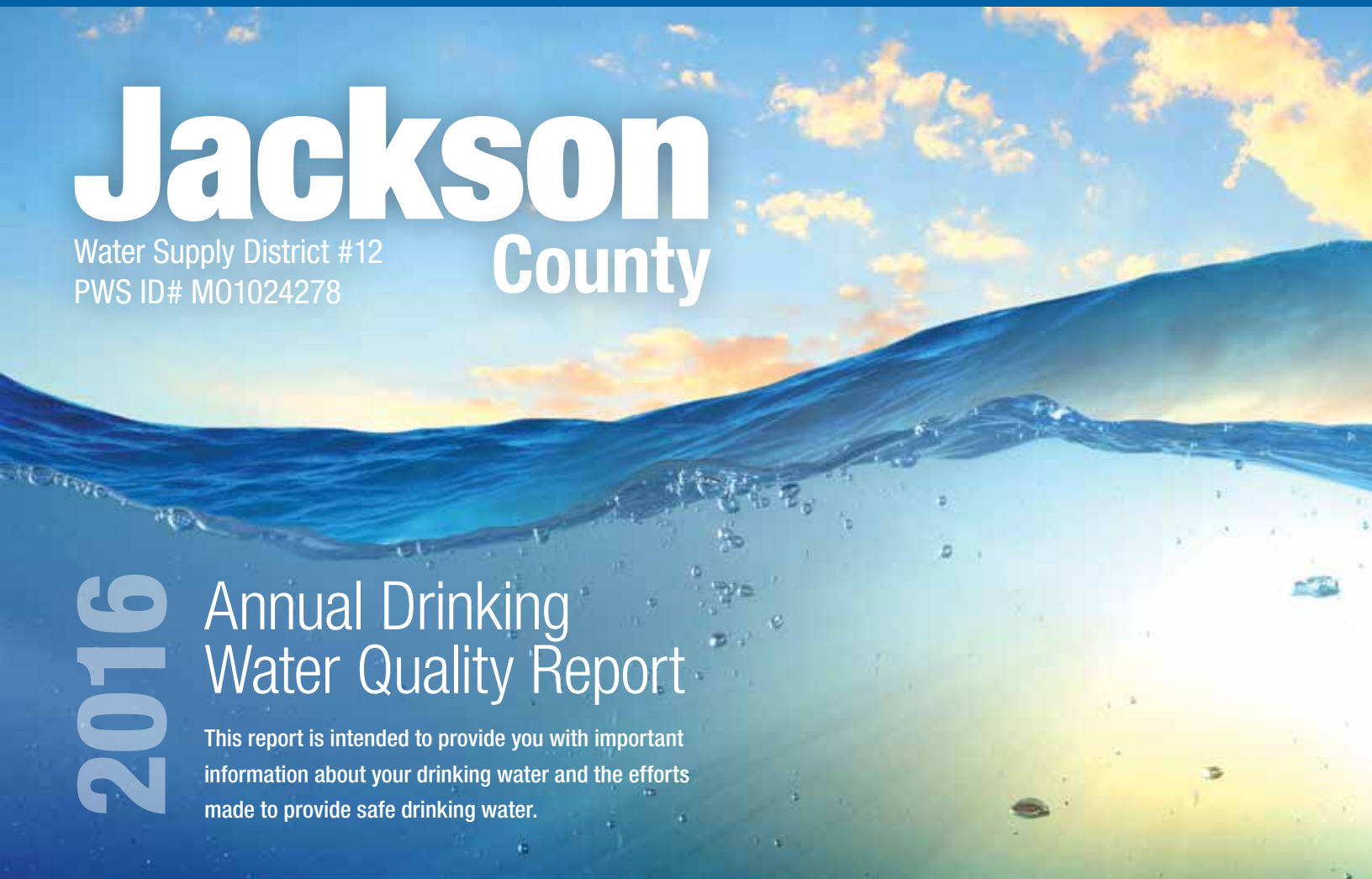
Public participation opportunities

If you have questions concerning this report or your water utility, please contact Vickie McLaughlin at (816) 537-6856. We want our valued customers to be informed about their water utility. Please call us at (816) 537-6856 to inquire about scheduled meetings.

En Español

Este informe contiene informacion muy importante. Traduscalo o prequntele a alguien que lo entienda bien.

Jackson County Water
304 N Ranson Road
Greenwood, MO 64034



Jackson County

Water Supply District #12
PWS ID# MO1024278

2016

Annual Drinking Water Quality Report

This report is intended to provide you with important information about your drinking water and the efforts made to provide safe drinking water.

