

TOWN OF HOT SPRINGS

Montana Public Water Supply ID Number 00251
2023 Water Quality Report

In compliance with the EPA's Safe Drinking Water Act and to keep you informed about the quality of water and services we provide to you each day; we're pleased to provide you with our Annual Water Quality Report. This report is a snapshot of the quality of water we provided you with last year. It includes details regarding the source of your water, what your water contains and how it compares to EPA and the State of Montana standards.

Our drinking water comes from three wells that are 383, 241, and 380 feet deep. We have 410 service connections and added six new connections last year. A sanitary survey inspection of our water system was conducted in November of last year. No significant deficiencies that may affect the quality of our drinking water were noted.

We are pleased to report that our drinking water is safe and meets all federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Michael Gray at (406)-741-2353. Michael is our certified operator with four years of experience. He attends periodic training sessions to meet continuing education requirements.

DID YOU KNOW? The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive elements. Water can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in water include:

- 1) Microbial contaminants such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- 2) Inorganic contaminants such as salts and metals that can naturally occur or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
- 3) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- 4) Volatile organic chemicals, which are byproducts of industrial processes, petroleum production, and can also come from gas stations, urban storm runoff, and septic systems.
- 5) Radioactive contaminants, which can naturally occur or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the 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. We routinely monitor for constituents in your drinking water according to Federal and State laws.

Our sampling frequency complies with EPA and state drinking water regulations. The following tests were performed to identify possible contaminants in our system during the period of January 1 to December 31, 2023:

- 12 coliform bacteria tests – all coliform free
- One nitrate plus nitrate test on each of our wells – results were within EPA guidelines.
- Tests on each of our wells to determine the possible presence of eleven inorganic contaminants – results were within EPA guidelines.
- Tests on each of our wells to determine the possible presence of 61 organic contaminants – none were detected.
- Tests on each of our wells, including four sets of tests on our new well, to determine the possible presence of 40 pesticides & herbicides – none were detected.
- Four sets of tests on our new well to determine the possible presence of radiological contaminants – results were within EPA guidelines.

The Montana Department of Environmental Quality requires that we test for asbestos in our drinking water. As our distribution system contains no asbestos cement pipe, we have applied for and been granted a monitoring waiver for asbestos. This waiver allows our system to not test for this contaminant. The waiver covers the period from 2020 to 2028.

Due to the purity of our water, we have applied for and been issued a monitoring waiver for 10 inorganic contaminants: antimony, barium, beryllium, cadmium, chromium, fluoride, mercury, nickel, selenium, and thallium. This waiver allows our system to sample Well #1 and Well #2 only once every nine years for these contaminants. Past sampling has shown that they do not warrant a health hazard and it has been determined that the likelihood of contamination is low. This waiver covers the period from 2020 to 2028.

The following table lists the contaminants detected during recent testing. Some of the data in this table may be more than one year old, since certain chemical contaminants are monitored less than once per year.

REGULATED CONTAMINANTS

Contaminant	Violation Y/N	Sample Date	Highest Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<u>Barium</u> Well #1	N	2-23-23	0.01	ppm		2	Discharge of drilling waste or metal refineries; Erosion of natural deposits
Well #2	N	2-23-23	0.02	ppm			
New Well #3	N	2-23-23	0.01	ppm			
Copper	N	7-28-22	90 th % is 0.05	ppm	1.3	AL=1.3	Corrosion of household plumbing; Erosion of natural deposits; Leaching from wood preservatives
<u>Fluoride</u> Well #1	N	2-23-23	0.95	ppm	4	4	Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Well #2	N	2-23-23	1.12	ppm			
New Well #3	N	2-23-23	0.53	ppm			
<u>Nitrate+Nitrite</u> Well #1	N	2-23-23	0.30	ppm	10	10	Naturally occurring at this level
<u>Radium 226</u> New Well #3	N	9-11-23	0.5 +/- 0.4	pCi/L	0	5	Natural deposits

