

Annual Drinking Water Quality Report

Monitoring Performed January – December 2023

City of LaFayette

2336 County Road 48

LaFayette, AL 36862

334-864-9363

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report). The purpose of this report is to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We want you to understand the efforts made to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Source Water

The City of LaFayette a water storage facility utilizes a bacteriological

Also, in compliance with the Alabama Department of Environmental Management (ADEM), a Source Water Assessment plan has also been developed that will assist in protecting our water sources. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. You can obtain a copy from City Hall for a nominal reproduction fee.

We work around the clock to provide top-quality water to every tap. We ask that all our customers help us protect our water sources, the heart of our community, our way of life, and our children's future. Please help us make this effort worthwhile by protecting our source water.

Customers:	The LaFayette Water Treatment Plant provides water supply to approximately 4600 people
Water Sources:	Our water source is the City Lake (surface water). The City Lake Reservoir contains approximately 100 acres of surface area. The City Lake is located west of town on County Road 48.
Water Treatment:	The treatment process consists of Coagulation, Sedimentation, Filtration, & Disinfection.

Assessment

routinely completes inspection plan and monitoring plan.

Questions?

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected as rate structure adjustments. Thank you for understanding. If you have any questions about this report or concerning your water utility, please contact Ann Gleaton at 334-864-9363.

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 second and fourth Monday of each month at City Hall, in the Council Chambers at 6:00 p.m. CST.

The members of the Governing Body are:

General Information Regarding Drinking Water Contaminants

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCLs, defined in a List of Definitions in this report, are set at very stringent levels.

To understand the possible health effects would have to drink 2 liters of water every day at million chance of having the described health water and bottled water) include rivers, lakes, water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Kenneth Vines, Mayor	Michael C. Ellis	David Ennis
Tammie B. Williams	Terry Mangram	Toney B. Thomas

described for many regulated constituents, a person the MCL level for a lifetime to have a one-in-a-effect. The sources of drinking water (both tap streams, ponds, reservoirs, springs, and wells. As

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides may come from a variety of sources such as agriculture, stormwater run-off, and residential uses.
- 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 stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers.

Water systems also test your source water for pathogens, such as Cryptosporidium and Giardia. These pathogens can enter the water from animal or human waste. All test results were well within state and federal standards. For people who may be immuno-compromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater; or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of cryptosporidium in our drinking water. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

Monitoring Schedule

We routinely monitor for contaminants in your drinking water according to Federal and State laws. ADEM allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The table below shows the most recent year of monitoring for these contaminant groups - (Date Monitored / Next Monitoring)

Constituent Monitored	Date Monitored / Next Monitoring
Inorganic Contaminants	Annually
Lead/Copper	2022 / 2025
Microbiological Contaminants	Monthly
Nitrates	Annually
Radioactive Contaminants	2022 / 2031
Synthetic Organic Contaminants (including pesticides and herbicides)	2022 / 2025
Volatile Organic Contaminants	2022 / 2025
Disinfection By-products	Quarterly

to monitor for lead and copper every three years. The next monitoring period for the system will be the period of June – September 2025. Our monitoring results in 2022 were as follows:

Variances and Exemptions

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 were not required

Lead & Copper Monitoring

The City of LaFayette completed monitoring requirements for lead and copper in 2022. Twenty sites were sampled without exceeding the Action Level limits for lead or copper. The system will continue

Lead in drinking water is primarily from with service lines and home plumbing. We quality drinking water, but cannot control plumbing components. If present, elevated problems, especially for pregnant women recommended actions are very important to

2022 Results	MCL	90th Percentile Sample	Range of Levels
Lead	AL = 15	0.47 ppb	ND - 1.7 ppb
Copper	AL = 1.3	0.243 ppm	0.058 - 0.398 ppm

materials and components associated are responsible for providing high-the variety of materials used in levels of lead can cause serious health and young children. These the health of your family:

- Use only water from the cold-water tap making baby formula. Hot water is likely to contain higher levels of lead.
- 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.

Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead, or
- Your home has copper pipes with lead solder and you have naturally soft water, and • Water often sits in the pipes for several hours

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 www.epa.gov/safewater/lead

MONITORING NON-COMPLIANCE NOTICE

THE LAFAYETTE WATER WORKS IS REQUIRED TO MONITOR YOUR DRINKING WATER FOR SPECIFIC CONTAMINANTS ON A REGULAR BASIS. RESULTS OF REGULAR MONITORING ARE AN INDICATOR OF WHETHER OR NOT YOUR DRINKING WATER MEETS HEALTH STANDARDS. DURING JULY- SEPTEMBER 2022, WE DID NOT MONITOR FOR DISINFECTION BYPRODUCTS (DBP) DURING THE REQUIRED TIME FRAME AND THEREFORE CANNOT BE SURE OF THE QUALITY OF YOUR DRINKING WATER DURING THAT TIME.

