



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K0234

Tidewater

Project Name: North Frederick Elementary

Meneka Rodrigo
6625 Selnick Drive, Suite A
Elkridge, MD 21075

Project / PO Number: N/A
Received: 11/01/2018
Reported: 11/21/2018

Analytical Testing Parameters

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-05 1010 (DF) Left, Drinking Water, 18K0234-01, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst. Row for Lead with result <1.0.

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-05 1010 (DF) Right, Drinking Water, 18K0234-02, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst. Row for Lead with result <1.0.

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-01 1010 (DF) Left, Drinking Water, 18K0234-03, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst. Row for Lead with result <1.0.

Table with 2 columns: Parameter (Client Sample ID, Sample Matrix, Lab Sample ID) and Value (W01A-01 1010 (DF) Right, Drinking Water, 18K0234-04, etc.)

Metals, Total by EPA 200 Series Methods

Method: EPA 200.2/EPA 200.8

Table with 9 columns: Result, Limit(s), RL, Units, Note, Prepared, Analyzed, Analyst. Row for Lead with result <1.0.



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K0234

<b>Client Sample ID:</b> W01A-02 1010 (DF) Left	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:26
<b>Lab Sample ID:</b> 18K0234-05	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1248	LMH

<b>Client Sample ID:</b> W01A-02 1010 (DF) Right	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:27
<b>Lab Sample ID:</b> 18K0234-06	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1249	LMH

<b>Client Sample ID:</b> W01A-03 1010 (DF) Left	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:17
<b>Lab Sample ID:</b> 18K0234-07	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1250	LMH

<b>Client Sample ID:</b> W01A-03 1010 (DF) Right	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:18
<b>Lab Sample ID:</b> 18K0234-08	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1253	LMH



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K0234

<b>Client Sample ID:</b> W01A-04 1010 (DF) Left	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:22
<b>Lab Sample ID:</b> 18K0234-09	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1254	LMH

<b>Client Sample ID:</b> W01A-04 1010 (DF) Right	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:23
<b>Lab Sample ID:</b> 18K0234-10	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1256	LMH

<b>Client Sample ID:</b> W01A-07 1010 (DF) At Entrance	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:10
<b>Lab Sample ID:</b> 18K0234-11	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1300	LMH

<b>Client Sample ID:</b> W01A-06 1010 (DF) Left	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:13
<b>Lab Sample ID:</b> 18K0234-12	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1301	LMH



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K0234

<b>Client Sample ID:</b> W01A-06 1010 (DF) Right	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:14
<b>Lab Sample ID:</b> 18K0234-13	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1302	LMH

<b>Client Sample ID:</b> K17-01 1010 (IM)	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:34
<b>Lab Sample ID:</b> 18K0234-14	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1303	LMH

<b>Client Sample ID:</b> K17-02 1010 (IM)	<b>Collected By:</b> Kevin Rodgers
<b>Sample Matrix:</b> Drinking Water	<b>Collection Date:</b> 11/01/2018 4:37
<b>Lab Sample ID:</b> 18K0234-15	

Metals, Total by EPA 200 Series Methods	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
<b>Method: EPA 200.2/EPA 200.8</b>								
Lead	<1.0	20.0	1.0	ppb		11/08/18 1017	11/08/18 1304	LMH

Results in **bold** have exceeded a limit defined for this project. Limits are provided for reference but as regulatory limits change frequently, Microbac Laboratories, Inc. advises the recipient of this report to confirm such limits and units of concentration with the appropriate Federal, state or local authorities before acting on the data.

Definitions

RL: Reporting Limit

Cooler Receipt Log

Cooler ID: Default Cooler Temp: °C

Cooler Inspection Checklist

Custody Seals Intact	Yes	Containers Intact	Yes
Received on ice or not required.	Yes	Radiation Scan Acceptable or not required.	Yes
COC Present	Yes	COC/Containers Agree	Yes
Correct Preservation	No	Correct Number of Containers Received	Yes
Sufficient Sample Volume	Yes	Proper Condition	Yes

Project Requested Certification(s)

Microbac Laboratories, Inc. - Baltimore  
109

State of Maryland (Drinking Water)



Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

18K0234

**Report Comments**

*Samples were received in proper condition and the reported results conform to applicable accreditation standard unless otherwise noted.*

*The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.*

**Reviewed and Approved By:**

A handwritten signature in black ink, appearing to read "Isang Isang", is written over a light gray rectangular background.

Isang Isang

Client Relations

Reported: 11/21/2018 16:13

Microbac Laboratories, Inc.

2101 Van Deman Street | Baltimore, MD 21224 | 410.633.1800 p | [www.microbac.com](http://www.microbac.com)

Page 5 of 7



18K0234



### Multiple Sample COC

Site: **North Frederick Elementary: 1010 Fairview Avenue, Frederick, MD 21701, Office Ph.: 240-236-2000**

