



ENVIRONMENTAL • GEOTECHNICAL
BUILDING SCIENCES • MATERIALS TESTING

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

August 1, 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
 St. Vincent DePaul
 3000 Gratiot Avenue
 Detroit, Michigan 48207**

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.



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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-DWC-P-V (Main Hall; Right Sink)	<0.0010 mg/L	0.015 mg/L
1-DWC-F-V (Main Hall; Right Sink)	NA	0.015 mg/L
2-S-P-V (Room #3; Sink)	<0.0010 mg/L	0.015 mg/L
2-S-F-V (Room #3; Sink)	NA	0.015 mg/L
3-KS-P-V (Kitchen Sink; Center Sink)	<0.0010 mg/L	0.015 mg/L
3-KS-F-V (Kitchen Sink; Center Sink)	NA	0.015 mg/L

Key: NA - Not Analyzed

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



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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 that reads "Martin H. Gamble".

Martin Gamble
Senior Project Manager

A handwritten signature in black ink that reads "Robert C. Smith".

Robert C. Smith
Building Science Department Manager

APPENDIX A

LABORATORY ANALYTICAL REPORT

June 08, 2016

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

Project: Matrix Human Services

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
1605624	05/25/2016	St. Vincent

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	Work Order:	1605624
Project:	Matrix Human Services	Description:	St. Vincent
Client Sample ID:	1-DWC-P-V Main Hall; Right Sink	Sampled:	05/25/16 07:04
Lab Sample ID:	1605624-01	Sampled By:	Ryan Rae
Matrix:	Drinking Water	Received:	05/25/16 17:05

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	<0.0010	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	06/07/16 09:02	DSC	1605612

ANALYTICAL REPORT

Client: **ATC Group Services**
 Project: Matrix Human Services
 Client Sample ID: **2-S-P-V Room 3; Sink**
 Lab Sample ID: **1605624-03**
 Matrix: Drinking Water

Work Order: **1605624**
 Description: St. Vincent
 Sampled: 05/25/16 07:08
 Sampled By: Ryan Rae
 Received: 05/25/16 17:05

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	<0.0010	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	06/07/16 09:13	DSC	1605612

ANALYTICAL REPORT

Client:	ATC Group Services	Work Order:	1605624
Project:	Matrix Human Services	Description:	St. Vincent
Client Sample ID:	3-KS-P-V Kitchen Sink; Center Sink	Sampled:	05/25/16 07:10
Lab Sample ID:	1605624-05	Sampled By:	Ryan Rae
Matrix:	Drinking Water	Received:	05/25/16 17:05

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	<0.0010	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	06/07/16 09:16	DSC	1605612

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
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Lead/USEPA-200.8 Rev. 5.4

QC Batch: 1605612 (Metals Direct Analysis)

Analyzed: 06/07/2016 By: DSC

Method Blank			<0.0010	mg/L					0.0010
Laboratory Control Sample		0.0400	0.0386	mg/L	96	85-115			0.0010
1605624-01 [1-DWC-P-V Main Hall; Right Sink]									
Matrix Spike	<0.0010	0.0200	0.0219	mg/L	109	70-130			0.0010
Matrix Spike Duplicate	<0.0010	0.0200	0.0222	mg/L	111	70-130	2	20	0.0010

PRETREATMENT SUMMARY PAGE

Client: **ATC Group Services**
 Project: **Matrix Human Services**

Pretreatment	Lab Sample ID	Batch	By	Date & Time Prepared
USEPA 600/R-94/173	1605624-01	1605612	LNS	06/02/16 08:15
	1605624-03	1605612	LNS	06/02/16 08:15
	1605624-05	1605612	LNS	06/02/16 08:15



Chain of Custody Record

COC No. 160536557

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

← PRESERVATIVES

VOA Rack/Tray: 3

Receipt Log No: 58-34

Project Chemist: Jim McFadden

Work Order No: 10051021

Client Name: ATC Group Services LLC

Address: 46555 Humboldt Drive, Ste 100

City, State Zip: Novi, MI 48377

Phone: 248-669-5140 Fax: 248-669-5147

Email: robert.smith@atcassociates.com

Project Name: Matrix Human Services - St. Vincent

Client Project No. / P.O. No.:

Invoice To: Client Other (comments)

Contact/Report To: Robert Smith

B	B	B	B						
Lead (Pb)									
Lead (Pb) HOLD									

Container Type (corresponds to Container Packing List)

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

Schedule	Matrix Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	Matrix			Number of Containers Submitted	Total Sample Comments
							C	M	B		
01		01	1-DWC-P-V Main Hall; Right Sink	TM3632	5/25/16	704	X	W	X	/	
02		02	1-DWC-F-V Main Hall; Left Sink	TM3632	5/25/16	705	X	W	X	/	
01		03	2-S-P-V Room 3; Sink	TM3632	5/25/16	708	X	W	X	/	
02		04	2-S-F-V Room 3; Sink	TM3632	5/25/16	709	X	W	X	/	
01		05	3-KS-P-V Kitchen Sink; Center Sink	TM3632	5/25/16	710	X	W	X	/	
02		06	3-KS-F-V Kitchen Sink; Center Sink	TM3632	5/25/16	711	X	W	X	/	

Sampled By (print): Ryan Rac

Sampler's Signature: *Ryan Rac*

Company ATC Group Services LLC

How Shipped? Tracking No.

Hand Carrier

Comments:

1. Requisitioned By: *Ryan Rac* Date: *5/25/16* Time: *9:00am*

2. Received By: *Ryan Rac* Date: *5/25/16* Time: *1:25*

3. Requisitioned By: *Ryan Rac* Date: *5/25/16* Time: *1:25*

Received By: *Ryan Rac* Date: *5/25/16* Time: *1:25*

Received For Lab By: *Ryan Rac* Date: *5/25/16* Time: *1:25*

ORIGINAL - LABORATORY COPY - SAMPLER

SAMPLE RECEIVING / LOG-IN CHECKLIST



Client: <u>DTC</u>	Work Order #: <u>10051624</u>
Receipt Record Page/Line #: <u>50-34</u>	Project Chemist: <u>CP</u> Sample #s: _____

Recorded by (initials/date): <u>DN 5/25/16</u>	Cooler: <input type="checkbox"/> Cooler <input type="checkbox"/> Box <input type="checkbox"/> Other _____	Qty Received: <u>1</u>	Thermometer Used: <input checked="" type="checkbox"/> IR Gun (#202) <input type="checkbox"/> Digital Thermometer (#54) <input type="checkbox"/> See Additional Cooler Information Form <input type="checkbox"/> Other (# _____)
--	---	------------------------	---

Cooler #	Time	Cooler #	Time	Cooler #	Time	Cooler #	Time	
<u>TTX3632</u>	<u>2043</u>							
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 type="checkbox"/> None		Coolant Type: <input type="checkbox"/> Loose Ice <input type="checkbox"/> Bagged Ice <input type="checkbox"/> Blue Ice <input type="checkbox"/> None		Coolant Type: <input type="checkbox"/> Loose Ice <input type="checkbox"/> Bagged Ice <input type="checkbox"/> Blue Ice <input 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 type="checkbox"/> No		Temp Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No		Temp Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No		Temp Blank Present: <input type="checkbox"/> Yes <input 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	Actual °C
Temp Blank:			Temp Blank:			Temp Blank:		
Sample 1:	<u>25.9</u>	<u>0</u>	<u>25.9</u>			Sample 1:		
Sample 2:	<u>25.8</u>	<u>0</u>	<u>25.8</u>			Sample 2:		
Sample 3:	<u>25.6</u>	<u>0</u>	<u>25.6</u>			Sample 3:		
3 Sample Average °C: <u>25.8</u>			3 Sample Average °C: _____			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 No Chain of Custody record(s)? If No, Initiated By _____

Received for Lab Signed/Date/Time?

Shipping document?

Other _____

COC Information

TriMatrix COC Other _____

COC ID Numbers: 160536557

Check COC for Accuracy

Yes No Analysis Requested?

Sample ID matches COC?

Sample Date and Time matches COC?

Container type completed on COC?

All container types indicated are received?

Sample Condition Summary

N/A Yes No

Broken containers/lids?

Missing or incomplete labels?

Illegible information on labels?

Low volume received?

Inappropriate or non-TriMatrix containers received?

VOC vials / TOX containers have headspace?

Extra sample locations / containers not listed on COC?

Check Sample Preservation

N/A Yes No

Temperature Blank OR average sample temperature, ≥6° C?

If either is 26° C, was thermal preservation required?

If "Yes", Project Chemist Approval Initials: _____

If "Yes" Completed Non Con Cooler - Cont inventory Form?

Completed Sample Preservation Verification Form?

Samples chemically preserved correctly?

If "No", added orange tag?

Received pre-preserved VOC soils?

MeOH Na₂SO₄

Check for Short Hold-Time Prep/Analyses

Bacteriological

Air Bags

EnCores / Methanol Pre-Preserved

Formaldehyde/Aldehyde

Green-tagged containers

Yellow/White-tagged 1 L ambers (SV Prep-Lab)

AFTER HOURS ONLY:

COPIES OF COC TO LAB AREA(S)

NONE RECEIVED

RECEIVED, COCs TO LAB(S)

Notes

Trip Blank received Trip Blank not listed on COC

Cooler Received (Date/Time): <u>DN 5-25-16</u>	Paperwork Delivered (Date/Time): <u>5-25-16</u>	≤1 Hour Goal Met? <u>Yes / No</u>
--	---	-----------------------------------

Client: <u>QTC</u>	Work Order #: <u>16051024</u>
Receipt Log #: <u>50-34</u>	Project Chemist: <u>JDAZ</u>
Completed By (initials/date): <u>JN 5-25-18</u>	

COC ID #: <u>160536557</u>			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 #
6040263
<input type="checkbox"/>
<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.

Comments

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