

2023 Annual Drinking Water Quality Report
City of Grenada
PWS#: 220003, 220004, 220005, 220007, 220036 & 220062
April 2024

We're pleased to present to you this year's Annual Quality Water 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.

About Our System

#220003 - The city treatment plants are still in construction, with the exception of the Green St treatment plant that is online and operating removing iron. The generator is online, in the event of a power outage the plant should be able to continue operations. The grounds around the new plant has to be cleared and cleaned, and the old green street plant has to be torn down, and security fencing has to be installed and repaired. The West side plant or Stonebridge plant is partially online with the exception of the iron removal plant side of operations. The new wet well chlorinators and service pumps are online and operating. On 4-22-23 the tear down of the old plant started so that the new construction can begin to get the iron removal plant online. Once this is accomplished and the iron removal filters go online the second pump can then go online giving an additional 1,000 (GPM) to the Stonebridge treatment plant a total pumping capacity of 2,500 (GPM). The Bryant Street treatment plant is close to being put online Bryant St plant has 4 pumps with a total pumping capacity of approximately 3,500 (GPM). The pumps need to have 3 check valves installed so that 3 pumps can be put online to start production on the new Bryant St plant. The demo of the old plant will start, and the 4th well will go online. Due to growth and potential growth to the Grenada water systems we are near to max capacity. The city of Grenada needs to consider an additional well and elevated tank in the Monday RD area this would make it able to split the system and distribute the load and take the stress off of the Stonebridge treatment plant.

#220004 - The Holcomb elevated tank and east well pumps approximately 550 (GPM) both wells combined. There is a generator at the elevated tank well in the event of a power outage. There are no immediate plans for additional growth at this PWS.

#220005 - Girl Scout plant has been rebuilt and online with new controls, chlorination & chemicals building, wet well & aeration. This plant has two wells pumping a total of approximately 700 (GPM). Fort Hill B treatment plant has been online for over a year with new median in the iron removal filters new lime feeder & chlorination. The treatment plant's well was replaced around a year ago that pumps approximately (800) GPM.

#220007 - Elliot water system has 3 wells pumping approximately 500 (GPM). The growth in Elliott brings a need for an additional well and elevated tank. The council and the engineering firm are aware of these needs.

#220036 - Air industrial park has 2 wells Airport east well was down for 2 years but is now back online pumping 250 (GPM) Airport elevated tank well pumps 400 (GPM) with a combined total (GPM) at approximately 650 (GPM).

#220062 - Gore Springs tank and well currently 2- wells pumping 425 (GPM) with high residential growth in the area. Site preparation is close to getting started to prepare to build a treatment plant that will pump 350 (GPM) with a 250,000 gallon elevated tank.

Contact & Meeting Information

If you have any questions about this report or concerning your water utility, please contact Fred Chapman at 662.417.6446 or 662.227.3415. 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 Monday of the month at 6:00 PM at City Hall.

Source of Water

Our water source is from wells drawing from the Meridian Upper Wilcox, Middle Wilcox and Lower Wilcox Aquifers. The source water assessment has been completed for our public water system to determine the overall susceptibility of its drinking water supply to identify potential sources of contamination. A report containing detailed information on how the susceptibility determinations were made has been furnished to our public water system and is available for viewing upon request. The wells for the City of Grenada have received lower to higher susceptibility rankings to contamination.

Period Covered by Report

We routinely monitor for contaminants in your drinking water according to federal and state laws. This report is based on results of our monitoring period of January 1st to December 31st, 2023. In cases where monitoring wasn't required in 2023, the table reflects the most recent testing done in accordance with the laws, rules, and regulations.

As water travels over the surface of land or underground, it dissolves naturally occurring minerals and, in some cases, radioactive materials and can pick up substances or contaminants from the presence of animals or from human activity; microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm-water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm-water runoff, 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 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. All drinking water, including bottled drinking water, may be reasonably

expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily indicate that the water poses a health risk.

Terms and Abbreviations

In the table you may find unfamiliar terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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

Maximum Contaminant Level (MCL): The "Maximum Allowed" (MCL) is 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 Contaminant Level Goal (MCLG): The "Goal"(MCLG) is 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 Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk of health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Parts per billion (ppb) or micrograms per liter: one part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm) or Milligrams per liter (mg/l): one part by weight of analyte to 1 million parts by weight of the water sample.

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

PWS ID#:0220003 TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants								
1. Total Coliform Bacteria	N	June	Positive	1	NA	0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment E Coli comes from human and animal fecal waste
Radioactive Contaminants								
6. Radium 226 Radium 228	N	2019*	.80 .52	.57 - .80 .49 - .52	pCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants								
10. Barium	N	2022*	.182	.0819 - .182	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2022*	.8	No Range	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2019/21*	.6	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2022*	.626	.154 - .626	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2019/21*	1	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Unregulated Contaminants								
Sodium	N	2021*	25.3	No Range	ppm	20	0	Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents.
Disinfection By-Products								
81. HAA5	N	2023	1.69	1.67 – 1.69	ppb	0	60	By-Product of drinking water disinfection.
Chlorine	N	2023	1	.6 – 1.8	ppm	0	MDRL = 4	Water additive used to control microbes

* Most recent sample. No sample required for 2023.

Microbiological Contaminants:

(1) Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.

System – 220003

During June 2023 we had one sample on our system that tested positive for total coliform. The resamples were clear and show we are meeting drinking water standards.

