

Annual Drinking Water Quality Report

January—December 2024

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Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and the Alabama Department of Environmental Management (ADEM) drinking water health standards. Your Local Water officials vigilantly safeguard its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standards.

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

The majority of your water comes from our Carter Street well, which produces 150 gallons per minute and our new Stephens Street well at 550 gallons per minute. The Knox Aquifer is the source for both wells. Oxford Water is from the Knox Group, Shady Dolomite Aquifer. We are both required to add chlorine for disinfecting. Both Munford and Oxford have provided water testing data.

Level 1 Assessment: “A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total Coliform bacteria have been found in our water system.”

Level 2 Assessment: “A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total Coliform bacteria have been found in our water system on multiple occasions.”

Important Drinking Water Definitions:

Disinfection Byproducts – contaminants formed when chlorine is used as a disinfectant.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - Picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Variances & Exemptions - ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Maximum Contaminant Level Goal or MCLG - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level or MCL - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal or MRDLG - The level of a drinking water disinfectant below which there is no known or expected risk to health.

MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level or MRDL - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Variances and Exemptions - The Department or EPA permission not to meet an MCL or a treatment technique under certain conditions

Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

Action Level - The concentration of a contaminant that triggers treatment or other requirement a water system shall follow.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

The Munford Water Authority, Inc. routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2024. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The Munford Water Authority, Inc. utilizes a Bacteriological Monitoring Plan, and a Cross Connection Policy is in place to insure good safe drinking water for our customers. The Munford Water Authority, Inc. has completed a Source Water Assessment Plan which is available for review at their office. A Source Water Assessment Plan provides information about potential sources of contamination and is set up to help protect our source.

Any Questions?

Please attend our regularly scheduled meetings for 2025!

January 16, March 20, May 15, July 17, September 18, November 20. All meetings are held at 6:30 pm in the MWA office.

Munford Water Authority, Inc.
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Munford, AL 36268

A MESSAGE FROM THE BOARD

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you

for understanding. We at The Munford Water Authority, Inc. works around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

As you can see by the tables, our system had no monitoring violations of allowable limits of contaminants in drinking water. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. **Total Coliform:** The Total Coliform Rule requires water systems to meet a stricter limit for Coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria.

When Coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and it can pick up substances resulting from the presence of animals or from human activity. Some people may be more vulnerable to contaminants in drinking water than the general population. People who are Immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **Munford Water Authority, Inc.** is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

Munford Water Authority, Inc.