2016 Annual Drinking Water Quality Report

Our drinking water is regulated

Jackson County Public Water Supply District #12 is pleased to share this report with you. This report is a summary of the quality of the water we provide our customers. The analysis covers January 1 through December 31, 2016, and was made by using the data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the attached pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Substances that can be in drinking water

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 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, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Where do we get our drinking water?

Our water source is purchased, pretreated water from Tri-County Water Authority and Kansas City, Missouri Water Services Department. Tri-County relies on groundwater. Their wells are located in the Missouri River Alluvium. Tri-County treats your water using disinfection to reduce harmful bacteria. Kansas City, Mo. relies on surface water from the Missouri River. Kansas City, Mo. treats your water through a multi-step process involving coagulation sedimentation, disinfection and filtration.

Source Water Assessment

The Department of Natural Resources conducted a source water assessment to determine the susceptibility of our water source to potential contaminants. This process involved establishment of source water area delineations for each well or surface water intake and then a contaminant inventory was performed within those delineated areas to assess potential threats to each source. Assessment maps and summary information sheets are available on the internet at http://maproom.missouri.edu/swipmaps/pwssid.htm. To access the maps for your water system you will need the state-assigned identification code, which is printed at the top of this report. The Source Water Inventory Project maps and information sheets provide a foundation upon which a more comprehensive source water protection plan can be developed.

All drinking water may contain contaminants

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. 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Is our water system meeting other rules that govern our operations?

The Missouri Department of Natural Resources regulates our water system and requires us to test our water on a regular basis to ensure its safety. Our system has been assigned the identification number MO1024278 for the purposes of tracking our test results. During 2016, we tested for a variety of contaminants. The detectable results of these tests are included in this report. Any violations of state requirements or standards will be further explained later in this report.

Required health 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. Jackson County PWSD 12 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 www.epa.gov/safewater/lead.

Cryptosporidium and Giardia

Cryptosporidium and Giardia are microscopic organisms that are relatively widespread in the environment. Surface waters, such as lakes and rivers that contain a high amount of sewage contamination or animal wastes are more susceptible to increased numbers of these parasites. The Kansas City, Mo. Water Services Department is taking steps to make sure these organisms do not pose a problem in your drinking water. Current protection measures taken include chlorination, filtration and monitoring turbidity levels and particle sizes. Additionally, routine backwashing of the filters helps to eliminate the chances of finding these organisms in treated water. Occasionally, these organisms have been found in the raw (untreated) water, but neither Cryptosporidium nor Giardia has ever been detected in the finished (treated) water. The Kansas City, Mo. Water Services Department continues to monitor for these and other contaminants, taking all necessary precautions to ensure your water is safe.

Test Results

We routinely monitor for constituents in your drinking water according to Federal and State laws. The test results table shows the results of our monitoring for the period of January 1st to December 31st, 2015. In the table you might find terms and abbreviations you are not familiar with. To help you better understand these terms we've provided the following definitions:

The state has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Records with a sample year more than one year old are still considered representative.

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Reseller Contaminants

Contaminant (Unit)	Collection Date	Water System	Highest Value	Range	MCL	MCLG	Typical Source
Arsenic (ppb)	2/12/2014	Tri County Water Authority	1.13	1.13	10	0	Erosion of natural deposits
Atrazine (ppb)	5/28/2016	Kansas City	0.7	0 - 0.7	3	3	Runoff from herbicide used on row crops
Barium (ppm)	6/30/2016	Kansas City	0.024	0.007 - 0.024	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	12/31/2016	Kansas City	10	5 - 10	100	100	Discharge from steel and pulp mills
Fluoride (ppm)	9/17/2016	Kansas City	0.943	0.224-0.943	4	4	Natural deposits; water additive which promotes strong teeth
Lasso (ppb)	6/15/2016	Kansas City	0.51	0 - 0.51	2	0	Runoff from herbicide used on row crops
Nitrate-Nitrite (ppm)	5/9/2016	Kansas City	6.4	0.591 - 6.4	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	7/31/2016	Kansas City	2.85	1.07 - 2.85	50	50	Erosion of natural deposits
Disinfection Byproducts (Unit)	Monitoring Period	Water System	Highest LRAA	Range	MCL	MCLG	Typical Source
Total Haloacetic Acids (HAA5) (ppb)	2016	Kansas City	22	7.4 - 22.2	60	0	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	2016	Kansas City	9	4.2 - 10.73	80	0	Byproduct of drinking water disinfection
	2016	Tri County Water Authority	6	5.8			

