

City of Cameron, Missouri

2009 Annual Water Quality Report

This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water.

Atencion!

Este informe contiene informacion muy importante. Traduscalo o prequentele a alguien que lo entienda bien.
[translated: This report contains very important information. Translate or ask someone who understands this very well.]

You are getting this report because of the requirements of the Federal Safe Drinking Water Act and state regulations. This report must be prepared by every community water system to provide their customers with information about the source of their drinking water, detects of contamination in their drinking water, and other facts related to violations and health issues if any are present. This water quality report will not be mailed out, but is available upon request.

What is the source of my water?

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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 pickup substances resulting from the presence of animals or from human activity.

Our water comes from the following sources: **Surface Water Reservoirs**

The City of Cameron sources consists of four surface water reservoirs located northwest of the city. Reservoirs #1, #2, #3 and Grindstone serve as the water supply for the City of Cameron and also serve Clinton County Public Water Supply District #3.

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved the establishment of source water delineations for each surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available on the internet at <http://maproom.missouri.edu/swipmaps/pwsid.htm>. To access the maps for your water system you will need the state-assigned identification code, which is printed at the top of this report. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

Why are there contaminants in my water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amount 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Contaminants that may be present in source water include:

- A.** Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B.** 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.
- C.** Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.
- D.** 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.

E. 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 Department of Natural Resources prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department of Health regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO1010131 for the purposes of tracking our test results. Last year, we tested for a variety of contaminants. The detectable results of these tests are on the following pages of this report. Any violations of state requirements or standards will be further explained later in this report.

How might I become more actively involved?

If you would like to observe the decision-making process that affects drinking water quality or if you have any further questions about your drinking water report, please call us at 632-2844 to inquire about scheduled meetings or contact persons.

Do I need to take special precautions?

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 microbial contaminants are available from the Safe Drinking Hotline (1-800-426-4791).

Lead

The newly revised Lead and Copper Rule requires all community systems, not just those who detect lead above the action level, to include an informational statement about lead in drinking water.

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 City of Cameron 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 drinking 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://epa.gov/safewater/lead>.

The state has reduced monitoring requirements for certain contaminants to less than once per year because the concentrations of these contaminants are expected to not vary significantly from year to year. Records marked with an *, though representative, are more than one year old.

Contaminants Report

Regulated Contaminants

<i>Disinfection By-Products</i>	Units	MCL	MCLG	RAA	Range of Detections	Violation	Monitoring Period
Total Haloacetic Acids (HAA5)	ppb	60	0	68.73514	29-102	Yes	2009
Sources	By-product of drinking water disinfection.						
Total Trihalomethanes (TTHM)	ppb	80	0	70.4424	38.3-124	No	2009
Sources	By-product of drinking water chlorination.						
Total Organic Carbon (TOC)	ppm			6.93	2.52 – 6.93	No	
Sources	Naturally present in the environment.						

Microbiological	Result	MCL	MCLG
No detected results were found in the calendar year of 2009.			

<i>Inorganic</i>	Units	MCL	MCLG	Level Found	Range of Detections	Violation	Sample Year
BARIUM	ppm	2	2	0.0768	0.0768	No	2009
Sources	Erosion of natural deposits; Discharge from metal refineries; Discharge of drilling wastes						
CARBON, TOTAL ORGANIC	ppm			4.5246	2.52-6.93	No	2009
Sources	Naturally present in the environment.						
CHLORITE	ppm	1.0	.80	0.6253	0.48-0.76	No	2009
Sources	By-product of drinking water chlorination.						
FLUORIDE	ppm	4	4	0.88	0.85-1.13	No	2009
Sources	Erosion of natural deposits; Water additive which promotes strong teeth.						
NITRATE + NITRITE (AS N)	ppm	10	10	0.2000	0.2	No	2009
Sources	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.						
NITRITE (as N)	ppm	1	1	0.3100	0.31	No	2009
Sources	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.						

<i>Organic (Synthetic)</i>	Units	MCL	MCLG	Level Found	Range of Detections	Violation	Sample Year
ATRAZINE	ppb	3.0	3.0	<0.50	<0.50	No	2009
Sources	Runoff from herbicide used on row crops.						

Turbidity

Turbidity is a measure of cloudiness of water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

Percentage of samples in compliance with Std.	Month Occured	Violation	Highest Single Measurement for the year	Month Occurred	Sources
99	8	No	0.48	August	Soil runoff

Copper

Collection Period	Units	Action Level	90 th Percentile	Range	Sites Over AL
*2007	ppm	AL=1.3	0.175	0.0198-0.29	0
Sources	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.				

Lead

Collection Period	Units	Action Level	90 th Percentile	Range	Sites Over AL
*2007	ppb	AL=15	1.40	1.43-2.9	0
Sources	Corrosion of household plumbing systems; Erosion of natural deposits.				

Violations and Health Effects Information

During the 2009 calendar year, we had the below noted violation(s) of drinking water regulations.

