2018 WATER QUALITY DATA - DETECTED CONTAMINANTS

U of I Samples Collected within the Parent Water Supply by Illinois-American Water Company

VIOLATION SUMMARY
We are happy to announce no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2018.

WATER QUALITY REPORT

INTRODUCTION
The 2018 Water Quality Report from the University of Illinois at Urbana-Champaign provides information about the source of campus drinking water, contaminant testing, general health precautions, and how calendar year 2018 sample results compare to regulatory requirements. The U of I is pleased to report that all United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (IEPA) drinking water quality standards have been met, with no violations of maximum contaminant levels (MCLs).

If you have any questions about this report or U of I drinking water quality, please contact Facilities & Services, Safety and Compliance at 217-333-9197 or via email at crubter@illinois.edu.
A copy of this report is available at go.fs.illinois.edu/waterquality or by contacting Safety and Compliance.
In compliance with state and USEPA regulations, the university issues a report annually describing the quality of your drinking water. The purpose of this report is to increase understanding of drinking water standards and raise awareness of the need to protect your drinking water sources.

WATER INFORMATION SOURCES
- Illinois American Water: www.illinoisamerican.com
- United States Environmental Protection Agency: www.epa.gov/safewater
- Safe Drinking Water Hotline: 800-426-4791
- Illinois Environmental Protection Agency: www2.illinois.gov/epa

LOCAL GROUPS INVOLVED IN WATER AND ENVIRONMENTAL ISSUES
- Mahomet Aquifer Consortium: www.mahometaquiferconsortium.org
- Prairie Rivers Network: 217-344-2371 or www.prairienet.org

DEFINITIONS

MCLG: Maximum Contaminant Level Goal. The level of 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 that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available technology.
MRL: Maximum Residual Disinfectant Level Goal. The level of a disinfectant residual intended to ensure that drinking water is safe to use without further treatment.
MRLD: Maximum Residual Disinfectant Level. The level of a disinfectant residual below which there is no known or expected risk to health. MRLDs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRLDG: Maximum Residual Disinfectant Level Goal. The level of a disinfecting agent allowed in drinking water. There is convincing evidence that a disinfectant is necessary for control of microbial contaminants.
ppb: Parts per billion. A measurement of the natural rate of dissipation of radioactive contaminants in water.

Lead: By-product of drinking water disinfection.
Fluoride: Typical Source of Contamination
Arsenic: Maximum Contaminant Level. The highest level of arsenic allowed in drinking water. Arsenic in drinking water can cause serious health problems.
Chlorine: By-product of drinking water disinfection.
Radon: The highest level of radon allowed in drinking water. Radon is a colorless, odorless, radioactive gas.

DISINFECTANTS & DISINFECTION BYPRODUCTS

Contaminant (Units) | Sampled by: Date | MCLG | MCL | Range of Detection | Violation? | Typical Source of Contamination
--- | --- | --- | --- | --- | --- | ---
Chlorine (ppm) | U of I 2018 | 0.2 | 0.2 | 0.2 | NO | Water additive used to control microbes.
Fluoride (ppm) | U of I 2018 | 0.7 | 0.7 | 0.7 | NO | By-product of drinking water disinfection.
Arsenic (ppb) | U of I 2018 | 1 | 1 | 1 | NO | By-product of drinking water disinfection.
Radon (pCi/L) | U of I 2018 | 0.2 | 0.2 | 0.2 | NO | Gross Alpha (gAlppm) | U of I 2018 | 0.2 | 0.2 | 0.2 | NO | By-product of drinking water disinfection.
Lead (ppm) | U of I 2018 | 0.4 | 0.4 | 0.4 | NO | Toxic Tritium (TIppm) | U of I 2018 | 0.4 | 0.4 | 0.4 | NO | By-product of drinking water disinfection.

Manganese (ppb) | U of I 2018 | 0.2 | 0.2 | 0.2 | NO | Manganese (ppb) | U of I 2018 | 0.2 | 0.2 | 0.2 | NO | By-product of drinking water disinfection.

