

**51 East Water, Inc  
420 S Union Rd  
Stillwater OK 74074  
PWS # 3006003**

Re: 2014 Water Quality Report  
(Consumer Confidence Report)

30 June 2015

Dear Water Customer:

51 East Water, Inc. purchases water from Lone Chimney Water Association and the City of Stillwater and provides safe drinking water to your homes. The attached reports from Lone Chimney Water Association and the City of Stillwater shows the quality of your water. We are required to test for bacteria, lead, copper, and disinfection by-products in addition to those tested by Lone Chimney and Stillwater. None of these contaminants were detected in 2014.

Decisions regarding your water are made by the Board of Directors that meets regularly on the Thursday closest to the 15<sup>th</sup> of each month at 4:00p.m. The office is located at 420 S Union Rd.

Should you have any questions or concerns regarding your water and/or need a copy of this report, please contact Jeff Gammill at (405) 372-1151.

Sincerely,

Donovan Bowers,  
President, Board of Directors

## 2014 Annual Water Quality Report

### Public Water Supply ID OK1021220

**Water Utilities**  
723 S. Lewis Street/P.O. Box 1449  
Stillwater, Oklahoma 74076-1449

Office: (405) 742-8325  
Fax: (405) 742-8324  
Web: stillwater.org

The 2014 Annual Water Quality Report provides information about the quality of your drinking water; the efforts being made to improve the water treatment process; and how we protect our water resources. Our goal is to make sure you have a safe and dependable supply of drinking water. This report is also known as the *Consumer Confidence Report (CCR)*.

Stillwater's water source is Kaw Lake, which is located approximately 10 miles east of Ponca City in Kay County. Kaw Lake surface water is transported to the City's treatment facility located at 1022 West Yost Road. In 2014, the facility supplied more than 2.4 billion gallons of clean drinking water to the Stillwater citizens, five rural water districts, and several mobile home communities in Payne and Noble Counties.

The City of Stillwater routinely monitors your drinking water for constituents according to federal (EPA) and state (ODEQ) rules and regulations. The tables in this report show the results for Jan. 1, 2014 to Dec. 31, 2014. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. These constituents may be microbes, organic chemicals, radioactive or other materials. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

If you have any questions about this report or concerns about your water utility, please contact Water Utilities Department Director, William Millis at (405) 742-8325 or Water Treatment Plant Superintendent Scott Taylor at (405) 743-4580. You may also contact your mayor and city councilors.

To view this report or the *2014 Rural Water Corp #3 Service Area, Annual Water Quality Report*, go online to [stillwater.org](http://stillwater.org) or contact the Water Distribution and Collection Service Center at (405) 533-8048 or by email at [bdarbe@stillwater.org](mailto:bdarbe@stillwater.org). Follow us on Twitter @SUAWater, for updates and news about water and sewer service.

**DEFINITIONS:**

- Action Level (AL)* – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Below Practical Quantitation Limits (BPQL)* – The method detection limit (MDL) adjusted for any dilutions or other changes made to the sample to deal with interferences/matrix effects.
- Maximum Contaminant Level (MCL)* – 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 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.
- MRL* – Minimum Reporting Level.
- MPN/100 ml* – Most Probable Number of colonies per 100 ml of sample.
- Nephelometric Turbidity Unit (NTU)* – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- Parts per billion (ppb) or Micrograms per liter (ug/L)* – One part of contaminant per billion parts of water.
- Parts per million (ppm) or Milligrams per liter (mg/L)* – One part of contaminant per million parts of water.
- Picocuries per liter (pCi/L)* – Picocuries per liter is a measure of the radioactivity in water.
- Treatment Technique (TT)* – A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- No Detection (ND)* – No organisms detected in the sample.

**WATER QUALITY DATA**

**Microbiological Contaminants**

Parameter	MCL	Maximum Level Detected	Lowest Monthly Percentage	Violations	Sources of Contaminant
Turbidity in treated water	0.3 NTU in 95% of all samples taken within one month	0.25 NTU in a single sample	< 0.3 NTU in 100 % of all samples taken within one month	None	Soil Runoff

**Radionuclides**

Parameter	MCL	Level Detected	Range of Detections	Violations	Sources of Contaminant
Gross Alpha	15 pCi/L	1.05 pCi/L	1.05 – 1.05 pCi/L	None	Erosion of natural deposits
Gross Beta	4 mrem/Year	5.0 pCi/L	5.0 – 5.0 pCi/L	None	Erosion of natural deposits
Radium 226 + 228	5 pCi/L	0.079 pCi/L	0.079 – 0.079 pCi/L	None	Erosion of natural deposits
Uranium	30.0 ug/L	BPQL ug/L	< 1.0 ug/L – < 1.0 ug/L	None	Erosion of natural deposits

