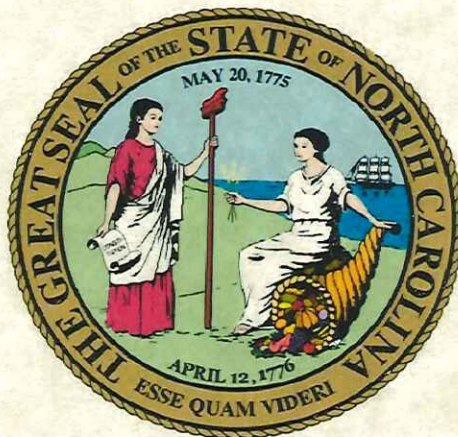


DIVISION OF WATER RESOURCES LABORATORY CERTIFICATION BRANCH

In accordance with the provisions of N.C.G.S. 143-215.3 (a) (1), 143-215.3 (a)(10) and NCAC 2H.0800:



2024

Microbac Laboratories Inc. Ohio Valley Division

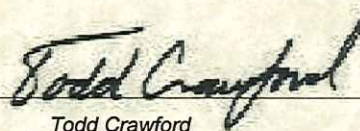
Is hereby certified to perform environmental analysis as listed on the Laboratory's Certified Parameter List and report monitoring data to DEQ for compliance with NPDES effluent, surface water, groundwater, soil and pretreatment regulations.

By reference 15A NCAC 2H .0800 is made a part of this certificate.

This certificate does not guarantee validity of data generated, but indicates the methodology, equipment, quality control procedures, records, and proficiency of the laboratory have been examined and found to be acceptable.

This certificate shall be valid until 12/31/2024

Certificate No. 583


Todd Crawford

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Microbac Laboratories Inc. Ohio Valley Division
 Address: 158 Starlite Drive
 Marietta, OH 45750-

Certificate Number: 583
 Effective Date: 1/1/2024
 Expiration Date: 12/31/2024
 Date of Last Amendment: 8/29/2024

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

INORGANIC

ALKALINITY
 SM 2320 B-2011 (Aqueous)
 BROMIDE
 EPA 300.0, Rev. 2.1, 1993 (Aqueous)
 CHLORIDE
 SM 4500 Cl⁻ E-2011 (Aqueous)
 EPA 300.0, Rev. 2.1, 1993 (Aqueous)
 COD
 EPA 410.4, Rev. 2.0, 1993 (Aqueous)
 Hach 8000 (Aqueous)
 CYANIDE
 SW-846 9014 (Available) (Colorimetric) (Aqueous)
 SW-846 9014 (Total) (Colorimetric) (Aqueous)
 SW-846 9014 (Total) (Colorimetric) (Non-Aqueous)
 SM 4500 CN⁻ E-2016 (Total) (Aqueous)
 HARDNESS TOTAL - WET CHEM
 SM 2340 C-2011 (Aqueous)
 INORGANIC PHENOLS
 EPA 420.1, Rev. 1978 (Aqueous)
 NITROGEN, AMMONIA
 EPA 350.1, Rev. 2.0, 1993 (Aqueous)
 NITROGEN, NITRATE
 EPA 300.0, Rev. 2.1, 1993 (Aqueous)
 SW-846 9056 A (Aqueous)
 NITROGEN, NITRITE
 EPA 300.0, Rev. 2.1, 1993 (Aqueous)
 SW-846 9056 A (Aqueous)
 SW-846 9056 A (Non-Aqueous)
 NITROGEN, NO₃ + NO₂
 EPA 353.2, Rev. 2.0, 1993 (Aqueous)
 NITROGEN, TOTAL KJELDAHL
 EPA 351.2, Rev. 2.0, 1993 (Aqueous)
 OIL & GREASE

EPA 1664 Rev. B (Aqueous)
 ORGANIC CARBON, TOTAL
 SM 5310 C-2014 (Aqueous)
 PAINT FILTER LIQUIDS
 SW-846 9095B
 pH
 SM 4500 H+B-2011 (Aqueous)
 SW-846 9040 C (Aqueous)
 SW-846 9045 D (Non-Aqueous)
 PHOSPHATE, ORTHO
 SM 4500 P E-2011 (Aqueous)
 PHOSPHORUS, TOTAL
 EPA 365.4, 1974 (Aqueous)
 RESIDUE, DISSOLVED 180 C
 SM 2540 C-2015 (Aqueous)
 RESIDUE, SUSPENDED
 SM 2540 D-2015 (Aqueous)
 SULFATE
 EPA 300.0, Rev. 2.1, 1993 (Aqueous)
 SULFIDE
 SW-846 9034 (Non-Aqueous)
METAL
 ALUMINUM
 EPA 200.7, Rev. 4.4, 1994 (Aqueous)
 SW-846 6010 D (Aqueous)
 SW-846 6010 D (Non-Aqueous)
 ANTIMONY
 EPA 200.7, Rev. 4.4, 1994 (Aqueous)
 SW-846 6010 D (Aqueous)
 SW-846 6010 D (Non-Aqueous)
 EPA 200.8, Rev. 5.4, 1994 (Aqueous)
 SW-846 6020 B (Aqueous)
 SW-846 6020 B (Non-Aqueous)
 ARSENIC

