

RANCH COUNTY WATER AND SEWER DISTRICT

Montana Public Water Supply ID number 03076

2022 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 water comes from two wells that are 460 and 425 feet deep. We have 39 service connections and added one new connection last year. We do not treat our water in any way, and we are working hard to maintain the purity of our water, so that we will not need to. A sanitary survey inspection of our water system was conducted in November of last year. They found that the electrical conduit was not continuous at the wellhead. It was repaired within one week.

We want you, our valued customers, to be informed about your water utility. If you want to learn more, please attend our annual meeting. The meeting will be held on June 7th, 2023, from 1:00 to 3:00 p.m at the offices of Chrysler & Gordon in Bigfork. We also have a new messaging system to allow instant notification of any issues or notices. Please send your mobile number to the district for inclusion in the program or to update your contact information.

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 quality, please contact Mark Smolen at (406) 407-0301. Mark is our certified operator with three years of experience. He attends periodic training sessions to meet continuing education requirements. The most recent training he received was in December of last year and the topic was lead line survey. A new backup operator has been recruited and is in the process of being certified.

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. The Ranch Subdivision routinely monitors for contaminants in your drinking water according to Federal and State laws. 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 on our water during the period of January 1st to December 31st, 2022:

- 14 coliform bacteria tests – all were coliform free.
- One nitrate plus nitrite test – result was within EPA guidelines.
- Tests to determine the possible presence of cyanide, PCB's, and 27 EPA regulated organic contaminants to renew a state monitoring waiver – results were within EPA standards.
- One test to confirm the possible presence of Di(2-ethylhexyl) phthalate – none was detected.

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
Barium	N	12-15-20	0.03	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	6-23-20	90th % is 0.14	ppm	1.3	AL= 1.3	Corrosion of Household plumbing / naturally occurring
Di(2-ethylhexyl) phthalate	N	4-18-22	0.74	ppb	0	6	Discharge from rubber and chemical factories, plasticizer leaching from plastic pipe
Fluoride	N	12-15-20	0.16	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
Lead	N	6-23-20	90th % is 3	ppb	0	AL= 15	Corrosion of Household plumbing / naturally occurring
Nitrate + Nitrite	N	4-18-22	1.19	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radium 226	N	3-23-21	0.5 +/- 0.3	pCi/L	0	5	Erosion of natural deposits
Radium 228	N	3-23-21	1.6 +/- 0.7	pCi/L	0	5	Erosion of natural deposits
Total Trihalomethanes (TTHM)	N	9-20-06	7.7	ppb	0	100	By product of drinking water chlorination
Uranium	N	3-23-21	10	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?

As you can see our system had no MCL violations. MCL’s 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.

Our testing did uncover the possible presence of Di(2-ethylhexyl)phthalate at a very low level of 0.74 parts per billion in April. The maximum allowed is 6 parts per billion. We repeated this test in May and none was detected. Some people who drink water containing di(2-ethylhexyl)phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.

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 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 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. The full 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
Area of Localized Increased Septic Density (The Ranch HOA itself)	Nitrate, pathogens, other contaminants	Chronic leakage of effluent from poorly installed or maintained systems	High hazard	Unsaturated thickness of bedrock above the water table	Moderate susceptibility	Local promotion of advanced septic treatment systems, public education on proper waste disposal, possible development of community septic effluent collection and wastewater treatment system; restrict development of home or industry on the area of thin or absent glacial till (where bedrock is exposed at the surface)
UST Sites	VOCs, Petroleum hydrocarbons	Chronic leakage of effluent from poorly installed or maintained systems	High Hazard	Unsaturated thickness of bedrock above the water table; the area of the highway appears to be underlain by fine grained glacial till; these sites have procedures, policies, and practices to detect, prevent, or respond to releases.	Moderate Susceptibility	Awareness of activities at these facilities; participate in public awareness and promotion of clean shops and best management practices
Vehicular Accidents along Highway 35	VOCs, SOCs, Metals, other	Large volume (though very infrequent) spills and/or releases of chemicals along the highway	High Hazard	Unsaturated thickness of bedrock above the water table; the area of highway appears to be underlain by fine grained glacial till; the highway is downgradient from the wells; Bigfork emergency services is very close to this area so that response time and resources are readily at hand	Moderate Susceptibility	Support local allocation of resources to provide emergency responders with equipment, supplies, and training.

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.