



PUBLIC NOTICE

2011 Annual Drinking Water Quality Report

The City of Columbia Falls

The City of Columbia Falls is very pleased to provide you with this year's Annual Water Quality Report. The City wants 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 you with a safe and dependable supply of drinking water. Our water source is provided from two deep water wells, one located at Clare Park off Talbot Road and the other at the LP Well west of town. The City has completed the source water potential contaminant inventory and susceptibility assessment and is enforcing the cross-connection control ordinance to protect the quality of the water. The routine monitoring of the inorganic chemicals antimony, beryllium, nickel, thallium, barium, cadmium, chromium, fluoride, mercury and selenium is on a reduced frequency by waiver because the results of four sampling rounds show very low to non-detectable quantities and therefore no hazard.

The City is pleased to report that our drinking water is safe and meets federal and state requirements.

The City wants our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled council meetings. They are held on the first and third Monday of every month at 7:00 P.M. at City Hall Council Chambers, 130 6th St West.

The City of Columbia Falls routinely monitors for contaminants in your drinking water according to federal and state laws. The table shows the results of our chemical monitoring for the period of January 1 to December 31, 2011.

The City of Columbia Falls collects (5) routine bacteriological tested monthly. The City had no violations of the Total Coli form Rule occur during the monitoring period between January 1st 2011 and December 31st 2011.

In 2011 one of our wells (EP-507) was tested for Volatile Organic chemicals, semi-volatile organic chemicals, inorganic chemicals herbicides, pesticides, metals, and radionuclides per Phase 2-5 testing requirements. **Di(2-ethylhexyl)phthalate** was detected z(2.3 ug/l. The result is .3 ug/l above the reporting limit of 2.0 ug/l but below the MCL of 6 ug/l. Montana Dept. Environmental Quality has required that repeat quarterly samples be completed. One repeat sample was taken in April 2012 resulting in a **No Detect** for this chemical. The water department will continue to collect additional samples quarterly with the next sample taken in July, 2012 and then again in December 2012. This chemical is a common plastizer, is everywhere and is hard to analyze.

Some of our data in the tables is more than one year old, since certain chemical contaminants are monitored less than once a year. Our sampling frequency complies with Federal Environmental Protection Agency (EPA) and State drinking water regulations.

TEST RESULTS								
Contaminant	Violation Y/N	Sample Date	Highest Level Detected	Range Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Barium Barium EP - 507	N	11/9/2010	.1	.1-.2	Ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
	N	10/26/2011	0.1 EP-507	.1 - 2	Ppm	2	2	
Nitrate + Nitrite (as Nitrogen)	N	10/26/2011	.53 EP507 .59 EP502	.54-.55	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Copper	N	7/1/2010	.25 .2 90th %	.04-.26	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	N	7/1/2010	.042 .042 90th %	ND to 15	ppb	0	AL=.015	Corrosion of household plumbing systems, erosion of natural deposits
Fluoride EP-507	N	10/26/2011	.05	.04-.06	ppm		4	Soil and rock
Sulfate EP – 507	N	10/26/2011	3.7	3.7-4.7	Ppm		250	Soil and rock
Radium 226	N	11/9/2010	0.2 +/- 0.1		PCi/l	0	5 pCi/l	Soil and rock
Radium 226 - EP-507	N	10/26/2011	-0.003+/- 0.09					
Radium 228	N	11/9/2010	0.9 +/- 1.1		PCi/l	0	5 pCi/l	Soil and rock
Radium 228 – EP-507	N	10/26/2011	0.6 +/- 0.6					
Rad Gross Alpha	N	5/5/2008	1.8 +/- 1.6		PCi/l	0	15 pCi/l	Soil and rock
Rad Gross Alpha – EP - 507	N	10/26/2011	2.7 +/- 1.2					
Radium 226 + Radium 228	N	11/9/2010	0.9 +/- 1.1		PCi/l	0	5 pCi/l	Soil and rock
Radium 226 + Radium 228 – EP-507	N	10/26/2011	0.07 +/- 0.6					

In this table 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 - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level -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 - 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.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791)

**OTHER WATER PARAMETER
TEST RESULTS**

<i>Parameter</i>	<i>Sample Date</i>	<i>Highest level Detected</i>	<i>Range Detected</i>	<i>Unit Measurement</i>	<i>MCL</i>	<i>Significance</i>
<i>Total Alkalinity</i>	<i>6/8/2011</i>	<i>261</i>	<i>236-260</i>	<i>mg/l CaCO₃/l</i>	<i>0</i>	<i>A measure of acid-neutralizing capacity. It is the sum of all titratable bases.</i>
<i>Bicarbonate Alkalinity</i>	<i>9/12/2000</i>	<i>250</i>	<i>236-250</i>	<i>mg/l CaCO₃/l</i>	<i>0</i>	<i>Alkalinity due to bicarbonate ion, HCO₃⁻.</i>
<i>Carbonate Alkalinity</i>	<i>9/12/2000</i>	<i>0</i>	<i>.....</i>	<i>mg/l CaCO₃/l</i>	<i>.....</i>	<i>Alkalinity due to carbonate ion, CO₃⁼</i>
<i>Hardness</i>	<i>6/8/2011</i>	<i>273</i>	<i>194-242</i>	<i>mg/l CaCO₃/ grains</i>	<i>.....</i>	<i>Measure of the capacity of water to precipitate soap. It is the sum of the calcium and magnesium concentrations. When the hardness is numerically equal to or less than the sum of the carbonate and bicarbonate alkalinity, all hardness is carbonate hardness and noncarbonate hardness is absent.</i>
<i>Magnesium</i>	<i>6/8/2011</i>	<i>18</i>	<i>16-18</i>	<i>mg/l</i>	<i>.....</i>	<i>Important contributor to hardness. Magnesium salts break down when heated forming scale. Chemical softening reduces magnesium and associated hardness to acceptable levels.</i>
<i>Manganese</i>	<i>6/8/2011</i>	<i>ND</i>	<i>.....</i>	<i>mg/l</i>	<i>.05</i>	<i>Since groundwater is often anoxic, any soluble manganese is usually in the reduced state (Mn²⁺). Upon exposure to air or other oxidants, groundwater containing manganese usually will precipitate black MnO₂. Elevated levels can cause stains in plumbing/laundry.</i>

What does this mean?

Our system had 1 violation in 2011. We're proud that your drinking water **meets or exceeds all federal and state requirements**, except for one instance. 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.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are man made. Those constituents can be microbes, organic or inorganic chemicals, or radioactive material.

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.

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.

Nitrates: As a precaution the City will always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

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). Thank you for allowing the City to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply the City sometimes needs to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

If you have any questions about this report or your water utility, please contact Lorin Lowry, Public Works Director at 892-4430. This Annual Drinking Water Quality Report **will not be mailed** out to individual water customers. A copy of this report can be picked up at City Hall.

The City of Columbia Falls works hard to provide top quality water to every tap.

We ask that all our customers help us protect and conserve our water sources, which is the heart of our Community and our way of life, and our children's future.