**Disinfection By-products Rule Stage 2**

Parameter	MCL	Maximum Level Detected	Range of Detections	Violations	Sources of Contaminant
Total Trihalomethanes	80 ppb	23.60 ppb	8.89 ppb – 23.60 ppb	None	By-product of drinking water chlorination
HAA5	60 ppb	22.80 ppb	1.0 ppb – 22.80 ppb	None	By-product of drinking water chlorination
BROMATE	10 ppb (running annual average)	< 5.0 ppb	< 5.0 ppb – < 5.0 ppb	None	By-product of drinking water ozonation

**Lead and Copper (Regulated at Customer's Tap)**

Parameter	Action Level *	90% Sample Detected	Violations	Sources of Contaminant
Lead	15 ppb	< BPQL ppb	None	Corrosion of household plumbing systems
Copper	1.3 ppm	0.018 ppm	None	Corrosion of household plumbing systems

\* Action Level – 90 % of samples must be below this level.

**Organic Carbon**

Parameter	MCL	MCLG	Date Sampled	2014 Removal Avg.	Removal Range (Low – High)	Violations	Sources of Contaminant
Total Organic Carbon	TT removal < 1.0% (running avg.)	N/A	Jan. – Dec. 2014 (monthly)	1.36%	0.74% – 2.33%	None	Naturally present in the environment

**Bacteriological Contaminants**

Parameter	MCL	Maximum Level Detected	Number of Positive E. Coliforms	MCLG	Violations	Likely Source of Contaminant
Coliform (TCR)	5% of monthly samples are positive	2.5%	0	0	None	Naturally present in the environment

**Inorganic Contaminants**

Parameter	MCL	Maximum Level Detected	Range of Detections	Date Sampled	MCLG	Violations	Sources of Contaminant
Antimony	6 ppb	BPQL	< 0.005 ppm	12/5/14	6 ppb	None	Discharge from Petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic	10 ppb	BPQL	< 0.005 ppm	12/5/14	N/A	None	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2 ppm	0.052 ppm	0.052 ppm	12/5/14	2 ppm	None	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	4 ppm	0.83 ppm	0.58 – 0.83 ppm	Monthly	4 ppm	None	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate + Nitrite	10 ppm	0.94 ppm	0.94 ppm	12/5/14	10 ppm	None	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	.05 ppm	BPQL	< 0.005 ppm	12/5/14	.05 ppm	None	Discharge from petroleum refineries; Erosion of natural deposits; Discharge from mines
Beryllium	.004 ppm	BPQL	< 0.004 ppm	12/5/14	.004 ppm	None	Discharge from metal refineries and coal burning factories; Discharge from electrical, aerospace, and defense industries
Cadmium	.005 ppm	BPQL	< 0.0010 ppm	12/5/14	.0010 ppm	None	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; Runoff from waste batteries and paints
Chromium	.10 ppm	BPQL	< 0.01 ppm	12/5/14	.10 ppm	None	Discharge from steel and pulp mills; Erosion from natural deposits
Mercury	.002 ppm	BPQL	< 0.0002 ppm	12/5/14	.002 ppm	None	Erosion from natural deposits; Discharge from refineries and factories; Runoff from landfills and crop lands
Nickel	N/A	BPQL	< 0.010 ppm	12/5/14	N/A	None	Discharge from steel mills and; Erosion from natural deposits
Thallium	.002 ppm	BPQL	< 0.0010 ppm	12/5/14	.0005 ppm	None	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Sodium	N/A	106 ppm	106 ppm	12/5/14	N/A	None	Erosion from natural deposits

