April 07, 2017

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 Pace Analytical:

Work Order	Received	Description
1703417	03/24/2017	Wayne

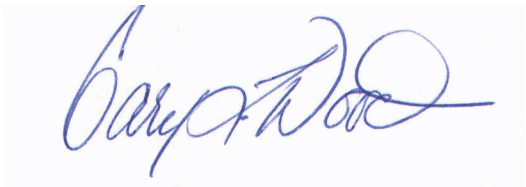
This report relates only to the sample(s) as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) and/or one of the following certification programs:

ANAB DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#88-0730/13-049-0); Georgia EPD (#026-999-161/1023062); Illinois DEP (#200026/003329); Kentucky DEP (AL123065/#0021); Michigan DPH (#0034); Minnesota DPH (#026-999-161/1023062); 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
Client Services Manager

5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ 616.975.4500 ♦ Fax 616.942.7463 ♦ www.pacelabs.com

PROJECT TECHNICAL NARRATIVE(s)

No Project Narrative is associated with this report.

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STATEMENT OF DATA QUALIFICATIONS

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

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ANALYTICAL REPORT

Client:	**ATC Group Services**	Work Order:	**1703417**
Project:	School Drinking Water Testing	Description:	Wayne
Client Sample ID:	**DWF-P-Wayne Hall @ 206 (R)**	Sampled:	03/24/17 08:02
Lab Sample ID:	**1703417-01**	Sampled By:	ATC
Matrix:	Drinking Water	Received:	03/24/17 17:15

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
Copper	**0.027**	0.0010	1.3	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:21	KLV	1702813
Lead	**0.035**	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:21	KLV	1702813

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ANALYTICAL REPORT

Client:	**ATC Group Services**	Work Order:	**1703417**
Project:	School Drinking Water Testing	Description:	Wayne
Client Sample ID:	**DWF-F-Wayne Hall @ 206 (R)**	Sampled:	03/24/17 08:03
Lab Sample ID:	**1703417-02**	Sampled By:	ATC
Matrix:	Drinking Water	Received:	03/24/17 17:15

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
Copper	**0.010**	0.0010	1.3	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:24	KLV	1702813
Lead	**0.0078**	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:24	KLV	1702813

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ANALYTICAL REPORT

Client:	**ATC Group Services**	Work Order:	**1703417**
Project:	School Drinking Water Testing	Description:	Wayne
Client Sample ID:	**DWF-P-Wayne Hall @ 206 (L)**	Sampled:	03/24/17 08:08
Lab Sample ID:	**1703417-03**	Sampled By:	ATC
Matrix:	Drinking Water	Received:	03/24/17 17:15

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
Copper	**0.18**	0.0050	1.3	mg/L	5	USEPA-200.8 Rev. 5.4	04/06/17 08:59	KLV	1702813
Lead	**0.029**	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:32	KLV	1702813

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ANALYTICAL REPORT

Client:	**ATC Group Services**	Work Order:	**1703417**
Project:	School Drinking Water Testing	Description:	Wayne
Client Sample ID:	**DWF-F-Wayne Hall @ 206 (L)**	Sampled:	03/24/17 08:09
Lab Sample ID:	**1703417-04**	Sampled By:	ATC
Matrix:	Drinking Water	Received:	03/24/17 17:15

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
Copper	**0.011**	0.0010	1.3	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:35	KLV	1702813
Lead	**0.0045**	0.0010	0.015	mg/L	1	USEPA-200.8 Rev. 5.4	04/05/17 12:35	KLV	1702813

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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: **Copper**/USEPA-200.8 Rev. 5.4									
QC Batch: 1702813 (Metals Direct Analysis)							Analyzed: 04/05/2017		By: KLV
Method Blank			<0.0010	mg/L					0.0010
Laboratory Control Sample		0.0400	**0.0401**	mg/L	100	85-115			0.0010
Analyte: **Lead**/USEPA-200.8 Rev. 5.4									
QC Batch: 1702813 (Metals Direct Analysis)							Analyzed: 04/05/2017		By: KLV
Method Blank			<0.0010	mg/L					0.0010
Laboratory Control Sample		0.0400	**0.0398**	mg/L	99	85-115			0.0010

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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	1703417-01	1702813	JBA	03/30/17 16:50
	1703417-02	1702813	JBA	03/30/17 16:50
	1703417-03	1702813	JBA	03/30/17 16:50
	1703417-04	1702813	JBA	03/30/17 16:50

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

2159571

Section A Required Client Information:

Company: ATC GROUP SERVICES
Address: 46555 HUMBOLDT DRIVE
SUITE 100
Email To: robert.smith@atcassociates.com
Phone: 248-669-5140 Fax: 248-669-5147
Requested Due Date/TAT:

Section B Required Project Information:

Report To: ROBERT SMITH
Copy To:
Purchase Order No.:
Project Name:
Project Number:

Section C Invoice Information:

Attention: ROBERT SMITH
Company Name: ATC GROUP SERVICES
Address: 46555 HUMBOLDT DRIVE
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☑ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: MI

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

WAYNE

Matrix Codes (MATRIX / CODE)

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

(43-16)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	LEAD	COPPER	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DWF-P-WAYNE HALL @ 206 (R)	DW	G			3/24/17	8:02		1			X						X	X			-01 #1703417
2	DWF-F-WAYNE HALL @ 206 (R)						8:03															-02
3	DWF-P-WAYNE HALL @ 206 (L)						8:08															-03
4	DWF-F-WAYNE HALL @ 206 (L)						8:09															-04
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Kimberly Johnson	3/24/17	10:16	Ky Johnson	3/24/17	1250	
	Ky Johnson	3/24/17	17:15	FEDEX GROUND	3/24/17	1715	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KIMBERLY JOHNSON

SIGNATURE of SAMPLER: Kimberly Johnson DATE Signed (MM/DD/YY): 3/24/17

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

SAMPLE RECEIVING / LOG-IN CHECKLIST

Pace Analytical®

Client: CTC | Work Order #: 1703417
Receipt Record Page/Line #: 3-3-16 | New / Add To | Project Chemist | Sample #s

Recorded by (initials/date): JN 3-24-17

Cooler ☑ | Box ☐ | Other ☐ | Qty Received: 1

Thermometer Used: ☑ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#_____) | ☐ See Additional Cooler Information Form

Cooler # / Time	Cooler 1	Cooler 2	Cooler 3	Cooler 4
Cooler #	TH3777			
Time	1853			
Custody Seals	☑ None ☐ Present / Intact ☐ Present / Not Intact	☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ None ☐ Present / Intact ☐ Present / Not Intact
Coolant Type	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☑ None	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None
Coolant Location	Dispersed / Top / Middle / Bottom	Dispersed / Top / Middle / Bottom	Dispersed / Top / Middle / Bottom	Dispersed / Top / Middle / Bottom
Temp Blank Present	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
If Present, Temperature Blank Location is:	☐ Representative ☐ Not Representative	☐ Representative ☐ Not Representative	☐ Representative ☐ Not Representative	☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank			
Sample 1	24.6	0	24.6
Sample 2	24.1	0	24.1
Sample 3	24.2	0	24.2
3 Sample Average °C:	24.3		
☐ Cooler ID on COC?			
☐ VOC Trip Blank received?			

	Observed °C	Correction Factor °C	Actual °C
Temp Blank			
Sample 1			
Sample 2			
Sample 3			
3 Sample Average °C:			
☐ Cooler ID on COC?			
☐ VOC Trip Blank received?			

	Observed °C	Correction Factor °C	Actual °C
Temp Blank			
Sample 1			
Sample 2			
Sample 3			
3 Sample Average °C:			
☐ Cooler ID on COC?			
☐ VOC Trip Blank received?			

	Observed °C	Correction Factor °C	Actual °C
Temp Blank			
Sample 1			
Sample 2			
Sample 3			
3 Sample Average °C:			
☐ Cooler ID on COC?			
☐ 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

☑ Pace COC ☐ Other _____

COC ID Numbers: 2159571

Check Sample Preservation

N/A	Yes	No	
	☑	☐	Temperature Blank **OR** average sample temperature, ≥6° C?
☐	☐	☑	If either is ≥6° 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 ☐ Na_2SO_4

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?

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)

Sample Condition Summary

N/A	Yes	No	
	☐	☑	Broken containers/lids?
	☐	☑	Missing or incomplete labels?
	☐	☑	Illegible information on labels?
	☐	☑	Low volume received?
	☐	☑	Inappropriate or non-Pace containers received?
☑	☐	☐	VOC vials / TOX containers have headspace?
☑	☐	☐	Extra sample locations / containers not listed on COC?

Notes

☐ Trip Blank received ☐ Trip Blank not listed on COC

Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	≤1 Hour Goal Met?
JN 3-24-17	3-24-17	Yes / No

SAMPLE PRESERVATION VERIFICATION FORM

Pace Analytical®

page 1 of 1

Client	QTC	Work Order #	1703417
Receipt Log #	43-16	Completed By (initials/date)	SN 3-21-17
		Project Chemist	

COC ID # 2159571

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_2SO_4	H_2SO_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								

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_2SO_4	H_2SO_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								

Comments

pH Strip Reagent # / Lot #

☑ 7021862 / HC693124

☐ Other _____

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.

Container Size (mL)	Original Vol. of Preservative (mL)
Container Type 5	NaOH
500	2.5
1000	5.0
Container Type 4	H_2SO_4
125	0.5
250	1.0
500	2.0
1000	4.0
Container Type 13	H_2SO_4
500	2.5