



STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**  
**DIVISION OF WATER RESOURCES**  
Memphis Environmental Field Office  
8383 Wolf Lake Drive  
BARTLETT, TENNESSEE 38133  
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August 8, 2021

Mayor Dwayne Cole  
City of Munford  
1397 Munford Ave.  
Munford, Tennessee 38058

**Re:    Sanitary Survey, Community Water System  
      Munford Water Department  
      PWSID # TN0000490  
      Tipton County**

Dear Mayor Cole,

On July 14, 2021, Mr. Cameron Byrd with the Division of Water Resources (DWR), assisted by Mr. Justin Barkelew, Operator of the Munford Water Department, performed a Sanitary Survey on the city of Munford's water system. The sanitary survey consisted of a records review to document the operational performance of the system and an on-site inspection of the source water, disinfection, and distribution systems. The sanitary survey covered the time period from May 2019 to the present day. The Division would like to thank Mr. Barkelew for his courtesy, willingness to work with the Division, and timely responses to Division requests during the survey. In accordance with the Sanitary Survey Manual, the Munford Water Department, earned 599 points out of a possible 599 total points for a numerical score of one hundred percent (**100%**). This rating retains the Munford Water Department in the State's "**Approved**" category.

With the current situation regarding the Coronavirus (Covid-19) pandemic and health crisis, the review procedures during the sanitary survey were somewhat modified, out of an abundance of caution and in order to adhere to the safety guidelines prescribed by the Department. Most records, reports and pertinent information were reviewed and obtained electronically and by phone. Once on site, your water system was observed and inspected during normal operations and appeared to be functioning properly as designed.

The following deficiencies, comments, and/or recommendations (as outlined in the attached Sanitary Survey Rating Form) were identified during the survey and should be addressed as applicable.

**General comments and recommendations** are listed for your information as follows:

1. It was noted during the survey that the system had two (2), fifty-gallon (50gal.) storage tanks of oil stored in the high-service pump room, which is located directly over a clear well. It was recommended that the oil tanks be moved to a new location to prevent possible contamination of the clear well. The tanks were moved to a new location while inspectors were on site.
2. Your water system is required to submit ten (10) water samples monthly for bacteriological analysis to any State certified laboratory.
3. As a reminder, the following monitoring requirements should occur as described in the January 31, 2020 Chemical Monitoring Waivers/Schedules 2020-2022 letter.
  - Nitrate-Annually
  - Radionuclides-2023
  - VOCs-2022
4. Mr. Justin Barkelew was previously approved for the daily process control laboratory tests prescribed in your Drinking Water Monitoring Program. Mr. Barkelew performs these tests in accordance with the current edition of Standard Methods For The Examination Of Water And Wastewater, and Mr. Barkelew is approved for the performance of these tests.

Again, the Division would like to thank you and the staff of the Munford Water Department for the assistance and courtesy given during the course of the survey as well as ensuring safe drinking water is provided to the citizens of Munford. If you have any questions or need additional information, please contact me at [Cameron.Byrd@tn.gov](mailto:Cameron.Byrd@tn.gov) or (901) 321-8089.

Sincerely,



Cameron Byrd  
Environmental Scientist  
Memphis Environmental Field Office  
Division of Water Resources

CC: TDEC/DWR/Nashville-file  
TDEC/DWR/MEFO-file

# Sanitary Survey Rating

**PWSID:** \_\_\_\_\_

**Water System Name:** \_\_\_\_\_

**Survey Date:** \_\_\_\_\_

**System Category (Points):** -

421 - Consecutive Systems/Distribution Only  
 488 - Treatment Systems/Wholesalers  
 599 - Both Treatment and Distribution

## 1. System Management and Operation (94)

	Requirement	Points Range	Deduction	Comments
A.	Record Keeping 0400-45-01-.20	(0)	Narrative	
B.	Construction Projects 0400-45-01-.05, 0400-45-01-.17	(1-5)		
C.	Submission of Monthly Operations Reports 0400-45-01-.17	(0)	Narrative	
D.	Reporting Requirements 0400-45-01-18	(4-30)		
E.	Public Notification 0400-45-01-.19	(3-10)		
F.	Facility Maintenance Fee	(0)	Narrative	
G.	Enforcement - TCA §68-221-701 et seq	(4-10)		
H.	Emergency Operations Plan 0400-45-01-.17	(3)		
Deficiency Subtotal				

## 2. Operator Compliance (23)

	Requirement	Points Range	Deduction	Comments
A.	Certified Operator – Plant and Distribution System 0400-45-01-.17(1) and 0400-49-01- 04	(3-15)		
Deficiency Subtotal				

## 3. Source (25)

	Requirement	Points Range	Deduction	Comments
A.	Source Adequacy 0400-45-01-.02, .05, .16, .17(13) and .34(3)	(3-5)		
B.	Intake 0400-45-01-.05, .17	(2)		
C.	Wellhead/Springbox Construction 0400-45- 01-.05(12),16 and 17(3) and (16)	(2)		
D.	Source Protection Plans 0400-45-01-.34	(1-2)		
Deficiency Subtotal				

