



ANDY BESHEAR
GOVERNOR

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SECRETARY

**ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION**

ANTHONY R. HATTON
COMMISSIONER

300 SOWER BOULEVARD
FRANKFORT, KENTUCKY 40601
TELEPHONE: 502-564-2150
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December 29, 2021

Dear Kentucky Wastewater Certified Laboratory:

Please find enclosed your laboratory's Wastewater Certification Package for 2022. Please review the certificate and associated method-analyte list for accuracy and completeness. The enclosed certificate is valid until December 31, 2022.

Please note, due to an issue with our database, MDL and MRL values have not been updated on your method-analyte lists for 2022. We are working toward a solution for this issue. We will update these values again for the next certification period.

Additionally, we would like to thank all the laboratories who utilized the eForm website to submit their application documents. We would also like to thank the laboratories who submitted an electronic payment through our eSearch website. If you did not take advantage of these during this renewal period and would like more information, please email us at DOWLabCertification@ky.gov.

We look forward to working with your laboratory in the upcoming year. Please visit our Laboratory Certification Program webpages for contact information, program updates, renewal schedule/document requirements and links to useful documents.

Main webpage: <https://eec.ky.gov/Environmental-Protection/Water/PermitCert/LabCert/Pages/default.aspx>

Wastewater webpage: <https://eec.ky.gov/Environmental-Protection/Water/PermitCert/LabCert/Pages/Wastewater-Lab-Certification-Program.aspx>

If you have any comments or questions regarding the enclosed documents, please contact Kentucky Laboratory Certification Program by email at dowlabcertification@ky.gov.

Sincerely,

Kentucky Division of Water
Laboratory Certification Program

Enclosures

C. KLCP Files

COMMONWEALTH OF KENTUCKY

Energy and Environment Cabinet

2022

Wastewater Laboratory Certification Program
In Accordance with KRS 224.10-670 and 401 KAR Chapter 5:320



THIS CERTIFIES THAT

Microbac Laboratories, Inc. - Louisville
3323 Gilmore Industrial Blvd
Louisville, KY 40213
Laboratory ID Number: KY00074



The above laboratory has complied with Kentucky Administrative Regulation 401 KAR 5:320, Wastewater Laboratory Certification Program, for the analyses of wastewater samples, as specified in 33 U.S.C. 1342, for the method-analyte pairs specified on the attached certification list.

Effective From: January 1, 2022

To: December 31, 2022

Kevin Stewart

Certification Program Manager

Signed by: Kevin Stewart

Microbac Laboratories, Inc. - Louisville
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KY Category	CAS #	Analyte	Status	Reference Method	Method Code for PT Reporting	MRL	MRL Units
Field	7782-50-5	Chlorine, Free Available	Certified	SM 4500-Cl G-2011	20081623	0.02	mg/L
Field	7782-50-5	Chlorine, Total Residual	Certified	HACH 8167	60003807	0.02	mg/L
Field		Oxygen, Dissolved	Certified	SM 4500-O G-2011	20121668	0.10	mg/L
Field		Specific Conductance	Certified	SM 2510 B-2011	20048617	10	umhos/cm
Field	14265-45-3	Sulfite (as SO ₃)	Certified	SM 4500-SO ₃ ⁻ B-2011	20130636	4	mg/L
Field		Temperature	Certified	SM 2550 B-2010	20053229		degrees Celsius
Field		Turbidity	Certified	SM 2130 B-2011	20048220	1	NTU
Field		pH	Certified	SM 4500-H+ B-2011	20105220	1	S.U.
Inorganic/General Chemistry		Acidity, Total (as CaCO ₃)	Certified	SM 2310 B-2011	20044615	5	mg/L
Inorganic/General Chemistry		Alkalinity, Total (as CaCO ₃)	Certified	SM 2320 B-2011	20045618	5	mg/L
Inorganic/General Chemistry	7664-41-7	Ammonia	Certified	SM 4500-NH ₃ G-2011	20111415	0.50	mg/L
Inorganic/General Chemistry		BOD, 5-day	Certified	SM 5210 B-2011	20135266	5	mg/L
Inorganic/General Chemistry	24959-67-9	Bromide	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.50	mg/L
Inorganic/General Chemistry		Carbon, Total Organic	Interim	SM 5310 C-2011	20138823	0.50	mg/L
Inorganic/General Chemistry		Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	Certified	SM 5210 B-2011	20135266	5	mg/L
Inorganic/General Chemistry		Chemical Oxygen Demand (COD)	Certified	SM 5220 D-2011	20136816	25	mg/L
Inorganic/General Chemistry	16887-00-6	Chloride	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.50	mg/L
Inorganic/General Chemistry	16887-00-6	Chloride	Certified	SM 4500-Cl ⁻ E-2011	20086811	30	mg/L
Inorganic/General Chemistry		Chromium (VI)	Certified	SM 3500-Cr B-2011	20066266	0.01	mg/L
Inorganic/General Chemistry		Cyanide - Available	Interim	SM 4500-CN ⁻ G-2011	20097227	0.01	mg/L
Inorganic/General Chemistry	57-12-5	Cyanide, Total (as Cn)	Interim	SM 4500-CN ⁻ E-2011	20096428	0.01	mg/L



