

**2006**  
**Annual Drinking Water Quality Report**  
**City of Moore**

**--Spanish--Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.**

We're very pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is groundwater drawn from the Garber –Wellington Aquifer.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact **Robert Pistole at 405-793-5080**. We want 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 and third Monday of the month.

The City of Moore routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2006. (Some of our data may be more than one year old because the state allows us to monitor for some contaminants less often than once per year.)

In the table below you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Parts per million (ppm) or Milligrams per liter (mg/l)*

*Parts per billion (ppb) or Micrograms per liter (ug/l)*

*Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.*

*Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*

**VOC's** – Contaminants are as follows: 1,2,4-Trichlorobenzene, CIS,-1,2-Dichloroethylene, Xylenes, Dichloromethane, O-Dichlorobenzene, P-Dichlorobenzene, Vinyl Chloride, 1,1-Dichloroethylene, Trans-1,2-Dichloroethylene, 1,2-Dichloroethane, 1,1,1-Trichloroethane, Carbon Tetrachloride, 1,2-Dichloropropane, Trichloroethylene, 1,1,2-Trichloroethane, Tetrachloroethylene, Monochlorobenzene, Benzene, Toluene, Ethylbenzene, Styrene,

*Maximum Contaminant Level (MCL) - The MCL is 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 MCLG is 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.*

There are seventy-six regulated contaminants that community water systems are required to test for including microbiological, radioactive, inorganic, synthetic organic including pesticides and herbicides, and volatile organic contaminants. We are exempt from testing for synthetic organic contaminants based upon a vulnerability assessment conducted by the Oklahoma Department of Environmental Quality. The table below shows only those contaminants that were detected.

## TEST RESULTS

Contaminant	Violation Y/N	Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
1. Total Coliform Bacteria 2005 System-wide distribution test month having the highest % positive September 2005	N	3 positive	N/A	Less than 5% of samples	0%	Naturally present in the environment
<b>Radiological</b>						
2. Alpha emitters (pCi/l)	N	4.76833	0-16.39 Pci/l	15	0	Erosion of natural deposits
3. Beta/photon emitters (pCi/l)	N	3.39	2.734- 4.046	050	0	Decay of natural and man-made deposits
4. Radium, Combined (226,228) (pCi/l)	N	1.3056	0.04- 2.03	5	5	High levels of Radium have been known to be link to cancer
5. Nitrate + Nitrite (AS N) (ppb)	N	0.4170	0.21 – 0.6	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
6. Nitrate (AS N) (ppb)	N	0.575	0.519- 0.656	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
7. Nitrite (AS N) (ppb)	N	0.559	0.559- 0.559	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Disinfection Byproduct Contaminants</b>						
8. Total Trihalomethanes (TTHM) (ppb)	N	23	0-45.4	100	100	By-product of drinking water chlorination
9. Total Haloacetic Acids (HAA5) (ppb)	N	11	0-27.3	60	60	Commonly found in dry cleaning solutions, metal degreasing and metal cleaning.

Contaminant	Violation Y/N	Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
<b>Inorganic Contaminants</b>						
10. Arsenic (ppb)	Y	10.4211	0.68-51	10	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
11. Barium (ppb)	N	267.615	39-400	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
12. Fluoride (ppm)	N	0.265	0.26 – 0.27	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
13. Selenium (ppb)	N	17.0867	1.7-50	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

**LEAD AND COPPER 90% VALVUES AND SAMPLES ABOVE THE ACTION LEVEL**

14. Copper 90 <sup>th</sup> % Value (ppm)	N	0.13	1.3*			Corrosive of household plumbing; erosion of natural deposits
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\* Action Level – 90% of samples must be below this level.

**MONITORING VIOLATIONS**

Parameter	Compliance Period	Violation Type	Explanation
Arsenic	3Q2006	MCL, Single sample	Single data point exceeded the MCL.

\* See Definitions

In the above parameters subsequent samples were pulled and analyzed

Its is now required that systems advice their clients as to the vulnerability level for their SWAP plan.

Moore's SWAP plan vulnerability rating is High.

Moore has connections to Oklahoma City water system for use during emergencies and peak demand periods.

The water is mixed with Moore's water in the distribution system. Oklahoma City water quality data is listed in the table below.

**EPA has mandated a new standard for arsenic of 10mg/l effective January 1, 2006. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations.**

The table shows that our system uncovered some problems this year. The duration of the violation was for one day. The potential adverse health effects are minimal since these are an indicator that other, potentially harmful, bacteria may be present. No adverse effects were reported. We have corrected this by ensuring that a chlorine residual of at least 0.2 mg/l chlorine residual is present in the distribution system.

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).

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 before we treat it 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 and residential uses.

**\*Radioactive contaminants**, which are naturally occurring.

**\*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.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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 (800-426-4791).

Please call our office if you have questions. 793-5080.