UNREGULATED CONTAMINANTS

Contaminant	Sample Date	Highest Level Detected	Unit Measurement	SMCL	Likely Source of Contamination
Hardness New Well #3	8-26-21	88	ppm		Naturally Occurring
Iron New Well #3	8-26-21	0.56	ppm	0.3	Naturally Occurring
Manganese New Well #3	8-26-21	64	ppb	50	Naturally Occurring

DEFINITIONS:

- MCL – Maximum Contaminant Level: The “maximum allowed” is the highest level of a contaminant that is allowed in drinking water. MCLs are set a close to the MCLGs as feasible using the best available treatment technology.
- MCLG – Maximum Contaminant Level Goal: The “goal” is 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.
- SMCL – Suggested Maximum Contaminant Level: The “suggest maximum contaminant level” are secondary drinking water standards established by the EPA that set non enforceable MCLs for contaminants that affect water’s taste, color, odor, or appearance.
- PPM – Parts Per Million or Milligrams Per Liter (mg/L): One part per million is equivalent to one minute in two years or a single penny in \$10,000.
- PPB - Parts Per Billion or Micrograms Per Liter: One part per billion is equivalent to one minute in 2,000 years or a single penny in \$10,000,000.
- AL – Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- pCi/L – Pico Curies Per Liter: A very small unit of measurement of radioactivity.

What does this table tell us?

As you can see, our system had no MCL violations. MCLs are set at very stringent levels. To understand the possible health effects of exceeding the MCL, a person would have to drink two liters of water every day at the MCL for a lifetime to have a one in a million chance of having any adverse health effects. Although we have learned through our monitoring and testing that some constituents have been detected, the EPA has determined that your water IS SAFE at these levels.

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 the second quarter of 2023 we did not monitor our new well for radiological contaminants until the middle of the last month of the quarter. The Montana Department of Environmental Quality (MTDEQ) requires that the results of our testing no later than the 10th of the following month. Because we tested later in the quarter, they did not receive the results in time. We were notified of this and received a failure to monitor violation letter from the MTDEQ in July. We returned to compliance when they received the results. Below is the official violation information.

Violations			
Violation for 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 Period	Resolution Date	Violation Explanation
MONITORING, ROUTINE MAJOR	04/01/2023 to 06/30/2023	06-13-2023	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.
The violation was returned to compliance once the analytical result was received by the State of Montana DEQ.			
Violation for 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 Period	Resolution Date	Violation Explanation
MONITORING, ROUTINE MAJOR	04/01/2023 to 06/30/2023	06-13-2023	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.
The violation was returned to compliance once the analytical result was received by the State of Montana DEQ.			

All sources of drinking water are subject to potential contamination by contaminants that are naturally occurring or manmade. Those contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at www.epa.gov/safewater.

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 risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline, or online at www.epa.gov/safewater.

Lead in drinking water comes primarily from the materials and components of the service lines and home plumbing systems. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. Our water system is responsible for providing high quality drinking water, but we cannot control the variety of materials used in private home plumbing systems. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested by a certified laboratory like the one we send our samples to (Montana Environmental Laboratory, 406-755-2131). When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap until the water temperature has stabilized (usually for 30 seconds to 2 minutes) before you use the water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure to lead is available from the Safe Drinking Water Hotline or online at www.epa.gov/safewater/lead.

In July of 2003, the MTDEQ conducted a source water assessment of our system. This report provides additional information on the potential vulnerability of our wells to contamination. This report is available to review at Town Hall. It is also available online at <https://deq.mt.gov/water/programs/dw#accordion1-collapse2>. The report can be summarized in the following table:

SIGNIFICANT POTENTIAL CONTAMINANT SOURCES

Source	Contaminant	Hazard	Hazard Rating	Barriers	Susceptibility	Management
Well #1	Pathogens, NO ₂ , etc.	Leakage into well	High to Moderate	Multiple	Moderate to Low	Well Head Protection Program Ordinance
Well #2	Pathogens, NO ₂ , etc.	Leakage into well	High to Moderate	Multiple	Moderate to Low	Well Head Protection Program Ordinance

Our water system is committed to providing our customers with safe, pure water and we are pleased that our water meets or exceeds all established State and Federal standards. Thank you for reviewing this report.

Prepared by Montana Environmental Laboratory, LLC 2/24