

Annual Drinking Water Quality Report 2017 Salina P.W.A. PWS ID #1021603

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?

The Salina P.W.A Purchases water from the Oklahoma Ordnance Works Authority (OOWA).

Source water assessment and its availability

A copy of the Source Water Assessment and Protection Report is available at OOWA by calling (918)825-3500.

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?

The Salina P.W.A holds monthly meetings at the Salina City Hall located at 321 West Ferry ST at 6:00 PM the second Tuesday of each month.

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. Salina PWA 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>.

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 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.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl2) (ppm)	4	4	1	.8	1	2017	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	42	20.1	47.2	2017	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	56	28.4	76.3	2017	No	By-product of drinking water disinfection
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	.457	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
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:

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Consumer Confidence Report

2017

Annual Drinking Water Quality Report

Oklahoma Ordnance Works Authority MidAmerica Industrial Park Water Treatment Plant PWSID No. OK1021602

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 that meets Federal and State requirements. This report shows our water quality and what it means.

Our water source is surface water drawn from the Grand (Neosho) River. An analysis of contamination susceptibility of our source water has been done. The analysis showed that our water's susceptibility to contamination is MODERATE. We have a Source Water Assessment and Protection Report, written by the Oklahoma Department of Environmental Quality (DEQ), available from our office that provides more information such as potential sources of contamination.

If you have any questions about this report or concerning your water utility, please contact Mr. Jason Stutzman, (918) 825-3500. 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 board meetings. They are held on the fourth Tuesday of every other month beginning with February, at 10:00 AM at the Oklahoma Ordnance Works Authority (OOWA) Administration Office.

The OOWA routinely monitors for constituents in your drinking water according to Federal and State laws. Table 1 shows the results of our monitoring for the period of January 1st to December 31st, 2017. (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 constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

WATER QUALITY DATA TABLE

Table 1 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 Table 1 is from testing done in the calendar year of the report. In Table 1 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.
- *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.
- *Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Action Level (AL)* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- *Running Annual Average (RAA)* - the average of sample analytical results for samples taken during the year.
- *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.

- LT2ESWTR – Long Term 2 Enhanced Surface Water Treatment Rule
- Stage 2 DBPR – Stage 2 Disinfection By-Product Rule
- UCMR2 – Unregulated Contaminants Monitoring Rule 2

TABLE 1

Microbiological Contaminants						
Contaminant	Violation (Y / N)	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contaminant
Total Coliform Bacteria (System <40 monthly samples)	N	0 positive	0 positive	1 positive	0 positive	Naturally present in the environment.
Fecal coliform & E. coli	N	0 positive	0 positive	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or E. coli	0 positive	Human and animal fecal wastes.
Turbidity (NTU)	N	0.15	0.01 – 0.15	TT = 1 NTU	N/A	Soil runoff.
Turbidity (NTU)	N	< 0.3 NTU 100% of monthly samples		TT < 0.3 NTU in 95% of monthly samples	N/A	Soil runoff.
Total Organic Carbon	N	1.60 RAA	0.78 – 2.03	> 1.0 Removal ratio running annual average (4Q)	N/A	Naturally present in the environment.
Radiochemical Contaminants						
Contaminant	Violation (Y / N)	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contaminant
Gross Beta (pCi/L) - 2012	N	2.485	2.485 – 2.485	50	0	Decay of natural and man-made deposits.
Gross Alpha (pCi/L) - 2012	N	0.919	0.919 – 0.919	15	0	Erosion of natural deposits.
Combined radium 226/228 (pCi/L) - 2012	N	0.762	0.762 – 0.762	5	0	Erosion of natural deposits.
Uranium (ug/L) - 2012	N	1.0	1.0 – 1.0	30 ug/L	0	Erosion of natural deposits.

Inorganic Contaminants						
Contaminant	Violation (Y / N)	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contaminant
Barium (ppb)	N	58 RAA	45 – 58	2000	2000	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Fluoride (ppm)	N	0.56 RAA	0.45 – 0.67	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Nitrate – NO ₃ (ppm)	N	0.38	0.10 – 0.38	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Lead (ppb) - 2015	N	15 @ 90 th percentile		AL = 15 90% of samples below this level	0	Corrosion of household plumbing systems, erosion of natural deposits.
Copper (ppm) - 2015	N	0.6 @ 90 th percentile		AL = 1.3 90% of samples below this level	1.3	Corrosion of household plumbing systems, erosion of natural deposits; leaching from wood preservatives.
Disinfection By-Products						
Contaminant	Violation (Y / N)	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contaminant
TTHM [Total trihalomethanes] (ppb)	N	50 LRAA	31 – 84	80 locational running annual average (4Q)	N/A	By-product of drinking water disinfection.
HAA5 [Haloacetic acids] (ppb)	N	41 LRAA	23 – 62	60 locational running annual average (4Q)	N/A	By-product of drinking water chlorination.
Chlorite (ppm)	N	0.99	0.17 – 0.99	1.0	0.8	Water additive used to control microbes.
Chlorine (ppm)	N	2.2	0.2 – 2.2	MRDL = 4	MRDLG = 4	Water additive used to control microbes.
Chlorine Dioxide (ppb)	N	160	0 – 160	MRDL = 800	MRDLG = 800	Water additive used to control microbes.
Synthetic Organic Contaminants						
Contaminants	Violation (Y / N)	Highest Level Detected	Range Detected	MCL	MCLG	Likely Source of Contaminant
Atrazine (ppb)	N	0.77	0.20 – 0.77	3	3	Runoff from herbicide used on row crops.

The LT2ESWTR requires systems to monitor their source water (water prior to the treatment plant), calculate an average *Cryptosporidium* concentration and use those results to determine if their source is vulnerable to contamination and may require additional treatment. We believe it is important for you to know that *cryptosporidium* may cause serious illness in immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders. These people should seek advice from their care providers. Initial sampling results indicate that the current source is free of *cryptosporidium*. As required by EPA, we will continue to monitor for *cryptosporidium*.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in your home or business may be higher than at other homes or businesses in the community as a result of materials used in your plumbing. If you are concerned about elevated lead levels in your water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

MCLs are set at very stringent levels. To understand the possible health effects described, a person would have to drink two liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

As you can see by Table 1, 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 constituents 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.

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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).

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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 Oklahoma Ordnance Works Authority work around the clock to provide top quality water to every tap.