

2016 Annual Drinking Water Quality Report

Miles City

PWSID#MT0000291

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Miles City, MT 59301

We're very pleased to provide you with this year's Annual Water Quality Report for the sampling year January 1, 2016 to December 31, 2016. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our source of water is surface water from the Yellowstone River. At the present time we serve 8,800 people. We have completed a source water protection plan that provides more information such as potential sources of contamination to our drinking water supply. This plan can be found online at http://apps.msl.mt.gov/Geographic_Information/Data/SourceWaterProtectionProgram/

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 EPA's Safe Drinking Water Hotline (800-426-4791).

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 include:

Microbial contaminants, such as viruses and bacteria that 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, urban storm water runoff, and residential uses;

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;

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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

We're pleased to report that our drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water, please contact **Allen Kelm**. He is the Public Utilities Director and can be reached at **406-234-3493**, or attend any of our regularly scheduled meetings. They are held on **the second and fourth Tuesday of each month in the Council Chambers at City Hall at 7:00 pm.**

The Miles City WTP routinely monitors for constituents in your drinking water according to Federal and State laws. The following table shows the results of any detects in our monitoring for the period of **January 1st to December 31st, 2016**. For constituents that are not monitored yearly, we have reviewed our records back the last five years.

The Miles City WTP has been issued a waiver for certain inorganic contaminants. This waiver allows our water system to sample only once every 9 years for these regulated contaminants: antimony, barium, beryllium, cadmium, chromium, fluoride, mercury, nickel, selenium and thallium. Past sampling for these contaminants has shown that they are not present in our water supply, or occur in such small amounts that they are not considered

a health hazard. This waiver is in effect from 2011 through 2020. In addition, we have renewed our waiver for asbestos.

We have monitored for lead and copper, and our samples have been in compliance with the Lead and Copper Rule. 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 Miles City WTP 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>.

Parameter	Date	90th % value	Units	Action level	Source of Contamination
Lead	7/13/16	2	ppb	15	Household plumbing
Copper	7/13/16	0.057	ppm	1.3	Household plumbing

In the tables above and below 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:

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 (ug/l) - one part per billion corresponds to one minute in 2000 years or a single penny in \$10,000,000.

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

Treatment Technique (TT) - (mandatory language) a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - (mandatory language) The "Maximum Allowed" (MCL) is 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 Contaminant Level Goal - (mandatory language) The "Goal" (MCLG) 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.

Nephelometric Turbidity Unit (NTU)-nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Picocuries per liter (pCi/L)-picocuries per liter is a measure of the radioactivity in water.

We're proud that your drinking water meets or exceeds all Federal and State requirements. 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.

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.

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).

TEST RESULTS

Contaminant	Violation Y/N	Sample Date	Highest Level Detected	Range	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
Fluoride	N	Monthly 2016	1.1	0.9 - 1.1	ppm	4	4	Erosion of natural deposits. Water additive for teeth
Nitrate + Nitrite as N	N	3/1/16	0.18	NA	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Arsenic	N	3/1/16	4	NA	ppb	0	10	Erosion of natural deposits
Disinfection By-Products								
Total trihalomethanes (TTHMs)	N	3/8/16 6/7/16 9/30/16 12/6/16	50*	17 - 53	ppb	0	80	By-product of drinking water chlorination
Haloacetic Acids (HAAs)	N	3/8/16 6/7/16 9/30/16 12/6/16	30*	18 - 40	ppb	0	60	By-product of drinking water chlorination
*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future								
Radioactive Contaminants								
Gross Alpha	N	3/8/11	2.4	0-2.4	pci/L	0	15	Erosion of natural deposits
Uranium	N	3/8/11	3	3-3	ppb	0	30	Erosion of natural deposits
Parameter	Violation Y/N	Date	Highest level detected	Lowest monthly % of samples meeting limit	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Turbidity	N	2/27/16	0.181	100% for all months	ntu	n/a	TT	Soil Runoff

Our system had no violations.

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

