

LEXINGTON WATER QUALITY REPORT 2016

Spanish (Español)

Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúscalo o hable con alguien que lo entienda bien.

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.

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?

Ground Water

Source water assessment and its availability

The consumer confidence report can be viewed at City Hall located at 111 E. Broadway, Lexington, OK between the hours of 7:30 to 6:00 p.m. Monday through Thursday and 7:30 to 4:00 p.m. Friday

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 held on the 1st Tuesday of every month at 7:00 p.m. at City Hall.

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. CITY OF LEXINGTON 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>.

Additional Information for Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

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.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	1	NA	NA	2016	No	Water additive used to control microbes
Inorganic Contaminants								
Arsenic (ppb)	0	10	3	NA	NA	2014	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	.28	NA	NA	2014	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	2	NA	NA	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Volatile Organic Contaminants								

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Trichloroethylene (ppb)	0	5	.72	NA	NA	2016	No	Discharge from metal degreasing sites and other factories
Contaminants	MCLG	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	.0458	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Inorganic Contaminants								
Lead - action level at consumer taps (ppb)	0	15	.0458	2016	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	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	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	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	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	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.

Important Drinking Water Definitions	
MRDL	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	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

For more information please contact:

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LEXINGTON, OK 73051
Phone: 405-527-6123

2016 Annual Water Quality Report

City of Purcell

PWS ID# OK2004701

We are once again pleased to present this year's Annual Water Quality Report. This report is designed to inform our clients of all water testing results between January 1 and December 31, 2016. Our constant goal is to provide a safe and dependable supply of drinking water that meets all state and federal standards. We continually strive to improve water treatment methods and protect our water resources. We are committed to insuring the quality of your drinking water.

Is my water safe?

Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. Our source water is groundwater from the Garber Wellington Aquifer and is drawn from fifteen groundwater wells. We are required to test for bacteriological and other contaminants that may be present in the drinking water. All measured values were within the required levels.

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

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Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up contaminants resulting from animals or human activity: Contaminants that may be present in source water include:

- 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 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;
- 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;
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Water Quality Test Results:

ppm	parts per million, or milligrams per Liter (mg/L)
ppb	parts per billion, or micrograms per Liter (µg/L)
pCi/L	picocuries per Liter (a measure of radioactivity)
MCLG	Maximum Contaminant Level Goal. The level of contaminant in drinking water below which there is no known or expected risks 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.
NA	not applicable

For More Information

For any questions relating to your drinking water please contact Steve Mayer, Water Superintendent, at (405) 527-6561. More information about contaminants and potential health effects can be obtained by calling the Safe Drinking Water Hotline (800-426-4791). We want our valued customers to be informed about their water.

2016 Monitoring Results for Purcell

All test results are for the year 2016 unless otherwise noted¹

Contaminant	Sample Date	Highest Level Detected	Range	MCLG	MCL	Units	Violation	Likely Sources of Contamination
Inorganic Contaminants								
Barium	2015	0.326	0.326- 0.326	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium	2015	19	19 - 19	100	100	ppb	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Nitrate (measured as Nitrogen)	2014	0.17	0.17- 0.17	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Fluoride	2016	0.78	0.19 - 0.78	4	4.0	ppm	No	Erosion of natural deposits. Water additive which promotes strong teeth.
Selenium	2015	6.3	6.3 – 6.3	50	50	ppb	No	Erosion of natural deposits. Discharge from petroleum refineries or mines.
Radioactive Contaminants								
Beta/photon emitters	2016	7.38	2.06- 7.38	0	4	Mrem/yr	No	Decay of natural and manmade deposits.
Combined Radium 226/228	2016	1.084	0.397-1.084	0	5	pCi/L	No	Erosion of natural deposits
Gross alpha excluding radon and uranium	2016	9	0 - 18	0	15	pCi/L	No	Erosion of natural deposits
Uranium	2016	7	5.3 – 7.12	0	30	µg/L	No	Erosion of natural deposits
Disinfection and Disinfection Byproducts								
Chlorine	2016	1.0	1.0 – 1.0	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes
TTHM	2016	10	10.2 – 10.2	NA	80	ppb	No	Byproduct of Drinking Water Disinfection
Contaminant	Sample Date	90 th Percentile	Action Level (AL)	MCLG	# Sites Over AL	Units	Violation	Likely Sources of Contamination
Lead and Copper								
Copper	June 2014	0.119	1.3	1.3	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2013	0	15	0	1	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits

Violations Table

Violation Type	Begin	End	Violation Explanation
E. Coli: Monitor GWR Triggered, Additional, Major	June, July, Oct 2014	2016	We failed to collect follow-up samples within 24 hours of a total coliform positive sample in a water system that we sell water to. Under the Groundwater Rule, we must sample for total coliform and E. Coli at each well that was in operation at the time a total coliform positive sample occurs in our system or in a water system we sell water to.
	Sep, Oct 2015		