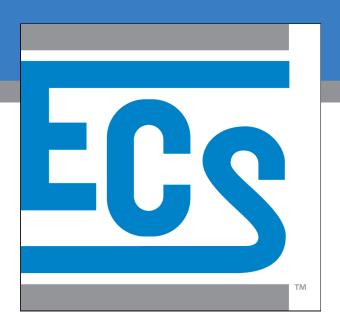
FERDINAND T. DAY WATER SAMPLING JUNE 2022



FERDINAND T. DAY ELEMENTARY SCHOOL

1701 N BEAUREGARD ST. ALEXANDRIA, VIRGINIA 22311

ECS PROJECT NO. 47:11652-E

FOR: ALEXANDRIA CITY PUBLIC SCHOOLS

JULY 28, 2022





Geotechnical • Construction Materials • Environmental • Facilities

July 28, 2022

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

ECS Project No. 47:11652-E

Reference: Ferdinand T. Day Water Sampling June 2022, Ferdinand T. Day Elementary School, 1701 N Beauregard St., Alexandria, Virginia

Dear Mr. Contreras:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Alexandria City Public Schools with the results of the water sampling performed at Ferdinand T. Day Elementary School located at 1701 N Beauregard St. in Alexandria, Virginia. 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 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 Environmental Senior Project Manager Ikesslak@ecslimited.com

703-471-8400

Christopher J. Chapman, CIH Director of Industrial Hygiene cchapman@ecslimited.com 804-353-6333

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1.0 PROJECT DESCRIPTION

The Ferdinand T. Day Elementary School is a four-story school building located at 1701 N Beauregard St. in Alexandria, Virginia. The building is currently occupied, and is used by Alexandria City Public Schools (ACPS) as a school. The site is located within Alexandria and is under the jurisdiction of the City of Alexandria, Virginia, federal Environmental Protection Agency (EPA), and Commonwealth of Virginia - Code of Regulations for drinking water.

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 provide periodic - proactive re-testing of select drinking water sources within the school. This was not a comprehensive sampling of all potable drinking water sources in the school.

US EPA created the Lead and Copper Rule under the Safe Drinking Water Act (SDWA). US EPA established a lead action level of 15 ppb (parts per billion) or 0.015 milligrams per liter (mg/L).

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 (0.010 mg/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 LCR. The results of this water sampling event will be 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. ACPS personnel granted ECS access to the building. 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. Some areas within the building were locked. ECS was not able to sample outlets in the locked areas.

4.0 RESULTS

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

4.1 Lead in Drinking Water

None of the water samples collected were reported to have concentrations above the EPA lead action level of 0.015 mg/L or the Commonwealth of Virginia action level of 0.01 mg/L. In total, twenty (20) 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 mg/L (PPM) 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 water samples collected were reported to have concentrations above the EPA copper action level of 1.3 mg/L (PPM). In total, twenty (20) 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 mg/L (PPM) 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 Ferdinand T. Day Water Sampling June 2022, 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

