSECTION RIGHT OF HALL CLOCK SHORT	<1.00	04/25/2019	
19-04-03192-029	MM-29	04/19/2019	FOUNTAIN @ ROAD RUNNER T INTERSECTION RIGHT OF HALL CLOCK TALL	<1.00	04/25/2019	
19-04-03192-030	MM-30	04/19/2019	FOUNTAIN A WING HALLWAY HURRICANE T LEFT OF CLOCK TALL	<1.00	04/25/2019	
19-04-03192-031	MM-31	04/19/2019	FOUNTAIN A WING HALLWAY HURRICANE T RIGHT OF CLOCK SHORT	2.24	04/25/2019	
19-04-03192-032	MM-32	04/19/2019	FOUNTAIN A WING HALLWAY HURRICANE T LEFT OF CLOCK SHORT	<1.00	04/25/2019	
19-04-03192-033	MM-33	04/19/2019	GIRLS LOCKER RM SHORT FOUNTAIN	<1.00	04/25/2019	
19-04-03192-034	MM-34	04/19/2019	BOYS LOCKER RM SHORT FOUNTAIN	<1.00	04/25/2019	
19-04-03192-035	MM-35	04/19/2019	BOYS LOCKER RM TALL FOUNTAIN	<1.00	04/25/2019	
19-04-03192-036	MM-36	04/19/2019	GYM FOUNTAIN	<1.00	04/25/2019	
19-04-03192-037	MM-37	04/19/2019	A WING A15 LAB EYEWASH STATION	28.7	04/25/2019	

Environmental Hazards Services, L.L.C

Client Number: 48-1920

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Project/Test Address: Moore Middle School; 11455 Prince George Drive;
Prince George VA 23875

Lab Sample Number	Client Sample ID	Collection Date	Collection Location	Concentration ug/L (ppb)	Analysis Date	Narrative ID
19-04-03192-038	MM-38	04/19/2019	B WING RM 115 EYEWASH STATION	15.1	04/25/2019	
19-04-03192-039	MM-39	04/19/2019	FOUNTAIN C WING HALLWAY BY OUTSIDE DOOR #14 SHORT	<1.00	04/25/2019	
19-04-03192-040	MM-40	04/19/2019	FOUNTAIN C WING HALLWAY BY OUTSIDE DOOR #14 TALL	<1.00	04/25/2019	
19-04-03192-041	MM-41	04/19/2019	C WING HALLWAY FOUNTAIN NEAR OUTSIDE DOOR #17 SHORT	<1.00	04/25/2019	
19-04-03192-042	MM-42	04/19/2019	C WING HALLWAY FOUNTAIN NEAR OUTSIDE DOOR #17 TALL	<1.00	04/25/2019	
19-04-03192-043	MM-43	04/19/2019	CAFÉ FOUNTAIN NEAR KITCHEN SHORT	<1.00	04/25/2019	
19-04-03192-044	MM-44	04/19/2019	CAFÉ FOUNTAIN NEAR KITCHEN TALL	<1.00	04/25/2019	
19-04-03192-045	MM-45	04/19/2019	CAFÉ FOUNTAIN NEAR WINDOWS SHORT	<1.00	04/25/2019	
19-04-03192-046	MM-46	04/19/2019	CAFÉ FOUNTAIN NEAR WINDOWS TALL	<1.00	04/25/2019	
19-04-03192-047	MM-47	04/19/2019	FOUNTAIN OUTSIDE CAFÉ HALLWAY SHORT	<1.00	04/25/2019	
19-04-03192-048	MM-48	04/19/2019	FOUNTAIN OUTSIDE CAFÉ HALLWAY TALL	<1.00	04/25/2019	
19-04-03192-049	MM-49	04/19/2019	KITCHEN LEFT SINK	<1.00	04/25/2019	
19-04-03192-050	MM-50	04/19/2019	KITCHEN RIGHT SINK	3.78	04/25/2019	
19-04-03192-051	MM-51	04/19/2019	C11 LAB EYEWASH STATION	20.4	04/25/2019	
19-04-03192-052	MM-52	04/19/2019	C12 LAB EYEWASH STATION	19.3	04/25/2019	

