# JEFFERSON HOUSTON LEAD IN DRINKING WATER JUNE 2024



JEFFERSON HOUSTON IB SCHOOL

1501 CAMERON STREET ALEXANDRIA, VIRGINA 22314

ECS PROJECT NO. 47:11652-E

FOR: ALEXANDRIA CITY PUBLIC SCHOOLS (ACPS)

OCTOBER 7, 2024







Geotechnical • Construction Materials • Environmental • Facilities

October 7, 2024

Mr. John Contreras Alexandria City Public Schools (ACPS) 1340 Braddock Place Alexandria, Virginia 22314 john.contreras@acps.k12.va.us

ECS Project No. 47:11652-E

Reference: Jefferson Houston Lead in Drinking Water June 2024, Jefferson Houston IB School, 1501 Cameron Street, Alexandria, Virgina

Dear Mr. Contreras:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Alexandria City Public Schools (ACPS) with the results of the lead in drinking water sampling performed at Jefferson Houston IB School located at 1501 Cameron Street in Alexandria, Virgina. This report summarizes our observations, analytical results, findings, and recommendations related to the work performed. The work described in this report was performed by ECS in general accordance with the Scope of Services described in ECS Proposal Number 47:16189-EP and the terms and conditions of the agreement authorizing those services.

ECS appreciates this opportunity to provide Alexandria City Public Schools (ACPS) with our services. If we can be of further assistance to you, please do not hesitate to contact us.

Sincerely,

ECS Mid-Atlantic, LLC

Lauren E. Kesslak, CIH, CSP Senior Project Manager LKesslak@ecslimited.com 703-471-8400

Ohn Chyn

Christopher J. Chapman, CIH Director of Industrial Hygiene cchapman@ecslimited.com 703-471-8400

# **TABLE OF CONTENTS**

# PAGE

1.0	PROJEC	T DESCRIPTION	1
2.0	PURPOS	SE	1
3.0	метно	DOLOGY	1
	3.1	Lead and Copper in Drinking Water	1
4.0	RESULT	s	2
	4.1	Lead in Drinking Water	2
	4.2	Copper in Drinking Water	2
5.0	RECOM	MENDATIONS AND REGULATORY REQUIREMENTS	2
	5.1	Lead in Drinking Water	3
	5.2	Copper in Drinking Water	3
6.0	LIMITA	ΓΙΟΝS	4



# TABLE OF APPENDICES

Appendix I: Drawings Appendix II: XRF Lead-Based Paint Readings Appendix III: Laboratory Report(s)



# **1.0 PROJECT DESCRIPTION**

The Jefferson Houston IB School is a three-story school building located at 1501 Cameron Street in Alexandria, Virgina. The building is currently occupied, and is used by Alexandria City Public Schools as a school. The site is located within the City of City of Alexandria and is under the jurisdiction of Environmental Protection Agency (EPA) and Commonwealth of Virginia Code of Regulations for drinking water in schools.

The site receives water from Virginia American Water, which is classified as a public drinking water system by the EPA under the Safe Drinking Water Act (SDWA). Because the site is connected to a public water system, the site is not independently regulated as a water supplier by the EPA.

### 2.0 PURPOSE

The purpose of this water sampling event was to perform periodic re-testing of select drinking water sources within the school. This was not a comprehensive retesting of all drinking water sources in the school.

The EPA created the Lead and Copper Rule under the EPA Safe Drinking Water Act (SDWA). US EPA established a lead action level of 15 ppb (parts per billion) or 15 micrograms per liter ( $\mu$ g/L) and an action level of 1300  $\mu$ g/L for copper.

The Code of Virginia § 22.1-135.1 currently requires Virginia school boards to develop and implement a plan to test, and if necessary, remediate potable water sources identified by the US EPA as a high priority. Each local school board shall submit testing plans and laboratory results to the Department of Health. If potable water sources are detected at or above 10 parts per billion (10  $\mu$ g/L), the school board shall notify parents of such results.

The US EPA's 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (EPA 815-B-18-007) was created to provide recommendations on how to address lead in drinking water in schools and child care facilities. The procedures and response actions outlined in the EPA's 3Ts document are recommendations not requirements. The EPA's 3Ts guidance document does not set action levels for lead in drinking water but it does reference the action levels created for public water systems in the EPA's lead and copper rule (LCR). The results of this water sampling event were compared to the action levels set in the EPA's LCR.

## **3.0 METHODOLOGY**

ECS performed the authorized Scope of Services in general accordance with our proposal, standard industry practice(s) and methods specified by regulation(s) for sampling drinking water.

## 3.1 Lead and Copper in Drinking Water

Sample protocols were performed following the guidance of the US EPA document, *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (EPA 815-B-18-007)*. For each facility, water samples were collected from priority drinking water sources that were previously sampled and shown to have elevated levels of lead within the water.



