2013 Annual Water Quality Report
City of Woodward
PWS ID# OK2007701

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, 2013. 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 drawn from two well fields. The North well field, located five miles north of town, produces from the Rush Springs/Marlow Aquifer and has 26 wells. The Southwest well field, located five miles southwest of town, produces from the Ogallala Aquifer and has 39 wells. There are a total of 65 wells that supply Woodward with drinking water. Woodward is required to test for bacteriological and other contaminants that may be present in the drinking water. All measured values were within the required levels. There were no reported violations.

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).

Why are there contaminants in my drinking water?
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.

Abbreviations:

ppm (mg/L)	parts per million, or milligrams per Liter
ppb (µg/L)	parts per billion, or micrograms per Liter
pCi/L	picocuries per Liter (a measure of radioactivity)
NA	not applicable
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.

For More Information
For any questions relating to your drinking water please contact Rick Dryden, Water Superintendent, at (580) 256-2280. 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.

2013 Monitoring Results for Woodward

All test results are for the year 2013 unless otherwise noted[1]

Contaminant	Sample Date	Highest Level Detected	Range	MCLG	MCL	Units	Violation	Likely Sources of Contamination
Inorganic Contaminants								
Arsenic*	2013	8.7	0.0- 8.7	0.0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2013	0.174	0.174- 0.174	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	2013	0.25	0.0- 0.25	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizers and aluminum factories
Nitrate (measured as Nitrogen)	2013	6	2.67- 5.5	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2013	9.4	0.0- 9.4	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Radioactive Contaminants								
Beta/photon emitters	2013	2.66	0.652- 2.66	0	4	Mrem/ yr	No	Decay of natural and manmade deposits.
Combined Radium 226/228	2013	1.058	0.104- 1.058	0	5	pCi/L	No	Erosion of natural deposits
Gross alpha excluding radon and uranium	2013	3.86	0.272- 3.86	0	15	pCi/L	No	Erosion of natural deposits
Uranium	2013	2.15	0.0- 2.15	0	30	µg/L	No	Erosion of natural deposits
Disinfection and Disinfection Byproducts								
Chlorine	2013	1.0	1.0 – 1.0	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes
HAA5	2013	<1.0	0.0- 1.3	NA	60	ppb	No	Byproduct of Drinking Water Disinfection
TTHM	2013	14.5	0.0- 14.5	NA	80	ppb	No	Byproduct of Drinking Water Disinfection

*Your drinking water meets EPA standards for arsenic; it also contains low levels of arsenic. EPA's standard balances the current understanding of arsenics 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.

2013 Monitoring Results for Woodward

All test results are for the year 2013 unless otherwise noted[1]

Contaminant	Sample Date	90th Percentile	Action Level (AL)	MCLG	# Sites Over AL	Units	Violation	Likely Sources of Contamination
Lead and Copper								
Copper	2013	0.233	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

Name	Units	Reported Level	Range	
			Low	High
Unregulated Contaminant Monitoring*				
Cobalt	ppb	<1.0	<1.0	<1.0
Chromium	ppb	3.25	0.729	3.25
Molybdenum	ppb	<1.0	<1.0	<1.0
Strontium	ppb	460	121	460
Vanadium	ppb	10.2	3.26	10.2
Chromium-Hexavalent	ppb	3.02	0.692	3.02

*Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.