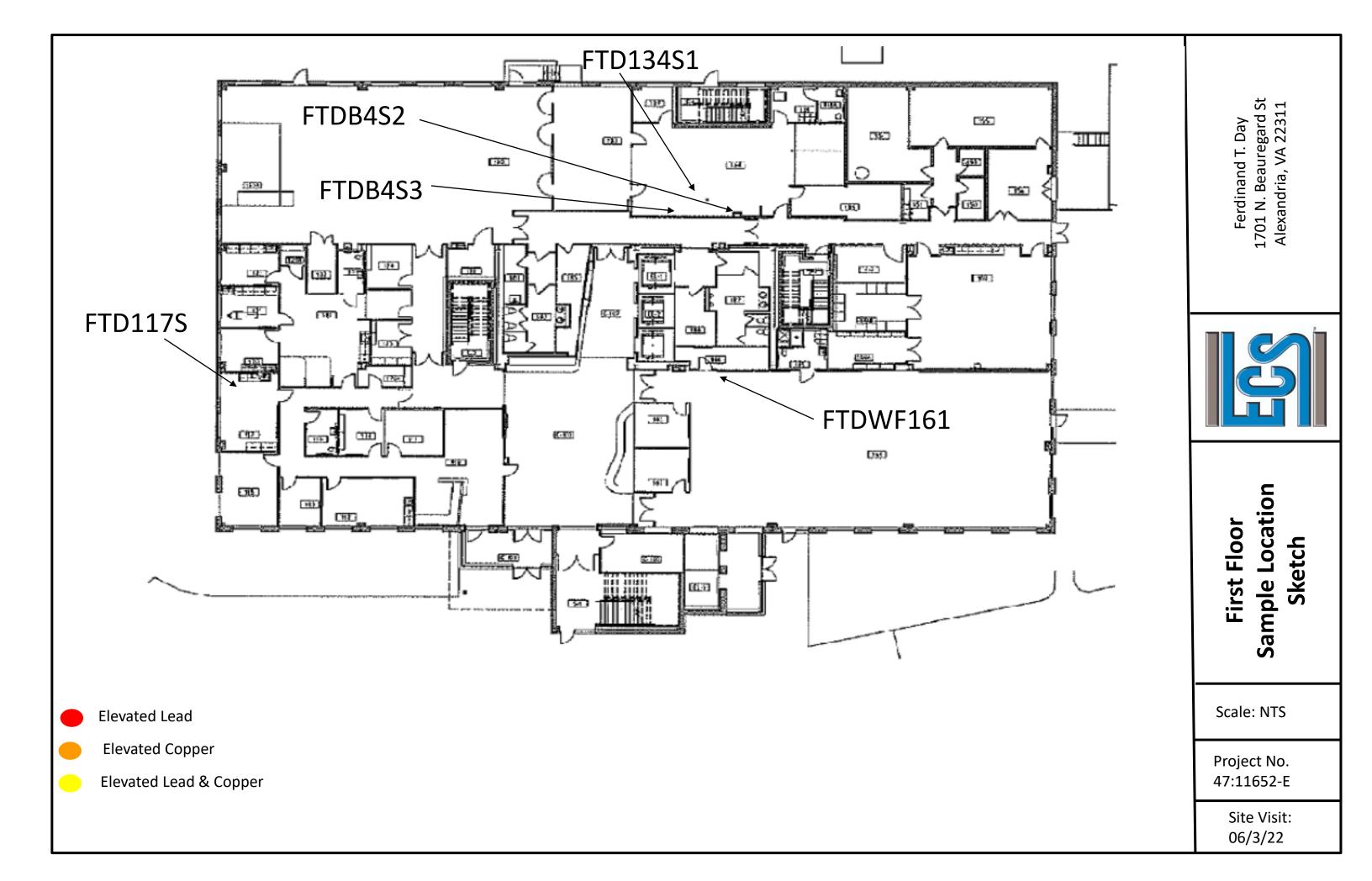
The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards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

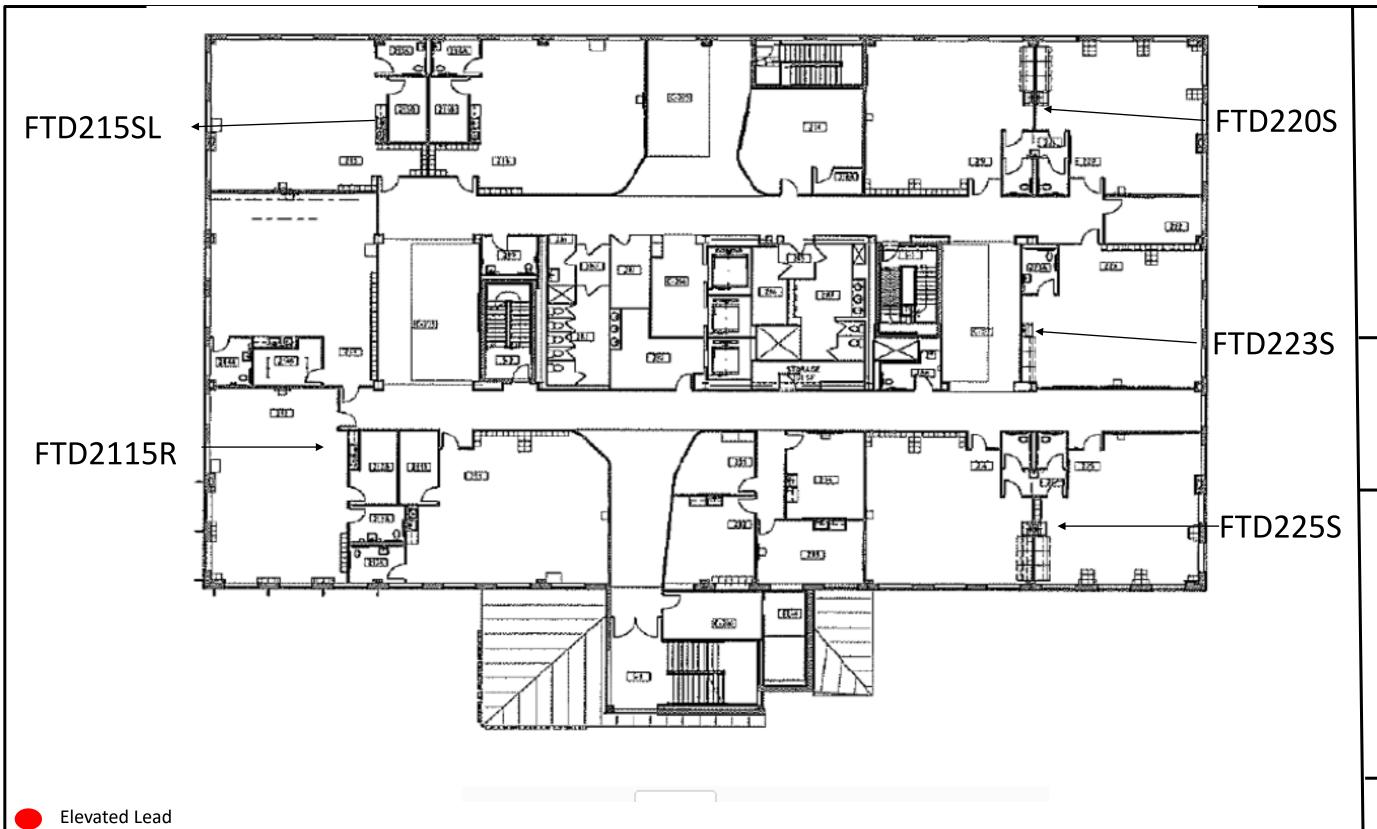
The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and 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