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Microbac Laboratories Inc. Ohio Valley Division
Address: 158 Starlite Drive
Marietta, OH 45750-

Certificate Number: 583
Effective Date: 1/1/2024
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The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

BARIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Non-Aqueous)

BERYLLIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)

BORON

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)

CADMIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

CALCIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)

CHROMIUM HEXAVALENT

SM 3500 Cr B-2011 (Aqueous)
SW-846 7196 A (Aqueous)

SW-846 7196 A (Non-Aqueous)
CHROMIUM TOTAL
EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

COBALT

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

COPPER

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

IRON

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)

LEAD

SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

MAGNESIUM

EPA 200.7, Rev. 4.4, 1994 (Aqueous)

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Microbac Laboratories Inc. Ohio Valley Division
Address: 158 Starlite Drive
Marietta, OH 45750-

Certificate Number: 583
Effective Date: 1/1/2024
Expiration Date: 12/31/2024
Date of Last Amendment: 8/29/2024

The above named laboratory, having duly met the requirements of 15A NCAC 2H.0800, is hereby certified for the measurement of the parameters listed below.

CERTIFIED PARAMETERS

SW-846 6010 D (Aqueous)	SILVER
SW-846 6010 D (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
MANGANESE	SW-846 6010 D (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6010 D (Non-Aqueous)	SW-846 6020 B (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 6020 B (Non-Aqueous)
SW-846 6020 B (Aqueous)	SODIUM
SW-846 6020 B (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
MERCURY	SW-846 6010 D (Aqueous)
EPA 245.1, Rev. 3.0, 1994 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 7470 A (Aqueous)	STRONTIUM
SW-846 7471 B (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
MOLYBDENUM	SW-846 6010 D (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Aqueous)	THALLIUM
SW-846 6010 D (Non-Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
NICKEL	SW-846 6010 D (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Non-Aqueous)	EPA 200.8, Rev. 5.4, 1994 (Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	SW-846 6020 B (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6020 B (Non-Aqueous)
SW-846 6020 B (Non-Aqueous)	TIN
POTASSIUM	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Non-Aqueous)	TITANIUM
SELENIUM	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
EPA 200.7, Rev. 4.4, 1994 (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6010 D (Aqueous)	SW-846 6010 D (Non-Aqueous)
SW-846 6010 D (Non-Aqueous)	VANADIUM
EPA 200.8, Rev. 5.4, 1994 (Aqueous)	EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)	SW-846 6010 D (Aqueous)
SW-846 6020 B (Non-Aqueous)	SW-846 6010 D (Non-Aqueous)

North Carolina Wastewater/Groundwater Laboratory Certification

Certified Parameters Listing

Lab Name: Microbac Laboratories Inc. Ohio Valley Division
Address: 158 Starlite Drive
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CERTIFIED PARAMETERS

ZINC

EPA 200.7, Rev. 4.4, 1994 (Aqueous)
SW-846 6010 D (Aqueous)
SW-846 6010 D (Non-Aqueous)
EPA 200.8, Rev. 5.4, 1994 (Aqueous)
SW-846 6020 B (Aqueous)
SW-846 6020 B (Non-Aqueous)

ORGANIC

BASE NEUTRAL/ACID, ORGANICS

EPA 625.1, Dec 2016 (Aqueous)
SW-846 8270 E (Aqueous)
SW-846 8270 E (Non-Aqueous)

CHLORINATED ACID HERBICIDES

SW-846 8151 A (Aqueous)
SW-846 8151 A (Non-Aqueous)

POLYCHLORINATED BIPHENYLS (PCBs)

EPA 608.3, Dec 2016 (Aqueous)
SW-846 8082 A (Aqueous)
SW-846 8082 A (Non-Aqueous)
SW-846 8082 A (Oil)

PURGEABLE, ORGANICS

EPA 624.1, Dec 2016 (Aqueous)
SW-846 8260 D (Aqueous)
SW-846 8260 D (Non-Aqueous)

TPH DIESEL RANGE, ORGANICS

SW-846 8015 C (Aqueous)
SW-846 8015 C (Non-Aqueous)

TPH GASOLINE RANGE, ORGANICS

SW-846 8015 C (Non-Aqueous)