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Microbac Laboratories, Inc. - Baltimore

CERTIFICATE OF ANALYSIS

22E0222

Maryland Department of the Environment

Ron Wicks
1800 Washington BLVD STE 510
Baltimore, MD 21230

Project Name: Back River Bacteria

Project / PO Number: N/A
Received: 05/04/2022
Reported: 05/06/2022

Analytical Testing Parameters

Client Sample ID: BRB1
Sample Matrix: Wastewater
Lab Sample ID: 22E0222-01
Collected By: John Lynch / Gilbert Lookingland
Collection Date: 05/04/2022 8:58

Microbiology	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: Enterolert								
Enterococcus	34		1.0	MPN/100mL		05/04/22 1600	05/05/22 1845	NMN
Method: SM 9223 B (Colilert Quanti-Tray)-1997								
Escherichia coli	140		1.0	MPN/100mL		05/04/22 1610	05/05/22 1400	NMN

Client Sample ID: BRB2
Sample Matrix: Wastewater
Lab Sample ID: 22E0222-02
Collected By: John Lynch / Gilbert Lookingland
Collection Date: 05/04/2022 9:10

Microbiology	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: Enterolert								
Enterococcus	31		1.0	MPN/100mL		05/04/22 1600	05/05/22 1845	NMN
Method: SM 9223 B (Colilert Quanti-Tray)-1997								
Escherichia coli	52		1.0	MPN/100mL		05/04/22 1610	05/05/22 1400	NMN

Client Sample ID: BRB3
Sample Matrix: Wastewater
Lab Sample ID: 22E0222-03
Collected By: John Lynch / Gilbert Lookingland
Collection Date: 05/04/2022 9:20

Microbiology	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: Enterolert								
Enterococcus	36		1.0	MPN/100mL		05/04/22 1600	05/05/22 1845	NMN
Method: SM 9223 B (Colilert Quanti-Tray)-1997								
Escherichia coli	26		1.0	MPN/100mL		05/04/22 1610	05/05/22 1400	NMN

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22E0222

Client Sample ID:	BRB4		
Sample Matrix:	Wastewater	**Collected By:**	John Lynch / Gilbert Lookingland
Lab Sample ID:	22E0222-04	**Collection Date:**	05/04/2022 9:30

Microbiology	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Method: Enterolert								
Enterococcus	7.5		1.0	MPN/100mL		05/04/22 1600	05/05/22 1845	NMN
Method: SM 9223 B (Colilert Quanti-Tray)-1997								
Escherichia coli	1.0		1.0	MPN/100mL		05/04/22 1610	05/05/22 1400	NMN

*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

MPN/100mL	Most Probable Number per 100 Milliliters
RL:	Reporting Limit

Report Comments

Reviewed and Approved By:

Brittany Spraker
Project Manager
Reported: 05/06/2022 10:29

MICROBAC
2101 Van Deman Street
Baltimore, MD 21224
(410) 633-1800

CHAIN OF CUSTODY RECORD

Number
Instructions on back
TO BE COMPLETED BY MICROBAC

Lab Report Address
Client Name: Maryland Department of the Environment
Address: 1800 Washington Blvd
City, State, Zip: Balto, MD 21230
Contact: Ron Wicks
Telephone No.: 4435621270

Invoice Address
Client Name: SAME
Address: SAME
City, State, Zip: SAME
Contact: SAME
Telephone No.: SAME

Turnaround Time
☒ Routine (5 to 7 business days)
☐ RUSH* (notify lab)
(needed by)

Report Type
☒ Results Only ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

Temperature Upon Receipt (°C)
Therm ID 46.12 10.9°C
Holding Time
Samples Received on Ice? ☒ Yes ☐ No ☐ N/A
Custody Seals Intact? ☐ Yes ☐ No ☐ N/A

Send Report via: ☐ Mail ☐ Fax ☒ e-mail (address) ron.wicks@maryland.gov dennis.rasmussen@maryland.gov
Send Invoice via: ☐ Mail ☐ Fax ☐ e-mail (address)

Project: Back River Bacteria
Location:
PO No.:
Compliance Monitoring? ☐ Yes ☒ No ☐ Agency/Program

Sampled by (PRINT): John Lynch Gilbert Lookingland
Sampler Signature:
Sampler Phone No.: 4104192709

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)
** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

Lab ID	Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	REQUESTED ANALYSIS: Enterococcus	REQUESTED ANALYSIS: E. Coli
	BRB1	5.4.22	0858	2		G	8	1	1
	BRB2	5.4.22	0910	2		G	8	1	1
	BRB3	5.4.22	0920	2		G	8	1	1
	BRB4	5.4.22	0930	2		G	8	1	1

22E0222

Additional Notes

Possible Hazard Identification ☒ Hazardous ☐ Non-Hazardous ☐ Radioactive
Comments

Sample Disposition ☒ Dispose as appropriate ☐ Return ☐ Archive

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
	5.4.22 1037		5-4-22 1034
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
			5/4/22 @ 1517
Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time

rev.12/26/2017

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: MDE
Form Completed By: Omiete Eriksima

Receipt Date / Time: 5-4-22 1034
Work Order # 22E0222

Shipper: ☐ Microbac ☑ Client ☐ UPS ☐ FedEx
Custody Tape Intact: YES / NO (NA)
Containers Intact: YES / NO
Sample Received on Ice or refrigerated: YES / NO / NA
Infrared (IR) Temperature: 10.9 °C

Chain of Custody Present with shipment: YES / NO
Sample Bottle IDs agree with COC: YES / NO
Preservation requirements met: YES / NO / Not Checked
Correct Number of Containers / Sample Volume: YES / NO (If No, contact client immediately)
Headspace in container: YES / NO / NA
Type of Sample: 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 - ___ 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 **(Checked at time of Analysis)**
F - ___ Unpreserved ___ NaTHIO **(Checked at time of Analysis)**
S - ___ Unpreserved 8 NaTHIO **(Checked at time of Analysis)**
SN- ___ Unpreserved ___ NaTHIO ___ NaTHIO/EDTA **(Checked at time of Analysis)**

___ 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_2SO_4 HNO_3 NaOH _____ mls added
Sample ID:_____ H_2SO_4 HNO_3 NaOH _____ mls added
Sample ID:_____ H_2SO_4 HNO_3 NaOH _____ mls added
Sample ID:_____ H_2SO_4 HNO_3 NaOH _____ mls added
H_2SO_4 – Sulfuric Acid, HNO_3 – Nitric Acid, NaOH – Sodium Hydroxide, ASC – Ascorbic Acid, NaTHIO – Sodium Thiosulfate

Describe Anomalies:_____

Contact information / Summary of Actions:
Date / Time:_____ Contact:_____ Contact By:_____
Comments:_____