ECS coordinated the water sampling with ACPS officials, and it is ECS's understanding that all of the water sources sampled were not in use at least eight hours prior to sampling and were flushed by APS at the time they were taken out of service. For this sampling event, ECS attempted to sample 20% of the accessible potable water sources within the building, with a minimum of five samples per building and a minimum of two samples per floor. During sampling, initial draw samples were collected. The samples were collected in 250 mL bottles with a nitric acid preservative. These water bottles were provided to ECS by Maryland Spectral Services, Inc. The water samples were provided with unique identification labels which include the school initials, a sequential number identifier, and sample location identifier.

The collected samples were sealed and transported by courier to Maryland Spectral Services located in Baltimore, Maryland under chain of custody protocol for analysis per EPA Methodology for lead in drinking water.

Please note that efforts were made to collect samples from selected outlets in accordance with the methodology described above.

# 4.0 RESULTS

The following is a summary of laboratory results, findings and observations.

# 4.1 Lead in Drinking Water

The samples collected did not exceed the Commonwealth of Virginia action level of 10  $\mu$ g/L. In total, twenty six (26) water samples were collected from the building. A table of the collected samples and the associated analytical results can be found in the appendices. Please note that the analytical results displayed in the table have been converted to  $\mu$ g/L (PPB) for easy reference. A copy of the laboratory analytical results and chain of custody are attached to this report. A sketch identifying the approximate location of each water sample can also be found in the appendices.

## 4.2 Copper in Drinking Water

None of the samples collected were reported to have concentrations above the EPA and VA action level of 1300  $\mu$ g/L. In total, twenty six (26) water samples were collected from the building. A table of the collected samples and the associated analytical results can be found in the appendices. Please note that the analytical results displayed in the table have been converted to  $\mu$ g/L (PPB) for easy reference. A copy of the laboratory analytical results and chain of custody are attached to this report. A sketch identifying the approximate location of each water sample can also be found in the appendices.

## **5.0 RECOMMENDATIONS AND REGULATORY REQUIREMENTS**

Based on our understanding of the purpose of the Jefferson Houston Lead in Drinking Water June 2024, the results of laboratory analysis, and our findings and observations, ECS presents the following recommendations.



# 5.1 Lead in Drinking Water

The sample results were below the action level, and no further testing or remediation is indicated at this time.

No specific time frame is given in which follow-up testing for the schools needs to be performed. As good practice, ECS recommends performing follow-up periodic testing every three years. If additional guidelines or regulations are enacted at a state or federal level, the frequency of testing should be modified to reflect these changes.

In the US EPA 3Ts document, routine control measures are recommended as general good practice for over-all drinking water safety. The routine control measures that should be conducted to prevent exposure to elevated levels of lead, include the following:

- Clean debris from all accessible screens frequently. If you discovered sediments in faucet screens, have the sediments tested for lead and continue to clean your screens frequently, even if the analysis finds no lead.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- Instruct the users (students and staff) to run the water before drinking or staff could run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Placard bathroom sinks with notices that water should not be consumed. You should use pictures if there are small children using bathrooms.
- US EPA recommends public notification of the findings of this sample event to the public and school staff. EPA has described different procedures for dissemination of this information which are described in Section III.6 of the 3 Ts document. The school should review the different methods described and choose the most appropriate method for the school.

# 5.2 Copper in Drinking Water

The sample results were below the action level, and no further testing or remediation is indicated at this time.

No specific time frame is given in which follow-up testing for the schools needs to be performed. As good practice, ECS recommends performing follow-up periodic testing every three years. If additional guidelines or regulations are enacted at a state or federal level, the frequency of testing should be modified to reflect these changes.

In the US EPA 3Ts document, routine control measures are recommended as general good practice for over-all drinking water safety. The routine control measures that should be conducted to prevent exposure to elevated levels of lead, include the following:

• Clean debris from all accessible screens frequently. If you discovered sediments in faucet screens, have the sediments tested for lead and continue to clean your screens frequently, even if the analysis finds no lead.



- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- Instruct the users (students and staff) to run the water before drinking or staff could run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Placard bathroom sinks with notices that water should not be consumed. You should use pictures if there are small children using bathrooms.
- US EPA recommends public notification of the findings of this sample event to the public and school staff. EPA has described different procedures for dissemination of this information which are described in Section III.6 of the 3 Ts document. The school should review the different methods described and choose the most appropriate method for the school.

