City of Moore Water Test Results

TEST RESULTS

Contaminant	Compliance Y/N	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria (System takes 50 monthly samples)	N	7 positive	N/A	5% positive	0	Naturally present in the environment
Fecal coliform and E.coli	Y	0	N/A	0	0	Human and animal fecal waste
Radiochemical Contaminants						
Beta / Photon emitters	Y	2.89 mrem/year	0-2.89 mrem/year	4	0	Decay of natural and man-made deposits.
Gross Alpha excluding Radon and Uranium (pCi/L)	Y	2pci/l PCI/L	1.02-6.34 PCI/l	15	0	Erosion of natural deposits
Combined radium 226/228 (pCi/L)	Y	1 PCI/L	0- 0.404 PCI/L	5	0	Erosion of natural deposits
Uranium (pCi/L or ug/l)	Y	1 UG/L	0-2.4 UG/L	30 pCi / L Or 30 ug / L	0	Erosion of natural deposits
Dichloromethane	Y	1	0-2.22	5 ppb	0	Discharge from pharmaceutical and chemical factories.
Regulated Contaminants						
Arsenic (ppb)	Y	9 UG/L	0-34 UG/L	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (PPM)	Y	0.363 PPM	0.148-0.363 PPM	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	Y	18 UG/L	0-18 UG/L	100	100	Discharge from steel and pulp mill; erosion of natural deposits;
Fluoride	Y	0.63 PPM	0.2-0.63 PPM	4	4	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories.
Nitrate (measured as nitrogen)	Y	1 PPM	0-0.89 PPM	10	10	Runoff from fertilizer use: leaching form septic tanks, erosion of natural deposits.
Copper (ppm) 90% Value Year sampled 2014	Y	0.017 PPM	N/A	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) 90% Value Year sampled 2014	N	40 PPB	N/A	AL=15 Action Level - 90% of samples must be below this level.	0	Corrosion of household plumbing systems, erosion of natural deposits
Selenium	Y	38.7 PPB	0-38.7 PPB	50	50	Discharge from petroleum and metal refineries, Erosion of natural deposits, Discharge from mines
Haloacetic Acids; (ppb) (HAA5)	Y	36 PPB	9.72-45.8 PPB	60	No goal for the total	By-product of drinking water chlorination.
Total Trihalomethanes (ppb)	Y	59 PPB	19-72.4 PPB	80	No goal for the total	By-product of drinking water chlorination.

In 2014 Moore found elevated levels of lead in some homes/buildings as result of routine monitoring. The City of Moore has increased monitoring for lead and to date we have conducted 132 water quality samples with no elevated levels of lead.

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.

UCMR3: EPA uses the Unregulated Contaminant Monitoring (UCM) program to collect data for contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). Every five years EPA reviews the list of contaminants, largely based on the Contaminant Candidate List. The SDWA Amendments of 1996 provide for:

- Monitoring no more than 30 contaminants every five years
- Monitoring only a representative sample of public water systems serving less than 10,000 people
- Storing analytical results in a National Contaminant Occurrence Database (NCOD)

UCMR 3 is the third round of monitoring under the UCM Rule.

Violations Table

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

Violation Type	Violation Begin	Violation End	Violation Explanation
MCL (TCR), MONTHLY	06/01/2015	06/30/2015	Total coliform bacteria were found in our drinking water during the period indicated in enough samples to violate a standard. Per testing protocols 30 samples were re-taken and there was no presence of coliforms found.

The data in this report is from sampling performed in 2015 unless noted.