Elevated Copper

Elevated Lead & Copper

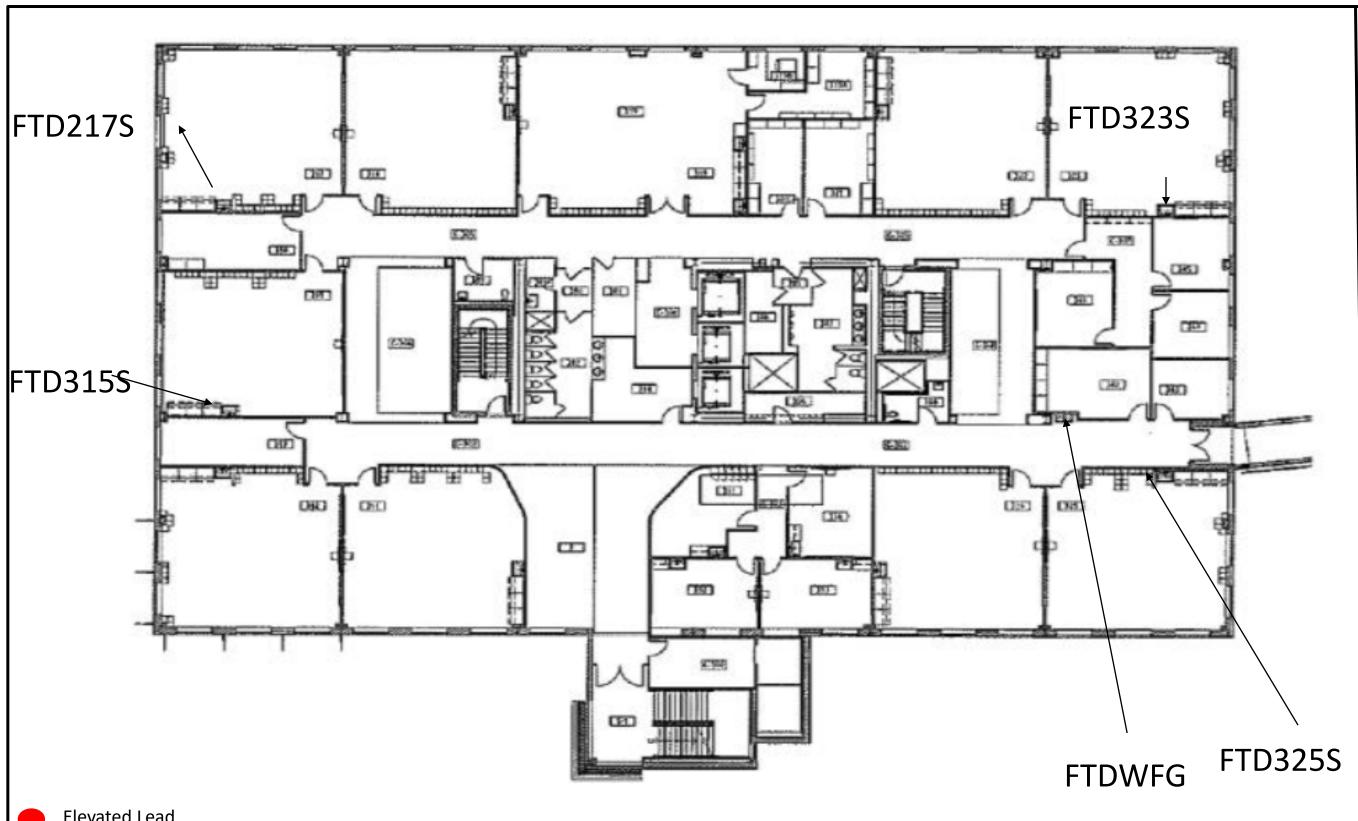
Ferdinand T. Day 1701 N. Beauregard St Alexandria, VA 22311