#### 4. Treatment (153)

	Requirement	Points Range	Deduction	Comments
A.	Aerator 0400-45-01-.05, .17	(2)		
B.	Chemicals / Chemical Feeders 0400-45-01- .05 (8) and .17,36	(2)		
C.	Mixing 0400-45-01-.02, .05, .17	(2)		
D.	Flocculation 0400-45-01-.02, .05, .17	(2)		
E.	Sedimentation 0400-45-01-.02, .05, .17	(2)		
F.	Filtration / Alternative Technology 0400-45- 01-.17(12) and (27)	(2-30)		
G.	Re-Wash / Filter-to-Waste 0400-45-01- .17(35)	(2)		
H.	Turbidimeters / Calibration 0400-45-01- .05(11), .17, .31, .39	(2-4)		
I.	Disinfection/Calibration 0400-45-01-.02, .17, .31, .36	(2-30)		
J.	Disinfection Contact Time 0400-45-01-.02, .17,31	(2-4)		
K.	Master Meter 0400-45-01.17(2) and (3)	(1-2)		
L.	Maintenance of Equipment, Buildings and Grounds 0400-45-01-.02, .17(3), (17) and (19)	(1)		
M.	Laboratory Facilities 0400-45-01-.02, .14, .17(3)	(1-3)		
N.	Safety 0400-45-01-.02	(2)		
O.	Sludge Handling/Backwash Handling 0400- 45-01-.05	(2)		
P.	Sanitary Conditions 0400-45-01-.17(17)	(2)		
Q.	Fluoridation Techniques 0400-45-01-.06, .12, .17	(2)		
R.	Design Capacity 0400-45-01-.05(10)	(2-4)		
S.	Filter Backwash Recycling 0400-45-01-.31(9)	(1)		
Deficiency Subtotal				

### 5. Monitoring, Data Verification and Compliance (175)

	Requirement	Points Range	Deduction	Comments
A.	Laboratory-Process Monitoring (excluding Turbidity and Chlorine Residual) 0400-45-01-17(3)	(2-4)		
B.	Bacteriological Monitoring	(3-6)		
C.	Bacteriological Compliance 0400-45-01-.06	(4-7)		
D.	Turbidity Monitoring	(2-3)		
E.	Turbidity Compliance	(4-7)		
F.	Chlorine Residual Monitoring 0400-45-01-.17,31,36, 40	(2-3)		
G.	Primary Chemicals Monitoring	(2-3)		
H.	Primary Chemicals Compliance	(4)		
I.	Lead and Copper Monitoring 0400-45-01-.33	(2-3)		
J.	Lead and Copper Action Level 0400-45-01-.33	(3-5)		
K.	Disinfection/Disinfection By-Products and Precursors Monitoring 0400-45-01-.36, .37, .38	(2-3)		
L.	Disinfection/Disinfection By-Products and Precursors Compliance 0400-45-01-.06, .36	(2-30)		
M.	Secondary Chemicals 0400-45-01-.12	(2)		
N.	Secondary Chemicals Compliance 0400-45-01-.12	(3)		
O.	Cryptosporidium Monitoring 0400-45-01-.39	(0)	Narrative	
Deficiency Subtotal				

### 6. Finished Water Storage (25)

	Requirement	Points Range	Deduction	Comments
A.	Adequate Storage 0400-45-01-.17(14)	(3-15)		
B.	Inspection and Maintenance of Reservoirs, Tanks and Clearwell 0400-45-01-.17(16), (17), (33) and (34)	(1-10)		
Deficiency Subtotal				

**7. Pumps, Pump Facilities and Controls (18)**

	Requirement	Points Range	Deduction	Comments
A.	Pump Facilities 0400-45-01-.17(9) and (13)	(1-4)		
B	Maintenance of Pumping Equipment 0400-45 - 01-.17(13)	(1-3)		
Deficiency Subtotal				

**8. Distribution System and Cross Connection Controls (86)**

	Requirement	Points Range	Deduction	Comments
A.	Notification, Inspection, Disinfection and Sample Collection of New or Existing Facilities 0400-45-01-.17(8), (19)	(3-5)		
B	Flushing Program / Blow Offs 0400-45-01-.17(10) and (23)	(3-4)		
C.	Fire Hydrants 0400-45-01-.17(18)	(0)	Narrative	
D.	Adequate Pressure 0400-45-01-.17(9)	(5)		
E.	Map of Distribution System 0400-45-01-.17(15)	(3)		
F.	Approved Cross Connection Policy or Ordinance and Plan 0400-45-01-.17(6)	(4)		
G.	Working Cross Connection Program 0400- 45-01-.17(6)	(3-9)		
H.	Percent Estimated Water Loss( real loss/water produced)	(0)	Narrative	
Deficiency Subtotal				

**Rating**

- 95% - 100% Approved
- 90% - 94% Provisionally Approved
- 0% - 89 % Unsatisfactory

Total Deficiency Points	
Overall Rating	
	100%

Inspectors Signature *Cameron Byrd*

Additional Comments/Explanation: