City of Stillwater Rural Water System (formerly Payne Rural Water Corp #3) 2015 Annual Water Quality Report Public Water Supply ID OK3006030

Water Resources
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The 2015 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 rural water system (Payne County RWC #3) 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 2015, 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, 2015 to Dec. 31, 2015. 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 Resources Director, William Millis at (405) 742-8325 or the Operations Deputy Team Leader, Kelley Hitch at (405) 533-8048. You may also contact your mayor and city councilors.

To view a copy of the *2015 Stillwater Rural Water System Annual Water Quality Report*, go online to stillwater.org or contact Operations – Water Distribution staff at (405) 533-8048 or by email at khitch@stillwater.org.

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	0.57 NTU in a single sample	< 0.3 NTU in 99.4 % 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	36.40 ppb	8.74 ppb – 36.40 ppb	None	By-product of drinking water chlorination
HAA5	60 ppb	6.70 ppb	<1.0 ppb – 6.70 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	5.1 ppb	None	Corrosion of household plumbing systems
Copper	1.3 ppm	0.049 ppm	None	Corrosion of household plumbing systems

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

Organic Carbon

Parameter	MCL	MCLG	Date Sampled	2015 Removal Avg.	Removal Range (Low – High)	Violations	Sources of Contaminant
Total Organic Carbon	TT removal < 1.0% (running avg.)	N/A	Jan. – Dec. 2015 (monthly)	1.40 %	0.93 % – 2.27 %	None	Naturally present in the environment

Bacteriological Contaminants

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Parameter	MCL	Maximum Level Detected	Number of Positive E. Coliforms	MCLG	Violations	Likely Source of Contaminant
Coliform (TCR)	5 % of monthly samples are positive	3	0	0	1 *	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	10/22/15	6 ppb	None	Discharge from Petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic	10 ppb	BPQL	< 0.005 ppm	10/22/15	N/A	None	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2 ppm	0.032 ppm	0.032 ppm	10/22/15	2 ppm	None	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	4 ppm	0.92 ppm	0.44 – 0.92 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	0.56 ppm	0.56 ppm	10/22/15	10 ppm	None	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	.05 ppm	BPQL	< 0.005 ppm	10/22/15	.05 ppm	None	Discharge from petroleum refineries; Erosion of natural deposits; Discharge from mines
Beryllium	.004 ppm	BPQL	< 0.001 ppm	10/22/15	.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	10/22/15	.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	10/22/15	.10 ppm	None	Discharge from steel and pulp mills; Erosion from natural deposits
Mercury	.002 ppm	BPQL	< 0.0002 ppm	10/22/15	.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	10/22/15	N/A	None	Discharge from steel mills and; Erosion from natural deposits
Thallium	.002 ppm	BPQL	< 0.0010 ppm	10/22/15	.0005 ppm	None	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Sodium	N/A	64.7 ppm	64.7 ppm	10/22/15	N/A	None	Erosion from natural deposits

Long Term 2 Enhanced Surface Water Treatment Rule (Raw water Testing)

Analyte	Results (10-14-15)	Results (11-11-15)	Results (12-9-15)
Crypto	ND oocysts/L	ND oocysts/L	ND oocysts/L
Giardia	ND cysts/L	ND cysts/L	ND cysts/L
E-Coli	< 1.0 MPN/100 ml	2.0 MPN/100ml	13.2 MPN/100ml
Turbidity	6.30 NTU's	9.22 NTU's	12.3 NTU's

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

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.

***About The Violation**
We routinely monitor your drinking water for contaminants. During the month of September, 2015 we collected 5 samples that were tested by a state certified laboratory. Three samples showed the presence of total coliform bacteria, violating drinking water standards, which require no more than one sample per month do so. We immediately took nine additional samples. These samples were taken from upsteam, downstream, and the original sample sites. All nine of the repeat samples were free of contaminants. We continually monitor and flush the City's rural water system to ensure the quality and safety of the water.

Call the Water Resources office at (405) 742-8325 if you have any questions.

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