

Annual Drinking Water Quality Report

Ardmore Water System

January-December 2023

Is my water safe?

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. Our water source is a combination of three wells withdrawing from the Tuscumbia quadrant as well as an emergency connection with Limestone County Water Authority. Our source water assessment has been completed. Information on Source Water Assessments may be found at <http://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html>. A wellhead protection plan has been completed and approved and is available at our office for viewing.

Monitoring Violations:

The Ardmore Water System was required to monitor on February 8th 2023 for Trihalomethanes and Haloacetic Acids. This monitoring was not performed until February 27th which was the date ADEM required us to monitor, resulting in a TDEC monitoring violation. All analysis results were within required concentrations and no concentrations exceeded any contaminant levels.

Reporting Violations:

The Ardmore Water System utilizes PACE Analytical laboratories out of Tuscaloosa Alabama for regulatory compliance. They report all analytical results to ADEM. Results are to be submitted by the 10th of the month following the monitoring period. The following results were reported after the required date: SOC's and Inorganics for the period between 2020 and 2022, VOC's for October 2022-December 2022 and VOC results for Well #3 for July-September 2023. all analysis were performed during the required period and all results were satisfactory, the results were just uploaded to ADEM's website late.

Ardmore's Board routinely completes a water storage facility inspection plan, and utilizes a Bacteriological Monitoring Plan and a Cross Connection Policy is in place to insure good safe drinking water for our customers. Chlorine is added to the water as disinfectant and the required residual is maintained to protect your drinking water from any possible outside contaminants..

Ardmore 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, 2023 or most recent analysis as noted.

. 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). We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on **the last Monday of the month at 8:30 a.m.**

The members of the Board of Directors are:

Billy Shannon Chairman

Wayne Harvel

Shane Emerson

Billy Ray Hall

James Griffin

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.

Explanation of reasons for variance/exemption

Based on a study conducted by ADEM with the approval of the EPA a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus monitoring for these contaminants was not required.

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 Primary Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detection's.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological tested monthly			Endothall(ppb)	100	ND
Total Coliform Bacteria	< 5%	ND	Endrin(ppb)	2	ND
Fecal Coliform & E. coli	0	ND	Ethylbenzene(ppb)	700	ND
Radiological tested in 2019			Ethylene dibromide(ppb)	50	ND
Beta/photon emitters (mrem/yr)	4	ND	Glyphosate(ppb)	700	ND
Alpha emitters (pci/l)	15	0.9	Haloacetic Acids(ppb)	60	43.7
Combined radium (pci/l)	5	0.8	Heptachlor(ppb)	400	ND
Uranium(pci/l)	30	ND	Heptachlor epoxide(ppb)	200	ND
Results reported in MG/L			Hexachlorobenzene(ppb)	1	ND
Antimony (ppm)	0.01	ND	Hexachlorocyclopentadiene(ppb)	50	ND
Arsenic (ppm)	0.01	0	Lindane(ppb)	200	ND
Asbestos (MFL)	7	ND	Methoxychlor(ppb)	40	ND
Barium (ppm)	2	0.02	Oxamyl [Vydate](ppb)	200	ND
Beryllium (ppm)	4	ND	Pentachlorophenol(ppb)	1	ND
Bromate(ppm)	10	ND	Picloram(ppb)	500	ND
Cadmium (ppm)	5	ND	PCBs(ppb)	500	ND
Chloramines(ppm)	4	ND	Simazine(ppb)	4	ND
Chlorine(ppm) tested daily	4	1.3- 2.8	Styrene(ppb)	100	ND
Chlorine dioxide(ppm)	800	ND	Tetrachloroethylene(ppb)	5	ND
Chlorite(ppm)	1	ND	Toluene(ppm)	1	ND
Chromium (ppm)	100	ND	TOC	TT	0.92-2.30
Copper (ppm) (2020) 90 th %	AL=1.3	0.21*	TTHM(ppb)	80	51.6

