Village of Blissfield Annual Water Quality Report for 2023

Water Supply Serial Number : MI0000750

A MESSAGE TO OUR CONSUMERS

This report covers the drinking water quality for the Village of Blissfield for the 2023 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2023. Included are details about where your water comes from, what it contains, and how it compares to EPA and state standards. Blissfield's drinking water originates in the river Raisin. In 2004 the U.S. geological survey partnered with Michigan Department of Environmental quality and prepared a source water assessment for the village of Blissfield's water supply; it was determined that Blissfield's source is very highly susceptible to potential contamination. We are making efforts to protect our water source by implementing a source water intake protection plan with the state of Michigan, copies available at https://blissfieldmichigan.gov/water-treatment-plant/.

CONTAMINATION SOURCES In addition to natural occurring minerals in the river Raisin, erosion of the river bank, agricultural runoff and animal or human activity along the shore can cause contaminations to be present in the river.

These include:

Microbial contaminates, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, livestock, and wildlife.

Inorganic contaminates, such as salt and metals, which can be natural or from storm runoff, wastewater discharge, oil and gas production and farming.

Pesticide and Herbicide contaminants, which may come from a variety of sources such as agriculture storm water runoff, urban storm water runoff, and residential uses.

Organic chemicals, including synthetics 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 substances, which can be naturally occurring or be the result of oil and gas production, or mining activities.

Trihalomethanes: Some people who drink water-containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Nitrate: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six month of age. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask for advice from your health care provider regarding nitrate residuals in drinking water. Pregnant woman, nursing mothers, and infants less than six months old are advised to seek an alternative source of drinking water if nitrate levels exceed 10 ppm.

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. The Village of Blissfield Water Treatment Plant 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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. 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 (800-426-4791) or at http://www.epa.gov/safewater/lead.

Estimated Number of Service Connections by Service line material A service line includes any section of pipe from the water main to the building plumbing at the 1st shut-off valve inside the building, or 18 inches inside the building, whichever is shorter

Unknown Materials		Contains neither Lead nor Galvanized Previously Connected to Lead	Total Service connections
Likely Contains Lead	Likely does not Contain Lead		
424	187	944	1,555

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immune-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

WHO NEEDS TO TAKE SPECIAL PRECAUTIONS? Drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminates does not necessarily indicate that the water poses a health risk. More information about contaminates and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791. Some people may be more vulnerable to contaminates in drinking water then the general population. Immune-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 at risk from infections. These people should seek advice about drinking water from their health providers. EPA/CDC guidelines on appropriate means to diminish the risk of infection by Cryptosporidium and other microbial contaminates are also available from the EPA's Safe Drinking Water Hotline. (800-426-4791)

In order to ensure that tap water is safe, the EPA prescribes regulations, which limit the amount of certain contaminates in drinking water, provided by public water systems. The Blissfield Water Treatment Plant staff tests water samples from the river and throughout the treatment process repeatedly each day. These tests ensure that proper chemical levels are maintained and any contaminates that cannot be removed by treatment are at safe levels. If you would like more information about your water, please call the Blissfield Water Treatment Plant at 517-486-3350.

Water quality data table 2023

The table below lists all the drinking water contaminants that we detected during the 2023 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The state allows us to monitor for certain contaminants less then once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more then a year old.

TERMS AND ABBREVIATIONS:

Maximum Contaminate Level Goal (MCLG): The level of contaminant in drinking water below which there is no known or expected health risk.

Maximum Contaminate Level (MCL): The highest level of contaminant allowed in drinking water, MCL's are set as close to the MCLG's as possible using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG): Means the level of disinfectant in drinking water below which there is no know or expected health risk.

Maximum Residual Disinfectant Level (MRDL): Is the highest level of disinfectant allowed in drinking water. Disinfectant is necessary for control of microbial contaminants.

ppb – parts per billion or microgram per liter
ppm – parts per million or milligram per liter
NTU – Nephelometric Turbidity Units
pC/l – Picocuries per liter
ND – not detected **N/A –** not applicable
RAA – Running Annual Average
TT – treatment technique (a required process intended to reduce the level of contaminant in drinking water)
Action Level (AL): The level of contaminant, which, if exceeded, triggers treatment or other requirements, which the water treatment system must Follow.