Second Floor Sample Location Sketch

Scale: NTS

Project No. 47:11652-E

Site Visit: 06/3/22



Ferdinand T. Day 1701 N. Beauregard St Alexandria, VA 22311



Sample Location **Third Floor** Sketch

Scale: NTS

Project No. 47:11652-E

> Site Visit: 06/3/22

Elevated Lead

Elevated Copper

Elevated Lead & Copper

Ferdinand T. Day 1701 N. Beauregard St Alexandria, VA 22311



Fourth Floor Sample Location Sketch

Scale: NTS

Project No. 47:11652-E

Site Visit: 06/3/22

Elevated Lead

Elevated Copper

Elevated Lead & Copper



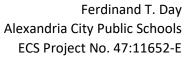
Appendix II: Sample Table



Charles Barrett Elementary School Copper and Lead Drinking Water Results Table											
Sample Number	Copper Result (mg/L)	Lead Result (mg/L)									
FTD117S	0.264	<0.001									
FTD134S1	0.134	<0.001									
FTD134S2	0.101	<0.001									
GWCS4	0.132	<0.001									
FTD134S3	0.217	<0.001									
FTDWF161	0.283	<0.001									
FTD215SL	0.263	<0.001									
FTD211SR	0.195	<0.001									
FTD220S	0.152	<0.001									
FTD223S	0.177	<0.001									
FTD25S	0.245	<0.001									
FTD317S	0.464	<0.001									
FTD315S	0.075	0.004									
FTDWFG	0.211	<0.001									
FTD325S	0.472	<0.001									
FTD323S	0.313	<0.001									
FTD415S	0.283	<0.001									
FTD412S	0.382	<0.001									
FTD418S	0.236	0.005									

Table Notes:

Red = Above the EPA Action Level
Orange = Above the VA Action Level





Site Visit: June 9, 2022

Sample Number	Copper Result (mg/L)	Lead Result (mg/L)
FTD421S	0.610	<0.001
FTD420S	0.290	0.006

The EPA's Lead and Copper Rule set an action level of 0.015 mg/L for lead and an action level of 1.3 mg/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 0.01 mg/L of Lead (Pb).

Appendix III: Laboratory Report(s)



14 June 2022

Lauren Kesslak
ECS-Chantilly
14026 Thunderbolt Place, Suite 100
Chantilly, VA 20151

RE: ACPS PERIODIC WATER MONITORING-FERDINAND T. DAY

Enclosed are the results of analyses for samples received by the laboratory on 06/06/22 13:15.

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,

Will Brewington

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President



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FTD117S		2060604-01	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD134S1		2060604-02	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD134S2		2060604-03	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD134S3		2060604-04	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTDWF161		2060604-05	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD215SL		2060604-06	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD211SR		2060604-07	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD220S		2060604-08	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD223S		2060604-09	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD25S		2060604-10	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD317S		2060604-11	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD315S		2060604-12	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTDWFG		2060604-13	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD325S		2060604-14	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD323S		2060604-15	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD415S		2060604-16	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD412S		2060604-17	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD418S		2060604-18	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD421S		2060604-19	Drinking Water	06/03/22 00:00	06/06/22 13:15
FTD420S		2060604-20	Drinking Water	06/03/22 00:00	06/06/22 13:15

Willesseyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD117S

2060604-01 (Drinking Water) Sample Date: 06/03/22

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 06/10/22 06/10/22 20:37 VVD													
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:37	VVD				