Cyanide (ppm)	200	ND	Toxaphene(ppb)	3	ND
Fluoride (ppm)	4	<0.25	2,4,5-TP (Silvex)(ppb)	50	ND
Lead (ppm) (2020) 90 th %	AL=15 ppb	2.2*	1,2,4-Trichlorobenzene(ppb)	70	ND
Mercury (ppm)	2	ND	1,1,1-Trichloroethane(ppb)	200	ND
	10	2.0			ND
Nitrate (ppm) tested 2023			1,1,2-Trichloroethane(ppb)	5	ND
Nitrite (ppm)	1	<0.1	Trichloroethylene(ppb)	5	ND
Total Nitrate & Nitrite	10	2	Vinyl Chloride(ppb)	2	ND
Selenium(ppb)	50	0.526	Xylenes(ppm)	10	ND
Thallium(ppb)	2	ND			
Organic Chemicals all were tested in 2023					
Acrylamide	TT	ND			
Alachlor(ppb)	2	ND			
Atrazine(ppb)	3	ND			
Benzene(ppb)	5	ND			
Benzo(a)pyrene[PHAs](ppt)	200	ND			
Carbofuran(ppb)	40	ND			
Carbon Tetrachloride(ppb)	5	ND			
Chlordane(ppb)	2	ND			
Chlorobenzene(ppb)	1	ND			
2,4-D	70	ND			
Dalapon(ppb)	200	ND			
Dibromochloropropane(ppt)	200	ND			
0-Dichlorobenzene(ppb)	600	ND			
p-Dichlorobenzene(ppb)	75	ND			
1,2-Dichloroethane(ppb)	5	ND			
1,1-Dichloroethylene(ppb)	7	ND			

- *All 10 homes sampled in 2023 tested below the action level.

PFAS were tested for quarterly in 2023 ranges were N.D. To 0.022 ug/l

Cis-1,2-Dichloroethylene(ppb)	70	ND
trans-1,2-Dichloroethylene(ppb)	100	ND
Dichloromethane(ppb)	5	ND
1,2-Dichloropropane(ppb)	5	ND
Di-(2-ethylhexyl)adipate(ppb)	400	ND
Di(2-ethylhexyl)phthalates(ppb)	6	ND
Dinoseb(ppb)	7	ND
Dioxin[2,3,7,8-TCDD](ppb)	30	ND
Diquat(ppb)	20	ND

Table of Detected Drinking Water Contaminants

CONTAMINANT	MCLG	MCL	Range		Amount Detected		Likely Source of Contamination	
Radiological Contaminants February 2016								
Alpha emitters	0	15	0	-	0.9	0.9	pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0	5	0	-	0.8	0.8	pCi/L	Erosion of natural deposits
Inorganic Contaminants 2023 unless noted								
Turbidity tested daily	N/A	TT	0.11		0.87	0.87	NTU	Soil runoff
Chloride	N/A	250	7	-	11.4	8.72	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Odor	N/A	3		-	<1.00	<1.00	T.O.N.	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	N/A	250	3.91	-	11.6	6.73	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	94	-	179	179	ppm	Erosion of natural deposits
Color Units	0	15	ND	-	ND	ND	-	Leaching from vegetation
Calcium	N/A	N/A	48.6	-	48.6	48.6	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	NA	-	12.3	12.3	ppm	Erosion of natural deposits
Magnesium	N/A	N/A	5.27	-	5.27	5.27	ppm	Erosion of natural deposits
PH tested daily	N/A	N/A	6.8	-	8.7	8.7	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	N/A	N/A	2.43	-	2.43	2.43	ppm	Naturally occurring in the environment
Sulfate	N/A	N/A	3.91	-	11.6	11.6	ppm	Naturally occurring in the environment
Total Alkalinity	N/A	N/A	63.7	-	137	125	ppm	Erosion of natural deposits
Nitrate (as N)	10	10	0.57	-	3.5	1.07	ppm	Runoff from fertilizer use;

								leaching from septic tanks, sewage; erosion of natural deposits
Hardness (as CaCO ₃)	N/A	N/A	115	-	143	143	ppm	Naturally occurring in the environment or as a result of treatment with water additives
Langliers Index	N/A	N/A	-1.76	-	0.23	-1.76	-	
MBAS	N/A	0.5	n.d.	-	<0.05	<0.05	ppm	
Zinc	N/A	5	0.01	-	0.01	<0.05	ppm	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills.
Organic Contaminants January - December 2022								
Bromodichloromethane	N/A	N/A	ND	-	ND	ND	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	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
1,1-Dichloroethene	7	7	ND	-	ND	ND.	ppb	Discharge from industrial chemical factories
Dibromochloromethane	N/A	N/A	ND	-	ND	ND	ppb	
Special Contaminants January - December 2023								
Total Organic Carbon (TOC)	N/A	TT	1.01	-	1.01	1.01	ppm	Naturally present in the environment
Total trihalomethanes (TTHM)	0	80	13.9	-	58.5	51.6	ppb	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	N/A	60	7.3	-	52.3	43.7	ppb	By-product of drinking water chlorination

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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. We did have one positive sample. All follow up test's were negative. 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.

As you can see by the tables, our system had no 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. The EPA has determined that your water IS SAFE at these levels.

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 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.

Contaminants that may be present in source water include the following:

- (1) Microbiological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (2) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- (4) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water run-off and septic systems.
- (5) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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.

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. Ardmore 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>.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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 Ardmore Water System work 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.

For more information contact:

Wayne Miller

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