



Trace Analytical Laboratories, Inc.
 2241 Black Creek Road
 Muskegon, MI 49444-2673
 Phone: 231.773.5998 Fax: 888.979.4467
 www.trace-labs.com

State of Michigan Laboratory ID: 8001

May 22, 2017

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

PROJECT: Covington

TRACE ID: T17E282-01

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
C-62-CF		5/13/17	9:28	twb		5/15/17 8:47	
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD	
Copper	0.82 mg/L	1.3	5/17/17 13:16	5/19/17 15:15	dtm	EPA 200.8 Rev. 5.4	
Lead	<0.0010 mg/L	0.015	5/17/17 13:16	5/19/17 13:17	dtm	EPA 200.8 Rev. 5.4	

TRACE ID: T17E282-02

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
C-65-CF		5/13/17	9:27	twb		5/15/17 8:47	
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD	
Copper	1.2 mg/L	1.3	5/17/17 13:16	5/19/17 15:18	dtm	EPA 200.8 Rev. 5.4	
Lead	0.0075 mg/L	0.015	5/17/17 13:16	5/19/17 13:20	dtm	EPA 200.8 Rev. 5.4	

TRACE ID: T17E282-03

<i>Sample Point Description</i>		<i>Collected</i>		<i>Collected By</i>		<i>Received at Laboratory</i>	
C-73-CF		5/13/17	9:25	twb		5/15/17 8:47	
Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD	
Copper	1.9 mg/L	1.3	5/17/17 13:18	5/19/17 13:34	dtm	EPA 200.8 Rev. 5.4	
Lead	0.66 mg/L	0.015	5/17/17 13:18	5/19/17 13:27	dtm	EPA 200.8 Rev. 5.4	

* 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.

Jon Mink
 Senior Project Manager

State of Michigan Laboratory ID: 8001

May 22, 2017

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PROJECT: Covington

TRACE ID: T17E282-04

Sample Point Description C-82-CF Collected 5/13/17 9:25

Metals, Total	RESULT	* MCL	PREPARED
Copper	2.1 mg/L	1.3	5/17/17
Lead	<0.0010 mg/L	0.015	5/17/17

*600 C
 DELTA!*

TRACE ID: T17E282-05

Sample Point Description C-85-CF Collected 5/13/17 9:20

Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BT	METHOD
Copper	1.1 mg/L	1.3	5/17/17 13:18	5/19/17 15:28	dtm	EPA 200.8 Rev. 5.4
Lead	0.0019 mg/L	0.015	5/17/17 13:18	5/19/17 13:39	dtm	EPA 200.8 Rev. 5.4

TRACE ID: T17E282-06

Sample Point Description C-120-CF Collected 5/13/17 9:47

Metals, Total	RESULT	* MCL	METHOD
Copper	0.49 mg/L	1.3	200.8 Rev. 5.4
Lead	0.079 mg/L	0.015	200.8 Rev. 5.4

S.P. 12

* The MCL (Maximum Contamination Limit) is the maximum contaminant level set by the Safe Drinking Water Act. Results that are reported in bold are in violation of the MCL.



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PROJECT: Covington

TRACE ID: T17E282-07

<i>Sample Point Description</i>	<i>Collected</i>	<i>Collected By</i>	<i>Received at Laboratory</i>
C-131-DF	5/13/17 9:15	twb	5/15/17 8:47

Metals, Total	RESULT	* MCL	PREPARED	ANALYZED	BY	METHOD
Copper	0.54 mg/L	1.3	5/17/17 13:18	5/19/17 13:44	dtm	EPA 200.8 Rev. 5.4
Lead	0.0016 mg/L	0.015	5/17/17 13:18	5/19/17 13:44	dtm	EPA 200.8 Rev. 5.4

* 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.

Jon Mink
 Senior Project Manager



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Birmingham Schools Fixture Inventory

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Building: Covington

Date Collected: 5/13/17
 Sampler's Initials: TWG

Trace ID: T17E-282
 Logged by: [Signature]
 Checked by: [Signature]