Table of Primary Contaminants								
At high levels some primary contaminants are known to pose a health risk to humans. This table provides a quick glance of any primary contaminant detections.								
CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Total Coliform Bacteria	< 5%	ND	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
Turbidity	TT	0.06	Organic Chemicals			Ethylene dibromide(ppt)	50	ND
Fecal Coliform & E. coli	0	ND	Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
Radiological			Alachlor(ppb)	2	ND	Haloacetic Acids(ppb)	60	ND
Beta/photon emitters (mrem/yr)	4	ND	Atrazine(ppb)	3	ND	Heptachlor(ppt)	400	ND
Alpha emitters (pci/l)	15	ND	Benzene(ppb)	5	ND	Heptachlor epoxide(ppt)	200	ND
Combined radium (pci/l)	5	ND	Benzo(a)pyrene(PHAs)(ppt)	200	ND	Hexachlorobenzene(ppb)	1	ND
Uranium(pci/l)	30	ND	Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppb)	50	ND
Inorganic			Carbon Tetrachloride(ppb)	5	ND	Lindane(ppt)	200	ND
Antimony (ppb)	6	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Arsenic (ppb)	10	ND	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Asbestos (MFL)	7	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Barium (ppm)	2	0.02	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Beryllium (ppb)	4	ND	Dibromochloropropane(ppt)	200	ND	PCBs(ppt)	500	ND
Bromate(ppb)	10	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Cadmium (ppb)	5	ND	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chloramines (ppm)	4	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	0.18
Chlorine (ppm)	4	1.60	1,1-Dichloroethylene(ppb)	7	0.22	Toluene(ppm)	1	ND
Chlorine dioxide(ppb)	800	ND	Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	1.20
Chlorite (ppm)	1	ND	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	2.40
Chromium (ppb)	100	ND	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Copper (ppm)	AL=1.3	ND	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Cyanide (ppb)	200	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Fluoride (ppm)	4	ND	Di(2-ethylhexyl)phthlates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Lead (ppb)	AL=15	ND	Dinoseb (ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Mercury (ppb)	2	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	5.18
Nitrate (ppm)	10	1.10	Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
Nitrite (ppm)	1	ND	Endothall(ppb)	100	ND	Xylenes (ppm)	10	ND
Total Nitrate & Nitrite	10	1.10	Endrin(ppb)	2	ND			
Table of Secondary and Unregulated Contaminants								
Secondary Drinking Water Standards are guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.								
CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
Secondary								
Aluminum	0.2	ND	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	6.00	Iron	0.3	ND	Sulfate	70	ND
Color (PCU)	15	ND	Magnesium	75	ND	Total Dissolved Solids	500	119
Copper	1	ND	Odor (T.O.N.)	5	ND	Zinc	5	ND
Special								
Calcium	N/A	ND	pH (SU)	N/A	8.40	Temperature (*C)	N/A	ND
Carbon Dioxide	N/A	ND	Sodium	N/A	3.40	Total Alkalinity	N/A	ND
Manganese	0.05	ND	Specific Conductance (umhos)	N/A	ND	Total Hardness (as CaCO3)	N/A	130
Unregulated								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2-Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isopropylbenzene	N/A	ND
1,1-Dichloroethane	N/A	ND	Bromodichloromethane	N/A	2.80	M-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoform	N/A	ND	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolachlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4-Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	ND	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	6.60	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3-Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	ND	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	ND	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND
PFAS Compounds								
CONTAMINANT	RESULTS	UNITS	CONTAMINANT	RESULTS	UNITS	CONTAMINANT	RESULTS	UNITS
11Cl-PF3OUdS	ND	ug/L	Perfluorodecanoic Acid	ND	ug/L	Perfluorooctanoic Acid	0.0034	ug/L
9Cl-PF3ONS	ND	ug/L	Perfluorohexanoic Acid	0.0018	ug/L	Perfluorotetradecanoic Acid	ND	ug/L
ADONA	ND	ug/L	Perfluorododecanoic Acid	ND	ug/L	Perfluorotridecanoic Acid	ND	ug/L
HFPO-DA	ND	ug/L	Perfluoroheptanoic Acid	ND	ug/L	Perfluoroundecanoic Acid	ND	ug/L
NEFOSAA	ND	ug/L	Perfluorohexanesulfonic Acid	0.0029	ug/L	Total PFAs	0.012	ug/L
NMeFOSAA	ND	ug/L	Perfluorononanoic Acid	ND	ug/L			ug/L
Perfluorobutanesulfonic Acid	0.0044	ug/L	Perfluorooctanesulfonic Acid	0.0066	ug/L			ug/L

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or ADEM requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.										
Table of Detected Drinking Water Contaminants										
CONTAMINANT	MCLG	MCL	Range			Munford	Oxford	Amount Detected	Likely Source of Contamination	
Bacteriological Contaminants										
Total Coliform Bacteria	0	< 5%				ND	ND	Present or Absent	Naturally present in the environment	
Turbidity	0	TT				ND	0.057	NTU	Soil runoff	
Radiological Contaminants										
Alpha emitters	0	15				ND	ND	pCi/L	Erosion of natural deposits	
Beta particle and photon	0	4				ND	ND	mrem/yr	Decay of natural and man-made deposits	
Combined Radium 226 & 228	0	5				ND	ND	pCi/L	Erosion of natural deposits	
Inorganic Contaminants										
Barium	2	2	ND	-	ND	ND	0.016	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Chlorine	MRDLG 4	MRDL 4	1.26	-	1.35	1.35	1.6	ppm	Water additive used to control microbes	
Copper	1.3	10 Sites AL=1.3	No. of Sites above action level 0			ND	0.094	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
Lead	0	10 Sites AL=15	No. of Sites above action level 0			ND	ND	ppb	Corrosion of household plumbing systems, erosion of natural deposits	
Nitrate (as N)	10	10	ND	-	ND	ND	1.1	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Total Nitrate & Nitrite	10	10	ND	-	ND	ND	1.1	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Organic Contaminants										
Haloacetic Acids (HAA5)	0	60	ND	-	ND	ND	14.80	ppb	By-product of drinking water chlorination	
Total Organic Carbon (TOC)	N/A	TT	ND	-	ND	ND	1.20	TT	Naturally present in the environment	
Total trihalomethanes (TTHM)	0	80	ND	-	2.40	2.40	7.25	ppb	By-product of drinking water chlorination	
Unregulated Contaminants										
Bromodichloromethane	N/A	N/A	ND	-	ND	ND	2.80	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination	
Chloroform	N/A	N/A	ND	-	ND	ND	6.60	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination	