

→ CONSTITUENTS HAVING SECONDARY MCL'S ←

Unregulated Parameters are monitored in the interest of the customer, and to assist regulators in developing future regulations.

Parameter	Federal Level Recommended	WaterOne Value (Avg.)	Range (Low - High)
Aluminum*	200 ppb	31 ppb	6 ppb - 104 ppb
Chloride	250 ppm	47 ppm	32 ppm - 96 ppm
Copper	1000 ppb	5 ppb	ND(1) ppb - 61 ppb
Corrosivity**	0 S.I.	0.97 S.I.	0.58 S.I. - 1.43 S.I.
Fluoride	2.0 ppm	0.75 ppm	0.42 ppm - 1.14 ppm
Odor-Threshold (T.O.N.)	3 T.O.N.	1 T.O.N.	1 T.O.N. - 3 T.O.N.
Sulfate	250 ppm	136 ppm	81 ppm - 184 ppm
Total Dissolved Solids (TDS)	500 ppm	333 ppm	184 ppm - 468 ppm
Zinc	5 ppm	0.02 ppm	0.004 ppm - 0.09 ppm

\*Aluminum also has a SMCLG of 50 ppb.

\*\*Positive Values indicate tendency of water to be non-corrosive. Non-corrosive water reduces the likelihood of lead or copper leaching into the water from plumbing.

→ UNREGULATED PARAMETERS ←

WaterOne took sample tests according to the EPA guidelines and met the EPA goal for the following Unregulated Parameters.

Parameter	Federal Level Recommended	Goal	WaterOne Value	Range
Alkalinity, Total (as CaCO <sub>3</sub> )	300 ppm	> 40 ppm	53 ppm	28 ppm - 76 ppm
Bromide*	n/a	n/a	90 ppb	70 ppb - 120 ppb
Calcium Hardness (as CaCO <sub>3</sub> )	200 ppm	> 60 ppm	73 ppm	49 ppm - 111 ppm
Carbon, Total Organic (TOC)	10,000 ppm	n/a	2.1 ppm	1.1 ppm - 12.4 ppm
Chlorate*	n/a	n/a	140 ppb	60 ppb - 220 ppb
Conductivity	1,500 µmhos/cm	n/a	556 µmhos/cm	307 -780 µmhos/cm
Hardness, Total (as CaCO <sub>3</sub> )	400 ppm	200 ppm	122 ppm	72 ppm - 163 ppm
Iron	300 ppb	n/a	55 ppb	ND(5) - 106 ppb
Magnesium	150 ppm	50 ppm	11 ppm	4 ppm - 21 ppm
Magnesium Hardness (as CaCO <sub>3</sub> )	150 ppm	50 ppm	48 ppm	23 ppm - 52 ppm
Nickel	100 ppb	100 ppb	1.7 ppb	0.6 ppb - 11.0 ppb
pH	8.5 pH units	> 9.0 pH units	9.4 pH units	8.6 pH units - 9.7 pH units
Phosphorus, Total	5 ppm	n/a	0.053 ppm	ND(0.05) - 0.12 ppm
Potassium	100 ppm	20 ppm	6.2 ppm	4.2 ppm - 9.4 ppm
Silica	50 ppm	n/a	7.6 ppm	1.9 ppm - 14.3 ppm
Sodium	100 ppm	20 ppm	63 ppm	43 ppm - 85 ppm

\*The EPA has not established guidelines for these parameters. The levels found in WaterOne water are not considered to be a health concern.

→ LEAD PROTECTION ←

Public water suppliers are required by the EPA and KDHE to take tap samples for lead. Since 1992, WaterOne has had a lead corrosion control program in place. As a result, WaterOne lead levels have been below EPA standards. WaterOne goes beyond federal requirements by sampling for lead and copper every year. In 2004 WaterOne increased the number of samples to further ensure that lead and copper levels throughout our system were below federal standards and to determine if any enhancements to water treatment can lower lead and copper levels even further.

Precautions to take — Children under the age of six are the primary group at risk from the effects of lead. Pregnant women should also take care to minimize lead exposure as infants in the womb are at risk. While WaterOne's monitoring shows that lead levels are low, there will be some variability from home to home. Brass faucet's and lead solder are the primary sources of lead. To assist higher risk customers in minimizing their exposure to lead, WaterOne recommends flushing the water from a faucet for at least 60 seconds before drinking or cooking with it. The longer the water sits in the plumbing, the more important it is to flush it.



INTERESTED IN?  
More Information?

Water quality fact sheets, answers to frequently asked questions, and additional information is available on our website at [www.waterone.org](http://www.waterone.org). You are always welcome to call a WaterOne Customer Service Representative at 913-895-1800. Attend and participate in the WaterOne Board's monthly meeting, held the second Tuesday of each month at 7:00 p.m. at the Byron N. Johnson Administrative Headquarters and Service Center, 10747 Renner Boulevard, Lenexa, Kansas. Another good source of drinking water information is: [www.epa.gov/safewater](http://www.epa.gov/safewater). EPA Hotline: 1-800-426-4791.

