

# 2010 WATER QUALITY REPORT

## FOR CITY OF GARNAVILLO

This report contains important information regarding the water quality in our water system. The source of our water is groundwater. Our groundwater is drawn from the Cambrian Jordan Sandstone aquifer(s).

Our water quality testing shows the following results:

### EAST WELL:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Lead (ppb)	0	AL=15	5.0 ppb	9/2/09	3-10 ppb	No	Corrosion of household plumbing systems; erosion of natural deposits
Chlorine (ppm)	MRDLG =4.0	MRDL=4.0	1.25mg/l	RAA	0.6 – 2.1 mg/l	No	Water additive used to control microbes
Copper (ppm)	1.3	AL=1.3	0.124 ppb	9/2/9	0.0473-0.218 ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits
Barium (ppm)	2	2	0.1394 ppm	2/11/04	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	1.50 ppm	October 2009	1.09 -1.50 ppm	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	4.1 ppm	2/13/08	NA	No	Erosion of natural deposits; Added to water during treatment process
TTHM (ppb) [Total trihalomethanes]	N/A	80	2.90 ppb	8/13/07	NA	No	By-products of drinking water disinfection
Combined radium (pCi/L)	0	5	3.1 pCi/L	12/1/08	NA	No	Erosion of natural deposits
Alpha emitters (pCi/L)	0	15	5.2 pCi/L	12/1/08	NA	No	Erosion of natural deposits

### WEST WELL:

CONTAMINANT	MCLG	MCL	DETECTED LEVEL	DATE SAMPLED	RANGE OF DETECTION	VIOLATION	SOURCE
Lead (ppb)	0	AL=15	5.0 ppb	9/2/09	3-10 ppb	No	Corrosion of household plumbing systems; erosion of natural deposits
Chlorine (ppm)	MRDLG =4.0	MRDL=4.0	1.25 mg/l	RAA	0.4-1.5 mg/l	No	Water additive used to control microbes
Copper (ppm)	1.3	AL=1.3	0.124 ppb	9/2/09	0.0473-0.218 ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits
Barium (ppm)	2	2	0.1289 ppm	2/11/04	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	1.50 ppm	October 2009	1.09 – 1.50 ppm	No	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Sodium (ppm)	N/A	N/A	5.6 ppm	2/13/08	NA	No	Erosion of natural deposits; Added to water during treatment process
TTHM (ppb) [Total trihalomethanes]	N/A	80	2.90 ppb	8/13/07	NA	No	By-products of drinking water disinfection

Combined radium (pCi/L)	0	5	3.1 pCi/L	12/1/08	NA	No	Erosion of natural deposits
Alpha emitters (pCi/L)	0	15	3.6 pCi/L	12/1/08	NA	No	Erosion of natural deposits

Note: Contaminants with dates indicate results from the most recent testing done in accordance with regulations.

## DEFINITIONS

- Maximum Contaminant Level (MCL) – 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 (MCLG) -- 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.
- ppb -- parts per billion.
- ppm -- parts per million.
- pCi/L – picocuries per liter
- N/A – Not applicable
- ND -- Not detected
- RAA – Running Annual Average
- IDSE – Initial Distribution System Evaluation
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.
- Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

## GENERAL INFORMATION

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 posed a health risk. More information about contaminants or potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 Water Hotline (800-426-4791).

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 Garnavillo 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>.

## SOURCE WATER ASSESSMENT INFORMATION

The Garnavillo water supply obtains its water from the Cambrian Jordan Sandstone aquifer. The Cambrian Jordan Sandstone aquifer was determined to be not susceptible to contamination because the characteristics of the aquifer and overlying materials prevent easy access of contaminants to the aquifer. The wells will not be susceptible to most contaminant sources except through pathways to the aquifer such as abandoned or poorly maintained wells. A detailed evaluation of your source water was completed by the IDNR, and is available from the City of Garnavillo at 563-964-2331.

## CONTACT INFORMATION

For questions regarding this information, please contact Ted Berns at 563-964-2331 during the following hours: 8:30 a.m. – 3:30 p.m.

Decisions regarding the water system are made at the City Council meetings held on the 2<sup>nd</sup> Tuesday of each month at 7:00 p.m. at City Hall and are open to the public.

This report will not be mailed. A copy of this report is available at City Hall, 106 E. Chestnut St, Garnavillo, Iowa.