BECAUSE DBPS FROM THESE QUARTERS WILL BE USED IN DETERMINING COMPLIANCE WITH DBP MCLS IN THE QUARTERS OF OCTOBER-DECEMBER 2022, JANUARY-MARCH 2023, AND APRIL-JUNE 2023 THE LAFAYETTE WATER WORKS WILL INCUR MONITORING VIOLATIONS FOR THOSE QUARTERS.

PLEASE SHARE THIS INFORMATION WITH ALL THE OTHER PEOPLE WHO DRINK THIS WATER, ESPECIALLY THOSE WHO MAY NOT HAVE RECEIVED THIS NOTICE DIRECTLY (FOR EXAMPLE, PEOPLE IN APARTMENTS, NURSING HOMES, SCHOOLS, AND BUSINESSES). YOU CAN DO THIS BY POSTING THIS NOTICE IN A PUBLIC PLACE OR DISTRIBUTING COPIES BY HAND OR MAIL.

THE LAFAYETTE WATER WORKS DID COLLECT THE SAMPLES FOR THE QUARTER BUT, COLLECTED THEM ON THE WRONG DATE ON THE LAB SCHEDULE. SAMPLES WERE COLLECTED FOR DBP SAMPLES ON AUGUST 17TH, 2022. THE SAMPLES SHOULD HAVE BEEN COLLECTED ON AUGUST 10TH, 2022. THE RESULTS FROM THE SAMPLES WERE WITHIN THE MCL LIMIT. THE LAFAYETTE WATER WORKS WILL CLOSELY CHECK THE SCHEDULE TO PREVENT THIS FROM HAPPENING IN THE FUTURE.

SHOULD YOU HAVE ANY QUESTIONS CONCERNING THIS NON-COMPLIANCE OR MONITORING REQUIREMENTS, PLEASE CONTACT ANN GLEATON WATER/WASTEWATER PLANT SUPERINTENDENT AT 334-864-9363.

Our Results

The table below contains results from the most recent monitoring of primary, secondary, and unregulated contaminants. The monitoring was performed in accordance with the sampling requirements established by the Environmental Protection Agency (EPA) and ADEM. Although many more contaminants were tested, the table shows only those contaminants that were detected during the calendar year of this report - unless otherwise noted.

Table of Detected Contaminants					
Primary Standards - Mandatory standards set by the Safe Drinking Water Act used to protect public health. These apply to all public water systems.					
Contaminant & Unit of MSMT	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range Low - High (MD)	Violation	Major Sources
BACTERIOLOGICAL CONTAMINANTS					
Total Organic Carbon (ppm)	TT	NA	1.07 - 1.99 ϕ	No	Soil Runoff
Turbidity	TT	NA	0.02 - 0.09 ϵ (Tested Daily)	No	Soil Runoff
INORGANIC CONTAMINANTS					
Antimony (ppb)	6	6	0.3	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	0.010	0	0.37 ζ	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.0187	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	0.72	No	Discharge from steel and pulp mills; Erosion of natural deposits
Copper - action level at consumer taps (ppm)	AL=1.3	1.3	0.058 - 0.398 (2022)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper - source water (ppm)	AL=1.3	1.3	0.0064	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	1.02	No	Water additive which promotes strong teeth; erosion of natural deposits; Discharge from fertilizer and aluminum factories
Lead - action level at consumer taps (ppb)	AL=15	0	ND - 1.7 (2022)	No	Corrosion of household plumbing systems; Erosion of natural deposits
DISINFECTANTS & DISINFECTION BYPRODUCTS »					
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.4 - 2.1 (Tested Daily)	No	Water additive used to control microbes
Total Haloacetic Acids HAA (ppb)	60	NA	LRAA Range 25.9 - 44.6	No	By-product of drinking water disinfection
Total Trihalomethanes TTHM (ppb)	80	NA	LRAA Range 40.2 - 52.4	No	By-product of drinking water disinfection

ϕ The percentage of **Total Organic Carbon (TOC)** removal was measured each month and the system met all TOC removal requirements set.

ϵ **Turbidity** is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

ζ While your drinking water meets EPA's standard for **Arsenic**, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

» There is convincing evidence that the addition of a **disinfectant** is necessary for the control of microbial contaminants.

