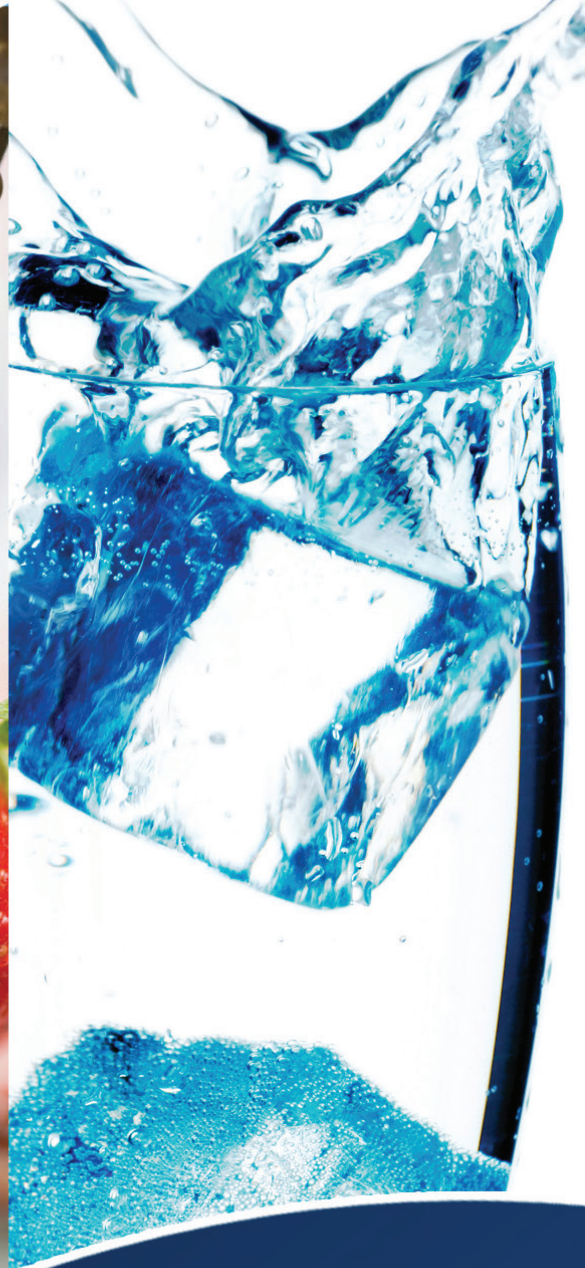


# ANNUAL WATER QUALITY REPORT

WATER TESTING  
PERFORMED  
IN 2014



*Presented By*  
**Raytown Water Company**

## Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water.

## Where Does My Water Come From?

The Raytown Water Company purchases water from Kansas City Water, which produces drinking water from the Missouri River and deep wells dug in the Missouri River Aquifer. Kansas City produces 240 million gallons of drinking water per day and supplied approximately 44 billion gallons annually. To learn more about our watershed on the Internet, go to the U.S. EPA's Surf Your Watershed at [www.epa.gov/surf](http://www.epa.gov/surf).

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



## Source Water Assessment

In 1996, federal laws put into place the requirement for Source Water Assessment Programs all states. The Missouri Department of Natural Sources has identified potential sources of contamination in the areas surrounding the Missouri River, which is the water source for our wholesaler, Kansas City. The full inventory of possible contamination sources can be found at the Web site <http://maproom.missouri.edu/swipmaps/pwssid.htm>.

### Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

#### **Kitchen Sink and Drain**

Hand washing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed up water in which bacteria (i.e., pink and black colored slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly. Also, flush regularly with hot water.

#### **Faucets, Screens, and Aerators**

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets, and can collect particles like sediment and minerals resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and shower heads may be caused by hard water or water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

#### **Water Filtration/Treatment Devices**

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time so regular filter replacement is important. (Remember to replace your refrigerator filter!)

## Lead in Home Plumbing

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. We are 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 (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

You can also find sample results for all contaminants from both past and present compliance monitoring online at the Missouri DNR Drinking Water Watch website <http://dnr.mo.gov/DWW/indexSearchDNR.jsp>. To find lead and copper results for your system, type your water system name in the box titled Water System Name and select Find Water Systems at the bottom of the page. The new screen will show you the water system name and number; select and click the Water System Number. At the top of the next page, under the Help column, find Other Chemical Results by Analyte, and select and click on it. Scroll down alphabetically to lead and click the blue Analyte Code (1030). The lead and copper locations will be displayed under the heading Sample Comments. Scroll to find your location and click on the Sample No. for the results. If your house was selected by the water system and you assisted in taking a lead and copper sample from your home but cannot find your location in the list, please contact Raytown Water Company for your results.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Neal Clevenger, President/General Manager, at (816) 356-0333 x107, or visit our Web site, [www.raytownwater.net](http://www.raytownwater.net).

## How Long Can I Store Drinking Water?

The disinfectant in drinking water will eventually dissipate even in a closed container. If that container housed bacteria prior to filling up with the tap water the bacteria may continue to grow once the disinfectant has dissipated. Some experts believe that water could be stored up to six months before needing to be replaced. Refrigeration will help slow the bacterial growth.



You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

### **NEVER:**

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a waste basket.

### **ALWAYS:**

- Scrape and collect fat, oil, and grease into a waste container such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products including nonbiodegradable wipes.

## Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. 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.