Contaminate	MCL	MCLG	Blissfield Water	Range of Detection	Sample Date	Violation	Typical Source of Contaminate
Microbial Contaminates							
* Turbidity	TT	N/A	Single Highest Measurement 0.24 NTU	0.09 – 0.24 NTU	2023	No	Soil Runoff
Lowest month % of samples meeting turbidity limit 100% - Annual average 0.105 NTU							
Total Coliform	>5% Positive	0	ND	ND	2023	No	Naturally present
Inorganic Contaminates							
Nitrate	10 ppm	10 ppm	Single Highest Measurement 6.58 ppm	1.11 – 6.58 ppm	2023	No	Fertilizer runoff; septic tank leaching, or erosion of natural deposits
Fluoride	4 ppm	4 ppm	Single Highest Measurement 1.21 ppm	0.36 – 1.21 ppm	2023	No	Water additive- promotes strong teeth, erosion of natural deposits, Discharge from fertilizer and aluminum factories
** Sodium	N/A	N/A	Single Highest Measurement 93 ppm	81 – 93 ppm	2023	No	Naturally present in groundwater
Barium	2 ppm	2 ppm	Single Highest Measurement 0.04 ppm	0.04 ppm	Aug. 2018	No	Discharge from refineries or drilling & natural erosion
Disinfectant Residuals and Disinfection By-Products – Monitoring in Distribution System							
Total Trihalomethanes	80 ppb RAA	N/A	Highest Annual Average 75 ppb	29 - 75 ppb	2023	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	60 ppb RAA	N/A	Highest Annual Average 24 ppb	8.3 – 24 ppb	2023	No	By-product of drinking water disinfection.
Chlorine Disinfectant	4 ppm	4 ppm	Annual Average 0.67 ppm	0.17 – 1.00 ppm	2023	No	Disinfectant
Lead and Copper Monitoring at Consumer's Tap							
Lead	AL=15 ppb	0 ppb	90th percentile 2 ppb Range 0 – 2 ppb	0 out 20 sites over AL	June, July 2023	No	Corrosion of household plumbing, lead service lines, erosion of natural deposits
Copper	AL=1.3 ppm	1.3 ppm	90th percentile 0.3 ppm Range 0 -0.6 ppm	0 out 20 sites over AL	June, July 2023	No	Corrosion of household plumbing, erosions of natural deposits
Regulated Contaminant	Annual Average % Removal						
Total Organic Carbon	Average % Removal 59.33 ppm	% Removal Required 26.25 ppm	Minimum % Removal 38.89 ppm	Maximum % Removal 79.78 ppm	2023 monthly	No	Naturally present
The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. TOC has no health effects. However, TOC provides a medium for the formation of disinfection byproducts.							

* Turbidity must be less than or equal to 0.15 NTU in at least 95% of the measurements taken throughout the month. Turbidity must never exceed 1.0 NTU.
** Sodium is an unregulated contaminate and there is no MCL associated with it. Unregulated contaminate monitoring helps EPA to determine whether there is a need to regulate that contaminate.
*** The chlorine "level detected" was calculated using a running annual average.

Violation Notice 2023: March 2nd – 4th, 2023 the water treatment plant experienced an equipment malfunction with turbidity sampling equipment. The malfunction caused some turbidity samples to be invalided. The invalidation of the samples caused the water plant to be out of compliance for turbidity monitoring requirements.

If you have questions regarding your drinking water, please call the Blissfield Water Treatment Plant at 517-486-3350
This report will **not** be mailed. Copies of this report are available at Blissfield Village Office or www.blissfieldmichigan.gov

Blissfield Village Council
Meets at 7:00 pm on the second and fourth Mondays each month.
Blissfield Village Office,130 South Lane
517-486-4347

Please sign up for Lenawee Alerts at **www.LenaweeAlerts.com**

Watch for quarterly water plant tours – limited spots per tour