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD134S1

2060604-02 (Drinking Water) Sample Date: 06/03/22

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	134		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:38	VVD				
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:38	VVD				

Will Buyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD134S2

2060604-03 (Drinking Water) Sample Date: 06/03/22

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 101 ug/L 1.00 1.00 1 06/10/22 06/10/22 20:40 VVD													
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:40	VVD				

Will Buyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD134S3

2060604-04 (Drinking Water) Sample Date: 06/03/22

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	132		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:42	VVD				
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:42	VVD				

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTDWF161

2060604-05 (Drinking Water) Sample Date: 06/03/22

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 217 ug/L 1.00 1.00 1 06/10/22 06/10/22 20:43 VVD													
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:43	VVD				

Will Buyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD215SL

2060604-06 (Drinking Water) Sample Date: 06/03/22

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 283 ug/L 1.00 1.00 1 06/10/22 06/10/22 20:45 VVD													
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:45	VVD				

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD211SR

2060604-07 (Drinking Water) Sample Date: 06/03/22

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 263 ug/L 1.00 1.00 1 06/10/22 06/10/22 20:50 VVD													
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:50	VVD				

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD220S

2060604-08 (Drinking Water) Sample Date: 06/03/22

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 195 ug/L 1.00 1.00 1 06/10/22 06/10/22 20:51 VVD													
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:51	VVD				

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD223S

2060604-09 (Drinking Water) Sample Date: 06/03/22

				Reporting	Detection	•	•		·
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.8-	No Digestion	n Metals					
Copper	152		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:53	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 20:53	VVD

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD25S

2060604-10 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.81	DW Prepared	by 200.8-	No Digestio	n Metals					
Copper	177		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:01	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:01	VVD

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD317S

2060604-11 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8DV	V Prepared	by 200.8-	No Digestion	n Metals					
Copper	245		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:03	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:03	VVD

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD315S

2060604-12 (Drinking Water) Sample Date: 06/03/22

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	464		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:04	VVD	
Lead	4.46		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:04	VVD	

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTDWFG

2060604-13 (Drinking Water) Sample Date: 06/03/22

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 Digestion	n Metals					
Copper	74.7		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:09	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:09	VVD

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD325S

2060604-14 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.81	OW Prepared	by 200.8	No Digestion	n Metals					
Copper	211		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:11	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:11	VVD

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD323S

2060604-15 (Drinking Water) Sample Date: 06/03/22

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 Digestion	n Metals					
Copper	472		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:12	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:12	VVD

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD415S

2060604-16 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8I	OW Prepared	by 200.8-	No Digestio	n Metals					
Copper	313		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:14	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:14	VVD

Will Buyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD412S

2060604-17 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8 D	W Prepared	by 200.8-	No Digestio	n Metals					
Copper	283		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:16	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:16	VVD

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD418S

2060604-18 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.2-	Digested M	etals					
Copper	382		ug/L	10.0	10.0	10	06/06/22	06/09/22 17:05	VVD
Lead	5.46		ug/L	1.00	1.00	1	06/06/22	06/09/22 16:04	VVD

Will Buyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD421S

2060604-19 (Drinking Water) Sample Date: 06/03/22

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	236		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:17	VVD
Lead	ND		ug/L	1.00	1.00	1	06/10/22	06/10/22 21:17	VVD

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

FTD420S

2060604-20 (Drinking Water) Sample Date: 06/03/22

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 200.8D	W Prepared	by 200.2-	Digested M	etals					
Copper	610		ug/L	10.0	10.0	10	06/06/22	06/09/22 17:07	VVD
Lead	6.07		ug/L	1.00	1.00	1	06/06/22	06/09/22 16:07	VVD

