



*The State of Tennessee*

**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

**DIVISION OF WATER RESOURCES**

*Certifies That*

**Microbac Laboratory – Knoxville Division**

*Having Met the Requirements of the Regulations for the  
Certification of Laboratories Analyzing Drinking Water  
is hereby Approved as a*

**State Certified Laboratory in Chemistry and Microbiology**

*To perform the Analyses as Indicated on the enclosed  
Certified Parameter List For the Public Water Systems of Tennessee*

**Laboratory ID Number 02017**

Prasad Subbanna  
Laboratory Certification Program Manager  
Tennessee Division of Water Resources

Issue Date: 10/11/2022

Expiration Date: 9/12/2025

*This certification is subject to performance on E.P.A.  
Proficiency Testing Samples, laboratory inspections,  
payment of annual fees, is nontransferable, and  
supersedes previously issued certificates.*

## Certified Parameters - 2022

TENNESSEE

Microbac - Knoxville Division

TN02017

EPA # TN00018

11/23/2022

Attn: T.J. McCallum  
505 East Broadway Avenue  
Maryville, TN 37804

Parameter	EPA Parameter #	Approved Method	Study Type	Date Complete	PT Provider / WS #
<b>Disinfectant Residuals</b>					
Free Chlorine Residual	1013	SM - 4500-CI G	Proficiency Test	3/24/2022	ERA / WS-307
Total Chlorine Residual	1012	SM - 4500-CI G	Proficiency Test	3/24/2022	ERA / WS-307
<b>Disinfection By-Products</b>					
UV 254 Absorbance	2922	SM - 5910 B	Proficiency Test	5/19/2022	ERA / WS-309
<b>Inorganics</b>					
Calcium	1016	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Chloride	1017	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
Color	1905	SM - 2120 B	Proficiency Test	5/19/2022	ERA / WS-309
Conductivity	1064	SM - 2510 B	Proficiency Test	3/24/2022	ERA / WS-307
Cyanide	1024	EPA - 335.4	Proficiency Test	3/24/2022	ERA / WS-307
Fluoride	1025	EPA - 300.0	Proficiency Test	2/3/2022	ERA / 010422A
Fluoride	1025	EPA - 300.0	Proficiency Test	3/2/2022	ERA / 021022N
Fluoride	1025	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
Hardness, Total (as CaCO3)	1915	SM - 2340B	Proficiency Test	3/24/2022	ERA / WS-307
Iron	1028	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Nitrate	1040	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
Nitrate + Nitrite	1038	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
Nitrite	1041	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
Ortho-phosphate	1044	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
pH	1925	SM - 4500-H+B	Proficiency Test	3/24/2022	ERA / WS-307
Potassium	1042	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Silica	1049	EPA - 200.7	Proficiency Test	5/19/2022	ERA / WS-309
Sodium	1052	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Sulfate	1055	EPA - 300.0	Proficiency Test	3/24/2022	ERA / WS-307
Total Dissolved Solids	1930	SM - 2540 C	Proficiency Test	3/24/2022	ERA / WS-307
Turbidity	0100	EPA - 180.1	Proficiency Test	3/24/2022	ERA / WS-307
Alkalinity, Total	1927	SM - 2320 B	Proficiency Test	3/24/2022	ERA / WS-307
Hardness, Calcium	1919	SM - 2340 B	Proficiency Test	3/24/2022	ERA / WS-307

**Metals**

<u>Parameter</u>	<u>EPA Parameter #</u>	<u>Approved Method</u>	<u>Study Type</u>	<u>Date Complete</u>	<u>PT Provider / WS #</u>
Antimony	1074	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Arsenic	1005	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Barium	1010	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Barium	1010	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Beryllium	1075	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Beryllium	1075	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Cadmium	1015	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Cadmium	1015	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Chromium	1020	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Chromium	1020	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Copper	1022	EPA - 200.8	Proficiency Test	5/12/2022	ERA / 042922G
Copper	1022	EPA - 200.8	Proficiency Test	3/2/2022	ERA / 021022N
Copper	1022	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Lead	5000	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Magnesium	1031	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Manganese	1032	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Manganese	1032	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Mercury	1035	EPA - 245.1	Proficiency Test	3/24/2022	ERA / WS-307
Nickel	1036	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Nickel	1036	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Selenium	1045	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Thallium	1085	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Aluminum	1002	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Aluminum	1002	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Silver	1050	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307
Silver	1050	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Zinc	1095	EPA - 200.8	Proficiency Test	3/24/2022	ERA / WS-307
Zinc	1095	EPA - 200.7	Proficiency Test	3/24/2022	ERA / WS-307

### Microbiologicals

Escherichia coli, Colilert	3014	SM - 9223	Proficiency Test	2/3/2022	ERA / 010522P
Escherichia coli, Colilert	3014	SM - 9223	Proficiency Test	3/24/2022	ERA / WS-307
Heterotrophic Bacteria, Pour plate metho	3001	SM - 9215 B	Proficiency Test	3/24/2022	ERA / WS-307
Heterotrophic Bacteria, Pour plate metho	3001	SM - 9215 B	Proficiency Test	2/3/2022	ERA / 010522O
Total Coliform, Colilert	3000	SM - 9223	Proficiency Test	3/24/2022	ERA / WS-307
Total Coliform, Colilert	3000	SM - 9223	Proficiency Test	2/3/2022	ERA / 010522P