
August 2, 2016

Debra Spring
Matrix Head Start
2051 Rosa Parks Boulevard
Detroit, Michigan 48216

SUBMITTED VIA EMAIL TO: dspring@matrix.org

**SUBJECT: Drinking Water Screening Report
 WC3D
 1001 Fort Street
 Detroit, Michigan 48226**

Dear Ms. Spring:

ATC Group Services, LLC (ATC) is pleased to submit this Drinking Water Screening Report for the subject school. The drinking water samples collected from the school were submitted to TriMatrix Laboratories, for Michigan Department of Environmental Quality (MDEQ) Drinking Water Certified lead analysis.

SCOPE OF WORK

At the request of the Matrix Head Start (Matrix), ATC collected drinking water samples as a general screening for lead at the subject school. Matrix in coordination with the City of Detroit Health Department determined that the screening would consist of collection of water samples from three (3) high priority water outlets (drinking fountains, kitchen/food preparation area faucets, etc.), regularly used by students and staff for drinking, as designated by Matrix personnel. Two (2) samples were collected at each outlet: a first draw (Primary) sample; and a Flush sample. The Primary samples were collected from outlets that had been inactive for a minimum of eight hours. The Flush samples were collected after the water was allowed to run for a minimum of thirty (30) seconds at each of the sample locations.

The drinking water samples were collected in 125 milliliter, wide-mouth sample containers, containing nitric acid (preservative). Each sample container was labeled utilizing a coding system that identified: the type of drinking outlet sampled, Drinking Water Fountain (DWF), Drinking Water Cooler (DWC), Kitchen Faucet (KF) etc.; and a (P) for primary samples and a (F) for flush samples.

The samples were transported under chain of custody to TriMatrix Laboratories, located at 5560 Corporate Exchange Court SE, Grand Rapids Michigan for MDEQ drinking water certified lead analysis, using analytical method EPA 200.8 rev 5.4.

As per the EPA's *3T's for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance (October 2006)* analysis of the flush sample(s) was only performed if analysis of the first draw (Primary) sample(s) indicated lead and/or copper concentrations greater than the EPA established Maximum Contaminate Level (MCL).

FINDINGS

Analytical results indicate that none of the samples analyzed were above the EPA recommended limits of 0.015 milligrams per liter (mg/L) for lead. The table below summarizes the analytical results for the samples submitted. The laboratory analytical reports and chain of custody are provided in Attachment A.

Sample Number	Total Lead (Drinking Water)	MCL
1-P-F (Classroom #1)	0.0016 mg/L	0.015 mg/L
1-F-F (Classroom #1)	NA	0.015 mg/L
2-P-F (Classroom #2)	0.0011 mg/L	0.015 mg/L
2-F-F (Classroom #2)	NA	0.015 mg/L
3-P-F (Kitchen)	0.0031 mg/L	0.015 mg/L
3-F-F (Kitchen)	NA	0.015 mg/L

Key: NA - Not Analyzed

mg/L- milligrams per liter /parts per million (ppm)



ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

46555 Humboldt Drive
Novi, Michigan 48377
Telephone 248-669-5140
www.atcgroupservices.com

LIMITATIONS

The sampling and analysis completed was: a preliminary screening for lead only, to assess lead concentrations (mg/L) at drinking water outlets in the school designated as high use by Matrix, and may not be representative of all drinking water outlets within the school. If lead concentrations are identified above their respective MCL's at any of the drinking water outlets tested, further review of the plumbing system, fixtures affected, and testing should be completed to assess the source of the elevated levels of lead, as well as, any other response actions deemed necessary by Matrix.

The drinking water screening proposed and conducted by ATC was devised in cooperation with Matrix, City of Detroit Health Department and utilizing the EPA's 3Ts for Reducing Lead in Drinking Water in Schools and may not meet all of the recommendations provided by the MDEQ "Guidance on Drinking Water Sampling for Lead and Copper at Schools and Daycares on Community Water Supplies" Version 2.0 - April 13, 2016. Future drinking water evaluation and sampling in accordance with the recommendations may be predicated on applicable guidelines by the MDEQ or EPA and will be determined prior to developing a sampling plan for the school.

Sincerely,

ATC Group Services, LLC

A handwritten signature in black ink, reading 'Martin H. Gamble'.

Martin Gamble
Senior Project Manager

A handwritten signature in black ink, reading 'Robert C. Smith'.

