

2019 Consumer Confidence Report for Public Water System CITY OF MASON

This is your water quality report for January 1 to December 31, 2019

For more information regarding this report contact:

CITY OF MASON provides ground water from the Hickory Aquifer located in Mason County.

Name: John Palacio, City Administrator

Phone 325-437-6449

Este reporte incluye información importante sobre el agua para tomar. Para asistencia en español, favor de llamar al telefono (325) 347-6449.

Information about your Drinking Water

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which 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, urban storm water 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 which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Contaminants may be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information on taste, odor, or color of drinking water, please contact the system's business office.

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immunocompromised persons such as those undergoing chemotherapy for cancer; persons who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders, can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium 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. We are responsible for providing high quality drinking water, but we 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>.

Information about Source Water

TCEQ completed an assessment of your source water, and results indicate that some of our sources are susceptible to certain contaminants. The sampling requirements for your water system is based on this susceptibility and previous sample data. Any detections of these contaminants will be found in this Consumer Confidence Report. For more information on source water assessments and protection efforts at our system contact John Palacio, City Administrator at 325-347-6449.

2019 Water Quality Test Results

Contaminant	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead and Copper	09/06/2017	1.3	1.3	0.1651	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Copper	09/06/2017	0	15	1.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead	09/06/2017	0	15	1.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Disinfection By-Products	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Trihalomethanes (TTHM)	2019	3	2.6 - 2.6	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

* The value in the Highest Level or Average Detected column is the highest average of all TTHM sample results collected at a location over a year.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	01/17/2018	0.174	0.174 - 0.174	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	01/31/2017	0.5	0.5 - 0.5	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2019	2	0.18 - 1.86	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Individual Samples	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2019	12.1	0 - 12.1	0	50	pc/L*	N	Decay of natural and man-made deposits.

*EPA considers 50 pc/L to be the level of concern for beta particles.

Combined Radium 226/228	2019	6	5.7 - 6.42	0	5	pc/L	Y	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2019	22	0 - 22	0	15	pc/L	Y	Erosion of natural deposits.
Uranium	2019	1	0 - 1.2	0	30	ug/l	N	Erosion of natural deposits.

Disinfectant Residual

Disinfectant Residual	Year	Average Level	Range of Levels Detected	MRDL	MRDLG	Unit of Measure	Violation (Y/N)	Source in Drinking Water
Chlorine	2019	1.04	.44-2.58	4	4	Mg/l	N	Water additive used to control microbes.

Definitions and Abbreviations

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The previous tables contain scientific terms and measures, some of which may require explanation.

Action Level:

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Action Level Goal (ALG):

The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Avg:

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

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 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 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.

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.

pc/L

picocuries per liter (a measure of radioactivity)

ppb:

micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm:

milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Violations

Combined Radium 226/228

Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL, AVERAGE	01/04/2019	03/31/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	04/04/2019	06/30/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	07/04/2019	09/30/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
MCL, AVERAGE	10/04/2019	12/31/2019	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.

Gross alpha excluding radon and uranium

Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
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Public Notification Rule

The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g. a boil water emergency).

Violation Type	Violation Begin	Violation End	Violation Explanation
PUBLIC NOTICE RULE LINKED TO VIOLATION	06/27/2012	10/31/2019	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	06/27/2012	12/09/2019	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	09/08/2019	04/02/2019	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
PUBLIC NOTICE RULE LINKED TO VIOLATION	09/26/2019	10/31/2019	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.

Revised Total Coliform Rule (RTCR)

The Revised Total Coliform Rule (RTCR) seeks to prevent waterborne diseases caused by E. coli, E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE, MAJOR (RTCR)	10/04/2019	10/31/2019	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, ROUTINE, MAJOR (RTCR)	11/04/2019	11/30/2019	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
MONITORING, ROUTINE, MAJOR (RTCR)	12/04/2019	12/31/2019	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER, INCLUDING NOTIFICATIONS OF VIOLATIONS IDENTIFIED DURING THE YEAR 2019

Maximum Contaminant Level Violations for COMBINED RADIUM (226 & 228) and GROSS ALPHA, Excluding Radon & Uranium:

The Texas Commission on Environmental Quality (TCEQ) has notified the CITY OF MASON TX1600001 that the drinking water being supplied to customers had exceeded the Maximum Contaminant Level (MCL) for combined radium (226 & 228) and gross alpha excluding radon and uranium. The U.S. Environmental Protection Agency (US EPA) has established the MCL for combined radium (226 & 228) to be 5 pico curies per liter (pCi/L) and the MCL for gross alpha excluding radon and uranium to be 15 pico curies per liter (pCi/L) based on a running annual average, and has determined that it is a health concern at levels above the MCL. Analysis of drinking water in your community during the past year indicate the following quarterly compliance values for each contaminant:

	Radium (226 & 228) – MCL 5 pCi/L	Gross Alpha, excluding radon and uranium – MCL 15 pCi/L
Quarter One of 2019	6 pCi/L	22 pCi/L
Quarter Two of 2019	6 pCi/L	19 pCi/L
Quarter Three of 2019	6 pCi/L	15 pCi/L
Quarter Four of 2019	6 pCi/L	16 pCi/L
Quarter One of 2020	6 pCi/L	18 pCi/L

This is not an emergency. However, some people who drink water containing radium 226 and/or 228 in excess of the MCL over many years may have an increased risk of getting cancer. Additionally, certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may also have an increased risk of getting cancer. You do not need to use an alternative water supply. However, if you have health concerns, you may want to talk to your doctor to get more information about how this may affect you.

The City of Mason is currently working on a Water Treatment facility funded by the Texas Water Development Board and regulated by the Texas Commission on Environmental Quality. This system, which should begin construction in the Fall of 2020, will provide treatment and removal of radionuclides from a majority of the water

sources that supply the City. When mixed with the water from other sources, the level of radionuclides, which are the only contaminants identified in City water, will be reduced to a level well below the maximum contamination level. The treatment system should be completed and produce acceptable water quality by Spring of 2021. This HMO Treatment and monitoring of the water system should provide a significant and sufficient reduction in the levels of radium 226 & 228 and all gross alpha contamination and bring the City of Mason drinking water into full compliance with all TCEQ and EPA regulations within the next twelve months. If additional information is needed concerning the designed treatment system and the expected time frame for meeting all water quality regulations, please feel free to contact City Administrator, John Palacio at 325-347-6449.

Monitoring Requirements Not Met for the City of Mason:

Our system failed to collect every required coliform sample. Although this incident was not an emergency, as our customers, you have the right to know what happened and what we have done to correct this situation. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During October, November and December of 2019 we did not complete all monitoring or testing for coliform bacteria and therefore cannot be sure of the quality of your drinking water during that time.

What should I do? There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, we are required to notify you within 24 hours.

What is being done? We collected every required coliform sample in January, February and March of 2020, and are no longer in violation. The previous three monthly coliform samples were collected and reported, however the form used was incorrect and therefore did not meet full regulations. For more information, please contact John Palacio, City Administrator at 325-347-6449 or visit the City office at 124 Moody.

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. This notice is being sent by the CITY OF MASON, Public Water System ID#1600001. If you have questions regarding any of these matters, you may contact John Palacio, City Administrator at 325-347-6449. Date distributed: June 15, 2020

Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

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