City of Oklahoma City Water Test Results

Oklahoma City Utilities - Water Quality Summary 2015

DETECTED CONTAMINANTS	UNITS	IDEAL GOAL (EPA'S MCLG)	HIGHEST LEVEL ALLOWED (EPA'S MCL)	HEFNER WTP PWS ID 1020902	DRAPER WTP PWS ID 1020902B	OVERHOLSER WTP PWS ID 1020902C	COMPLIANCE	MAJOR SOURCES IN DRINKING WATER
Inorganic Compounds								
Fluoride[1]	ppm	4	4	Average level detected in most recent testing - 2015			YES	Added during treatment for dental health or dissolved from natural deposits
				0.75	0.73	0.77		
Lead	ppb	0	AL = 15	Most recent systemwide distribution testing			All Sites < AL	Corrosion of household plumbing; erosion of natural deposits
				June/July 2015 - 90th Percentile = <5.0			YES	
Barium	ppm	2	2	Highest level most recent testing - 2013			YES	Discharge of Drilling Wastes; discharge from metal refineries; erosion of natural deposits
				0.052	0.057	0.032		
Copper	ppm	0	AL = 1.3	Most recent systemwide distribution testing			All Sites < AL	Corrosion of household plumbing; erosion of natural deposits
				June/July 2015 - 90th Percentile = 0.079			YES	
Arsenic	ppb	0	10	Range detected in most recent testing - 2013			YES	Erosion of natural deposits; runoff from orchards; runoff from electronics and glass production wastes
				<2	<2	<2		
Nitrate-Nitrite[2]	ppm	10	10	Highest level			YES	Runoff from fertilizer; leaching from septic tanks, sewage or erosion of natural deposits
				0.314	0.250	0.234		
Radiological								
				Range detected in most recent testing - 2012				
Gross Alpha	pCi/L	0	15	<2.229	<0.4744	<2.373	YES	Decay of natural and man-made deposits
Gross Beta	pCi/L	0	50	6.784	2.611	6.824		
Radium 226 + 228	pCi/L	0	5	<0.545	<0.495	0.980		
Uranium	ppb	0	30	<1	<1	<1		
Disinfection By-Products Stage 2 Rule Monitoring[3]								
Total Trihalomethanes[4]	ppb	0	80 (LRAA)	Most recent systemwide distribution testing 2014/2015			YES	By-product of drinking water disinfection
				Highest Locational Running Annual Average (LRAA)				
				10401 W. Stanley Draper Dr (Draper) - 75.70				
				Range Detected: 4.72 - 85.57				
				Highest quarterly average (LRAA)				
				24.56	75.70	69.68		
				Range detected				
				4.72 - 38.85	49.00 - 83.78	53.62 - 85.57		
Haloacetic Acids[4]	ppb	0	60 (LRAA)	Most recent systemwide distribution testing 2014/2015			YES	By-product of drinking water disinfection
				Highest Locational Running Annual Average (LRAA)				
				6400 N Westminster Rd (Draper) - 53.23				
				Range Detected: 2.51 - 63.90				
				Highest quarterly average (LRAA)				
				11.45	53.23	38.20		
				Range detected				
				2.51 - 19.20	20.10 - 63.90	16.40 - 48.60		
Bromate[5]	ppb	0	10 (RAA)	Highest quarterly average (RAA) - 1.76			YES	By-product of disinfection by ozone **Only Hefner Plant uses Ozone**
				Range detected - <8.75 - 24.6				
Precursor Removal								
Total Organic Carbon[6] **(TOC)**			TT = Ratio must be greater than or equal to 1.00 for compliance	Average of monthly ratios			YES	Naturally occurring
				1.88	0.391	1.43		
				Monthly Ratio = (% TOC removed) divided by (% TOC removal required)				
Disinfection Residual								
Chloramines as Chlorine[7]	ppm	NA	MRDL	Average readings			YES	Water additive used to control microbes
			4.0	3.67	3.43	3.20		
			Range detected	2.10 - 4.50	2.70 - 3.90	2.01 - 4.32		
Microbiological								
Coliform Bacteria	CFUs % positive	0	Presence of Coliform bacteria in <5% of samples	2015 System-wide distribution testing Month having the highest % positive - No positive samples in 2015			YES	**Naturally present in the environment - No Fecal Coliforms or E. Coli in 3105 tests in 2015.**
				Zero positive Coliform results in 3105 samples (0.00 % occurrence)				
Clarity								
Turbidity	NTU % > 0.3	NA	TT = > 0.3 NTU in not more than 5% of samples	Monthly lowest % < 0.3 NTU			YES	Lime and/or calcium carbonate particles from softening efforts; soil runoff
				100.0%	100.0%	100.0%		
				Highest single reading				
				0.25	0.15	0.26		
Long Term 2 Enhanced Surface Water Treatment Rule								
Cryptosporidium[8]	cysts/L	0	NA	All source waters tested at less than 0.075 cysts/L (lowest risk category)			YES	Storm runoff, agricultural runoff and leaking sewage systems
Detected UCMR3 Analytes (2013)[9]								
				Average	Range	More Info		
Chlorate	ppb	NA	NA	36.4	<20.0 - 36.4	1 of 12 samples >20.0	NA	By-product of drinking water disinfection, making of dyes, explosives, matches, printing fabrics, herbicides, antiseptics, toothpastes and in paper pulp processing.
Hexavalent Chromium	ppb	NA	NA	0.141	<0.030 - 0.391	11 of 12 samples >0.030	NA	Naturally occurring. By-product of making steel and other alloys, plating, dyes and pigments, leather and wood preservation.
Total Chromium	ppb	100 (0.100 mg/L)	100 (0.100 mg/L)	0.428	<0.200 - 0.471	2 of 12 samples >0.200	YES	Naturally occurring. By-product of making steel and other alloys, plating, dyes and pigments, leather and wood preservation.
Molybdenum	ppb	NA	NA	2.76	<1.00 - 3.24	6 of 12 samples >1.00	NA	Naturally occurring. By-product of making steel and other alloys, lubricants, dyes and pigments, fertilizers.
Strontium	ppb	NA	NA	295	42.9 - 763	12 of 12 samples >3.00	NA	Naturally occurring. By-product of making electronics and fireworks.
Vanadium	ppb	NA	NA	2.78	<0.200 - 7.50	11 of 12 samples >0.200	NA	Naturally occurring. By-product of making steel alloys, chemical manufacturing, ceramics and batteries.

