2021 Water Quality Report for Spring Arbor Township

Water Supply Serial Number: WSSN 06227

This report covers the drinking water quality for Spring Arbor Township for the 2021 calendar year. This information 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. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and state standards.

Our water sources are located throughout the Township. Your water comes from 15 groundwater wells which draw from the Marshall Sandstone formation. The depth of the wells vary from 160 to 350 feet below the surface. The State performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source water is high.

Summit Township is participating in a countywide cooperative effort to protect our drinking water supply by developing a comprehensive Well Head Protection Program. This effort will identify the groundwater recharge areas for municipal wells and identify potential sources of contamination in those areas and recommend appropriate action to prevent contamination from entering the ground water.

**Contaminants and their presence in water:** 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 **U.S.** **EPA’s Safe Drinking Water Hotline (800-426-4791)**.

**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 systems 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. U.S. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the **Safe Drinking Water Hotline (800-426-4791)**.

**Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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:**

* **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 and residential uses.
* **Radioactive contaminants***,* which can be naturally occurring or be the result of oil and gas production and mining activities.
* **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.

# Water Quality Data

The table below lists all the drinking water contaminants that we detected during the 2021 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2021. The State allows us to monitor for certain contaminants less than once per 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 than one year old.

## Terms and abbreviations used below:

* 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 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 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.
* Maximum Residual Disinfectant Level Goal (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.
* N/A: Not applicable
* ND: not detectable at testing limit
* ppm: parts per million or milligrams per liter
* ppb: parts per billion or micrograms per liter
* Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Summit Township 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 2021 to December 31st, 2021

1Monitoring Data for Regulated Contaminants

| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes/No | Typical Source of Contaminant |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Arsenic (ppb) | 10 | 0 | 3.0 | 0.0-3.0 | 2020 | NO | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | .08 | .00-.08 | 2020 | NO | Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | .73 | ..5-.1.2 | 2021 | NO | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Sodium[[1]](#footnote-1) (ppm) | N/A | N/A | 37 | 6.5-37. | 2021 | NO | Erosion of natural deposits |
| TTHM Total Trihalomethanes (ppb) | 80 | N/A | 7.5 | 0.-7.5 | 2021 | NO | Byproduct of drinking water disinfection |
| HAA5 Haloacetic Acids (ppb) | 60 | N/A | ND | N/A | 2021 | NO | Byproduct of drinking water disinfection |
| Chlorine[[2]](#footnote-2) (ppm) | 4 | 4 | .55 | .38-.85 | 2021 | NO | Water additive used to control microbes |

| Per- and polyfluoroalkyl substances (PFAS) | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes/No | Typical Source of Contaminant |
| Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt) | 370 | N/A | ND | N/A | 2021 | NO | Discharge and waste from industrial facilities  utilizing the Gen X chemical process |
| Perfluorobutane sulfonic acid (PFBS) (ppt) | 420 | N/A | ND | N/A | 2021 | NO | Discharge and waste from industrial  facilities; stain-resistant treatments |
| Perfluorohexane sulfonic acid (PFHxS) (ppt) | 51 | N/A | ND | N/A | 2021 | NO | Firefighting foam; discharge and waste  from industrial facilities |
| Perfluorohexanoic acid (PFHxA) (ppt) | 400,000 | N/A | ND | N/A | 2021 | NO | Firefighting foam; discharge and waste  from industrial facilities |
| Perfluorononanoic acid (PFNA) (ppt) | 6 | N/A | ND | N/A | 2021 | NO | Discharge and waste from industrial  facilities; breakdown of precursor compounds |
| Perfluorooctane sulfonic acid (PFOS) (ppt) | 16 | N/A | ND | N/A | 2021 | NO | Firefighting foam; discharge from electroplating facilities; discharge and waste  from industrial facilities |
| Perfluorooctanoic acid (PFOA) (ppt) | 8 | N/A | ND | N/A | 2021 | NO | Discharge and waste from industrial  facilities; stain-resistant treatments |
| Inorganic Contaminant Subject to Action Levels (AL) | Action Level | MCLG | Your Water | Range of Results | Year Sampled | Number of Samples Above AL | Typical Source of Contaminant |
| Lead (ppb) | 15 | 0 | ND | N/A | 2020 | 0 | Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits |
| Copper (ppm) | 1.3 | 1.3 | .19 | .00-.29 | 2020 | 0 | Corrosion of household plumbing systems; Erosion of natural deposits |

Lead / Copper - Ninety (90) percent of the samples collected were at or below the level reported for our water.

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**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. Summit Township 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 or at http://www.epa.gov/safewater/lead.

Infants and children who drink water containing lead 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.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

Our water supply has zero (o) lead service lines and 0 service lines of unknown material out of a total of 775 service lines.

Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. As you can see by the table, our system had no violations. We’re proud that your drinking water meets and exceeds all federal and state requirements for 2021. The EPA has determined that your water IS SAFE at these levels.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at Summit Township, 2121 Ferguson Rd, Jackson, MI 49203. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality, please attend any of our regularly scheduled Board meetings. They are held on the second Tuesday of every month at 6.00 p.m., Summit Township Hall meeting room, 2121 Ferguson Rd, Jackson, MI 49203. For more information about your water, or the contents of this report, contact Eric Trader at 517-788-4113 ext. 250. For more information about safe drinking water, visit the U.S. EPA at http://www.epa.gov/safewater.

1. Sodium is not a regulated contaminant. [↑](#footnote-ref-1)
2. The chlorine “Level Detected” was calculated using a running annual average.

   [↑](#footnote-ref-2)