**Unregulated Contaminant Monitoring Rule 3 (Entry Point To Distribution)**

Analyte	Results (1/8/2014)	Results (4/8/2014)	Results (7/8/2014)
Chromium (total)	< 0.2 ppb	< 0.2 ppb	0.329 ppb
Cobalt	< 1.0 ppb	< 1.0 ppb	< 1.0 ppb
Molybdenum	1.59 ppb	2.75 ppb	2.31 ppb
Strontium	380 ppb	518 ppb	397 ppb
Vanadium	6.02 ppb	6.88 ppb	7.0 ppb
Chromium-6	0.129 ppb	0.175 ppb	N/A
Chlorate	< 20 ppb	< 20.0 ppb	N/A
1,4 Dioxane	< 0.07 ppb	< 0.07 ppb	N/A
1,1 Dichloroethane	< 0.03 ppb	< 0.03 ppb	N/A
1,2,3 Trichloropropane	< 0.03 ppb	< 0.03 ppb	N/A
1,3 Butadiene	< 0.1 ppb	< 0.1 ppb	N/A
Bromochloromethane	< 0.06 ppb	< 0.06 ppb	N/A
Bromomethane	< 0.2 ppb	< 0.2 ppb	N/A
Chlorodifluoromethane	< 0.08 ppb	< 0.08 ppb	N/A
Chloromethane	< 0.2 ppb	< 0.2 ppb	N/A
Perfluorobutanesulfonic Acid	< 0.09 ppb	< 0.09 ppb	N/A
Perfluoroheptanoic Acid	< 0.01 ppb	< 0.01 ppb	N/A
Perfluorohexanesulfonic Acid	< 0.03 ppb	< 0.03 ppb	N/A
Perfluorononanoic Acid	< 0.02 ppb	< 0.02 ppb	N/A
Perfluorooctanoic Acid	< 0.02 ppb	< 0.02 ppb	N/A
Perfluorooctanesulfonic Sulfonate	< 0.04 ppb	< 0.04ppb	N/A

**Unregulated Contaminant Monitoring Rule 3 (Maximum Residence Time In Distribution System)**

Analyte	Results (1/8/2014)	Results (4/8/2014)
Chromium (total)	< 0.2 ppb	< 0.2 ppb
Cobalt	< 1 ppb	< 1.0 ppb
Molybdenum	1.65 ppb	2.76 ppb
Strontium	387 ppb	482 ppb
Vanadium	5.94 ppb	7.09 ppb
Chromium-6	0.13 ppb	0.17 ppb
Chlorate	< 20 ppb	< 20 ppb

In our continuing efforts to maintain a safe and dependable water supply it is necessary to make regular improvements to the water system. We have an ongoing program of replacing and upgrading our water treatment equipment and infrastructure.

**Important Health Information**

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. Environmental Protection Agency/Center for Disease Control 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 the Water Utilities office at (405) 742-8325 if you have any questions.

# Lone Chimney 2014 CCR

## **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?**

Our water is a surface water that comes from 51 East Water and the City of Stillwater. Their CCRs are available upon request.

## **Source water assessment and its availability**

Available upon request

## **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?**

We have monthly board meetings on the 2nd Thursday of each month at 10:00 a.m. at the Lone Chimney Water Treatment Facility.

### **Description of Water Treatment Process**

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

### **Violations of terms of variance, exemption, or administrative or judicial order**

The TTHMs were above MCL since the Lone Chimney Lake was at its lowest level. The TTHMs dropped once we started using water from the City of Stillwater.

### **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. Lone Chimney Water Association 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>.

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## **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

Lead - action level at consumer taps (ppb)	0	15	0	2012	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
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Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter ( $\mu\text{g/L}$ )
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
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.
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:**

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.

<u>Contaminants</u>	<u>MCLG</u> or <u>MRDLG</u>	<u>MCL,</u> <u>TT, or</u> <u>MRDL</u>	<u>Your</u> <u>Water</u>	<u>Range</u>		<u>Sample</u> <u>Date</u>	<u>Violation</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
<b>Disinfectants &amp; Disinfectant By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl <sub>2</sub> ) (ppm)	4	4	2	NA		2014	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	33	13.1	70.8	2014	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	76	11	151	2014	No	By-product of drinking water disinfection
<b>Inorganic Contaminants</b>								
Barium (ppm)	2	2	0.119	NA		2013	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	0.23	0.23	0.23	2013	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Microbiological Contaminants</b>								
Total Coliform (positive samples/month)	0	1	1	NA		2014	No	Naturally present in the environment
Turbidity (NTU)	NA	0.3	100	NA		2014	No	Soil runoff
100% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.1. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
<b>Radioactive Contaminants</b>								
Beta/photon emitters (pCi/L)	0	50	4.397	NA		2011	No	Decay of natural and man-made deposits. The EPA considers 50 pCi/L to be the level of concern for Beta particles.
<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your</u> <u>Water</u>	<u>Sample</u> <u>Date</u>	<u># Samples</u> <u>Exceeding AL</u>	<u>Exceeds</u> <u>AL</u>	<u>Typical Source</u>	
<b>Inorganic Contaminants</b>								
Copper - action level at consumer taps (ppm)	1.3	1.3	0.118	2012	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Contact Name: Paul Kinder  
Address:  
346400 E 5200 Rd  
Glencoe, OK 74032  
Phone: 918-762-3581  
Fax: 918-762-3874  
E-Mail: [lcwa@provalue.net](mailto:lcwa@provalue.net)