Robert C. Smith
Building Science Department Manager

APPENDIX A

LABORATORY ANALYTICAL REPORT

June 17, 2016

ATC Group Services
Attn: Mr. Robert Smith
46555 Humboldt, Suite 100
Novi, MI 48377

Project: School Drinking Water Testing

Dear Mr. Robert Smith,

Enclosed is a copy of the laboratory report for the following work order(s) received by TriMatrix Laboratories:

Work Order	Received	Description
1606099	06/03/2016	WC3D

This report relates only to the sample(s) as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) and/or one of the following certification programs:

ANAB DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#88-0730/13-049-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#200026/003329); Kentucky DEP (AL123065/#0021); Michigan DPH (#0034); Minnesota DPH (#491715); New York ELAP (#11776/53116); North Carolina DNRE (#659); Virginia DCLS (#460153/7952); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-14-00305).

Any qualification or narration of results, including sample acceptance requirements and test exceptions to the above referenced programs, is presented in the Statement of Data Qualifications and Project Technical Narrative sections of this report. Estimates of analytical uncertainties and certification documents for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Gary L. Wood
Project Chemist

PROJECT TECHNICAL NARRATIVE(s)

No Project Narrative is associated with this report.



STATEMENT OF DATA QUALIFICATIONS

All analyses have been validated and comply with our Quality Control Program.
No Qualification is required.

ANALYTICAL REPORT

Client: **ATC Group Services**
 Project: School Drinking Water Testing
 Client Sample ID: **1-P-F Classroom #1**
 Lab Sample ID: **1606099-01**
 Matrix: Drinking Water

Work Order: **1606099**
 Description: WC3D
 Sampled: 06/02/16 07:08
 Sampled By: David Reinhold
 Received: 06/03/16 16:05

Metals in Drinking Water by EPA 200 Series Methods

Analyte	Analytical Result	RL	Action Limit	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Lead	0.0016	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	06/15/16 15:29	MSB	1606138

ANALYTICAL REPORT

Client: **ATC Group Services**
 Project: School Drinking Water Testing
 Client Sample ID: **2-P-F Classroom #2**
 Lab Sample ID: **1606099-03**
 Matrix: Drinking Water

Work Order: **1606099**
 Description: WC3D
 Sampled: 06/02/16 07:11
 Sampled By: David Reinhold
 Received: 06/03/16 16:05

Metals in Drinking Water by EPA 200 Series Methods

Analyte	Analytical Result	RL	Action Limit	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Lead	0.0011	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	06/15/16 15:33	MSB	1606138

ANALYTICAL REPORT

Client: **ATC Group Services**
 Project: School Drinking Water Testing
 Client Sample ID: **3-P-F Kitchen**
 Lab Sample ID: **1606099-05**
 Matrix: Drinking Water

Work Order: **1606099**
 Description: WC3D
 Sampled: 06/02/16 07:14
 Sampled By: David Reinhold
 Received: 06/03/16 16:05

Metals in Drinking Water by EPA 200 Series Methods

Analyte	Analytical Result	RL	Action Limit	Unit	Dilution Factor	Method	Date Time Analyzed	By	QC Batch
Lead	0.0031	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	06/15/16 15:34	MSB	1606138

QUALITY CONTROL REPORT

Metals in Drinking Water by EPA 200 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
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Analyte: Lead/USEPA-200.8 Rev. 5.4

QC Batch: 1606138 (Metals Direct Analysis)

Analyzed: 06/15/2016 By: MSB

Method Blank			<0.0010	mg/L					0.0010
Laboratory Control Sample		0.0400	0.0403	mg/L	101	85-115			0.0010

PRETREATMENT SUMMARY PAGE

Client: **ATC Group Services**
Project: **School Drinking Water Testing**

Pretreatment	Lab Sample ID	Batch	By	Date & Time Prepared
USEPA 600/R-94/173	1606099-01	1606138	PNS	06/14/16 13:46
	1606099-03	1606138	PNS	06/14/16 13:46
	1606099-05	1606138	PNS	06/14/16 13:46



Chain of Custody Record

COC No. 151019155

For Lab Use Only

5560 Corporate Exchange Court SE, Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463 www.trimatrixlabs.com

Analyses Requested

Pg. 1 of 1

VOA Rack/Tray

Client Name

Project Name

Receipt Log No.

Address

Client Project No./P.O. No.

Project Chemist

City, State Zip

Invoice To

Work Order No.

Phone: 248 669 5140 Fax 5140

Contact/Report To

Lead Priming
Lead Flush

- ← PRESERVATIVES
- A NONE pH<7
 - B HNO₃ pH<2
 - C H₂SO₄ pH<2
 - D 1+1 HCl pH<2
 - E NaOH pH>12
 - F ZnAc/NaOH pH>9
 - G MeOH
 - H Other (note below)

Schedule

Field Sample ID

Cooler ID

Sample Date

Number of Containers Submitted

Total Sample Comments

Matrix Code

Sample Number

Sample Time

C O M P

Matrix

Sample Comments

01

1-P-F Classroom #1

6-2-16

7:08

X

02

1-F-F Classroom #1

7:09

X

X

03

2-P-F Classroom #2

7:11

X

X

04

2-F-F Classroom #2

7:12

X

X

05

3-P-F Kitchen

7:14

X

X

06

3-F-F Kitchen

7:15

X

X

07

7

08

8

09

9

10

10

Sampled By (print)

David Reinhold

How Shipped?