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

Total Metals Analysis by EPA 200.8DW - Quality Control

			Reporting		Spike	Source	a/PEC	%REC		RPD
Analyte	Result	Notes	Limit	Units	Level	Result	%REC	Limits	RPD	Limit
Batch B206103 - 200.2-Digested Metals										
Blank (B206103-BLK1)				I	Prepared: 0	6/06/22 Ar	nalyzed: 06	/09/22		
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
LCS (B206103-BS1)				I	Prepared: 0	06/06/22 Ar	nalyzed: 06	/09/22		
Copper	9.68		1.00	ug/L	10.00		97	80-120		
Lead	9.50		1.00	ug/L	10.00		95	80-120		
Duplicate (B206103-DUP1)		Sourc	e: 2060233-01	I	Prepared: 0	06/06/22 Ar	nalyzed: 06	/09/22		
Copper	12.1		1.00	ug/L		13.0			7	20
Lead	2.78		1.00	ug/L		2.94			6	20
Matrix Spike (B206103-MS1)		Sourc	e: 2060233-01	I	Prepared: 0	06/06/22 Ar	nalyzed: 06	/09/22		
Copper	21.4		1.00	ug/L	10.00	13.0	84	80-120		
Lead	12.3		1.00	ug/L	10.00	2.94	94	80-120		
Batch B206196 - 200.8-No Digestion Meta	ıls									
Blank (B206196-BLK1)				I	Prepared &	Analyzed:	06/10/22			
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B206196-BLK2)				I	Prepared &	Analyzed:	06/10/22			
Copper	ND		1.00	ug/L						
Lead	ND		1.00	ug/L						
Blank (B206196-BLK3)				I	Prepared &	Analyzed:	06/10/22			
Copper	ND		1.00	ug/L		-				
Lead	ND		1.00	ug/L						

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

Total Metals Analysis by EPA 200.8DW - Quality Control

		Reporting		Spike	Source		%REC		RPD
Analyte	Result No	tes Limit	Units	Level	Result	%REC	Limits	RPD	Limit
Batch B206196 - 200.8-No Digest	ion Metals								
Blank (B206196-BLK4)]	Prepared: (06/10/22 A	nalyzed: 06	/13/22		
Copper	ND	1.00	ug/L						
Lead	ND	1.00	ug/L						
Blank (B206196-BLK5)]	Prepared: (06/10/22 A	nalyzed: 06	/13/22		
Copper	ND	1.00	ug/L						
Lead	ND	1.00	ug/L						
Blank (B206196-BLK6)]	Prepared: (06/10/22 A	nalyzed: 06	/13/22		
Copper	ND	1.00	ug/L						
Lead	ND	1.00	ug/L						
Blank (B206196-BLK7)]	Prepared: (06/10/22 A	nalyzed: 06	/13/22		
Copper	ND	1.00	ug/L						
Lead	ND	1.00	ug/L						
Blank (B206196-BLK8)]	Prepared: (06/10/22 A	nalyzed: 06	/13/22		
Copper	ND	1.00	ug/L						
Lead	ND	1.00	ug/L						
Blank (B206196-BLK9)]	Prepared: (06/10/22 A	nalyzed: 06	/13/22		
Copper	ND	1.00	ug/L						
Lead	ND	1.00	ug/L						
LCS (B206196-BS1)			1	Prepared &	. Analyzed:	06/10/22			
Copper	10.3	1.00	ug/L	10.00		103	80-120		
Lead	10.1	1.00	ug/L	10.00		101	80-120		
LCS (B206196-BS2)			1	Prepared &	. Analyzed:	06/10/22			
Copper	9.48	1.00	ug/L	10.00		95	80-120		
Lead	9.40	1.00	ug/L	10.00		94	80-120		

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.

Willesseyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

Total Metals Analysis by EPA 200.8DW - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result Note	es Limit	Units	Level	Result	%REC	Limits	RPD	Limit	
Batch B206196 - 200.8-No Digesti	on Metals									
LCS (B206196-BS3)]	Prepared &	Analyzed:	06/10/22				
Copper	9.80	1.00	ug/L	10.00		98	80-120			
Lead	9.55	1.00	ug/L	10.00		95	80-120			
LCS (B206196-BS4)]	Prepared: (06/10/22 Ar	nalyzed: 06	/13/22			
Copper	10.1	1.00	ug/L	10.00		101	80-120			
Lead	9.81	1.00	ug/L	10.00		98	80-120			
LCS (B206196-BS5)]	Prepared: (06/10/22 Ar	nalyzed: 06	/13/22			
Copper	9.00	1.00	ug/L	10.00		90	80-120			
Lead	8.67	1.00	ug/L	10.00		87	80-120			
LCS (B206196-BS6)]	Prepared: (06/10/22 Ar	nalyzed: 06	/13/22			
Copper	11.5	1.00	ug/L	10.00		115	80-120			
Lead	11.1	1.00	ug/L	10.00		111	80-120			
LCS (B206196-BS7)]	Prepared: (06/10/22 Ar	nalyzed: 06	/13/22			
Copper	11.2	1.00	ug/L	10.00		112	80-120			
Lead	10.9	1.00	ug/L	10.00		109	80-120			
LCS (B206196-BS8)]	Prepared: (06/10/22 Ar	nalyzed: 06	/13/22			
Copper	11.2	1.00	ug/L	10.00		112	80-120			
Lead	10.9	1.00	ug/L	10.00		109	80-120			
LCS (B206196-BS9)]	Prepared: (06/10/22 Ar	nalyzed: 06	/13/22			
Copper	11.5	1.00	ug/L	10.00		115	80-120			
Lead	11.2	1.00	ug/L	10.00		112	80-120			
Duplicate (B206196-DUP1)	s	ource: 2060604-01	1	Prepared &	z Analyzed:	06/10/22				
Copper	264	1.00	ug/L		264			0.01	20	
Lead	ND	1.00	ug/L		ND				20	