# 6.0 LIMITATIONS

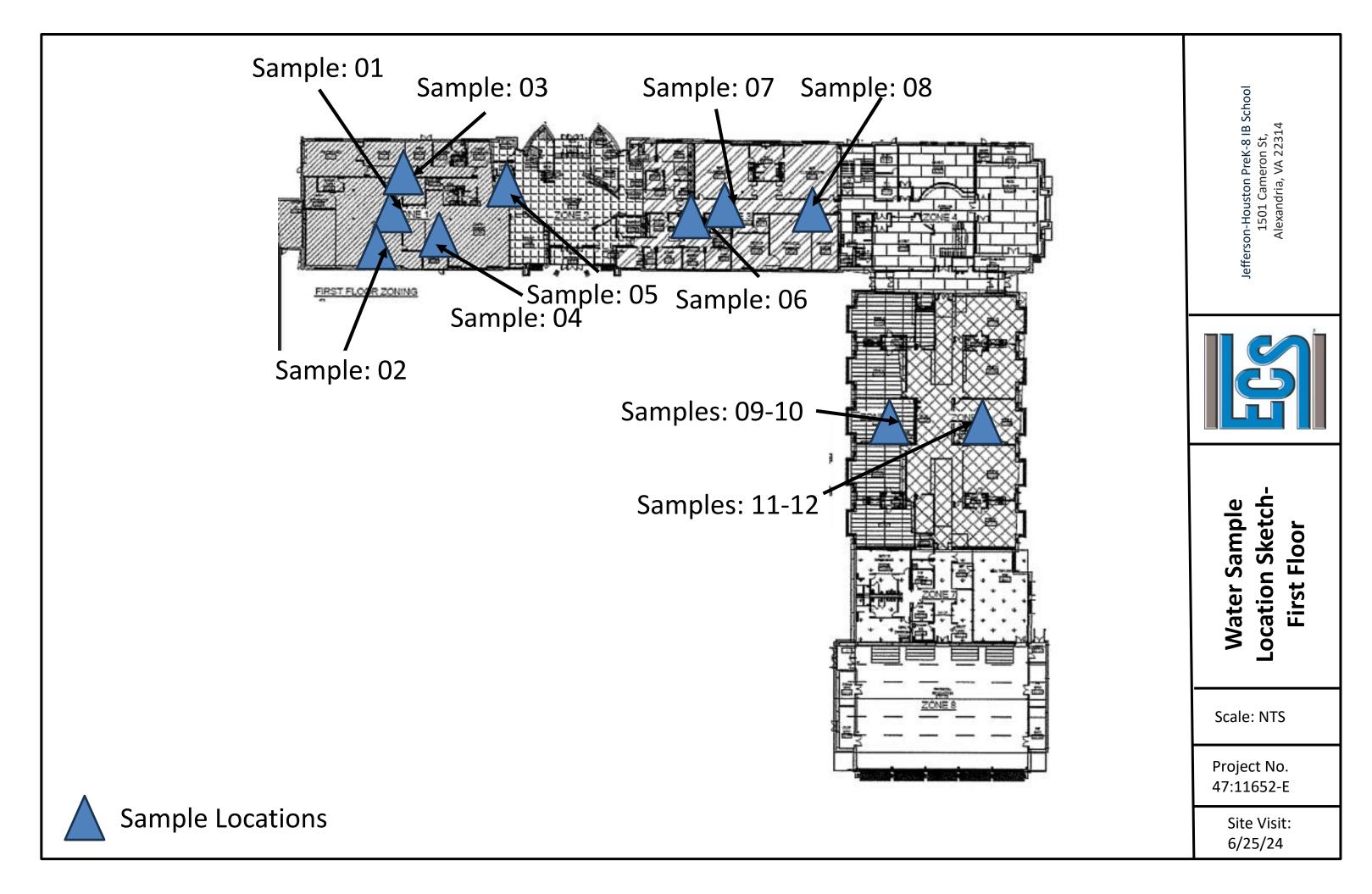
The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

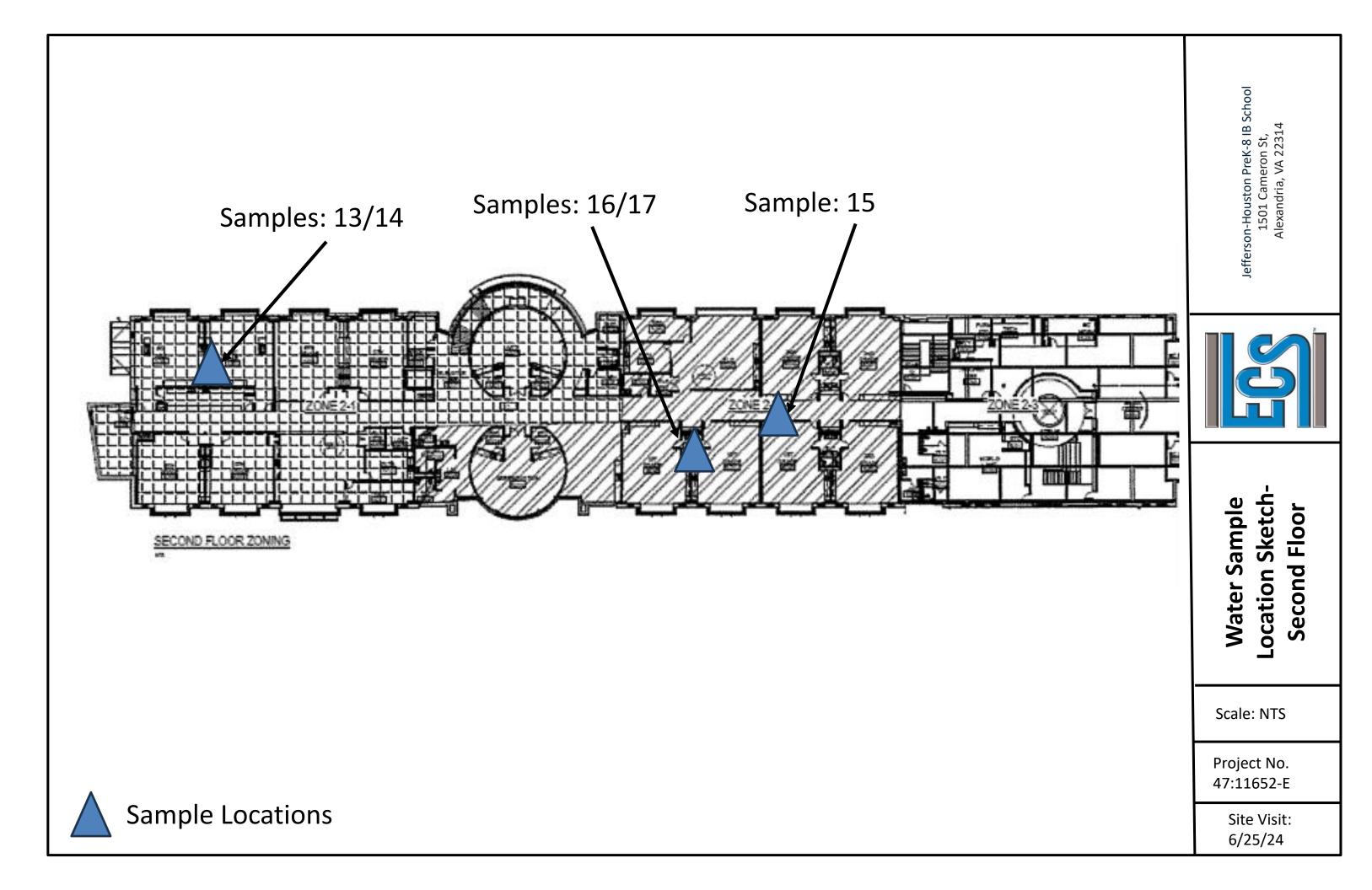
The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of the client. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and the client.

