

SOUTH EIGHTY

Montana Public Water Supply ID number 04276

2018 Water Quality Report

In compliance with the EPA's Safe Drinking Water Act and in an effort 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 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 two wells that are 280 and 415 feet deep. The second well was drilled in 2016 and came on line in 2018. We also constructed a new pump house and booster station and installed new water mains. We have 27 service connections; no new connections were added last year. We want you, our valued customers, to be informed about your water utility. If you want to learn more, please attend any of our regularly scheduled meetings held on the 3rd Tuesday of each month at 2:00 p.m. at the Lakeside County Water and Sewer District office at 253 Bierney Creek Road in Lakeside.

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 Rodney Olson at (406) 844-3881. Our certified operators are George (Cheyenne) Allen, Cody Osterday, and Scott Ring who have 15 and seven and two years of experience respectively. They attend periodic training sessions to meet continuing education requirements. The most recent training course they attended was in June of last year.

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 which can be naturally occurring or result from urban storm water runoff, industrial or domestic waste water 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 water runoff, and septic systems.
- 5) 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, 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 take all of our water samples to Montana Environmental Laboratory in Kalispell (406-755-2131). They are a private laboratory that is certified by the State of Montana and the EPA to analyze drinking water.

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, 2018:

- 58 coliform bacteria tests.
- 1 Nitrate plus Nitrite test - result was 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. We will not have to test for this contaminant until the year 2020.

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
Total Coliform Bacteria	N	6-11-18 to 8-30-18	26 Positive Samples in 2018	Positive Sample	0	0	Naturally occurring in the environment
Alpha Emitters (Adjusted) Well 1 Well 2	N	2-5-14 10-10-16	5.6 +/- 1.3 5.4 +/- 2.8	pCi/L	0	15	Erosion of natural deposits
Barium Well 1 Well 2	N	7-26-16 10-10-16	0.06 0.05	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	9-28-17	90 th % is 0.11	ppm	1.3	AL= 1.3	Corrosion of Household plumbing / naturally occurring
Fluoride Well 1 Well 2	N	7-26-16 10-10-16	0.10 0.10	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth: Discharge from fertilizer and aluminum factories
Nitrate + Nitrite Well 1 Well 2	N	7-18-18 10-10-16	1.89 1.16	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radium 226 Well 1 Well 2	N	7-21-16 10-10-16	0.3 +/- 0.1 0.3 +/- 0.2	pCi/L	0	5	Natural deposits
Radium 228 Well 1	N	7-21-16	1 +/- 0.7	pCi/L	0	5	Natural deposits
Uranium Well 2	N	10-10-16	2	ppb	0	30	Erosion of natural deposits

DEFINITIONS:

MCL - Maximum Contaminant Level - The “Maximum Allowed” 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.

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.

PPM - Parts per million or Milligrams per liter (mg/l) - one part per million corresponds 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 corresponds 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?

Our testing uncovered the presence of coliform bacteria during June. Although coliform bacteria are usually harmless, their presence in water is an indication that other harmful bacteria may be present. When coliform bacteria are found, special follow up tests are conducted to determine if harmful bacteria are present. In our case we had a total of 26 coliform positive water samples between June 11th and August 30th of last year. Coliform bacteria were found in more samples than allowed and this was a warning of potential problems. We conducted level one and level two assessments of our system. We believe the problem was due to inadequate disinfection following construction of our new pump house, booster station and the water lines associated with our new well (well 2). We increased the chlorination and flushing of our system, and in September our samples were coliform free.

All sources of drinking water are subject to potential contamination by contaminants that are naturally occurring or man made. 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 Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791, or online at www.epa.gov/safewater.

Lead in drinking water comes primarily from 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 1-800-426-4791, or online at

www.epa.gov/safewater/lead.

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, or online at www.epa.gov/safewater.

In February of 2005, the Montana Department of Environmental Quality 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 for review online at <http://svc.mt.gov/deq/dst/#/app/swp>. The report can be summarized in the following table:

Significant Potential Contaminant Sources

Source	Contaminant	Hazard	Hazard Rating	Barriers	Susceptibility	Management
Large Capacity Septic Systems (for the development) - Septic Tanks and Leach Fields	Nitrate, pathogens, other contaminants	Catastrophic rupture or chronic leakage of effluent from sewer mains	High Hazard	Depth to well intake below mean static water level; vertically upward groundwater gradient (pressure)	Moderate Susceptibility	Local promotion of advanced septic treatment systems, public education on proper waste disposal, possible development of a community sewer system and wastewater treatment plant
Large Capacity Septic System (for Vista Linda) - Septic Tanks and Leach Fields	Nitrate, pathogens, other contaminants	Catastrophic rupture or chronic leakage of effluent from sewer mains	High Hazard	Depth to well intake below mean static water level; vertically upward groundwater gradient (pressure); well is up gradient from this contaminant source (within the IR)	Moderate Susceptibility	Local promotion of advanced septic treatment systems, public education on proper waste disposal, possible development of a community septic wastewater treatment plant
Sewer Mains (20-50% of IR)	Nitrate, pathogens, other contaminants	Catastrophic rupture or chronic leakage of effluent from sewer mains	Moderate Hazard	Depth to well intake below mean static water level; vertically upward groundwater gradient (pressure)	Low Susceptibility	Public education on proper waste disposal, program of sewer line maintenance; possible development of a community sewer system and wastewater treatment plant
Septic Density - Medium density within and around the perimeter of the IR	Nitrate, pathogens, other contaminants	Leakage of poorly installed or maintained systems	Moderate Hazard	Depth to well intake below mean static water level; vertically upward groundwater gradient (pressure); well is mostly up gradient or lateral to this contaminant source (within the IR)	Low Susceptibility	Local promotion of advanced septic treatment systems, public education on proper waste disposal, possible development of a community sewer system and wastewater treatment plant

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.