Setting the Standard for Utility Excellence



A MESSAGE  
from Our Board Chairman

This year marks the 50th anniversary of WaterOne as a utility. Since 1957, we have been serving the majority of cities in Johnson County, and WaterOne has played an important role in the development of



Terry Frederick,  
Board Chairman

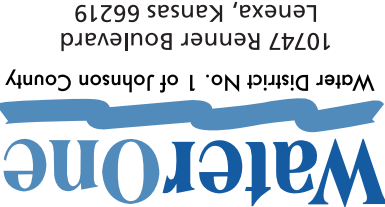
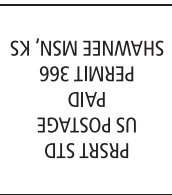
this community. Were it not for dependable water service, the community could not enjoy the quality of life it does today. Only the very best water is acceptable to us, and WaterOne looks forward to tackling the many challenges that are before us as we work together to meet our customers' needs for another 50 years and beyond. So, let's give a toast to tap water!

→ 50 YEARS  
OF SERVING YOU ←

WaterOne prides itself to its commitment to long-term planning. This planning has served WaterOne customers well for the past 50 years. Because of our long-range planning, the community is assured its water needs will be met now and well into the future. It is also assured that the water delivered to more than 130,000 homes and businesses throughout our service area is of the highest quality.

What does it mean to a community to have a high quality, reliable water provider? Only tap water delivers public health protection, quality of life, fire protection and support for the economy.

From enhanced communications with our customers, to water quality advancements, to replacement of aging water mains, WaterOne continues its reputation of excellence while working to meet the needs of our community.





Only Tap Water Delivers



**WaterOne is No. 1 in Taste!**

WaterOne was judged as having the best tasting water in Kansas in a contest sponsored by the Kansas Section of the American Water Works Association (AWWA). As the state winner, WaterOne has been invited to represent Kansas at the “Best of the Best” International Water Taste Test at AWWA’s 2007 Annual Conference and Exposition in Toronto, Canada.

This isn’t surprising. As you will see in this report, WaterOne strives to produce a high quality product that meets or surpasses customer expectations and industry standards for safe drinking water. Our mission is to provide a high quality, reliable water supply with superior service and value. It takes a highly-motivated and trained staff to live up to this challenge 24-hours-a-day, 7-days a week, and our outstanding team of professionals is dedicated to this mission.

Hundreds of water samples are analyzed each month and we are proud of our successful record of producing an outstanding product. Using state-of-the-art technology, modern methods, and advanced equipment, WaterOne continues to set the standard for utility excellence.

YOUR WATER AT A GLANCE

At WaterOne, Safe Water is “Job One!”

WaterOne makes the quality of your drinking water our number one priority. It is our goal to continually produce water that meets or exceeds all state and federal standards for safe drinking water. We run thousands of tests a day to ensure your water is safe. WaterOne continues to make security a high priority and remains proactive to ensure the safety of your water.

Sources of 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. At different times of the year, the content of the water varies. We treat it accordingly to produce high quality water that is safe to drink.

Ensuring Safe Tap Water

The Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Contaminants in bottled water are regulated by the Food and Drug Administration (FDA). The FDA sets limits that protect the public in the same manner as tap water regulations. 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.

Contaminants that may be present in source water include:

**A. Microbial contaminants**, such as viruses, bacteria, and protozoa which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**B. 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.

**C. Pesticides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**D. 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.

**E. Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline (800-426-4791) or go online at [www.epa.gov/safewater](http://www.epa.gov/safewater). To understand the possible health effects described for most customers, consider the following example. A person would have to drink two liters of water every day at the maximum drinking water standard for a lifetime to have a one-in-a-million chance of having the described health effect.

Special Health Requirements

Some people may be more vulnerable to contaminants found in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/ AIDS or other immune system disorders, some elderly, and infants, can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water.

WATER HARDNESS

WaterOne softens the water using lime and sometimes soda ash to reduce the mineral content related to hardness. WaterOne has a goal to keep the hardness between 120 and 140 milligrams per liter (mg/l). At times, however, due to river water quality, the hardness may vary, sometimes below the target and sometimes above it. This range helps reduce the leaching of lead and copper from customers’ plumbing systems. Rarely does the hardness exceed 160 mg/l. Although significantly less than the hardness of the raw

river water which often exceeds 250 mg/l and is considered very hard, our water is still classified as hard water. Further reducing the hardness would add significant cost to the water treatment process. There is no evidence that further softening the water improves the health and safety of the water.

Water Treatment

In 2006 we treated approximately 14.0 billion gallons of Missouri River water, 11.1 billion gallons of Kansas River water, and a little less than 0.1 billion gallons of well water from wells south of the Kansas River.



DEFINITIONS

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—Maximum Contaminant Level:

The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 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.

SMCL—Secondary Maximum Contaminant Level:

Secondary MCLs for various water quality indicators are established to protect public welfare.