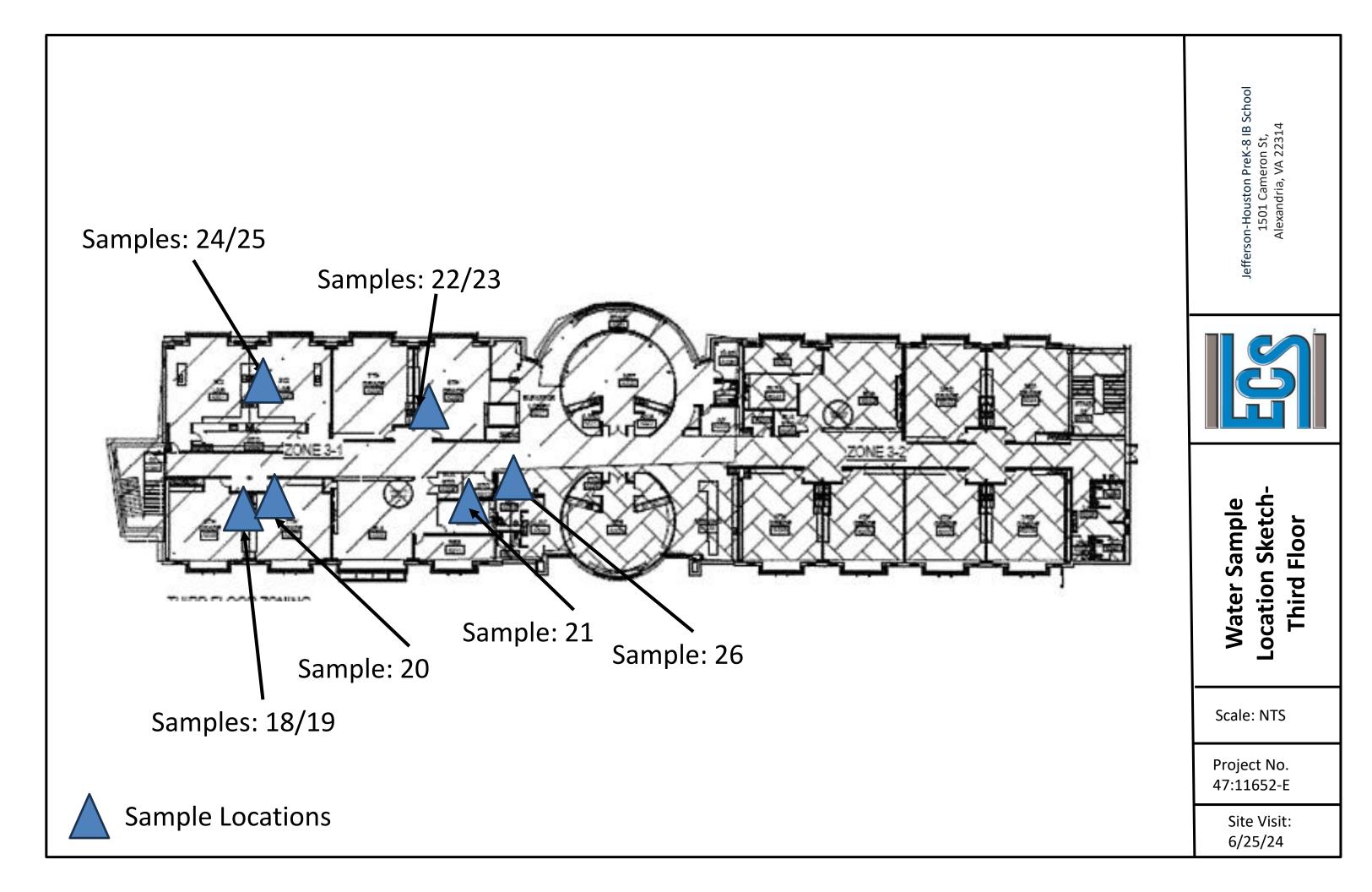
Our recommendations are in part based on federal, state, and local regulations and guidelines. ECS does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies, any conditions at the site that may present a potential danger to public health, safety, or the environment. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.