MONITORING AND REPORTING OF COMPLIANCE DATA VIOLATIONS

SIGNIFICANT DEFICIENCIES – 220003

During a sanitary survey conducted on 10/20/22, the Mississippi State Department of Health cited the following significant deficiency(s): **CROSS CONNECTION CONTROL**. The system is scheduled to complete corrective actions by using a compliance plan or are within the initial 120 days.

House Bill # 692 created a new category of cross connection; “low hazard posing a very low risk. To my knowledge, this system has no high hazard risk.

PWS ID#: 220004		TEST RESULTS						
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
10. Barium	N	2022*	.0201	.0174- .0201	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2022*	.5	No Range	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2020/22*	.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2022*	.7	.124 – .7	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2020/22*	0	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Unregulated Contaminants								
Sodium	N	2019*	79000	51000 - 79000	PPB	0	0	Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents.
Disinfection By-Products								
81. HAA5	N	2023	5.3	No Range	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2023	7.03	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2023	1.3	.8 – 1.7	ppm	0	MDRL = 4	Water additive used to control microbes

* Most recent sample. No sample required for 2023.

PWS ID#: 220005		TEST RESULTS						
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
10. Barium	N	2022*	.0316	.031 - .0316	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
14. Copper	N	2020/22*	2.7	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
17. Lead	N	2020/22*	2.7	7	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Unregulated Contaminants								
Sodium	N	2021*	6.76	6.52 – 6.76	ppm	20	0	Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents.
Disinfection By-Products								
81. HAA5	N	2023	1.32	No Range	ppb	0	60	By-Product of drinking water disinfection.
Chlorine	N	2023	1.3	.7 – 1.8	ppm	0	MDRL = 4	Water additive used to control microbes

* Most recent sample. No sample required for 2023.

Inorganic Contaminants:

(18) Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

System – 220005

Test results from system # 220005 show that we exceeded the action level for lead.

PWS ID#: 220007**TEST RESULTS**

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
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Inorganic Contaminants

10. Barium	N	2022*	.032	.0139 - .032	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2022*	1.2	1 – 1.2	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2020/22*	.4	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2022*	.724	.171 – .724	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2020/22*	1	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

Unregulated Contaminants

Sodium	N	2019*	140000	98000 - 140000	ppb	0	0	Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents.
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Disinfection By-Products

81. HAA5	N	2023	7.91	No Range	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2023	11.8	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2023	1.4	.7– 1.7	ppm	0	MDRL = 4	Water additive used to control microbes

* Most recent sample. No sample required for 2023.

PWS ID#: 220036**TEST RESULTS**

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
8. Arsenic	N	2022*	.5	No Range	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
10. Barium	N	2022*	.0229	.0221 - .0229	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2022*	1.4	1.1 – 1.4	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2020/22*	.5	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2022*	.184	.176 - .184	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2020/22*	1	0	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
21. Selenium	N	2022*	2.7	No Range	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Unregulated Contaminants								
Sodium	N	2019*	140000	No Range	PPB	0	0	Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents.
Disinfection By-Products								
81. HAA5	N	2023	9.54	9.4 – 9.54	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2023	23.6	22.6 – 23.6	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2023	1.5	.8– 1.8	ppm	0	MDRL = 4	Water additive used to control microbes

* Most recent sample. No sample required for 2023.

PWS ID#: 220062		TEST RESULTS						
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
10. Barium	N	2022*	.0106	.0052 - .0106	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
13. Chromium	N	2022*	.6	No Range	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
14. Copper	N	2023	.4	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
16. Fluoride	N	2022*	.786	.116 - .786	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
17. Lead	N	2023	0	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Unregulated Contaminants								
Sodium	N	2023	80	No Range	ppm	20	0	Road Salt, Water Treatment Chemicals, Water Softeners and Sewage Effluents.
Disinfection By-Products								
81. HAA5	N	2023	4.2	1.12– 4.2	ppb	0	60	By-Product of drinking water disinfection.
82. TTHM [Total trihalomethanes]	N	2023	4.7	No Range	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2023	1.4	.8 – 1.7	ppm	0	MDRL = 4	Water additive used to control microbes

* Most recent sample. No sample required for 2023.

Unregulated Contaminants:

Sodium. EPA recommends that drinking water sodium not exceed 20 milligrams per liter (mg/L). Excess sodium from salt in the diet increases the risk of high blood pressure and cardiovascular disease.

We are required to monitor your drinking water for specific contaminants on a monthly basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. In an effort to ensure systems complete all monitoring requirements, MSDH now notifies systems of any missing samples prior to the end of the compliance period. We have learned through our monitoring and testing that some contaminants have been detected, however the EPA has determined that your water IS SAFE at these levels.

LEAD INFORMATION

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. Our water system 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>. The Mississippi State Department of Health Public Health Laboratory offers lead testing. Please contact 601.576.7582 if you wish to have your water tested.

FLUORIDE INFORMATION

To comply with the "Regulation Governing Fluoridation of Community Water Supplies", our systems are required to report certain results pertaining to fluoridation of our water system. The number of months in the previous calendar year in which average fluoride sample results were within the optimal range of 0.6-1.2 ppm was as follows. The percentage of fluoride samples collected in the previous calendar year that was within the optimal range of 0.6-1.2 ppm was as follows.

System #	# of Months	Percentage	# of Months Samples Were Collected
220003	1	40%	12
220004	9	73%	12
220005	6	54%	11
220007	10	74%	12
220036	1	12%	9
220062	12	83%	4

UNREGULATED CONTAMINANTS

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 regulations are warranted.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man-made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. 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 the 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 at 1.800.426.4791.

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 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 1.800.426.4791.

The City of Grenada 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.