TT—Treatment Technique:

A required process intended to reduce the level of a contaminant in drinking water.

AL—Action Level:

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ND—Not Detected

NTU—Nephelometric Turbidity Units:

A measure of the clarity of water.

pCi/L—Picocuries per liter

A measure of radioactivity.

ppm—Parts per million, or milligrams per liter.

ppb—Parts per billion, or micrograms per liter.

pH units—A unit of measurement:

A measure of acidity or basicity of the water.

µmhos/cm—(Or micromhos/cm)

A measure of the ability of a solution to carry an electric current.

SUMMARY OF WATER QUALITY

The USEPA requires monitoring of over 100 drinking water contaminants. Listed below are the only contaminants detected in your drinking water. None of the contaminants detected exceed state or federal standards. The summary shows monitoring results for January 1 to December 31, 2006.

Parameter	MCL	MCLG	WaterOne Value	WaterOne Range	Sample Date	Met Standard	Source
Inorganic Chemicals							
Antimony	6 ppb	6 ppb	0.6 ppb	ND(0.5) - 0.6 ppb	Quarterly	Yes	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic	10 ppb	0 ppb	1.4 ppb	ND(1) - 1.4 ppb	Quarterly	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium	2 ppm	2 ppm	0.04 ppm	0.013 ppm- 0.040 ppm	Quarterly	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloramines	MRDL = 4 ppm	MRDLG = 4 ppm	3.1 ppm <sup>1</sup>	1.2 ppm - 4.4 ppm	Daily	Yes	Water additive used to control microbes.
Chlorine Dioxide	MRDL = 800 ppb	MRDLG = 800 ppb	90 ppb	ND(50) ppb - 90 ppb	Monthly	Yes	Water additive used to control microbes.
Chlorite	1 ppm	0.8 ppm	0.13 ppm	ND(0.02) ppm - 0.69 ppm	Monthly	Yes	By-product of drinking water disinfection
Chromium	100 ppb	100 ppb	2.4 ppb	0.8 ppb - 2.4 ppb	Quarterly	Yes	Discharge from steel and pulp mills; Erosion of natural deposits
Copper	AL = 1.3 ppm	1.3 ppm	0.018 ppm <sup>2</sup>	0 samples exceeding	Every six months	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Fluoride	4 ppm	4 ppm	1.1 ppm	0.4 ppm - 1.1 ppm	Monthly	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	AL = 15 ppb	0 ppb	8.8 ppb <sup>2</sup>	0 samples exceeding	Every six months	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate	10 ppm	10 ppm	2.1 ppm	ND(0.01) ppm - 2.1 ppm	Quarterly	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite	1 ppm	1 ppm	0.012 ppm	ND(0.004) - 0.012 ppm	Monthly	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	50 ppb	50 ppb	2.8 ppb	0.7 ppb - 2.8 ppb	Quarterly	Yes	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Synthetic Organic Chemicals							
Atrazine	3 ppb	3 ppb	0.48 ppb	ND(0.2) ppb - 0.8 ppb	Monthly	Yes	Runoff from herbicide used on row crops
Volatile Organic Chemicals							
Haloacetic Acids (HAA)	60 ppb	n/a	12.5 ppb	ND(5) ppb - 32.7 ppb	Monthly	Yes	By-product of drinking water disinfection
Total Trihalomethanes	80 ppb	n/a	20.1 ppb	1.3 ppb - 45.8 ppb	Monthly	Yes	By-product of drinking water disinfection
Microbiological Contaminants							
Total Organic Carbon	removal ratio <sup>3</sup>	TT	44% (25% required)	38% - 63% removed	Monthly	Yes	Naturally present in the environment
Turbidity	TT NTU	TT NTU	0.86 NTU <sup>4</sup>	99.99% lowest monthly % meeting 0.3 NTU	Daily	Yes	Soil runoff
Radiological Contaminants							
Beta Particle & Photon Radioactivity	50 pCi/L	0 pCi/L	5.8 pCi/L <sup>5</sup>	2.6 pCi/L - 5.8 pCi/L	Annually	Yes	Decay of natural and man-made deposits
Radium-226	5 pCi/L	0 pCi/L	0.2 pCi/L	ND(0.1) pCi/L - 0.2 pCi/L	Anually	Yes	Erosion of natural deposits

1. WaterOne is required to maintain a minimum residual of 1.0 ppm throughout our distribution system by the Kansas Dept. of Health & Environment as a means to provide some measure of protection against microbiological contamination.

2. Data from 2006 when we conducted additional sampling. This value is the 90th percentile result.

3. The monthly TOC removal ratio is calculated as the ratio between the actual TOC removal and the TOC rule removal requirements.
4. This is the highest turbidity measurement for 2006. Compliance is based on 95% of monthly samples being less than 0.3 NTU. The average turbidity was around 0.06 NTU. Turbidity is measured as an indicator of the effectiveness of the water treatment process. The lower the turbidity, the more effective the treatment process.

5. EPA considers 50 pCi/L to be the level of concern for beta particles.

