



# 2014 Annual Drinking Water Quality Report

(Consumer Confidence Report)

## City of Carthage

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**Special Notice - Required language for ALL community public water supplies:** You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly or immune-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care providers. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

### Our Drinking Water is Regulated

This report is a summary of the quality of the water we provide our customers. The analysis was made by using the data from the most recent U.S., Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

**Sources of Drinking Water:** 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 and 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 before treatment 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 storm water 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 storm water runoff, and residential uses.
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.
- 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.

### En Espanol

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre este informe en español, favor de llamar al teléfono (903) 693-5616 para hablar con una persona bilingüe en español.

### Where do we get our drinking water?

Our drinking water is obtained from SURFACE and GROUND water sources. It comes from the following Lake/River/Reservoir/Aquifer: LAKE MURVAUL, WILCOX AQUIFER. A Source Water Susceptibility Assessment of your drinking water sources is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with your drinking water source based on human activities and natural conditions. The information contained in the assessment allows us to focus our source water protection strategies. Some of this source water assessment information will be available later this year on Texas Drinking Water Watch at <http://dww.tceq.state.tx.us/DWWW/>. For more information on source water assessments and protection efforts at our system, please contact us.

### All Drinking water may contain contaminants:

When drinking water meets federal standards there may not be any health-based benefits to purchasing bottled water or point of use devices. 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 poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

### Public Participation Opportunities:

In the water loss audit submitted to the Texas Water Development Board for the time period of Jan-Dec 2014 our system lost an estimated 15,001,396 gallons of water. If you have questions about the water loss audit please call the numbers listed below. City Council meetings are held at City of Carthage offices located at 812 W Panola on the second and fourth Mondays at 5:00 PM. Telephone inquiries are welcome. Contact Byron Roberts at (903) 693-5616. To learn about future public meeting (concerning your drinking water), or to request to schedule one, please call us.

### Secondary Constituents

Many constituents (such as calcium, sodium, or iron), which are often found in drinking water, can cause taste, color, and odor problems. The taste and odor constituents are called secondary constituents and are regulated by the State of Texas, not EPA. These constituents are not causes for health concerns. Therefore, secondaries are not required to be reported in this document but they may greatly affect the appearance and taste of your water.

### Required Additional Health Information for Lead:

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. This water supply 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>.

**About the following pages-** The pages that follow list all of the federally regulated or monitored contaminants which have been found in your drinking water. The U.S.EPA requires water systems to test for up to 97 contaminants.

**DEFINITIONS**

**Maximum Contaminant Level (MCL) -**

The highest permissible level of a contaminant 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 not known or expected health risk. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL) -** The highest level of 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 contamination.

**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.

**ABBREVIATION**

- NTU - Nephelometric Turbidity Units
- ppCi/l – picocuries per liter (a measure of radioactivity)
- ppb – Parts per billion, or micrograms per liter (ug/L)
- ppq – parts per quadrillion, or picograms per liter
- MFL-Million fibers per liter (a measure of asbestos)
- ppm – Parts per million, or milligrams per liter (mg/L)
- ppt – parts per trillion, or nanograms per liter

**Regulated Contaminants**

Year	Contaminant	Minimum/Maximum Level	MCL	MCLG	Unit of Measure	Violation	Source of Constituent
2014	Barium	0.0 - 0.053	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
2014	Fluoride	.0— .0705	4	4	ppm	N	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
2013	Nitrate	0 - .08	10	10	Ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion of natural deposits.
2013	Nitrate	0 - 0.25	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion of natural deposits.
2014	Selenium	.0018	2.06– 3.67	50	Ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
2014	Thallium	ND	2	.05	ppb	N	Discharge electronics, glass, and leaching from ore-processing sites, drug factories
2014	Chromium	ND	100	00	ppb	N	Discharge from steel and pulp mills, erosion of natural deposits
2014	Arsenic	0 - .00088	10	0	ppb	N	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production wastes
2014	Haloacetic Acids (HAA5)*	0-43	14.0	60	ppb	N	Byproduct of drinking water disinfection
2014	Total Trihalomethanes (TThm)*	0-109	61.	80	ppb	N	Byproduct of drinking water disinfection

**Maximum Residual Disinfectant Level**

Year	Disinfectant	Average Level	Minimum Level	Maximum Level	MRDL	MRDLG	Unit of Measure	Source of Chemical
2014	Chloramines	3.20	.5	4.0	4.0	<4.0	ppm	Disinfectant used to control microbes

**Turbidity**

Year	Contaminant	Highest Level Detected	Lowest Monthly % of Samples Meeting Limits	Turbidity Limits	Unit of Measure	Source of Contaminant
2014	Turbidity	0.29	100.00	.14	NTU	Soil Runoff

**Lead and Copper**

Year	Constituent	The 90th Percentile	Number of Sites Exceeding Action Level	Action Level	Unit of Measure	Violation	Source of Constituent
2013	Lead	.158	0	15	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits
2013	Copper	1.21	0	1.3	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservative

**Total Organic Carbon**

Total organic carbon (TOC) no health effects. The disinfectant can combine with TOC to form disinfection byproducts. Disinfection is necessary to ensure that water does not have unacceptable levels of pathogens. Byproducts of disinfection include trihalomethanes (THMs) and Haloacetic acids (HAA) which are reported elsewhere in this report. (\*Removal ratio is the percent of TOC removed by the treatment process divided by the percent of TOC required by TCEQ to be removed.

Year	Contaminant	Average Level	Minimum Level	Maximum Level	Unit of Measure	Source of Contaminant
2014	Source Water	8.06	7.04	9.75	ppm	Naturally present in the environment
2014	Drinking Water	4.61	4.07	5.75	ppm	Naturally present in the environment
2014	Removal Ratio	53.6%	56.8%	58.9%	% removal *	N/A

**Total Coliform** — Total coliform bacteria are used as indicators of microbial contamination of drinking water because testing for them is easy. While not disease-causing organisms themselves, they are often found in association with other microbes that are capable of causing disease. Coliform bacteria are more hardy than many disease-causing organisms therefore, their absence from water is a good indication that the water is microbiologically safe for human consumption. (\*Two or more coliform found samples in any single month)

Year	Contaminant	Highest Monthly Number of Positive Samples	CL	Unit of Measure	Source of Contaminant
2014	Total Coliform Bacteria	1	*	Presence	Naturally present in the environment.

**Fecal Coliform**—Fecal Coliform bacteria and, in particular, E. Coli, are members of the coliform bacteria group originating in the intestinal tract or warm blooded animals and are passed into the environment through feces. The presence of fecal coliform bacteria (E Coli,) in drinking water may indicate recent contamination of the drinking water with fecal material. (\*A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. coli positive.

Year	Contaminant	Total Number of Positive Samples	MCL	Unit of Measure	Source of Contaminant
2014	Fecal Coliform or E.coli	0	*	Presence	Human and animal fecal waste