In October 2014, we did not submit the correct number of samples required due to an increase in population. Upon notification, additional samples were submitted. Results of the analysis have been received and properly recorded as required by state and federal law. We do not believe that missing this monitoring requirement had any impact on public health and safety. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future so that this oversight will not be repeated.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if EPA needs to introduce new regulatory standards to improve drinking water quality.

REGULATED SUBSTANCES									
				The Raytown Water Company		Kansas City Water Dept.- Reseller			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Atrazine (ppb)	2014	3	3	NA	NA	1.07	0–1.07	No	Runoff from herbicide used on row crops
Barium (ppm)	2014	2	2	NA	NA	0.025	0.006–0.025	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine, Residual (ppm)	2011	[4]	[4]	NA	NA	2.57	1.53–2.57	No	Water additive used to control microbes
Chlorine, Total (ppm)	2014	[4]	[4]	NA	NA	3.19	1.88–3.19	No	Water additive used to control microbes
Chromium (ppb)	2014	100	100	2.34	0–2.34	4	2.35–4	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2014	4	4	NA	NA	1.23	0.17–1.23	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA]–Stage 2 (ppb)	2014	60	NA	NA	NA	19	5.2–40.9	No	By-product of drinking water disinfection
Nitrate (ppm)	2014	10	10	NA	NA	4.5	0–4.5	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2014	50	50	NA	NA	2.38	1.05–2.38	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	NA	NA	16	1.8–13.8	No	By-product of drinking water disinfection
Disinfection Byproducts Locational Results (The Raytown Water Company)									
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE		
Haloacetic Acids HAA5-01 (ppb)	2014	60	NA	12	14.9–19	No	By-product of drinking water disinfection		
Haloacetic Acids HAA5-02 (ppb)	2014	60	NA	14	16.2–18.5	No	By-product of drinking water disinfection		
Haloacetic Acids HAA5-03 (ppb)	2014	60	NA	13	16.1–18.1	No	By-product of drinking water disinfection		
Haloacetic Acids HAA5-04 (ppb)	2014	60	NA	13	16.1–16.9	No	By-product of drinking water disinfection		
TTHMs [Total Trihalomethanes] -01 (ppb)	2014	80	NA	7	7.03–8.53	No	By-product of drinking water disinfection		
TTHMs [Total Trihalomethanes] -02 (ppb)	2014	80	NA	7	6.39–8.38	No	By-product of drinking water disinfection		
TTHMs [Total Trihalomethanes] -03 (ppb)	2014	80	NA	7	7.12–7.69	No	By-product of drinking water disinfection		
TTHMs [Total Trihalomethanes] -04 (ppb)	2014	80	NA	7	6.32–8.75	No	By-product of drinking water disinfection		

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2013	1.3	1.3	0.00643	0/15	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2013	15	0	1.05	0/15	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	The Raytown Water Company		Kansas City Water Dept.- Reseller	
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH
Alkalinity, Phenolphthalein (ppm)	2011	NA	NA	45	8–45
Alkalinity, Total (ppm)	2014	NA	NA	254	17–254
Aluminum (ppm)	2014	NA	NA	0.061	0–0.061
Boron, Total (ppm)	2014	NA	NA	0.093	0.043–0.093
Bromide (ppm)	2014	NA	NA	2.02	0–2.02
Bromochloroacetic Acid (ppm)	2012	NA	NA	0.001	0–0.001
Calcium (ppm)	2014	NA	NA	42.4	34.2–42.4
Chloride (ppm)	2014	NA	NA	42.2	14.4–42.2
Chromium, HEX (ppb)	2014	2.5	2–2.5	2.7 <sup>1</sup>	2–2.7 <sup>1</sup>
Color (Units)	2014	NA	NA	7	1–7
Hardness, Total (ppm)	2011	NA	NA	186	88–186
Iron (ppm)	2014	NA	NA	0.058	0.004–0.058
Magnesium (ppm)	2014	NA	NA	6.83	3.56–6.83
Manganese (ppm)	2014	NA	NA	0.004	0–0.004
Metolachlor (ppb)	2014	NA	NA	0.69	0–0.69
Molybdenum, Total (ppb)	2014	2.78	0–2.78	2.91	0.003–2.91
Odor (TON)	2014	NA	NA	6	1–6
pH (Units)	2014	NA	NA	10.4	6.9–10.4
Potassium (ppm)	2014	NA	NA	6.79	5.75–6.79
Silica (ppm)	2014	NA	NA	4.81	2.92–4.81
Sodium (ppm)	2014	NA	NA	80.5	44.3–80.5
Strontium (ppm)	2014	0.202	1–0.202	0.211	0.204–0.211
Sulfate (ppm)	2014	NA	NA	227	65.8–227
TDS (ppm)	2014	NA	NA	630	120–630
Testosterone (ppb)	2013	NA	NA	0.0014	0–0.0014
Titanium, Total (ppm)	2014	NA	NA	0.002	0–0.002
Vanadium, Total (ppb)	2014	1.55	0–1.55	1.68	0.002–1.68
Zinc (ppm)	2014	NA	NA	0.006	0–0.006

<sup>1</sup> Sampled in 2013.

## Definitions

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**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.

**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.

**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.

**MRDLG (Maximum Residual Disinfectant 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.

**NA:** Not applicable

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TON (Threshold Odor Number):** A measure of odor in water.