

State of Michigan Laboratory ID: 8001

November 21, 2017

Mr. Stephen King  
 Birmingham Public Schools  
 2305 Cole Street  
 Birmingham, MI 48009

**PROJECT: Groves**

**TRACE ID: T17K180-01**

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
Groves Left Water Fountain Theater Arts		11/9/17	6:50	jk		11/10/17 15:28	
<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B	
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Copper	0.49 mg/L	1.3	11/17/17 15:34	11/20/17 11:12	dtm	EPA 200.7 Rev. 4.4	

**TRACE ID: T17K180-02**

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
Groves E-3 G-74-CF		11/9/17	6:07	jk		11/10/17 15:28	
<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B	
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Copper	0.82 mg/L	1.3	11/17/17 15:34	11/20/17 11:15	dtm	EPA 200.7 Rev. 4.4	

**TRACE ID: T17K180-03**

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
Groves E-5 G-3070-CF		11/9/17	6:11	jk		11/10/17 15:28	
<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B	
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Copper	1.0 mg/L	1.3	11/17/17 15:34	11/20/17 11:17	dtm	EPA 200.7 Rev. 4.4	

\* The MCL (Maximum Contamination Limit) is the maximum concentration allowed under the Federal Safe Drinking Water Act. Results that are reported in bold or red have equaled or exceeded the MCL.



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 Senior Project Manager

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TRACE ID: T17K180-04

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
Groves Theater Arts Fountain G-386-DF		11/9/17	7:10	jk		11/10/17 15:28	
<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B	
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Copper	0.57 mg/L	1.3	11/17/17 15:34	11/20/17 11:20	dtm	EPA 200.7 Rev. 4.4	


TRACE ID: T17K180-05

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
Groves Theater Arts Bottle Filler G-387		11/9/17	7:10	jk		11/10/17 15:28	
<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B	
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Copper	0.58 mg/L	1.3	11/17/17 15:34	11/20/17 11:23	dtm	EPA 200.7 Rev. 4.4	

TRACE ID: T17K180-06

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
Groves A-1 G-388-CF		11/9/17	0:00	jk		11/10/17 15:28	
<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B	
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>	
Copper	0.062 mg/L	1.3	11/17/17 15:34	11/20/17 11:26	dtm	EPA 200.7 Rev. 4.4	

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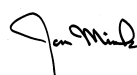
**PROJECT: Groves**

**TRACE ID: T17K180-07**

<i>Sample Point Description</i>	<i>Collected</i>	<i>Collected By</i>	<i>Received at Laboratory</i>
Groves A-1 Right Sink G-389-CF	11/9/17 0:00	jk	11/10/17 15:28

<b>Metals, Drinking Water</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>
Lead	<0.0030 mg/L	0.015	11/20/17 9:23	11/20/17 16:24	pn	SM 3113 B
<b>Metals, Total</b>	<b>RESULT</b>	<b>* MCL</b>	<b>PREPARED</b>	<b>ANALYZED</b>	<b>BY</b>	<b>METHOD</b>
Copper	0.20 mg/L	1.3	11/17/17 15:34	11/20/17 11:28	dtm	EPA 200.7 Rev. 4.4

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Jon Mink  
Senior Project Manager

## TRACE

ANALYTICAL LABORATORIES, INC.

Trace Analytical Laboratories, Inc.  
 2241 Black Creek Road  
 Muskegon, MI 49444-2673

Phone 231.773.5998  
 Fax 888.979.4469  
 www.trace-labs.com

**CHAIN-OF-CUSTODY RECORD**

Trace ID No.  
117180

Report Results To:		Company Name: Birmingham Public Schools	
Report To: Stephen King		PO #:	
Mailing Address: 2305 Cole St.		Contact Name:	
City, State, Zip Code: Birmingham, MI 48009		Billing Address (if different):	
Office Phone: 248-203-3050		City, State, Zip Code:	
Cell Phone: 248-867-4925		Phone Number:	
Email Address: SKing@birmingham.k12.mi.us		Billing Email Address:	

**Turnaround Requirements:**

Standard       48 Hour\*  
 4 Day\*         24 Hour\*  
 3 Day\*

*\* Requires Prior Approval*

**Matrix Key:**

S = Soil / Solid      WI = Wipes  
 W = Water            LW = Liquid Waste  
 SL = Sludge          A = Air  
 OI = Oil                D = Drinking Water

Trace No.	Date Collected	Time Collected	Client Sample ID	Metals Field Filtered (Y/N)	Matrix	Number of Containers	Preservation						Copper & Lead	Analysis Requested	Remarks	Possible Health Hazards?
							Cool	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	Other				
1	11/09	06:50	Groves Left Water Fountain Theater Arts									X				
2	11/09	06:07	Groves E-3 G-74-CF									X				
3	11/09	06:11	Groves E-5 G-3070-CF									X				
4	11/09	07:10	Groves Theater Arts Fountain G-386-DF									X				
5	11/09	07:10	Groves Theater Arts Bottle Filler G-387									X				
6	11/09		Groves A-1 G-388-CF									X				
7	11/09		Groves A-1 Right Sink G-389-CF									X				

**Please Sign**

Released By	Received By	Date	Time	Released By	Date	Time

In executing this Chain of Custody, the client acknowledges the terms as set forth at [www.trace-labs.com/terms-of-agreement](http://www.trace-labs.com/terms-of-agreement).

Check this box if you would not like your samples analyzed if received outside of the conditions outlined in the Trace Sample Acceptance Policy at [www.trace-labs.com/downloads](http://www.trace-labs.com/downloads).

**SAMPLE LOG IN CHECKLIST**

Trace ID #: TK180 Date: 11/10/17 Package Description: Cooler Temperature: -1.6  
 Client Name: Birmingham - Groves Time: 15:30 Logged in by: JS

**Cooler Receipt**

Cooler/samples delivered by: Trace courier  Hand delivered   
 Commercial courier  UPS  FED EX  US Mail   
 Name of delivery person: Jake K.

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Tracking Number:  Not Applicable  
 Tracking #: \_\_\_\_\_

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COC Seals present and intact on cooler?  Not Applicable  No  Yes  
 Custody seals signed by Client?  No  Yes Client custody seal # (if applicable): \_\_\_\_\_

**Coolant and Temperature**

<p><b>Type of Coolant Used</b></p> <p>Slurry w/ crushed, cubed, or chip ice? <input checked="" type="checkbox"/>                  Multiple bags of ice around samples? <input type="checkbox"/>                  Ice Packs/ Blue Ice : <input type="checkbox"/>                  No Coolant Present: <input type="checkbox"/>                  Ice still present upon receipt (circle one):  <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A</p>	<p style="text-align: center;"><b>Cooler Temperature</b></p> <p>Correction Factors: •Digital Stick Thermometer CF = -0.2°C                  •IR Thermometer CF = -0.5°C</p> <p>Representative Sample Temperature: <u>1.4</u> °C (check one below)  <input checked="" type="checkbox"/> Temp Blank (Stick Thermometer)  <input type="checkbox"/> Client Sample (IR Thermometer)</p> <p>Melt Water: <u>None</u> °C (Use Digital Stick Thermometer)</p>
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General			Comments	
	Yes	No		NA
All bottles arrived unbroken with labels in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Each sample point is in a sealed plastic bag?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Labels filled out completely?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
All bottle labels agree with Chain of Custody (COC)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sufficient sample to run tests requested?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
pH checked and samples at correct pH?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	See Below*
Correct preservative added to samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Air bubbles absent from VOAs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
COC filled out properly and signed by client?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
COC signed in by TRACE sample custodian?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was project manager called and samples discussed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

**Notes:**  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**\*EMD pH Test Strips Used:**  
 pH 0-2.5 Lot: HC573059  pH 11.0-13.0 Lot: HC547328  
 Other: \_\_\_\_\_