

Listed below is information on those contaminants that were found in The Village of Mechanicsburg drinking water.

Contaminants	Collection Year	Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
<b>Residual Disinfectants</b>								
Total Chlorine	2023	0.68	0.4 to 1.07	MRDLG = 4	= 4	ppm	No	Water additive used to control microbes.
<b>Inorganic Contaminants</b>								
Barium	2023	0.0855	1-Sample N/A	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Cyanide	2023	1.0	1-Sample N/A	200	200	ppb	No	Discharge from steel/ metal factories; Discharge from plastic and fertilizer factories
Fluoride	2023	0.37	1-Sample N/A	4	4	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate	2023	0.23	1-Sample N/A	10	10	ppm	No	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
<b>Synthetic Organic Contaminants, including Pesticides and Herbicides</b>								
Atrazine	2023	0.04	1-Sample N/A	3	3	ppb	No	Runoff from herbicide used on row crops
Simazine	2023	0.08	1-Sample N/A	4	4	Ppb	No	Herbicide runoff
Alachlor	2023	0.05	1-Sample N/A	0	2	ppb	No	Runoff from herbicide used on row crops
<b>Disinfection Byproducts</b>								
Total Trihalomethanes (TTHM)	2023	9.2	1-Sample N/A	N/A	80	ppb	No	By product of drinking water chlorination
Haloacetic Acids (HAA5)	2023	2.4	1-Sample N/A	N/A	60	ppb	No	By product of drinking water chlorination
Contaminants	Collection Year	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Typical Source of Contaminants		
<b>Lead and Copper</b>								
Copper (ppm)	2023	1.3 ppm	None	0.1130 ppm	No	Corrosion of household plumbing systems		
	Zero out of 10 samples were found to have levels in excess of the copper action level of 1.3 ppm.							
Lead (ppb)	2023	15 ppb	None	1.3 ppb	No	Corrosion of household plumbing systems		
	Zero out of 10 samples were found to have levels in excess of the lead action level of 15 ppb.							

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

**Parts per Million (ppm) or Milligrams per Liter (mg/L):** Units of measure for a concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

**Parts per Billion (ppb) or Micrograms per Liter (ug/L):** Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

**Picocuries per liter (pCi/L):** A common measure of radioactivity.

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

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

**Contact Time (CT):** The mathematical product of a "residual disinfectant concentration" (C), which is determined before or at the first customer, and the corresponding "disinfectant contact time" (T).

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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.

**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 for control of microbial contaminants.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

# Village of Mechanicsburg

## Annual Drinking Water Quality Report 2023



### CONSERVATION CORNER

Only 1% of the earth's water can be used for drinking

Turn off tap while brushing your teeth and shaving

Water your lawn in the cooler part of the day

### Mechanicsburg Facts

- Serving 1,644 people
- Pumped 62.05 million gallons in 2023
- Pumped 170,000 gallons per day

EPA SAFE DRINKING WATER HOTLINE

1-800-426-4791

For any questions dealing with water quality

We are pleased to present to you this year’s Annual Drinking Water Quality Report (Consumer Confidence Report) for Mechanicsburg Public Water System as required by the Safe Drinking Water Act (SDWA). 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 our water.

The Village of Mechanicsburg receives its drinking water from 3 active wells (well #1, well #4, well #5) off SR 29 that pump approximately 170,000 gallons of water per day to the Water Treatment Plant located at 420 West Main Street. The plant treats its water using aeration for iron oxidation followed by one detention basin, where chlorine is added. The water is then filtered through three, Greensand pressure filters and disinfected using sodium hypochlorite. Three high service pumps send the finished water to the distribution system. There is a diesel generator on site for auxiliary power.

**Susceptibility Analysis**

This assessment indicates that the Village of Mechanicsburg’s source of drinking water has a moderate susceptibility to contamination due to:

- Presence of a relatively thick protective layer of clay overlying the aquifer,
- No evidence to suggest that ground water has been impacted by any significant levels of chemical contaminants from human activities,
- Presence of significant potential contaminant sources in the protection area.

This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is moderate. This likelihood can be minimized by implementing appropriate protective measures. This susceptibility analysis is subject to revision if new potential contaminate sources are sited within the projection area, or if water sampling indicates contamination by a manmade contaminant source.

Copies of the source water assessment report prepared for The Village of Mechanicsburg are available at the village municipal building.

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 include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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; (E) 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, USEPA 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.

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 Federal Environmental Protection Agency’s Safe Drinking Water Hotline (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 infection. 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

The EPA requires regular sampling to ensure drinking water safety. The Village of Mechanicsburg conducted sampling for bacteria; inorganic; radiological; synthetic organic; volatile organic during 2023. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

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 Mechanicsburg is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been setting 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 at **800-426-4791** or at <http://www.epa.gov/safewater/lead>.

Unregulated Contaminants monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

Unregulated Contaminants	Collection Date	Level Detected	Units
Bromodichloromethane	2023	3.5	ppb
Bromoform	2023	0.3	ppb
Dibromochloromethane	2023	2.0	ppb
Chloroform	2023	3.7	ppb

Alpha emitters: 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. The Public Drinking Water Standards’ MCL for Gross Alpha particle activity is 15 pCi/L.

Radium-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. The Public Drinking Water Standards’ MCL of Combined Radium 226/228 is 5 pCi/L.

We hope to continue promoting conservation of water so that we can prolong the life of our current well field and use our water resources as responsibly as we can. If you have any questions about your water bill, please contact the Village at 937-834-3187.

We have a current, unconditioned license to operate our water system. Village of Mechanicsburg PWSID# 1100712; Operation License# OH 1100712-1596570-2024, expires Jan. 30, 2025. Operator License WS1-1137714-20.

**If you have questions about this report or concerning your water utility, please contact Cameron Brittenstine, Water/Wastewater Superintendent, at (937) 834-3187. You can participate in decisions regarding your water by attending a Council meeting. The Council meets on the 1<sup>st</sup> and 3<sup>rd</sup> Monday of each month at 6:30 p.m. at 18 North Main St. Your input is always welcome.**