Trace No.	Time Taken	Sample Point	Location	Photo(s)	Aerator?	Connecting Plumbing	Notes
40		C-40-BF	Main Hall- Men's-Left	2568	Y	Br, Cu	
41		C-41-BF	Main Hall- Men's-Right	2568	Y	Br, Cu	
42		C-42-DF	Main Hall- East End	2569	N	Unknown	
43		C-43-DS	Custodial Rm- East End	2570	N	Unknown	
44		C-44-BF	Women's by Staff Dev.-Left	2571	Y	Br, Cu	
45		C-45-BF	Women's by Staff Dev.-Right	2571	Y	Br, Cu	
46		C-46-DF	Hall by Staff Dev.	2572	N	Unknown	
47		C-47-BF	Men's by Staff Dev.-Left	2573	Y	Br, Cu	
48		C-48-BF	Men's By Staff Dev.-Right	2573	Y	Br, Cu	
49		C-49-KF	Staff Dev. Kitchen	2574/75	Y	Br, Cu, P	
50		C-50-B	Staff Dev. Kitchen	2574/75	N	Br, Cu, P	
51		C-51-KF	Tech Services	2576/77	Y	Br, Cu	
52		C-52-BF	Tech Services -Women	2578/79	Y	Br, Cu	
53		C-53-BF	Tech Services - Men	2580/81	Y	Br, Cu	
54		C-54-CF	600A Front Left	2582/83	N	Br, Cu	
55		C-55-CF	600A Front Right	2584	N	Br, Cu	
56		C-56-CF	600A Right-1	2585/86	N	Br, Cu	
57		C-57-CF	600A Right-2	2587/88	N	Br, Cu	
58		C-58-CF	600A Right-3	2589/90	N	Br, Cu	
59		C-59-CF	600A Right 4	2591/92	N	Br, Cu	
60		C-60-CF	600A Back Right	2593/94	N	Br, Cu	
61		C-61-CF	600A Back Left	2595/96	N	Br, Cu	
62	9:28	C-62-CF	600A Left Wall	2597/98	N	Br, Cu	
63		C-63-CF	600B Front Right	2599/600	N	Br, Cu	
64		C-64-CF	600B Front Left	2601	N	Br, Cu	
65	9:27	C-65-CF	600B Right Wall	2602/03	N	Br, Cu	
66		C-66-CF	600B Back Right	2604/05	N	Br, Cu	
67		C-67-CF	600B Back Middle	2606/07	N	Br, Cu	
68		C-68-CF	600B Back Left	2608/09	N	Br, Cu	
69		C-69-CF	600B Left Wall-Right	2610/11	N	Br, Cu	
70		C-70-CF	600B Left Wall- Middle	2612/13	N	Br, Cu	
71		C-71-CF	600B Left Wall- Left	2614/15	N	Br, Cu	
72		C-72-CF	604 Prep Rm- Left	2616/17	N	Br, Cu	
73	9:25	C-73-CF	604 Prep Rm - Right	2618	Y	Br, Cu	
74		C-74-CF	600C Front Right	2619	N	Br, Cu	
75		C-75-CF	600C Front Left	2620	N	Br, Cu	
76		C-76-CF	600C Right Wall-Right	2621	N	Br, Cu	
77		C-77-CF	600C Right Wall-Right Middle	2622	N	Br, Cu	
78		C-78-CF	600C Right Wall- Left Middle	2623	N	Br, Cu	

Released by: [Signature] Received by: [Signature] Date: 5/15/17 Time: 8:47



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Birmingham Schools Fixture Inventory

Page 2 of 3

Building: Covington

Date Collected: 5/13/17
 Sampler's Initials: TWO

Trace ID: T17E082
 Logged by: GP
 Checked by: WA

Trace No.	Time Taken	Sample Point	Location	Photo(s)	Aerator?	Connecting Plumbing	Notes
79		C-79-CF	600C Right Wall- Left	2624	N	Br, Cu	
80		C-80-CF	600C Back Wall- Right	2625	N	Br, Cu	
81		C-81-CF	600C Back Wall- Left	2626	N	Br, Cu	
482	9:25	C-82-CF	600C Left Wall	2627	N	Br, Cu	
83		C-83-CF	600D Front- Right	2628	N	Br, Cu	
84		C-84-CF	600D Front- Left	2629	N	Br, Cu	
5	9:20	C-85-CF	600D Right Wall	2630/31	N	Br, Cu	
86		C-86-CF	600D Back Wall- Right	2632/33	N	Br, Cu	
87		C-87-CF	600D Back Wall- Middle	2634/35	N	Br, Cu	
88		C-88-CF	600D Back Wall- Left	2636/37	N	Br, Cu	
89		C-89-CF	600D Right Wall- Right	2638/39	N	Br, Cu	
90		C-90-CF	600D Right Wall- Middle	2640/41	N	Br, Cu	
91		C-91-CF	600D Right Wall- Left	2642/43	N	Br, Cu	
92		C-92-CF	600D- Prep Rm	2644	N	Br, Cu	
93		C-93-KF	Teacher's Lounge	2645/46	N	Br, Cu	
94		C-94-KF	Old Main Office	2647/48	N	Br, Cu	
95		C-95-DF	Main Hall West	2649	N	Unknown	
96		C-96-BF	Boy's Main Hall- Left	2650	Y	Br, Cu	
97		C-97-BF	Boy's Main Hall- Right	2650	Y	Br, Cu	
98		C-98-DF	Girl's Main Hall- West End	2651	N	Unknown	
99		C-99-BF	Girl's Main Hall- Left	2652	Y	Br, Cu	
AA		C-100-BF	Girl's Main Hall- Right	2652	Y	Br, Cu	
AB		C-101-CF	Rm 108	2653/54	Y	Br, Cu	
AC		C-102-CF	Rm 104 A- 1	2655	N	Br, Cu	
AD		C-103-CF	Rm 104A Right Wall-2	2656/57	N	Br, Cu	
AE		C-104-CF	Rm 104A Right Wall-3	2658/59	N	Br, Cu	
AF		C-105-CF	Rm 104A Right Wall-4	2660	N	Br, Cu	
AG		C-106-CF	Rm 104A Right Wall-5	2661	N	Br, Cu	
AH		C-107-CF	Rm 102-Left Sink	2662/63	N	Br, Cu, P	
AI		C-108-CF	Rm 102- Right Sink	2664	N	Br, Cu, P	
AJ		C-109-DS	Custodial Rm behind Kitchen	2665	N	Unknown	
AK		C-110-DS	Custodial Rm -Kitchen	2666	N	Unknown	
AL		C-111-HS	Kitchen Handsink	2667/68	Y	Br, Cu	
AM		C-112-KF	Kitchen Prep Sink	2669	Y	Br, Cu	
AN		C-113-KF	Kitchen-Triple Sink- Left	2670/71	N	Br, Cu	
AO		C-114-KF	Kitchen-Triple Sink-Middle	2670/71	N	Br, Cu	
AP		C-115-KF	Kitchen-Triple Sink-Right	2670/71	N	Br, Cu	
AQ		C-116-BF	Kitchen	2672/73	Y	Br, Cu	
AR		C-117-KF	Cafeteria	2674	Y	Br, Cu	