# **Appendix I: Drawings**







# Appendix II: XRF Lead-Based Paint Readings



Jefferson Houston Alexandria City Public Schools ECS Project No. 47:11652-E Site Visit: June 25th, 2024

Copper and	Lead Drinking Water Results Tab	le
Sample Number	Copper Result (µg/L)	Lead Result (µg/L)
4081519-01	185	2.08
4081519-02	185	ND
4081519-03	307	ND
4081519-04	300	4.92
4081519-05	264	ND
4081519-06	247	ND
4081519-07	908	ND
4081519-08	506	ND
4081519-09	276	ND
4081519-10	411	ND
4081519-11	272	ND
4081519-12	329	ND
4081519-13	259	ND
4081519-14	345	ND
4081519-15	321	ND
4081519-16	246	ND
4081519-17	301	ND
4081519-18	312	ND



Jefferson Houston Alexandria City Public Schools ECS Project No. 47:11652-E Site Visit: June 25th, 2024

Sample Number	Copper Result (µg/L)	Lead Result (µg/L)							
4081529-19	388	ND							
4081519-20	367	ND							
4081519-21	399	1.60							
4081519-22	233	ND							
4081519-23	339	ND							
4081519-24	265	ND							
4081519-25	364	ND							
4081519-26	435	ND							
The EPA's Lead and Copper Rule set an action level of 15 μg/L for lead and an action level of 1300 μg/L for copper. Note these levels are related to public water systems (PWSs). The Code of Virginia requires school									

boards notify parents if testing results exceed 10  $\mu$ g/L of Lead (Pb).

# Appendix III: Laboratory Report(s)

Analytical Chemistry Services



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com MD DW LabID 153

26 August 2024

Lauren Kesslak ECS-Chantilly 14026 Thunderbolt Place, Suite 100 Chantilly, VA 20151 RE: ACPS- Jefferson Houston

Enclosed are the results of analyses for samples received by the laboratory on 08/15/24 14:30.

Please visit our website at www.mdspectral.com for a complete listing of our accreditations.

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

Sincerely,

Withingto

Will Brewington President



# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1		4081519-01	Drinking Water	06/25/24 06:01	08/15/24 14:30
2		4081519-02	Drinking Water	06/25/24 06:02	08/15/24 14:30
3		4081519-03	Drinking Water	06/25/24 06:03	08/15/24 14:30
4		4081519-04	Drinking Water	06/25/24 06:05	08/15/24 14:30
5		4081519-05	Drinking Water	06/25/24 06:06	08/15/24 14:30
6		4081519-06	Drinking Water	06/25/24 06:08	08/15/24 14:30
7		4081519-07	Drinking Water	06/25/24 06:09	08/15/24 14:30
8		4081519-08	Drinking Water	06/25/24 06:11	08/15/24 14:30
9		4081519-09	Drinking Water	06/25/24 06:13	08/15/24 14:30
10		4081519-10	Drinking Water	06/25/24 06:14	08/15/24 14:30
11		4081519-11	Drinking Water	06/25/24 06:16	08/15/24 14:30
12		4081519-12	Drinking Water	06/25/24 06:17	08/15/24 14:30
13		4081519-13	Drinking Water	06/25/24 06:20	08/15/24 14:30
14		4081519-14	Drinking Water	06/25/24 06:21	08/15/24 14:30
15		4081519-15	Drinking Water	06/25/24 06:24	08/15/24 14:30
16		4081519-16	Drinking Water	06/25/24 06:26	08/15/24 14:30
17		4081519-17	Drinking Water	06/25/24 06:27	08/15/24 14:30
18		4081519-18	Drinking Water	06/25/24 06:30	08/15/24 14:30
19		4081519-19	Drinking Water	06/25/24 06:31	08/15/24 14:30
20		4081519-20	Drinking Water	06/25/24 06:33	08/15/24 14:30
21		4081519-21	Drinking Water	06/25/24 06:34	08/15/24 14:30
22		4081519-22	Drinking Water	06/25/24 06:37	08/15/24 14:30
23		4081519-23	Drinking Water	06/25/24 06:38	08/15/24 14:30
24		4081519-24	Drinking Water	06/25/24 06:40	08/15/24 14:30
25		4081519-25	Drinking Water	06/25/24 06:41	08/15/24 14:30