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Inorganic/General Chemistry	16984-48-8	Fluoride	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.50	mg/L
Inorganic/General Chemistry		Hardness, Total (as CaCO ₃)	Certified	SM 2340 B-2011	20046611		mg/L
Inorganic/General Chemistry	84145-82-4	Nitrate	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.20	mg/L
Inorganic/General Chemistry		Nitrate-Nitrite (as N)	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.20	mg/L
Inorganic/General Chemistry	14797-65-0	Nitrite	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.20	mg/L
Inorganic/General Chemistry		Nitrogen, Kjeldahl Total (TKN)	Interim	EPA 351.2 Rev. 2.0 (1993)	10065404	2	mg/L
Inorganic/General Chemistry		Nitrogen, Organic Total (as N)	Certified	Calculation			mg/L
Inorganic/General Chemistry	7727-37-9	Nitrogen, Total	Certified	Calculation			mg/L
Inorganic/General Chemistry		Oil and Grease	Certified	EPA 1664 Rev. B	10261617	5	mg/L
Inorganic/General Chemistry	64743-03-9	Phenolics, Total	Interim	EPA 420.4 Rev. 1.0 (1993)	10080203	0.05	mg/L
Inorganic/General Chemistry	7723-14-0	Phosphorus, Total (as P)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.09	mg/L
Inorganic/General Chemistry	7723-14-0	Phosphorus, Total (as P)	Certified	EPA 365.1 Rev. 2.0 (1993)	10070005	0.05	mg/L
Inorganic/General Chemistry		Solids, Settleable	Certified	SM 2540 F-2011	20052215	0.10	ml/l/hr
Inorganic/General Chemistry		Solids, Total	Certified	USGS B5, Ch A1 (1989) I-3750-85	40010808	20	mg/L
Inorganic/General Chemistry		Solids, Total Dissolved	Certified	SM 2540 C-2011	20050413	10	mg/L
Inorganic/General Chemistry		Solids, Total Suspended (TSS)	Certified	USGS I-3765-85 (1989)	40011209	5	mg/L
Inorganic/General Chemistry		Solids, Volatile (Residue, Volatile)	Certified	USGS B5, Ch A1 (1989) I-3753-85	40011005	20	mg/L
Inorganic/General Chemistry	14808-79-8	Sulfate, Total (as SO ₄)	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.50	mg/L
Inorganic/General Chemistry	18496-25-8	Sulfide, Total (as S)	Certified	SM 4500-S ₂ ⁻ D-2011	20125864	0.04	mg/L
Inorganic/General Chemistry		Surfactants (MBAS)	Certified	SM 5540 C-2011	20145066	0.50	mg/L
Inorganic/General Chemistry	264888-19-9	o-Phosphate	Certified	EPA 300.0 Rev 2.1 (1993)	10053200	0.20	mg/L
Inorganic/General Chemistry	264888-19-9	o-Phosphate	Certified	EPA 365.1 Rev. 2.0 (1993)	10070005	0.20	mg/L