2016 Annual
Drinking Water Quality Report

For Water Conservation and Rationing Updates: www.cityofmoore.com/water

CITY OF MOORE
301 N. BROADWAY
MOORE, OK 73160

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 a safe and dependable supply of drinking water.

Our water source is ground water drawn from the Garber-Wellington Aquifer. An analysis of contamination susceptibility of our source water has been done. That analysis showed that our water is susceptible to contamination. This plan is available for viewing in our office. Information such as potential sources of contamination is listed in the plan.

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, Veolia Water, (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 City Council meetings. They are held at 6:30 p.m. on the first and third Monday of the month at City Hall.

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 through December 31, 2015. Some of our data may be more than one year old because the state allows us to monitor for some constituents less often than once per year. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk. The City of Moore also has connections to the Oklahoma City water system and the water is mixed in the distribution system. The Oklahoma City water quality data is also provided.

Drinking Water Sources

The sources of drinking water (both tap and bottled) 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.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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**.

People with Health Concerns

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**. We at the City of Moore work around the clock to provide top quality water to every tap.

Terms and Abbreviations

Non-Detects (ND)- laboratory analysis indicates that the constituent is not present.
Parts per million (ppm) or Milligrams per liter (mg/l)
Parts per billion (ppb) or Micrograms per liter (ug/l)
Parts per trillion (ppt) or Nanograms per liter (nanograms/l)
Parts per quadrillion (ppq) or Picograms per liter (picograms/l)
Picocuries per liter (pCi/L)- picocuries per liter is a measure of the radioactivity in water.
Millirems per year (mrem/yr)- measure of radiation absorbed by the body.
Action Level (AL)- the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT)- A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
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- 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.

For further information contact: Robert Pistole, Veolia Water, (405)793-5080