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Will Brewington, President

**Reported:** 08/26/24 11:06



# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak Reported:

08/26/24 11:06

Client Sample ID	Alterna
•	

26

Alternate Sample ID

Laboratory ID 4081519-26 Matrix Drinking Water **Date Sampled** 06/25/24 06:45

Date Received 08/15/24 14:30



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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

1

#### 4081519-01 (Drinking Water) Sampled on: 06/25/24 06:01

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	185		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:29	AWH		
Lead	2.08		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:29	AWH		

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Page 4 of 33

**Reported:** 



# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

2

#### 4081519-02 (Drinking Water) Sampled on: 06/25/24 06:02

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	185		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:31	AWH		
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:31	AWH		

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Page 5 of 33

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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

3

#### 4081519-03 (Drinking Water) Sampled on: 06/25/24 06:03

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	307		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:33	AWH		
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:33	AWH		

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Page 6 of 33

Reported:



# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

4

#### 4081519-04 (Drinking Water) Sampled on: 06/25/24 06:05

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	300		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:38	AWH		
Lead	4.92		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:38	AWH		

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Page 7 of 33

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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

5

#### 4081519-05 (Drinking Water) Sampled on: 06/25/24 06:06

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	264		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:39	AWH		
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:39	AWH		

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Page 8 of 33

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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

6

#### 4081519-06 (Drinking Water) Sampled on: 06/25/24 06:08

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	247		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:41	AWH		
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:41	AWH		

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Page 9 of 33

MD DW LabID 153

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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

7

#### 4081519-07 (Drinking Water) Sampled on: 06/25/24 06:09

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst		
Total Metals Analysis by EPA 200.8DW Prepared by 200.8-No Digestion Metals											
Copper	908		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:43	AWH		
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:43	AWH		

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Page 10 of 33



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Project Number: 47:11652-E Project Manager: Lauren Kesslak

8

#### 4081519-08 (Drinking Water) Sampled on: 06/25/24 06:11

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	506		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:44	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:44	AWH

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Page 11 of 33



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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

9

#### 4081519-09 (Drinking Water) Sampled on: 06/25/24 06:13

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	DW Prepared	by 200.8-	No Digestio	n Metals					
Copper	276		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:46	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:46	AWH

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Page 12 of 33



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# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

10

#### 4081519-10 (Drinking Water) Sampled on: 06/25/24 06:14

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	411		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:47	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:47	AWH

Withinte

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Page 13 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

11

#### 4081519-11 (Drinking Water) Sampled on: 06/25/24 06:16

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-I	No Digestio	n Metals					
Copper	272		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:49	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:49	AWH

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Page 14 of 33



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08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

12

#### 4081519-12 (Drinking Water) Sampled on: 06/25/24 06:17

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	329		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:51	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:51	AWH

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Page 15 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

13

#### 4081519-13 (Drinking Water) Sampled on: 06/25/24 06:20

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-1	No Digestio	n Metals					
Copper	259		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:52	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:52	AWH

Withinte

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Will Brewington, President

Page 16 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

14

#### 4081519-14 (Drinking Water) Sampled on: 06/25/24 06:21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	345		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:57	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:57	AWH

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Will Brewington, President

Page 17 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

15

#### 4081519-15 (Drinking Water) Sampled on: 06/25/24 06:24

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	DW Prepared	by 200.8-	No Digestio	n Metals					
Copper	321		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:59	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 20:59	AWH

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Will Brewington, President

Page 18 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

16

#### 4081519-16 (Drinking Water) Sampled on: 06/25/24 06:26

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	246		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:01	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:01	AWH

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Will Brewington, President

Page 19 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

17

#### 4081519-17 (Drinking Water) Sampled on: 06/25/24 06:27

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	DW Prepared	by 200.8-N	No Digestio	n Metals					
Copper	301		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:02	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:02	AWH

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Will Brewington, President

Page 20 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

18

### 4081519-18 (Drinking Water) Sampled on: 06/25/24 06:30

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	312		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:04	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:04	AWH

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Will Brewington, President

Page 21 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

19

### 4081519-19 (Drinking Water) Sampled on: 06/25/24 06:31

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	DW Prepared	by 200.8-1	No Digestio	n Metals					
Copper	388		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:05	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:05	AWH

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Will Brewington, President

Page 22 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

20

### 4081519-20 (Drinking Water) Sampled on: 06/25/24 06:33

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	367		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:07	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:07	AWH

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Page 23 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

21

### 4081519-21 (Drinking Water) Sampled on: 06/25/24 06:34

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	399		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:09	AWH
Lead	1.60		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:09	AWH

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Will Brewington, President

Page 24 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

22

### 4081519-22 (Drinking Water) Sampled on: 06/25/24 06:37

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-l	No Digestio	n Metals					
Copper	233		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:10	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:10	AWH

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Will Brewington, President

Page 25 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

23

### 4081519-23 (Drinking Water) Sampled on: 06/25/24 06:38

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.81	<b>OW Prepared</b>	by 200.8-	No Digestio	n Metals					
Copper	339		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:12	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:12	AWH

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Will Brewington, President

Page 26 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

24

### 4081519-24 (Drinking Water) Sampled on: 06/25/24 06:40

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	DW Prepared	by 200.8-	No Digestio	n Metals					
Copper	265		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:24	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:24	AWH

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Will Brewington, President

Page 27 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

25

### 4081519-25 (Drinking Water) Sampled on: 06/25/24 06:41

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	BDW Prepared	by 200.8-	No Digestio	n Metals					
Copper	364		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:25	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:25	AWH

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Page 28 of 33



**Reported:** 

08/26/24 11:06

# **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

26

### 4081519-26 (Drinking Water) Sampled on: 06/25/24 06:45

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8	DW Prepared	by 200.8-1	No Digestio	n Metals					
Copper	435		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:27	AWH
Lead	ND		ug/L	1.00	1.00	1	08/19/24	08/19/24 21:27	AWH

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Page 29 of 33



### **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak **Reported:** 

08/26/24 11:06

# Total Metals Analysis by EPA 200.8DW - Quality Control

		R	leporting		Spike	Source		%REC		RPD
Analyte	Result	Notes	Limit	Units	Level	Result	%REC	Limits	RPD	Limit
Batch B408506 - 200.8-No Digestion	n Metals									
Blank (B408506-BLK1)				]	Prepared &	Analyzed:	08/19/24			
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B408506-BLK2)				]	Prepared &	Analyzed:	08/19/24			
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B408506-BLK3)				]	Prepared &	Analyzed:	08/19/24			
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B408506-BLK4)				]	Prepared &	Analyzed:	08/19/24			
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
LCS (B408506-BS1)				]	Prepared &	Analyzed:	08/19/24			
Copper	11.1		1.00	ug/L	10.00		111	85-115		
Lead	11.2		1.00	ug/L	10.00		112	85-115		
LCS (B408506-BS2)				]	Prepared &	Analyzed:	08/19/24			
Copper	11.4		1.00	ug/L	10.00		114	85-115		
Lead	11.6	S-98	1.00	ug/L	10.00		116	85-115		
LCS (B408506-BS3)				]	Prepared &	Analyzed:	08/19/24			
Copper	11.1		1.00	ug/L	10.00		111	85-115		
Lead	11.5		1.00	ug/L	10.00		115	85-115		
LCS (B408506-BS4)				]	Prepared &	z Analyzed:	08/19/24			
Copper	11.0		1.00	ug/L	10.00		110	85-115		
Lead	11.3		1.00	ug/L	10.00		113	85-115		

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Page 30 of 33



### **Project: ACPS- Jefferson Houston**

Project Number: 47:11652-E Project Manager: Lauren Kesslak

# Reported:

08/26/24 11:06

# Total Metals Analysis by EPA 200.8DW - Quality Control

Analyte	Result	Notes	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B408506 - 200.8-No Digestion										
Duplicate (B408506-DUP1)		Source	: 4081519-01	]	Prepared &	Analyzed:	08/19/24			
Copper	186		1.00	ug/L		185			0.6	20
Lead	1.84		1.00	ug/L		2.08			12	20
Duplicate (B408506-DUP2)		Source	: 4081519-11	]	Prepared &	Analyzed:	08/19/24			
Copper	269		1.00	ug/L		272			1	20
Lead	ND		1.00	ug/L		ND				20
Duplicate (B408506-DUP3)		Source	: 4081519-21	]	Prepared &	Analyzed:	08/19/24			
Copper	393		1.00	ug/L		399			2	20
Lead	1.60		1.00	ug/L		1.60			0.1	20
Duplicate (B408506-DUP4)		Source	: 4081520-01	1	Prepared &	Analyzed:	08/19/24			
Copper	273		1.00	ug/L		273			0.05	20
Lead	1.13		1.00	ug/L		1.10			3	20
Matrix Spike (B408506-MS1)		Source	: 4081519-01	1	Prepared &	Analyzed:	08/19/24			
Copper	198		1.00	ug/L	10.00	185	124	70-130		
Lead	12.6		1.00	ug/L	10.00	2.08	105	70-130		
Matrix Spike (B408506-MS2)		Source	: 4081519-11	]	Prepared &	Analyzed:	08/19/24			
Copper	282		1.00	ug/L	10.00	272	102	70-130		
Lead	11.2		1.00	ug/L	10.00	ND	112	70-130		
Matrix Spike (B408506-MS3)		Source	: 4081519-21	]	Prepared &	Analyzed:	08/19/24			
Copper	407		1.00	ug/L	10.00	399	84	70-130		
Lead	12.6		1.00	ug/L	10.00	1.60	110	70-130		
Matrix Spike (B408506-MS4)		Source	: 4081520-01	]	Prepared &	Analyzed:	08/19/24			
Copper	283		1.00	ug/L	10.00	273	104	70-130		
Lead	13.2		1.00	ug/L	10.00	1.10	121	70-130		

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**Reported:** 

08/26/24 11:06

**Project: ACPS- Jefferson Houston** 

Project Number: 47:11652-E Project Manager: Lauren Kesslak

**Notes and Definitions** 

S-98	Spike recovery outside of established control limits.