Secondary Standards - Non Mandatory standards established as a guideline to assure good aesthetic qualities such as taste, color, and odor.			
Contaminant & Unit of MSMT	MCL	Maximum Detected	Major Sources
Chloride (ppm)	250	7.8	Naturally occurring in the environment or as a result of agricultural runoff
Color (color units)	15	10	Naturally occurring in the environment or as a result of treatment with water additives
Iron (ppm)	0.3	0.0187	Naturally occurring in the environment; erosion of natural deposits; leaching from pipes
Manganese (ppm)	0.05	0.0224	Erosion of natural deposits; leaching from pipes
Sulfate (ppm)	250	15.1	Naturally occurring in the environment or as a result of industrial discharge or as a result of agricultural runoff
Total Dissolved Solids (ppm)	500	272	Naturally occurring in the environment or as a result of industrial discharge or as a result of agricultural runoff
Zinc (ppm)	5	0.0433	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills
Alkalinity, Total (as Ca, Co3) (ppm)	NA	2.2	Naturally occurring in the environment, influenced by rocks and soils, salts, certain plant activities; industrial wastewater discharges.
Calcium, as Ca (ppm)	NA	9.38	Erosion of natural deposits
Carbon Dioxide (ppm)	NA	19.4	Erosion of natural deposits
Conductivity (umhos)	NA	99.9	Naturally occurring in the environment or as a result of treatment with water additives
Hardness (ppm)	NA	33.6	Naturally occurring in the environment or as a result of treatment with water additives
Magnesium (ppm)	NA	2.48	Erosion of natural deposits
Nickel (ppm)	NA	0.00061	Leaching from metals that are in contact with drinking water, such as pipes and fittings
pH (std units)	6.5 - 8.5	6.6	Naturally occurring in the environment or as a result of treatment with water additives
Sodium (ppm)	NA	6.6	Naturally occurring in the environment

Unregulated Contaminants	Range Low - High (MD)	Major Sources
Bromodichloromethane (ppb)	3.2 - 9.4	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by product of chlorination
Chloroform (ppb)	20.6 - 64.6	
Dibromochloromethane (ppb)	ND - 1.5	

The City of LaFayette has chosen to provide our customers with a table of all contaminants (Primary, Secondary, and Unregulated) for which the EPA and ADEM require testing. These contaminants were not detected in your drinking water unless they are listed in the Table of Detected Drinking Water Contaminants on page 3 of this report.

Table of Primary Contaminants

BACTERIOLOGICAL CONTAMINANTS	
MCL & Unit of MSMT	
Total Coliform Bacteria	< 5% present/absent
Fecal Coliform & E. coli	0 present/absent
Turbidity	TT NTU
Cryptosporidium	TT Calculated organisms/liter
Total Organic Carbon (TOC)	TT

RADIOLOGICAL CONTAMINANTS	
MCL & Unit of MSMT	
Beta/Photon emitters	4 mrem/yr
Alpha emitters	15 pCi/l
Combined radium	5 pCi/l
Uranium	30 pCi/l

DISINFECTANTS & DISINFECTION BYPRODUCTS	
MCL & Unit of MSMT	
Bromate	10 ppb
Chloramines	4 ppm
Chlorine (as Cl ₂)	4 ppm
Chlorine Dioxide	800 ppb
Chlorite	1 ppm
HAA5 [Total haloacetic acids]	60 ppb
THM [Total trihalomethanes]	80 ppb

INORGANIC CONTAMINANTS							
MCL & Unit of MSMT							
Antimony	6 ppb	Beryllium	4 ppb	Cyanide	200 ppb	Nitrate	10 ppm
Arsenic	10 ppb	Cadmium	5 ppb	Fluoride	4 ppm	Nitrite	1 ppm
Asbestos	7 MFL	Chromium	100 ppb	Lead	AL=15 ppb	Selenium	0.05 ppm
Barium	2 ppm	Copper	AL=1.3 ppm	Mercury	2 ppb	Thallium	2 ppb