Date Sampled: **Thursday, November 1, 2018**

Row	Area Number/Room/Space	From Item Description	Sample Name:	Date/Time Sampled (ex: 03/01/2018 13:28)	Sampler's Name
1	1st Floor by C108, C109	Drinking Fountain, Refrigerated	W01A-05 1010 (DF) Left	11/1/2018 4:06 AM	Kevin Rodgers
2	1st Floor by C108, C109	Drinking Fountain, Refrigerated	W01A-05 1010 (DF) Right	11/1/2018 4:07 AM	Kevin Rodgers
3	A Wing 1st Floor	Drinking Fountain, Refrigerated	W01A-01 1010 (DF) Left	11/1/2018 4:30 AM	Kevin Rodgers
4	A Wing 1st Floor	Drinking Fountain, Refrigerated	W01A-01 1010 (DF) Right	11/1/2018 4:31 AM	Kevin Rodgers
5	A Wing 2nd Floor	Drinking Fountain, Refrigerated	W01A-02 1010 (DF) Left	11/1/2018 4:26 AM	Kevin Rodgers
6	A Wing 2nd Floor	Drinking Fountain, Refrigerated	W01A-02 1010 (DF) Right	11/1/2018 4:27 AM	Kevin Rodgers
7	B Wing 1st Floor	Drinking Fountain, Refrigerated	W01A-03 1010 (DF) Left	11/1/2018 4:17 AM	Kevin Rodgers
8	B Wing 1st Floor	Drinking Fountain, Refrigerated	W01A-03 1010 (DF) Right	11/1/2018 4:18 AM	Kevin Rodgers
9	B Wing 2nd Floor	Drinking Fountain, Refrigerated	W01A-04 1010 (DF) Left	11/1/2018 4:22 AM	Kevin Rodgers
10	B Wing 2nd Floor	Drinking Fountain, Refrigerated	W01A-04 1010 (DF) Right	11/1/2018 4:23 AM	Kevin Rodgers
11	Cafeteria <i>Just one</i>	Drinking Fountain, Refrigerated	W01A-07 1010 (DF) <del>Left</del> <i>at entrance</i>	11/1/2018 4:10 AM	Kevin Rodgers
12	Cafeteria <i>not present</i>	Drinking Fountain, Refrigerated	W01A-07 1010 (DF) <del>Right</del>	11/1/2018	Kevin Rodgers
13	Gym	Drinking Fountain, Refrigerated	W01A-06 1010 (DF) Left	11/1/2018 4:13 AM	Kevin Rodgers
14	Gym	Drinking Fountain, Refrigerated	W01A-06 1010 (DF) Right	11/1/2018 4:14 AM	Kevin Rodgers
15	ICE MAKER <i>Health Room</i>	Ice Machine	K17-01 1010 (IM)	11/1/2018 4:34 AM	Kevin Rodgers
16	ICE MAKER	Ice Machine	K17-02 1010 (IM)	11/1/2018 4:37 AM	Kevin Rodgers
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

Samples Relinquished By:

Samples Received By:

Temp:

*Kevin Rodgers* 11-01-2018  
*Kevin Rodgers* 11/1/2018 06:50

*15 Samples in*

# Cooler Receipt Form / Sample Acceptance & Noncompliance Form

Microbac Laboratories, Inc., Baltimore Division  
Control # 606-03  
Effective Date: 11/30/2016  
Page 1 of 1

Number of Coolers Received: 1

Client: T. denwater

Form Completed By: MEG

Shipper:

Custody Tape Intact:

Containers Intact:

Sample Received on Ice or refrigerated:

Chain of Custody Present with shipment:

Sample Bottle IDs agree with COC:

Preservation requirements met:

Correct Number of Containers / Sample Volume:

Headspace in container:

Type of Sample:

Receipt Date / Time: 11/11/18 6:50

Work Order # 1810234

Microbac  Client  UPS  FedEx

YES / NO / NA

YES / NO

YES / NO / NA

Infrared (IR) Temperature: \_\_\_\_\_ °C

YES / NO

YES / NO

YES / NO (Not Checked)

YES / NO (If No, contact client immediately)

YES / NO / NA

Water Soil Wipes Oil Filter Solid

Sludge Food Swab Other

**Container Type / Quantity:**

A -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid:	If preserved pH <2, pH >10
B -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
C -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
D -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
E -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
H -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
K -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
L -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
M -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
P -	<u>15</u> Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
W -	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
V -	Unpreserved	HCl	HCl / Ascorbic Acid	HCl / NaTHIO	<b>(Checked at time of Analysis)</b>		
F -	Unpreserved	NaTHIO <b>(Checked at time of Analysis)</b>					
S -	Unpreserved	NaTHIO <b>(Checked at time of Analysis)</b>					
SN -	Unpreserved	NaTHIO NaTHIO/EDTA <b>(Checked at time of Analysis)</b>					
	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10
	Unpreserved	H2SO4	HNO3	HCl	NaOH	NaOH/Ascorbic Acid	If preserved pH <2, pH >10

**Describe preservation requirements not met:**

*All Acid preserved <2 pH      NaOH preserved >12 pH      All others >2 and <10 (usually 4-8)*

Sample ID: \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> HNO<sub>3</sub> NaOH \_\_\_\_\_ mls added

Sample ID: \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> HNO<sub>3</sub> NaOH \_\_\_\_\_ mls added

Sample ID: \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> HNO<sub>3</sub> NaOH \_\_\_\_\_ mls added

Sample ID: \_\_\_\_\_ H<sub>2</sub>SO<sub>4</sub> HNO<sub>3</sub> NaOH \_\_\_\_\_ mls added

*H<sub>2</sub>SO<sub>4</sub> – Sulfuric Acid, HNO<sub>3</sub> – Nitric Acid, NaOH – Sodium Hydroxide, ASC – Ascorbic Acid, NaTHIO – Sodium Thiosulfate*

Describe Anomalies: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Contact information / Summary of Actions:**

Date / Time: \_\_\_\_\_ Contact: \_\_\_\_\_ Contact By: \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_