- RE Sample reanalyses are done at the laboratory's discretion as a mechanism to improve data quality. Any client requested reanalysis will be identified with a sample qualifier.
- ND Analyte NOT DETECTED at or above the reporting limit
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- %-Solids Percent Solids is a supportive test and as such does not require accredidation

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Will Brewington, President

Company Name: ECS Mid-Atlan	Project Manager:Lauren Kesslak								Analysis Requested						CHAIN-OF-CUSTODY RECORD						
Project Name: 47:11652-E ACP3 Houston Lead and Copper in Dr		Project Houstor	n					son											Maryland Spectral Service: 1500 Caton Center Drive, S Bałtimore, MD 21227 410-247-7600 * Fax 410-24	uite G	
Sampler(s): Zach Harrell	P.O. Nu	P.O. Number: 47:11652-E																reporting@mdspectral.c			
State of Origin: VA																	Matrix Codes:				
Fiełd Sample ID:	Date	Time	DW	NPW	Soil	Other	Grab	8	# of containers								Preservative		Field Notes	MSS Lab ID	
1	6/25/2024	6:01				Τ				_								Кі	tchen Dish Wash Sink -Left	4081519-01	
2	6/25/2024			1		<b>_</b>												1	Kitchen Food Wash Sink	-02	
3	6/25/2024			1	1	1			-			<u> </u>		1					Kitchen Handwash Sink	-03	
						+				-									Cafeteria Handwash	- 54	
4	6/25/2024	-			1	+				+	$\square$								Cafeteria Bubbler	-05	
5	6/25/2024								_		-	-								-00	
6	6/25/2024			1.															110 Pantry Sink	-07	
7	6/25/2024	6:09	·		-					_	$\vdash$			┣──					110 Bathroom Sink	10	
8	6/25/2024	6:11	-	ļ		<u> </u>					-							1st Fl	Hall-Across from 129 Bottle Fill	-08	
9	6/25/2024	6:13	_	ļ				┝		_									139 Sink	· · · · · · · · · · · · · · · · · · _	
10	6/25/2024	6:14		ļ				ļ					L			ļ			139 Bubbler	-10	
11	6/25/2024	6:16	<b></b>	ļ					_		<u> </u>		ļ						142 Sink	-11	
12	6/25/2024	1	1	<u> </u>	-	<u> </u>	<u> </u>				–			-					142 Bubbler	-12	
13	6/25/2024		<u> </u>	+		+			_		+		<u> </u>	-					224 Sink 224 Bubbler	-13	
<u>14</u> 15	6/25/2024	1		+	╉──			+		-	+							20/	F Hall Bubbler Next to 232	-15	
36	6/25/2024	1		+	+	+				-	+			1					220 Sink	~/6	
17	6/25/2024	1		1	1	1										<u> </u>			220 Bubbler	-17	
18	6/25/2024	1	1		1	1										<b>[</b>			320 Sink	-18	
19	6/25/2024	1																	320 Bubbier	-19	
20	6/25/2024		-																318 Bubbler		
21	6/25/2024		_	+	+														323 Sink 324 Sink	- 71	
23	6/25/2024				+		1												324 Bubbler	-23	
24	6/25/2024		-		1	<u> </u>						<u> </u>							322 Sink 322 Bubbler	- 7.4	
25	6/25/2024			-	1		<u> </u>				+					·····		3rd	322 Bubbler Fi Hall- Bottle Fill next to 310	27	
Relinquisher by: (Signature)	0/23/2024 Date /			nquis	shed	by: (Si	ignati	ure)	1	PI	ease	indic	ate i	if any	/ of	0	Virginia VEL		<u>ت</u>	MD Drinking Water	
1										the	follo	wing	cert	tifica	tions	O	Pennsylvani	a NELAP	0	VA Drinking Water	
(Printed)	1		(Prir	nted)						-	a	re rec	quire	ed:			West Virgin		0	Other	
				0				<u> </u>		Tur		und					Delivery Me	thod:	Lab Use: Temp: <u>23.6</u> °C		
Relinquished by: (Signature)	Date /	lime 17d	Ren	1 Xn	by la	av (si	arel D	K.				rmal (	(7 da	iy)			Courier		Temp: <u>25-0</u> °C	C Received on Ice	
(trinted)	8/15/24 10000								⊡ 5 day ⊡ 4 day							Client			Received on Ice     Received Same Day		
(Printed)	14:	3Ò		K(.	20	N.	øľ	Hi	m		4 d 3 d	•					UPS Fed Ex			I Received Same Day	
Special Instructions / QC Requir			<u> </u>	~			<u>v</u> (	1.0	., -			ay sh (2 c	dav)						Sample Disposal:		
special manocions y de negul	ementa ot et											kt Day					D Other_		Comple Disposon	Return to Client	
												ier: _								Disposal by lab	
											Spe								1	Archive for days	