

The City of Mulberry 2012 Water Quality Report

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The City of Mulberry draws groundwater from the Floridan Aquifer from wells drilled at a depth of 820 feet.

The City of Mulberry routinely monitors for contaminants in your drinking water according to Federal and State laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2012. Data obtained before January 1, 2011, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

This report shows our water quality results and what they mean. If you have any questions about this report or concerning your water utility, please contact John Wright at (863) 425-5492. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Tuesday of each month at the Mulberry City Hall, 104 East Canal Street. We are pleased to report that our drinking water meets all federal and state requirements. In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Term Appearing in Table		Definition
Action Level	AL	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
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.
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.
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.
Not Detected	ND	Means not detected and indicates that the substance was not found by laboratory analysis.
Parts per million	ppm	Or milligrams per liter (mg/l): one part by weight of analyte to 1 million parts by weight of the water sample.
Parts per billion	ppb	Or micrograms per liter (µg/l): one part by weight of analyte to 1 billion parts by weight of the water sample.
Picocurie per liter	pCi/L	Measure of the radioactivity in water.

Water Quality Test Results Table

**Results in the Level Detected column for radiological and inorganic contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	Jan – Dec 2011	N	0.0092	0.0092	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	Jan – Dec 2011	N	.5	.5	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Chromium (ppb)	Jan – Dec 2011	N	2.3	2.36	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	Jan –Dec 2011	N	0.51	0.51	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Nickel (ppb)	Jan –Dec 2011	N	1.2	1.2	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	Jan –Dec 2012	N	0.23	0.23	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	Jan – Dec 2011	N	19	19	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products

For bromate, chloramines, or chlorine, the level detected is the the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. For haloacetic acids or TTHM, the level detected is the highest RAA, computed quarterly, of quarterly averages of all samples collected if the system is monitoring quarterly or is the average of all samples taken during the year if the system monitors less frequently than quarterly. Range of Results is the range of individual sample results (lowest to highest) for all monitoring locations, including Initial Distribution System Evaluation (IDSE) results as well as Stage 1 compliance results.

Disinfectant or Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDL G	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	Jan-Dec 2012	N	0.6	0.5-0.7	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Jan-Dec 2012	N	14.35	14.3-14.4	NA	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Jan-Dec 2012	N	29.8	18.7-40.9	NA	MCL = 80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo./yr.)	AL Exceeded (Y/N)	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Lead (tap water) (ppb)	June- Sept 2011	N	1	0	0	15	Corrosion of household plumbing systems, erosion of natural deposits
Copper (tap water) (ppm)	June- Sept 2011	N	.048	0	13	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

As you can see by the tables, our system had no violations. 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 Mulberry 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

In 2009 the Florida Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are six potential petroleum storage tanks and two closed industrial sites as potential sources of contamination identified for this system with a moderate susceptibility risk level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained by contacting our Utilities Department at (863) 425-5492.

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

- *Contaminants that may be present in source water include:*
- *Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.*
- *Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.*
- *Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.*
- *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 stormwater runoff, and septic systems.*
- *Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.*

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 @ 1-800-426-4791.

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. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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.