ORGANIC CONTAMINANTS							
MCL & Unit of MSMT							
1,1,1-Trichloroethane	200 ppb	Dalapon	200 ppb	Hexachlorocyclopentadiene	50 ppb		
1,1,2-Trichloroethane	5 ppb	Di (2-ethylhexyl)adipate	400 ppb	Lindane	200 ppt		
1,1-Dichloroethylene	7 ppb	Di (2-ethylhexyl)phthalate	6 ppb	Methoxychlor	40 ppb		
1,2,4-Trichlorobenzene	0.07 ppm	Dibromochloropropane	200 ppt	o-Dichlorobenzene	600 ppb		
1,2-Dichloroethane	5 ppb	Dichloromethane	5 ppb	Oxamyl [Vydate]	200 ppb		
1,2-Dichloropropane	5 ppb	Dinoseb	7 ppb	p-Dichlorobenzene	75 ppb		
2,4,5-TP(Silvex)	50 ppb	Dioxin [2,3,7,8-TCDD]	30 ppq	Pentachlorophenol	1 ppb		
2,4-D	70 ppb	Diquat	20 ppb	Picloram	500 ppb		
Acrylamide	TT TT	Endothal	100 ppb	Polychlorinated biphenyls	0.5 ppb		
Alachlor	2 ppb	Endrin	2 ppb	Simazine	4 ppb		
Benzene	5 ppb	Epichlorohydrin	TT TT	Styrene	100 ppb		
Benzo(a)pyrene [PAHs]	200 ppt	Ethylbenzene	700 ppb	Tetrachloroethylene	5 ppb		
Carbofuran	40 ppb	Ethylene dibromide	50 ppt	Toluene	1 ppm		
Carbon tetrachloride	5 ppb	Glyphosate	700 ppb	Toxaphene	3 ppb		
Chlordane	2 ppb	Heptachlor	400 ppt	trans-1,2-Dichloroethylene	100 ppb		
Chlorobenzene	100 ppb	Heptachlor epoxide	200 ppt	Trichloroethylene	5 ppb		
cis-1,2-Dichloroethylene	70 ppb	Hexachlorobenzene	1 ppb	Vinyl Chloride	2 ppb		
				Xylenes	10 ppm		

Table of Secondary and Unregulated Contaminants

SECONDARY & ADDITIONAL CONTAMINANTS	
Aluminum (ppm)	Alkalinity, Total (as Ca, CO ₃) (ppm)
Chloride (ppm)	Calcium, as Ca (ppm)
Color (color units)	Carbon Dioxide (ppm)
Copper (ppm)	Conductivity (µmhos/cm)
Corrosivity	Hardness (ppm)
Fluoride (ppm)	Manganese (ppm)
Foaming agents MBAS (ppm)	Nickel (ppm)
Iron (ppm)	Sodium (ppm)
Magnesium (ppm)	Temperature (°C)
Odor (threshold odor number)	
pH (std units)	
Silver (ppm)	
Sulfate (ppm)	
Total Dissolved Solids (ppm)	
Zinc (ppm)	

UNREGULATED CONTAMINANTS		
1,1 - Dichloropropene	Bromobenzene	Isopropylbenzene
1,1,1,2-Tetrachloroethane	Bromochloromethane	M-Dichlorobenzene
1,1,2,2-Tetrachloroethane	Bromodichloromethane	Methylol
1,1-Dichloroethane	Bromoform	Metolachlor
1,2,3 - Trichlorobenzene	Bromomethane	Metribuzin
1,2,3 - Trichloropropane	Butachlor	MTBE
1,2,4 - Trimethylbenzene	Carbaryl	N - Butylbenzene
1,3 - Dichloropropane	Chloroethane	Naphthalene
1,3 - Dichloropropene	Chloroform	N-Propylbenzene
1,3,5 - Trimethylbenzene	Chloromethane	O-Chlorotoluene
2,2 - Dichloropropane	Dibromochloromethane	P-Chlorotoluene
3-Hydroxycarbofuran	Dibromomethane	P-Isopropyltoluene
Aldicarb	Dicamba	Propachlor
Aldicarb Sulfone	Dichlorodifluoromethane	Sec - Butylbenzene
Aldicarb Sulfoxide	Dieldrin	Tert - Butylbenzene
Aldrin	Hexachlorobutadiene	Trichlorofluoromethane

Abbreviations & Definitions

Action Level (AL): The concentration of a contaminant that triggers treatment or other requirements that a water system must follow.

Lowest Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Contaminant Level (MCL): The highest contaminant level allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (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 Detected (MD)

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

Maximum Residual Disinfection Level Goal (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.

Not Applicable (NA)

Nephelometric Turbidity Unit (NTU): A measure of the clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not Detected (ND): Laboratory analysis indicates that the constituent is not present above the detection limits of lab equipment.

pCi/L (picocuries per liter): a measure of Radioactivity

ppb (parts per billion): micrograms per liter (µg/L)

ppm (parts per million): milligrams per liter (mg/L)

Threshold Odor Number (T.O.N.): The greatest dilution of a sample with odor-free water that still yields a just detectable odor.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Variations & Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.