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Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

Total Metals Analysis by EPA 200.8DW - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Notes Limit	Units	Level	Result	%REC	Limits	RPD	Limit	
Batch B206196 - 200.8-No Digestio	n Metals									
Duplicate (B206196-DUP2)		Source: 2060604-11		Prepared &	Analyzed:	06/10/22				
Copper	243	1.00	ug/L		245			0.7	20	
Lead	ND	1.00	ug/L		ND				20	
Duplicate (B206196-DUP3)		Source: 2060605-01		Prepared &	Analyzed:	06/10/22				
Copper	310	1.00	ug/L		309			0.3	20	
Lead	ND	1.00	ug/L		ND				20	
Duplicate (B206196-DUP4)		Source: 2060605-12		Prepared: (06/10/22 Aı	nalyzed: 06/	/13/22			
Copper	204	1.00	ug/L		204			0.1	20	
Lead	ND	1.00	ug/L		ND				20	
Duplicate (B206196-DUP5)		Source: 2060605-21		Prepared: (06/10/22 Aı	nalyzed: 06/	/13/22			
Copper	236	1.00	ug/L		235			0.4	20	
Lead	ND	1.00	ug/L		ND				20	
Duplicate (B206196-DUP6)		Source: 2060605-31		Prepared: (06/10/22 Aı	nalyzed: 06/	/13/22			
Copper	319	1.00	ug/L		316			1	20	
Lead	1.41	1.00	ug/L		1.39			0.9	20	
Duplicate (B206196-DUP7)		Source: 2060606-01		Prepared: (06/10/22 Aı	nalyzed: 06/	/13/22			
Copper	233	1.00	ug/L		233			0.03	20	
Lead	ND	1.00	ug/L		ND				20	
Duplicate (B206196-DUP8)		Source: 2060606-11		Prepared: (06/10/22 Aı	nalyzed: 06/	/13/22			
Copper	588	1.00	ug/L		577			2	20	
Lead	ND	1.00	ug/L		ND				20	
Duplicate (B206196-DUP9)		Source: 2060708-01		Prepared: (06/10/22 Aı	nalyzed: 06/	/13/22			
Copper	950	1.00	ug/L	-	944	•		0.6	20	
Lead	1.08	1.00	ug/L		1.09			0.9	20	

Millestende



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

Reported: 06/14/22 14:50

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

Total Metals Analysis by EPA 200.8DW - Quality Control

]	Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Notes	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	
Batch B206196 - 200.8-No Digestion	ı Metals										
Matrix Spike (B206196-MS1)		Source:	2060604-01]	Prepared &	Analyzed:	06/10/22				
Copper	265	QM-4X	1.00	ug/L	10.00	264	7	80-120			
Lead	11.0		1.00	ug/L	10.00	ND	110	80-120			
Matrix Spike (B206196-MS2)		Source:	2060604-11]	Prepared &	Analyzed:	06/10/22				
Copper	248	QM-4X	1.00	ug/L	10.00	245	32	80-120			
Lead	10.4		1.00	ug/L	10.00	ND	104	80-120			
Matrix Spike (B206196-MS3)		Source:	2060605-01]	Prepared &	Analyzed:	06/10/22				
Copper	313	QM-4X	1.00	ug/L	10.00	309	34	80-120			
Lead	10.7		1.00	ug/L	10.00	ND	107	80-120			
Matrix Spike (B206196-MS4)		Source:	2060605-12]	Prepared: 0	6/10/22 Aı	nalyzed: 06	/13/22			
Copper	207	QM-4X	1.00	ug/L	10.00	204	30	80-120			
Lead	10.5		1.00	ug/L	10.00	ND	105	80-120			
Matrix Spike (B206196-MS5)		Source:	2060605-21]	Prepared: 0	06/10/22 A1	nalyzed: 06	/13/22			
Copper	242	QM-4X	1.00	ug/L	10.00	235	66	80-120			
Lead	11.1		1.00	ug/L	10.00	ND	111	80-120			
Matrix Spike (B206196-MS6)		Source:	2060605-31]	Prepared: 0	06/10/22 A1	nalyzed: 06	/13/22			
Copper	320	QM-4X	1.00	ug/L	10.00	316	39	80-120			
Lead	12.2		1.00	ug/L	10.00	1.39	108	80-120			
Matrix Spike (B206196-MS7)		Source:	2060606-01]	Prepared: 0	06/10/22 Aı	nalyzed: 06	5/13/22			
Copper	239	QM-4X	1.00	ug/L	10.00	233	59	80-120			
Lead	10.9		1.00	ug/L	10.00	ND	109	80-120			
Matrix Spike (B206196-MS8)		Source:	2060606-11	1	Prepared: 0	06/10/22 Aı	nalyzed: 06	/13/22			
Copper	585	QM-4X	1.00	ug/L	10.00	577	79	80-120			
Lead	11.2		1.00	ug/L	10.00	ND	112	80-120			