Environmental Hazards Services, L.L.C

Client Number: 48-1920

Report Number: 19-04-03192

Project/Test Address: Moore Middle School; 11455 Prince George Drive;
Prince George VA 23875

Lab Sample Number	Client Sample ID	Collection Date	Collection Location	Concentration ug/L (ppb)	Analysis Date	Narrative ID
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Method: SM 3113B-2010
Analyst: Jennalee Zlotkowski
Accreditation #: VA 460172

Reviewed By Authorized Signatory: *Melissa Kanode*

Missy Kanode

QA/QC Clerk

Sample Results denoted with a "less than" (<) sign contain less than the reporting limit which is 1 ppb.

The EPA Maximum Contaminant Level for Lead in Drinking Water is 15 ppb. The results herein conform to NELAC standards, where applicable, unless otherwise narrated on this report. Results represent the analysis of samples submitted by the client. Sample location, description, field parameter results, etc., were provided by the client. This report cannot be reproduced, except in full, without written approval from Environmental Hazards Services, L.L.C.

LEGEND ug/L= micrograms per liter ppb = parts per billion



Environmental Hazards Services, LL

WATER Chain of Custody Form

7469 Whitepine Rd, Richmond, VA 23237

801 W

19-04-03192



Due Date:
04/26/2019
(Friday)
ER

Company Name: The El Group Address: 4186 Innslake Dr
 Phone: 804-320-9300 Email: Cbowman@ei1.com Acct No. 41
 School Name & Address: Moore Middle School & Ed Center; 11455 Prince George Dr, 23842
 Collected By: Chad Bowman Holly Monger PO# _____

Age of Property: _____ Water Source: _____ Public or _____ Well

TURN AROUND TIME:

No.	Client Sample ID	Sample Location	Collection Date	Time	AM	PM	Analyte
1	MM-1	TRAILER 5A SHORT FOUNTAIN	4/19/2019				Pb
2	MM-2	TRAILER 5A TALL FOUNTAIN	4/20/2019				Pb
3	MM-3	TRAILER 5B SHORT FOUNTAIN	4/21/2019				Pb
4	MM-4	TRAILER 5B TALL FOUNTAIN	4/22/2019				Pb
5	MM-5	TRAILER 4A SHORT FOUNTAIN	4/23/2019				Pb
6	MM-6	TRAILER 4A TALL FOUNTAIN	4/24/2019				Pb
7	MM-7	TRAILER 4B SHORT FOUNTAIN	4/25/2019				Pb
8	MM-8	TRAILER 4B TALL FOUNTAIN	4/26/2019				Pb
9	MM-9	TRAILER 1A FOUNTAIN	4/27/2019				Pb
10	MM-10	TRAILER 1B FOUNTAIN	4/28/2019				Pb
11	MM-11	RM E8 SINK	4/29/2019				Pb
12	MM-12	RM E2 MAIN	4/30/2019				Pb
13	MM-13	RM E2 SINK FAR RIGHT	5/1/2019				Pb
14	MM-14	RM E2 SINK FAR RIGHT WALL	5/2/2019				Pb
15	MM-15	RM E2 SINK LEFT	5/3/2019				Pb
16	MM-16	RM E2 SINK 2ND FROM LEFT WALL	5/4/2019				Pb
17	MM-17	CHOIR RM FOUNTAIN	5/5/2019				Pb
18	MM-18	B WING TEACHERS LOUNGE SINK	5/6/2019				Pb
19	MM-19	E WING WORK RM 1 TEACHERS LOUNGE SINK	5/7/2019				Pb
20	MM-20	C14 WORK RM SINK	5/8/2019				Pb
21	MM-21	A8 WORK RM SINK	5/9/2019				Pb
22	MM-22	TECH LAB FOUNTAIN	5/10/2019				Pb
23	MM-23	VOC LAB FOUNTAIN	5/11/2019				Pb
24	MM-24	FRONT OFFICE SINK	5/12/2019				Pb
25	MM-25	BAND RM FOUNTAIN	5/13/2019				Pb
26	MM-26	FOUNTAIN @ ROAD RUNNER T INTERSECTION LEFT OF CLOCK SHORT	5/14/2019				Pb
27	MM-27	FOUNTAIN @ ROAD RUNNER T INTERSECTION LEFT OF CLOCK TALL	5/15/2019				Pb
28	MM-28	FOUNTAIN @ ROAD RUNNER T INTERSECTION RIGHT OF HALL CLOCK SHORT	5/16/2019				Pb
29	MM-29	FOUNTAIN @ ROAD RUNNER T INTERSECTION RIGHT OF HALL CLOCK TALL	5/17/2019				Pb
30	MM-30	FOUNTAIN A WING HALLWAY HURRICANE T LEFT OF CLOCK TALL	5/18/2019				Pb
31	MM-31	FOUNTAIN A WING HALLWAY HURRICANE T RIGHT OF CLOCK SHORT	5/19/2019				Pb
32	MM-32	FOUNTAIN A WING HALLWAY HURRICANE T LEFT OF CLOCK SHORT	5/20/2019				Pb
33	MM-33	GIRLS LOCKER RM SHORT FOUNTAIN	5/21/2019				Pb
34	MM-34	BOYS LOCKER RM SHORT FOUNTAIN	5/22/2019				Pb
35	MM-35	BOYS LOCKER RM TALL FOUNTAIN	5/23/2019				Pb
36	MM-36	GYM FOUNTAIN	5/24/2019				Pb
37	MM-37	A WING A15 LAB EYEWASH STATION	5/25/2019				Pb
38	MM-38	B WING RM 115 EYEWASH STATION	5/26/2019				Pb
39	MM-39	FOUNTAIN C WING HALLWAY BY OUTSIDE DOOR #14 SHORT	5/27/2019				Pb
40	MM-40	FOUNTAIN C WING HALLWAY BY OUTSIDE DOOR #14 TALL	5/28/2019				Pb
41	MM-41	C WING HALLWAY FOUNTAIN NEAR OUTSIDE DOOR #17 SHORT	5/29/2019				Pb
42	MM-42	C WING HALLWAY FOUNTAIN NEAR OUTSIDE DOOR #17 TALL	5/30/2019				Pb
43	MM-43	CAFÉ FOUNTAIN NEAR KITCHEN SHORT	5/31/2019				Pb
44	MM-44	CAFÉ FOUNTAIN NEAR KITCHEN TALL	6/1/2019				Pb
45	MM-45	CAFÉ FOUNTAIN NEAR WINDOWS SHORT	6/2/2019				Pb
46	MM-46	CAFÉ FOUNTAIN NEAR WINDOWS TALL	6/3/2019				Pb
47	MM-47	FOUNTAIN OUTSIDE CAFÉ HALLWAY SHORT	6/4/2019				Pb
48	MM-48	FOUNTAIN OUTSIDE CAFÉ HALLWAY TALL	6/5/2019				Pb
49	MM-49	KITCHEN LEFT SINK	6/6/2019				Pb
50	MM-50	KITCHEN RIGHT SINK	6/7/2019				Pb
51	MM-51	C11 LAB EYEWASH STATION	6/8/2019				Pb
52	MM-52	C12 LAB EYEWASH STATION	6/9/2019				Pb
53	MM-53	TRAILER 3A FOUNTAIN	6/10/2019				Pb
54	MM-54	TRAILER 3B FOUNTAIN	6/11/2019				Pb

Released By: <u>Holly Monger</u>	Date & Time: _____	Signature: _____
Received By: <u>Tariq Mohammed</u>	Date & Time: <u>04/19/2019 @5:00pm</u>	Signature: _____

KH