

2019 Annual Drinking Water Quality Report

City of Marlette Municipal Water System

June 1st, 2020

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality of the 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 consists of three (3) active wells drawing from the Marshall Sandstone Aquifer; Wells are at a depth of 263 feet.

We're also pleased to report that our drinking water meets federal and state requirements, if you have any questions about this report or concerning your water utility, please contact Joe Willis at 989-635-7448. 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 City Council meetings, they are held on the 1st Mondays of the month, 7:00 PM at the Marlette City Hall, 6436 Morris Street.

The City of Marlette Municipal Water System 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, 2019. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Association (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Sources of 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.

Contaminants that may be present in source water:

Microbial contaminants such as; viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

- 1.) 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.
- 2.) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 3.) 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.
- 4.) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

Maximum (Max) - The maximum value of all samples used to calculate the Average. This is the upper part of the range of sample values.

Minimum (Min) - The minimum value of all samples used to calculate the Average. This is the lower part of the range of sample values.

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.

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

Maximum Contaminant Level (MCL) - The "Maximum Allowed" is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

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

Total Coliform - Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDL G	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Inorganic Contaminants							
Arsenic (ppb)	10	0	6	4-6	2019	NO	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.01	ND/0.01	2019	NO	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.95	0.85-0.95	2019	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Sodium ¹ (ppm)	N/A	N/A	95	48-95	2019	NO	Erosion of natural deposits.
Microbiological Contaminants							
Inorganic Contaminant Subject to AL	AL	MCLG	Your Water ⁴	Year Sampled	# of Samples Above AL	Range of Results	Typical Source of Contaminant
Lead (ppb)	15	0	3	2018	0	ND-6	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.07	2018	0	ND-0.11	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

¹ Sodium is not a regulated contaminant.

⁴ 90 percent of the samples collected were at or below the level reported for our water.

While your drinking water meets the U.S. EPA standard for arsenic, it does contain low levels of arsenic. The U.S. EPA standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. 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.

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. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments.

Note: Lead and Copper samples tested did not exceed the regulated Action Levels for the 90th Percentile.

1. For supplies with lead service lines (or service lines of unknown material), include the number of lead service lines 0, the number of service lines of unknown material 193, and the total number of service lines in the supply 833.

Note: You will notice that some samples were not taken for some of the contaminants in 2019. This is because those samples are required to be done once every three years or more, depending on the schedule given to us by the Michigan Department of Environmental, Great Lake and Energy (EGLE).

Information about lead: 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. City of Marlette 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 State of Michigan has performed a Source Water Assessment for the City's Wells in 2004. This Assessment reports the susceptibility of our water supply sources to contamination. The susceptibility score is broken down into seven (7) categories. Very Low, Low, Moderately Low, Moderate, Moderately High, High and Very High. The score given by the State, for Well # 1 and Well # 2 was High, Well # 3 was a Moderate Susceptibility. Please contact the city at 989-635-7448 if you would like a copy of the susceptibility report or have questions about it.

What does this report mean?

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. 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.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, 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.

Vulnerability of sub-populations: 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 (800-426-4791).

Please call our office, at 989-635-7448, if you have questions or wish a copy of this report.

Copies of this report results will also be made available at the Marlette City Hall. The staff of the City of Marlette work very hard each and every day of the year 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.