Hand

Carrier

Comments

If lead (primary) is above Detection Limit, analyse
Flush Sample

Sampler's Signature

David Reinhold

Tracking No.

1. Relinquished By

Date

Time

2. Relinquished By

Date

Time

3. Relinquished By

Date

Time

4. Relinquished By

Date

Time

10-3-16

1005

ORIGINAL - LABORATORY

COPY - SAMPLER

SAMPLE RECEIVING / LOG-IN CHECKLIST



Client: ATC	Work Order #: 1606099
Receipt Record Page/Line #: 12-35	Project Chemist: _____ Sample #: _____

Recorded by (initials/date): WC 6-3-16	Cooler <input checked="" type="checkbox"/> Cooler <input type="checkbox"/> Box <input type="checkbox"/> Other	Qty Received: 2	Thermometer Used <input checked="" type="checkbox"/> IR Gun (#202) <input type="checkbox"/> Digital Thermometer (#54) <input type="checkbox"/> Other (# _____)	See Additional Cooler Information Form <input type="checkbox"/>
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Cooler #	Time	Cooler #	Time	Cooler #	Time	Cooler #	Time	
1m2365	1655	1m3573	1700					
Custody Seals: <input checked="" type="checkbox"/> None <input type="checkbox"/> Present / Intact <input type="checkbox"/> Present / Not Intact		Custody Seals: <input type="checkbox"/> None <input type="checkbox"/> Present / Intact <input type="checkbox"/> Present / Not Intact		Custody Seals: <input type="checkbox"/> None <input type="checkbox"/> Present / Intact <input type="checkbox"/> Present / Not Intact		Custody Seals: <input type="checkbox"/> None <input type="checkbox"/> Present / Intact <input type="checkbox"/> Present / Not Intact		
Coolant Type: <input type="checkbox"/> Loose Ice <input type="checkbox"/> Bagged Ice <input type="checkbox"/> Blue Ice <input checked="" type="checkbox"/> None		Coolant Type: <input type="checkbox"/> Loose Ice <input type="checkbox"/> Bagged Ice <input type="checkbox"/> Blue Ice <input checked="" type="checkbox"/> None		Coolant Type: <input type="checkbox"/> Loose Ice <input type="checkbox"/> Bagged Ice <input type="checkbox"/> Blue Ice <input checked="" type="checkbox"/> None		Coolant Type: <input type="checkbox"/> Loose Ice <input type="checkbox"/> Bagged Ice <input type="checkbox"/> Blue Ice <input checked="" type="checkbox"/> None		
Coolant Location: Dispersed / Top / Middle / Bottom		Coolant Location: Dispersed / Top / Middle / Bottom		Coolant Location: Dispersed / Top / Middle / Bottom		Coolant Location: Dispersed / Top / Middle / Bottom		
Temp Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Temp Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Temp Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Temp Blank Present: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Present, Temperature Blank Location is: <input type="checkbox"/> Representative <input type="checkbox"/> Not Representative		If Present, Temperature Blank Location is: <input type="checkbox"/> Representative <input type="checkbox"/> Not Representative		If Present, Temperature Blank Location is: <input type="checkbox"/> Representative <input type="checkbox"/> Not Representative		If Present, Temperature Blank Location is: <input type="checkbox"/> Representative <input type="checkbox"/> Not Representative		
Observed °C	Correction Factor °C	Actual °C	Observed °C	Correction Factor °C	Actual °C	Observed °C	Correction Factor °C	
Temp Blank:			Temp Blank:			Temp Blank:		
Sample 1: 23.8	-	23.8	Sample 1: 22.2	-	22.2	Sample 1:		
Sample 2: 23.8	-	23.8	Sample 2: 22.0	-	22.0	Sample 2:		
Sample 3: 23.9	-	23.9	Sample 3: 22.2	-	22.2	Sample 3:		
3 Sample Average °C: 23.8			3 Sample Average °C: 22.2			3 Sample Average °C:		
<input type="checkbox"/> Cooler ID on COC?			<input type="checkbox"/> Cooler ID on COC?			<input type="checkbox"/> Cooler ID on COC?		
<input type="checkbox"/> VOC Trip Blank received?			<input type="checkbox"/> VOC Trip Blank received?			<input type="checkbox"/> VOC Trip Blank received?		