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Inorganic/Metals	7429-90-5	Aluminum, Total (as Al)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	2	mg/L
Inorganic/Metals	7429-90-5	Aluminum, Total (as Al)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	50	ug/L
Inorganic/Metals	7440-36-0	Antimony, Total (as Sb)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.09	mg/L
Inorganic/Metals	7440-36-0	Antimony, Total (as Sb)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	6	ug/L
Inorganic/Metals	7440-38-2	Arsenic, Total (as As)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.10	mg/L
Inorganic/Metals	7440-38-2	Arsenic, Total (as As)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	10	ug/L
Inorganic/Metals	7440-39-3	Barium, Total (as Ba)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.02	mg/L
Inorganic/Metals	7440-39-3	Barium, Total (as Ba)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	2	ug/L
Inorganic/Metals	7440-41-7	Beryllium, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.0040	mg/L
Inorganic/Metals	7440-41-7	Beryllium, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	4	ug/L
Inorganic/Metals	7440-42-8	Boron	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.50	mg/L
Inorganic/Metals	7440-43-9	Cadmium, Total (as Cd)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.01	mg/L
Inorganic/Metals	7440-43-9	Cadmium, Total (as Cd)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	5	ug/L
Inorganic/Metals	7440-70-2	Calcium, total [as Ca]	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.50	mg/L
Inorganic/Metals	7440-47-3	Chromium, Total (as Cr)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.0070	mg/L
Inorganic/Metals	7440-47-3	Chromium, Total (as Cr)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	100	ug/L
Inorganic/Metals	7440-48-4	Cobalt, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.03	mg/L
Inorganic/Metals	7440-48-4	Cobalt, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	4.70	ug/L
Inorganic/Metals	7440-50-8	Copper, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.0090	mg/L
Inorganic/Metals	7440-50-8	Copper, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	25	ug/L
Inorganic/Metals	7439-89-6	Iron, Total (as Fe)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.30	mg/L
Inorganic/Metals	7439-89-6	Iron, Total (as Fe)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	100	ug/L
Inorganic/Metals	7439-92-1	Lead, Total (as Pb)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.10	mg/L



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Inorganic/Metals	7439-92-1	Lead, Total (as Pb)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	15	ug/L
Inorganic/Metals	7439-95-4	Magnesium, Total (as Mg)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.60	mg/L
Inorganic/Metals	7439-96-5	Manganese, Total (as Mn)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.03	mg/L
Inorganic/Metals	7439-96-5	Manganese, Total (as Mn)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	50	ug/L
Inorganic/Metals	7439-98-7	Molybdenum, Total (as Mo)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.10	mg/L
Inorganic/Metals	7439-98-7	Molybdenum, Total (as Mo)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	78	ug/L
Inorganic/Metals	7440-02-0	Nickel, Total (as Ni)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.04	mg/L
Inorganic/Metals	7440-02-0	Nickel, Total (as Ni)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	100	ug/L
Inorganic/Metals	7440-09-7	Potassium, Total (as K)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	2	mg/L
Inorganic/Metals	7782-49-2	Selenium, Total (as Se)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.05	mg/L
Inorganic/Metals	7782-49-2	Selenium, Total (as Se)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	1	ug/L
Inorganic/Metals	7440-22-4	Silver, Total (as Ag)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.06	mg/L
Inorganic/Metals	7440-22-4	Silver, Total (as Ag)	Interim	EPA 200.8, Rev. 5.4 (1994)	10014605	1	ug/L
Inorganic/Metals	7440-23-5	Sodium, Total (as Na)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.50	mg/L
Inorganic/Metals	7440-28-0	Thallium, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.06	mg/L
Inorganic/Metals	7440-28-0	Thallium, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	2	ug/L
Inorganic/Metals	7440-31-5	Tin, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.06	mg/L
Inorganic/Metals	7440-32-6	Titanium, Total (as Ti)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.01	mg/L
Inorganic/Metals	7440-62-2	Vanadium, Total	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.02	mg/L
Inorganic/Metals	7440-62-2	Vanadium, Total	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	78	ug/L
Inorganic/Metals	7440-66-6	Zinc, Total (as Zn)	Certified	EPA 200.7, Rev. 4.4 (1994)	10013806	0.09	mg/L
Inorganic/Metals	7440-66-6	Zinc, Total (as Zn)	Certified	EPA 200.8, Rev. 5.4 (1994)	10014605	25	ug/L
Microbiology		Coliform, Fecal	Certified	Colilert-18 [®]	60002622	1	MPN/100mL



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Microbiology		E. Coli	Certified	Colilert [®]	60002644	1	MPN/100mL
Microbiology		E. Coli	Certified	Colilert-18 [®]	60002622	1	MPN/100mL
Toxicity		Ceriodaphnia dubia	Interim	EPA 1002.0 (2002)	10215200	1	TUc
Toxicity		Ceriodaphnia dubia	Interim	EPA 2002.0 (2002)	10214901	1	TUa
Toxicity		Daphnia magna	Interim	EPA 2021.0 (2002)	10215391	1	TUa
Toxicity		Pimephales promelas	Interim	EPA 1000.0 (2002)	10214003	1	TUc
Toxicity		Pimephales promelas	Interim	EPA 2000.0 (2002)	10213419	1	TUa