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WHAT IS THE SOURCE OF U OF I DRINKING WATER?

The University of Illinois purchases drinking water from Illinois-American Water Company (IAWC), Champaign District. Water is delivered to campus via five metered locations from the IAWC system. Therefore, the distribution system is considered a public water system. The campus system includes approximately 46 miles of water main. The university distributes this water to the vast majority of campus buildings, however a minority of buildings are supplied directly from IAWC. The following information about IAWC, Champaign District water supply is from their 2018 Annual Water Quality Report and is available by calling 217-373-3273 or visiting their website at www.illinoisamerican.com.

The source of supply for IAWC is groundwater. Currently, 21 wells deliver water for treatment to two lime-softering plants: the Mattis Avenue Plant, located in Champaign, and the Bradley Avenue Plant, located west of Champaign. The wells are primarily located in the Mahomet Aquifer and supply water to both plants.

The wells range from 208 to 366 feet in depth and are protected from surface contamination by geologic barriers in the aquifers. An aquifer is a porous underground formation (such as sand and gravel) that is saturated with water.

SOURCE WATER ASSESSMENT

The IAWC has completed a source water assessment for the Champaign County system. In this report, IAWC indicates the wells supplying Champaign County are not geologically sensitive. To determine IAWC - Champaign's susceptibility to groundwater contamination, a Well Site Survey Report from February 1991 and a source inventory conducted in 1999 by the Illinois Rural Water Association, in cooperation with the Illinois EPA, were reviewed. Based on the information contained in these documents, potential sources of groundwater contamination are present that could pose a hazard to groundwater pumped by the IAWC. Champaign's community water supply wells.

The IAWC has determined that IAWC Champaign's wells are not susceptible to inorganic chemical (IOC), volatile organic chemical (VOC), and synthetic organic chemical (SOC) contamination. This determination is based on a number of criteria including monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system, and noting the available hydrogeologic data for the wells. The IAWC has made recommendations to further minimize the risk to the facility's groundwater supply. If you would like additional information on the source water assessment, please contact Safety and Compliance at 217-265-9828 or go to http://dataservices.epa.illinois.gov/swap/factsheet.aspx.

PROTECTING THE WATER YOU DRINK

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit 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 as public water systems. IAWC's advanced water treatment processes are designed to reduce any such substances to levels well below any health concern. The university is required to test water in its distribution system for coliform, lead, copper, trihalomethanes, and haloacetic acids. IEPa requires 15 samples per month to be analyzed for coliform. In 2018, normal operations of the U of I water distribution system resulted in approximately 16 samples per month for coliform. The most recent testing results for coliform, lead, copper, haloacetic acids, and total trihalomethanes (THM) are provided in the Data Summary table at the end of this report.

GENERAL INFORMATION ABOUT ALL DRINKING WATER

The sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and, in some cases, radioactive material. It can also dissolve substances resulting from the presence of animals or 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 and wildlife;

• Inorganic Contaminants, such as salts and metals, which may 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 may also come from gas stations, urban stormwater runoff and septic systems; and

• Radioactive Contaminants, which may occur naturally or result from oil and gas production and mining activities.

IMPORTANT HEALTH CONSIDERATIONS

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that 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 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 USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

RADON

Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarette smoke. Inhalation of high levels of radon can be linked to lung cancer; however, it is not clear how radon in your drinking water contributes to this health effect. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, contact the Champaign-Urbana Public Health District, or call 1-800-SCS-RADON.

ARSENIC

While your drinking water meets the EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

2018 DATA SUMMARY

The following table lists the contaminants that were detected in your water. The presence of contaminants does not necessarily indicate that the water poses a health risk. The data in this table represents a combination of the testing results on finished water from the distribution system and its parent supply, IAWC, Champaign District. The university monitors water daily at five separate metered feeds. Additionally, the university monitors water at eight points within the distribution system. IAWC monitors the parent water supply at points prior to entering the campus distribution system.

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 two 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 by calling the USEPA Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.