Released by: [Signature] Received by: [Signature] Date: 5-16-17 Time: 8:47

Birmingham Schools Fixture Inventory

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Building: Covington

Date Collected: 5/13/17
 Sampler's Initials: TWB

Trace ID: TITE282
 Logged by: GHT
 Checked by: [Signature]

Trace No.	Time Taken	Sample Point	Location	Photo(s)	Aerator?	Connecting Plumbing	Notes
AS		C-118-Bott	Cafeteria	2675	N	Unknown	
AT		C-119-DF	Cafeteria	2675	N	Unknown	
6 AU	9:10	C-120-CF	Rm 90	2676/77	Y	Br, Cu, G	
AV		C-121-B	Rm 90	2676/77	N	Br, Cu, G	
AW		C-122-CF	Rm 80-Left	2678	Y	Br, Cu, G	
AX		C-123-CF	Rm 80- Middle	2678	Y	Br, Cu, G	
AY		C-124-CF	Rm 80- Right	2678	Y	Br, Cu, G	
AZ		C-125-DS	Custodial by Rm 80	2679	N	Unknown	
BA		C-126-CF	Rm 50	2680/81	N	Br, Cu	
BB		C-127-DF	Gym- South	2682	N	Unknown	
BC		C-128-DF	Gym- North	2683	N	Unknown	
BD		C-129-DF	North end of U Hall	2684	Y	Br, Cu	
BE		C-130-BF	South end of U Hall	2685	Y	Br, Cu	
47 BF	9:15	C-131-DF	Playground	2686	N	Unknown	
BG		C-132-CF	104A Station A-Front	2687/88	N	Br, Cu	
BH		C-133-CF	104A Station A-Left Wall 1	2689/90	N	Br, Cu	
BI		C-134-CF	104A Station A- Left Wall 2	2691/92	N	Br, Cu	
BJ		C-135-CF	104A Station A-Left Wall 3	2693			

Abbreviations:

B= Classroom Bubbler
 BF= Bathroom Faucet
 Bottle= Bottle Filler
 CF= Classroom Faucet
 DF= Drinking Fountain
 DS= Deep Sink
 EW= Eye Wash
 HS= Hand Sink
 KF= Kitchen Faucet

Connecting Plumbing:

Br= Brass
 Cu= Copper
 G= Galvanized
 P= Plastic
 SS= Stainless Steel

Released by: [Signature] Received by: [Signature] Date: 5-15-17 Time: 8:47

SAMPLE LOG IN CHECKLIST

Trace ID #: T17E283 Date: 5-15-17 Package Description: Cooler Temperature: 19.3
Client Name: Birmingham Time: _____ Logged In by: GH

Cooler Receipt

Cooler/samples delivered by: Trace courier
Hand delivered Name of delivery person: _____
Commercial courier UPS FED EX US Mail
Tracking Number: Not Applicable
Tracking #: _____
COC Seals present and intact on cooler? No Not Applicable
Yes
Custody seals signed by Client? No Client custody seal # (if applicable): _____
Yes

Coolant and Temperature

Type of Coolant Used
Slurry w/ crushed, cubed, or chip ice?
Multiple bags of ice around samples?
Ice Packs/ Blue Ice:
No Coolant Present:
Ice still present upon receipt (circle one):
Yes No N/A

Cooler Temperature
Correction Factors: • Digital Stick Thermometer CF = -0.6°C
• IR Thermometer CF = -0.4°C
Temperature Blank: N/A °C (Digital Stick Thermometer)
Range of 3 samples: 19.1-19.3 °C (IR Thermometer)
Melt Water: N/A °C (Use Digital Stick Thermometer)

General

	Yes	No	NA	Comments
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 type="checkbox"/>	<input type="checkbox"/>	

Notes:

***EMD pH Test Strips Used:**
 pH 0-2.5 pH 11.0-13.0
Lot: HC563733 Lot: HC547328
 Other: _____
Lot: HC563733 verified 6/21/16 AY
Lot: HC574781 verified 04/03/17 JS