If any shaded areas checked, complete Sample Receiving Non-Conformance and/or Inventory Form

Paperwork Received Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Chain of Custody record(s)? If No, Initiated By _____ Received for Lab Signed/Date/Time? _____ Shipping document? <input type="checkbox"/> Other: _____ COC Information <input type="checkbox"/> TriMatrix COC <input type="checkbox"/> Other _____ COC ID Numbers: _____ Check COC for Accuracy Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Analysis Requested? <input checked="" type="checkbox"/> Sample ID matches COC? <input checked="" type="checkbox"/> Sample Date and Time matches COC? <input checked="" type="checkbox"/> Container type completed on COC? <input checked="" type="checkbox"/> All container types indicated are received? Sample Condition Summary N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <input checked="" type="checkbox"/> Broken containers/lids? <input checked="" type="checkbox"/> Missing or incomplete labels? <input checked="" type="checkbox"/> Illegible information on labels? <input checked="" type="checkbox"/> Low volume received? <input checked="" type="checkbox"/> Inappropriate or non-TriMatrix containers received? <input checked="" type="checkbox"/> VOC vials / TOX containers have headspace? <input checked="" type="checkbox"/> Extra sample locations / containers not listed on COC?	Check Sample Preservation N/A <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <input type="checkbox"/> Temperature Blank OR average sample temperature, ≥ 6° C? <input type="checkbox"/> If either is ≥ 6° C, was thermal preservation required? If "Yes", Project Chemist Approval Initials: _____ If "Yes" Completed Non Con Cooler - Cont Inventory Form? <input checked="" type="checkbox"/> Completed Sample Preservation Verification Form? <input checked="" type="checkbox"/> Samples chemically preserved correctly? If "No", added orange tag? <input type="checkbox"/> Received pre-preserved VOC soils? <input type="checkbox"/> MeOH <input type="checkbox"/> Na ₂ SO ₄ Check for Short Hold-Time Prep/Analyses <input type="checkbox"/> Bacteriological <input type="checkbox"/> Air Bags <input type="checkbox"/> EnCores / Methanol Pre-Preserved <input type="checkbox"/> Formaldehyde/Aldehyde <input type="checkbox"/> Green-tagged containers <input type="checkbox"/> Yellow/White-tagged 1 L Ambers (SV Prep-Lab) Notes <input type="checkbox"/> Trip Blank received <input type="checkbox"/> Trip Blank not listed on COC Cooler Received (Date/Time) 6-3-16 1605 Paperwork Delivered (Date/Time) 6-3-16 1730 ≤ 1 Hour Goal Met? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Client ATC	Work Order # 1606099
Receipt Log # 12-35	Completed By (initials/date) WC 6.3.16
Project Chemist	

COC ID # 151019155				Adjusted by: _____ Date: _____		DO NOT ADJUST pH FOR THESE CONTAINER TYPES			
Container Type	5 / 23	4	13	6	15				
Tag Color	Lt. Blue	Blue	Brown	Red	Red Stripe				
Preservative	NaOH	H ₂ SO ₄	H ₂ SO ₄	HNO ₃	HNO ₃				
Expected pH	>12	<2	<2	<2	<2				
COC Line #1				✓					
COC Line #2				✓					
COC Line #3				✓					
COC Line #4				✓					
COC Line #5				✓					
COC Line #6				✓					
COC Line #7									
COC Line #8									
COC Line #9									
COC Line #10									

pH Strip Reagent #
<input checked="" type="checkbox"/> 6040263
<input type="checkbox"/>

Aqueous Samples: For each sample and container type, check the box if pH is acceptable. If pH is not acceptable for any sample container, record pH in box, and note on Sample Receiving Checklist and on Sample Receiving Non-Conformance Form. If approved by Project Chemist, add acid or base to the sample to achieve the correct pH. Add up to, but do not exceed 2x the volume initially added at container prep (see table below for initial volumes used). Add orange pH tag to sample container and record information requested. Record adjusted pH on this form. Do not adjust pH for container types 6 and 15.

COC ID #				Adjusted by: _____ Date: _____		DO NOT ADJUST pH FOR THESE CONTAINER TYPES			
Container Type	5 / 23	4	13	6	15				
Tag Color	Lt. Blue	Blue	Brown	Red	Red Stripe				
Preservative	NaOH	H ₂ SO ₄	H ₂ SO ₄	HNO ₃	HNO ₃				
Expected pH	>12	<2	<2	<2	<2				
COC Line #1									
COC Line #2									
COC Line #3									
COC Line #4									
COC Line #5									
COC Line #6									
COC Line #7									
COC Line #8									
COC Line #9									
COC Line #10									

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H ₂ SO ₄
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H ₂ SO ₄
500	2.5

Comments
