2014 Annual Drinking Water Quality Report
Clinton, OK

We're very pleased to provide you with this year's Annual Drinking Water Quality 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. This report shows our water quality and what it means.

Our water source is Clinton Lake Reservoir and Foss Reservoir. We pretreat the water with Copper Sulfate (seasonal) and Chlorine Dioxide to prevent algae growth as it enters our plant. Coagulants are added to help remove particles in the water before filtration. Chloramines are then added for disinfection purposes to ensure your water is safe. The water is then filtered through dual media filters containing both anthracite and sand. Fluoride is also added to help prevent tooth decay. The city of Clinton contracts with Severn Trent Environmental Services, Inc to manage/operate the water treatment facility.

If you have any questions about this report or concerning your water utility, please contact Mr. Jeromy Brush (580)-323-4330, or bring your concerns to the attention of the city by attending one of our regularly scheduled city council meetings at City Hall held on the 1st and 3rd Tuesdays of each month at 5:30 p.m. The City of Clinton routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st to December 31st, 2013. (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.) All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

WATER QUALITY DATA TABLE

The table below lists all of the drinking water contaminants we detected for the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report.

In this table 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.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
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.
Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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.

CLINTON LAKE WATER QUALITY DATA						
Contaminant	Violation Yes/No	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants						
1. Turbidity (NTU) ***(highest single measurement)***	No	0.255	0-0.255	TT = 1 NTU	N/A	Soil runoff
2. Turbidity (NTU) ***(highest monthly level)***	No	100%	N/A	TT ≤ 0.3 NTU in 95% of monthly samples	N/A	Soil runoff
Radiochemical Contaminants						
3. Gross Beta (pCi/L)	No	6.65	6.65-6.65	50	0	Decay of natural and man-made deposits
4. Gross Alpha (pCi/L)	No	0.871	0-0.871	15	0	Erosion of natural deposits
5. Combined radium 226/228 (pCi/L)	No	0.854	0.854-0.854	5	0	Erosion of natural deposits
6. Uranium (pCi/L or ug/l)	No	1.3	1.3-1.3	20.1 pCi / L Or 30 ug / L	0	Erosion of natural deposits
Inorganic Contaminants						
7. Antimony (ppb)	No	1.62	1.62-1.62	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic (ppb)	No	5.36	5.36-5.36	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Barium (ppb)	No	147	147-147	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
10. Chlorite (ppm)	No	N/A	N/A	1	0.8	Water additive used to control microbes
11. Copper (ppm)	No	0.0752	N/A	AL=1.3 *Action Level – 90% of samples must be below this level.*	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
12. Fluoride (ppm)	No	0.63	0-0.63	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Volatile Organic Contaminants						
13. Haloacetic Acids (HAA5) (ppb)	No	8	0-17.57	60	N/A	By-product of drinking water chlorination

14. TTHM [Total trihalomethanes] (ppb)	No	27	21.86-42.51	80	N/A	By-product of drinking water chlorination

FOSS RESERVOIR WATER QUALITY DATA

Contaminant	Violation Yes/No	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contamination
Microbiological Contaminants						
1. Turbidity (NTU) ***(highest single measurement)***	No	.294	0-.294	TT = 1 NTU	N/A	Soil runoff
2. Turbidity (NTU) ***(highest monthly level)***	No	100%	N/A	TT ≤ 0.3 NTU in 95% of monthly samples	N/A	Soil runoff
Radiochemical Contaminants						
3. Gross Beta (pCi/L)	No	3.441	3.441-3.441	50	0	Decay of natural and man-made deposits
4. Gross Alpha (pCi/L)	No	3.244	0.9-3.244	15	0	Erosion of natural deposits
5. Combined radium 226/228 (pCi/L)	No			5	0	Erosion of natural deposits
6. Uranium (pCi/L or ug/l)	No	3.5	3.5-3.5	20.1 pCi / L Or 30 ug / L	0	Erosion of natural deposits
Inorganic Contaminants						
7. Antimony (ppb)	No		N/A	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
8. Arsenic (ppb)	No	2.1	N/A	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
9. Barium (ppb)	No	.0158	.0158-.0158	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
10. Beryllium (ppb)	No			4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
11. Cadmium (ppb)	No			5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
12. Copper (ppm)	No	1.3	N/A	AL=1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
13. Fluoride (ppm)	No	0.3	0.3-0.3	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Volatile Organic Contaminants						
14. Haloacetic Acids (HAA5) (ppb)	No	19	8-30.2	60	N/A	By-product of drinking water chlorination
15. TTHM [Total trihalomethanes] (ppb)	No	29	18.9-43.1	80	N/A	By-product of drinking water chlorination
16. Xylenes (ppb)	No	0.0005	0.0005 – 0.0005	10	10	Discharge from petroleum factories; discharge from chemical factories

Microbiological Contaminants:

Turbidity. has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Radiochemical Contaminants:

Gross Beta. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Gross Alpha. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

Uranium. Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Inorganic Contaminants:

Antimony. Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.

Arsenic. Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Beryllium. Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

Cadmium. Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.

Chlorite. Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.

Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Fluoride. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Volatile Organic Contaminants:

Haloacetic Acids. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Xylenes. Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.

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.

As you can see by the table, our system had no violations. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

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.

In order to ensure that tap water is safe to drink, 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).

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).

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. The City of Clinton 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*.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a significant increased risk of having the described health effect.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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.

Please call our office if you have questions.

We at the City of Clinton and Severn Trent Services work around the clock to provide top quality water to every tap.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the City of Clinton and Severn Trent Services, PWSID No. OK1010828

For further information contact:

Project Manager - Jeromy brush at (580) 323-4330 or Email at Jeromy.Brush@STServices.com
Or Public Works Director – Donald Webb at (580) 323-1678 or Email at pwadirector@clintonokla.org

Date Distributed:_____ **Signed:_____**