Will Buile



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

Reported: 06/14/22 14:50

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

Total Metals Analysis by EPA 200.8DW - Quality Control

			Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Notes	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	

Batch B206196 - 200.8-No Digestion Metals

Matrix Spike (B206196-MS9)		Source: 2	060708-01	Prepared: 06/10/22 Analyzed: 06/13/22						
Copper	940	QM-4X	1.00	ug/L	10.00	944	NR	80-120		
Lead	13.1		1.00	ug/L	10.00	1.09	120	80-120		

Willesseyle



Project: ACPS PERIODIC WATER MONITORING-FERDINANI

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

06/14/22 14:50

Notes and Definitions

QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the

spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance 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

Willebrusten

Company Name: ECS Mid-Atlantic	Project I		:							rsis Requested CHAIN-OF	-CUSTODY RECORD
Project Name: ACPS Periodic Water Monitoring – Ferdinand T. Day Sampler(s):	Project I 47: 116	Project ID: 47: 11652-E P.O. Number:				sis	Drinking Water	Drinking Water	1500 Cate Bal 410–247–	d Spectral Services, Inc. on Center Drive, Suite G timore, MD 21227 7600 • Fax 410–247–7602 ing@mdspectral.com	
Maria Reynozo							Containers	Drinkir			non-potable water), DW (drinking
Field Sample ID	Date	Time	MQ	Water	Soil	Other	No. of C	Lead in	Copper in	I I I I I I Preservative I	Field MSS Lab ID
FTD117S	6/3/22		Х					х	Х		2060604-0
FTD134S1	6/3/22		х					Х	Х		- 0 <i>L</i>
FTD134S2	6/3/22		х					Х	Х		- 03
FTD134S3	6/3/22		Х					Х	х		- 04
FTDWF161	6/3/22		х					Х	Х		- 05
FTD215SL	6/3/22		х					Х	Х		- 06
FTD211SR	6/3/22		Х					Х	Х		- 07
FTD220S	6/3/22		Х					Х	Х		- 0 8
FTD223S	6/3/22		Х					Х	х		- 0 9
FTD25S	6/3/22		Х					Х	х		- 10
FTD317S	6/3/22		х					Х	х		1 (
FTD315S	6/3/22		х					Х	X		- 12
FTDWFG	6/3/22		х					Х	Х		- 13
FTD325S	6/3/22		Х					Х	Х		-14
FTD323S	6/3/22		Х					Х	Х		-15
FTD415S	6/3/22		X					Х	Х		-16
FTD412S	6/3/22		Х					х	Х		-17
FTD418S	6/3/22		х					х	Х		-18
FTD421S	6/3/22		Х					Х	Х		- 19
FTD420S	6/3/22		х					Х	Х		- 20

Relinquished by: (Signature)	Date/Time - 6/3/2022	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
(Printed) John Farmer Maria R.2	Ynozo	(Printed)	(Printed)		(Printed)
Relinquished by: (Signature) (Printed)	Date/Time 13:15 6-6-22	(Printed)	Turn Around Time: D Normal (7 day) D 5 day D 4 day	Lab Use: Temp:°C Received on Ice Received same d	-4.8 ay
Delivery Method: Courier Client UPS SedEx USPS Other:	Lead in Drinking Water Analysis for each sample on attached pages		□ 3 day □ Rush (2 day) □ Next Day □ Other: □ Specific Due Date:	Sample Disposal: Return to Client Disposal by lab Archive for	days