Type	Category	Analyte	Compliance Period
Disinfection Byproducts	MCL	Total Haloacetic Acids(HAA5s)	Jan. 2009 thru Dec. 2009

Violations and Health Effects Information

The City of Cameron is required to routinely test their drinking water for a number of possible contaminants. The City of Cameron exceeded the drinking water standard for a group of chemicals called haloacetic acids(HAA5s). The period of violation went from January thru December 2009. The City of Cameron sells water to other public water systems including: Caldwell County PWSD #2 and Clinton County PWSD #3. Although this is not an emergency, as customers receiving water from the City of Cameron, you have a right to know what happened, what you should do, and what is being done to correct this situation.

The maximum contaminant level (MCL) for HAA5s is 60 ppb reported as a running annual average which is updated quarterly. The running annual average for the first quarter was 67 ppb, the second quarter was 68.83 ppb, the third quarter was 73.01 ppb, and the fourth quarter was 69.68 ppb. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Disinfection by-products, such as HAA5s, are formed when disinfectants such as chlorine react with naturally occurring organic matter, called TOC, in surface water systems. HAA5s are by-products of the disinfection process that uses chlorine, however disinfection of drinking water is important to kill and prevent potentially harmful bacteria, viruses, and parasites. Measures are being taken to reduce the level of these disinfection by-products and their precursors.

What should I do as a customer?

1. This is not an emergency. There is no immediate risk from water with haloacetic acids above 60 ppb. However, if you have specific health concerns, consult with your doctor regarding this notice.
2. You may call the U.S. Environmental Protection Agency (EPA) Drinking Water Hotline at 1-800-426-4791 which is available to answer questions on disinfection by-products. The hotline operates 9:00 a.m. to 3:00 p.m. Central Time, Monday through Friday.

What happened? What is being done?

What happened? We believe the lakes experienced a high degree of runoff (which contains organic material) from an above normal rainfall year. The plant is capable of removing some of these organics, but not all of them. This caused the level of HAA5s to be exceeded.

What is being done? The City's consulting engineering firm is evaluating additional treatment required to help reduce HAA5s. Additional treatment may include basin construction or modification, along with additional equipment and chemical feed systems.

For more information, please contact water system staff indicated below.

Mark Gaugh at (816)632-2177 or 205 North Main Street, Cameron, Missouri 64429.

Additionally, you may contact the Missouri Department of Natural Resources' Kansas City Regional Office at (816)622-7000 or Public Drinking Water Program at (753)526-6925.

Definitions:

MCLG: Maximum Contaminant Level Goal, or 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. **MCLs:** Maximum Contaminant Level, or 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. **AL:** Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow. **TT:** Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water. **Level Found:** is the average of all test results for a particular contaminant. **90th Percentile:** For Lead and Copper testing. 10% of test results are above this level and 90% are below this level. **Range of Detections:** Shows the lowest and the highest levels found during a testing period, if only one sample was taken, then this number equals the Level Found.

Abbreviations:

PPB: parts per billion or micrograms per liter-one part per billion is equal to a single penny in \$10,000,000.

• **PPM:** parts per million or milligrams per liter-one part per million is equal to a single penny in \$10,000. • **n/a:** not applicable **NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water • **MFL:** million fibers per liter, used to measure asbestos concentration. . **pCi/L:** Picocuries Per Liter, measurement of the radioactivity in water. **nd:** not detectable at testing limits.

Unregulated Contaminants

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Information on all contaminants that were monitored for, whether regulated or unregulated, can be obtained from this water system or the Department of Natural Resources.

Optional Monitoring (not required by EPA)

Optional Contaminants

Monitoring is not required for optional contaminants.

Inorganic	Units	Level Found	Range of Detections	Sample Year
Alkalinity, CaCO3 Stability	ppm	109	109	2009
Alkalinity, Total	ppm	124	78-124	2009
Aluminum	ppm	0.0192	0.0192	2009
Calcium	ppm	42.5	42.5	2009
Chloride	ppm	26	26	2009
Hardness, Carbonate	ppm	139	139	2009
Magnesium	ppm	7.91	7.91	2009
pH		7.60	7.60	2009
Potassium	ppm	5.65	5.65	2009
Sodium	ppm	17.6	17.6	2009
Solids, Total Dissolved	ppm	208	208	2009
Sulfate	ppm	16.4	16.4	2009
Methomyl	ppb	1.27	1.27	2009

Volatile Organic	Units	Level Found	Range of Detections	Sample Year
Bromochloroacetic Acid	ppb	7.0486	2.72-10.9	2009
Bromodichloroacetic Acid	ppb	3.3332	nd-7.47	2009
Bromodichloromethane	ppb	13.4779	9.23-19.2	2009
Chlorodibromoacetic Acid	ppb	0.2904	nd-3.06	2009
Chlorodibromomethane	ppb	2.2614	1.36-3.57	2009
Chloroform	ppb	57.0966	25.7-102	2009
Dibromoacetic Acid	ppb	0.9714	nd-3.11	2009
Dichloroacetic Acid	ppb	35.0286	16.3-52.8	2009
Monobromoacetic Acid	ppb	0.0718	nd- 2.01	2009
Monochloroacetic Acid	ppb	9.3261	nd-22.6	2009
Trichloroacetic Acid	ppb	17.6104	9.44-54.5	2009