Regulated Contaminants

Contaminant	Date	90th Percentile	Range	Unit	AL	Sites Over AL	Typical Source
Copper	2013-2015	0.0788	0.00437-0.162	ppm	1.3	0	Corrosion of household plumbing systems
Lead	2013-2015	2.59	1.91-9.91	ppb	15	0	Corrosion of household plumbing systems
Disinfection Byproducts (Unit)	Monitoring Period	Water System	Highest LRAA	Range	MCL	MCLG	Typical Source
Total Haloacetic Acids (HAA5) (ppb)	2016	DBPDUAL-01	0	0 - 0	60	0	Byproduct of drinking water disinfection
	2016	DBPDUAL-02	0	0 - 0			
Total Trihalomethanes (TTHM) (ppb)	2016	DBPDUAL-01	11	10.5 - 10.5	80	0	Byproduct of drinking water disinfection
	2016	DBPDUAL-02	4	4.48 - 4.48			

Microbiological Contaminants

Contaminant	Result	MCL	MCLG	Typical Source
Coliform (TCR)*	In the month of September, 1 sample(s) returned as positive	MCL: Systems that collect less than 40 samples per month - No more than 1 positive monthly sample	0	Naturally Present in the environment

Secondary Contaminants

Reseller Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	SMCL
Alkalinity, CACO3 Stability	5/12/2014	Tri-County	83.5	83.5	mg/l	
Alkalinity, Total	1/21/2016	Kansas City	269	8.2 - 269	mg/l	
Boron, Total	12/1/2016	Kansas City	0.05	0.025 - 0.05	mg/l	
Bromochloroacetic Acid	10/3/2012	Kansas City	0.001	0.001	mg/l	
Calcium	4/30/2016	Kansas City	42.4	29.8 - 42.4	mg/l	
Chloride	12/30/2106	Kansas City	46.1	6.56 - 46.1	mg/l	250
Chromium (Hex)	11/6/2013	Kansas City	2.7	2.2 - 2.7	ug/l	
Color	6/11/2016	Kansas City	10	1-10	units	15
Foaming Agents (surfactants)	6/25/2016	Kansas City	0.04	0-0.04	mg/l	
Hardness, Carbonate	5/12/2014	Tri County Water Authority	113	113	mg/l	
Iron	12/31/2016	Kansas City	0.026	0.003-0.026	mg/l	0.3
Magnesium	12/31/2016	Kansas City	7.34	4.87-7.34	mg/l	
Manganese	12/31/2016	Kansas City	0.005	0-0.005	mg/l	0.05
Molybdenum, Total	12/31/2016	Kansas City	0.004	0.002-0.004	mg/l	
Odor	10/28/2016	Kansas City	5	1-5	TON	3
pH	5/25/2016	Kansas City	10.4	7.28-10.4	SU	8.5
Potassium	9/30/2016	Kansas City	6.97	5.44-6.97	mg/l	
Silica	2/29/2016	Kansas City	5.16	3.47-5.16	mg/l	
Sodium	12/31/2016	Kansas City	76.7	42.1-76.7	mg/l	
Strontium	6/30/2016	Kansas City	0.232	0.169-0.232	mg/l	
Sulfate	12/30/2016	Kansas City	1356	47.4-1356	mg/l	250
Testosterone	8/21/2013	Kansas City	0.0014	0-0.0014	µg/l	
Total Chlorine	12/10/2016	Kansas City	2.81	1.56-2.81	mg/l	
Total Dissolved Solids	9/3/2016	Kansas City	510	160-510	mg/l	500
Vanadium, Total	9/30/2016	Kansas City	0.003	0-0.003	mg/l	
Zinc	9/1/2016	Kansas City	0.006	0-0.006	mg/l	5

Definitions:

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.

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.

Action Level – Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

TT – Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

90th percentile – For lead and Copper testing. 10% of test results are above this level and 90% are below this level.

Level Found – For lead and Copper testing. 10% of test results are above this level and 90% are below this level.

LRAA – Locational Running Annual Average, or the locational average of sample analytical results for samples taken during the previous four calendar quarters.

Range of Detections – Shows the lowest and highest levels found during a testing parted, if only one sample was taken, then this number equals the Level Found.

Maximum Residual Disinfectant Level Goal (MRDLG) – the level of a drinking water disinfectant below which there is no known or expected risk to health.

Maximum Residual Disinfectant Level (MRDL) – the highest level of a disinfectant allowed in drinking water.

Secondary Maximum Contaminant Level (SMCL) – the secondary standards that are non-enforceable guidelines for contaminants and may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. EPA recommends these standards but does not require water systems to comply

Abbreviations:

Parts per billion (ppb) – parts per billion or micrograms per liter (µg/l).

Parts per million (ppm) – parts per million or milligrams per liter (mg/l).

NA – not applicable

Nephelometric Turbidity Unit (NTU) – Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.

ND – not detectable at testing limits.

TON – Threshold Odor Number

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Any unregulated contaminants detected are reported in this table. For additional information and data visit http://www.epa.gov/safewater/ucmr/ucmr2/index.html or call the Safe Drinking Water Hotline at (800) 426-4791.