

2016 WATER QUALITY REPORT

City of Jenks

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies. Last year, we conducted tests for over 80 contaminants. We only detected 5 of those contaminants, and found only 1 at a level higher than the EPA allows. As we informed you at the time, our water temporarily exceeded drinking water standards. (For more information see the section labeled Violations at the end of the report.)

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

City of Tulsa

Source water assessment and its availability

The City of Jenks purchases all water from the City of Tulsa. The Water Quality Data are provided by the City of Tulsa. Tulsa receives water from three different lakes: Lake Oologah, Lake Spavinaw and Lake Hudson. That water is treated at Tulsa Jewell Water Treatment Plant before distribution.

Why are there contaminants in my drinking water?

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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: microbial contaminants, such as viruses and bacteria, that 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; and 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

How can I get involved?

City Council meetings are on the first and third Monday of each month at City Hall, 211 N. Elm Street.

Additional 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. Jenks Public Works Authority 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>.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table, you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

This report contains data collected for the period of January 1 to December 31, 2015.

CONTAMINANTS	MCLG or MRDLG	MCL, TT, or MRDL	YOUR WATER	RANGE		SAMPLE DATE	VIOLATION	TYPICAL SOURCE
				Low	High			
Disinfectants & Disinfectant By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	17	NA	17	2015	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	55	NA	55	2015	No	By-product of drinking water disinfection
MICROBIOLOGICAL CONTAMINANTS								
Fecal coliform (positive samples/month)	0	1	2	NA		2015	YES	Naturally present in the environment
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E.coli positive.								
CONTAMINANTS	MCGL	AL	YOUR WATER	SAMPLE DATE	# SAMPLES EXCEEDING AL	EXCEEDS AL	TYPICAL SOURCE	
Inorganic Contaminants								
Copper – action level at consumer taps (ppm)	1.3	1.3	0.269	2013	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead – action level at consumer taps (ppb)	0	15	1.11	2013	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

VIOLATIONS AND EXCEEDANCES

Total Coliform

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. A violation occurred in August 2015. A fire hydrant was opened and run continuously to flush the system. Follow-up sampling tested negative.

UNIT DESCRIPTIONS

Term	Definition
ppm	Parts per million, or milligrams per liter (mg/L)
ppb	Parts per billion, or micrograms per liter (ug/L)
Positive samples/month	Positive samples/month; number of positive samples taken monthly that were found to be positive.
NA	Not applicable.
ND	Not detected.
NR	Monitoring not required, but recommended.

IMPORTANT DRINKING WATER DEFINITIONS

Term	Definition
MCLG	Maximum Contaminant Level Goal: 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
MCL	Maximum Contaminant Level: 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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	Maximum residual disinfection level goal. 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.
MRDL	Maximum residual disinfectant level. 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.
MNR	Monitored Not Regulated
MPL	State Assigned Maximum Permissible Level

For more information, please contact:

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City of Tulsa 2015 Water Quality Data

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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

This table shows data for samples collected during 2015 (unless otherwise noted). Analyses made by professionals after water treatment showed that the levels of all contaminants found were much less than the levels that are cause for concern.

***Definitions:**

- AL = Action Level:** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.
- MCL = Maximum Contaminant Level:** 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.
- MCLG = Maximum Contaminant Level Goal:** The level of contaminant in drinking water below which there is no known or expected health risk.
- MRDL = Maximum Residual Disinfectant Level:** The highest level of disinfectant allowed in drinking water.
- LRAA = Locational Running Annual Average:** average calculated at each monitoring location.
- NTU = Nephelometric Turbidity Unit**
- s.u. = Standard Units**
- TT = Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

****Data collected September 2010. Monitoring frequency is in compliance with regulation.**
*****Data collected August 2013. Monitoring frequency is in compliance with regulation.**
******Data collected quarterly 2014 in conjunction with UCMR3 sampling. Monitoring frequency is in compliance with regulation.**

Regulated Contaminants	Level Found	Minimum	Maximum	Maximum Contaminant Level (MCL*)	MCLG*	Likely Source of Contaminants
Turbidity Level found			0.18	TT*=less than 0.3 NTU 95 percent of the time.	n/a	Soil runoff.
Lowest monthly % meeting regs	100.0%					
Total Coliform Bacteria within distribution system			0.90% (monthly)	Presence of coliform bacteria in more than 5 percent of monthly samples.	0	Naturally present in the environment.
<i>E. coli</i>			1 (routine)	Routine sample with positive <i>E. coli</i> followed by repeat sample with positive Total Coliform or <i>E. coli</i> .	0	Human and animal fecal waste.
Barium	0.048	0.032	0.055	2 parts per million	2	Naturally present in the environment, drilling waste, metal refineries.
Total Chlorine	2.5	1.6	3.2	MRDL* = 4.0 parts per million annual average	4	Water additive to control microbes.
Chlorite	0.35	0.20	0.56	1 part per million	0.8	By-product of drinking water disinfection.
Total Chromium****	0.14	0	0.28	100 parts per billion	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper***	0.19 ppm at the 90th percentile; 0 sites above AL			AL* = 1.3 parts per million (ppm) at 90th percentile	1.3	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives.
Fluoride	0.68	0.35	1.4	4 parts per million	4	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories.
Lead***	0 ppb at the 90th percentile; 0 sites above AL			AL* = 15 parts per billion (ppb) at 90th percentile	0	Corrosion of household plumbing systems, erosion of natural deposits.
Nitrate - Nitrite	0.18	0	0.35	Nitrate=10 parts per million; Nitrite=1 part per million	10; 1	Naturally occurring, fertilizers, sewage treatment plants, leaching from septic tanks.
Total Organic Carbon	1.9	0.70	2.9	Results are parts per million. MCL is TT*=percent removal	n/a	Naturally found in the environment.
Haloacetic Acids	21	0	35	60 parts per billion LRAA*. Level found is highest LRAA; Minimum and Maximum are from individual readings.	n/a	By-product of drinking water disinfection.
Total Trihalomethanes	37	13	56	80 parts per billion LRAA*. Level found is highest LRAA; Minimum and Maximum are from individual readings.	n/a	By-product of drinking water disinfection.

Secondary Contaminants	Average	Minimum	Maximum	Recommended Level	Likely Source of Contaminants
pH	n/a	7.2	8.5	Aesthetic level 6.5-8.5 s.u.*	Measure of acidity. Naturally present, adjusted in drinking water treatment.
Chloride	16	11	13	Aesthetic level 250 parts per million	Naturally present, brine from oilfield operations
Sodium	10	6.5	12	Standard has not been established	Naturally occurring, urban stormwater runoff or discharge from sewage treatment plants.
Sulfate	20	4.1	42	Aesthetic level 250 parts per million	Naturally present in the environment.

ADDITIONAL MONITORING:

Tulsa was required to participate in Unregulated Contaminant Monitoring (UCMR3) in 2014. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The following are those contaminants that were detected during UCMR3 monitoring.

Unregulated Contaminants	Average (parts per billion)	Minimum (parts per billion)	Maximum (parts per billion)
Bromochloromethane	0.020	0	0.092
Chlorate	79.3	0	244
Hexavalent Chromium	0.011	0	0.055
Molybdenum	0.14	0	1.1
Strontium	157	44.8	362
Vanadium	0.57	0	1.2