Quality and Reliability since 1882
Madison Water Utility mwu
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UNIT WELL #19

Drilled in 1970, Unit Well 19 has a pumping capacity of 2175 gallons per minute. It operates year-round and primarily serves the University of Wisconsin campus area. During the winter months, when seasonal wells are shut down, Well 19 may also supply water to the Regent neighborhood. In 2013, Well 19 pumped 575 million gallons of water compared to its 5-year average of 671 million gallons annually.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2013.

Bacteria

In 2013, forty water samples were collected from Well 19 and tested for coliform bacteria, an indicator group of bacteria used in determining drinking water safety. None of the samples were found to have coliform bacteria present. Most samples (36) were chlorinated water while four were untreated groundwater. The Water Utility chlorinates drinking water to protect against bacteria and viruses that can be present in groundwater.

Hardness and Other Minerals

Like all groundwater, water from Well 19 contains calcium and magnesium that contributes to its hardness (301 mg/L [ppm] or 18 grains per gallon). Other naturally occurring constituents that are present in water from Well 19 can be found in the Inorganics Table.

Iron and Manganese

Water from Well 19 contains fairly high levels of both iron and manganese, minerals that can discolor the water. Water containing iron and manganese above the EPA secondary standards, 0.3 mg/L and 50 µg/L, respectively, may cause staining of laundry or plumbing fixtures.

Instances of colored water are random, infrequent, and temporary; the water usually clears up in 15-30 minutes without additional action. Running a coldwater tap at full force for a few minutes usually flushes out the minerals that cause the discoloration. If the color persists, call the Water Utility at 266-4654. You should not use colored water for drinking or cooking; instead run the water until the color clears.

Chromium

Trace amounts (<0.05 µg/L) of hexavalent chromium have been found at Well 19. Because chromium is known to be present in the aquifer, it is believed that the chemical environment in the Mt. Simon aquifer limits the release of chromium minerals into groundwater. The utility currently performs semi-annual testing for total and hexavalent chromium. More information, including complete test results, can be found on the chromium page.

Lead

Madison's groundwater supply does not contain significant amounts of naturally occurring lead.

Radionuclides

An elevated amount of combined radium (5.8 pCi/L) detected in July 2011 prompted the Water Utility to routinely monitor radium at Well 19. Eleven samples were collected from September 2011 through December 2012. During this period, combined radium varied between 2.0 and 4.8 picocuries per liter (pCi/L). Radium was consistently below the maximum contaminant level (MCL) of 5 pCi/L combined radium during the fifteen-month span. Uranium results ranged from 1.2-1.6 µg/L compared to the MCL of 30 µg/L uranium.

Naturally occurring, radioactive elements are found in rock, soil, water, and air. They derive from the creation of our planet and enter our bodies when we drink water, breathe air, and eat foods that contain them. Everyone is exposed to some level of radiation in everyday life. For example, uranium and thorium are found in rock and soil. In time, they decay to other elements including radium, which later decays to radon gas. Radon is the largest contributor to our daily exposure of radiation from the natural world. More information is available from the Agency for Toxic Substances and Disease Registry (ATSDR).

See ATSDR for more information on radon.

Man-made Contaminants

Madison Water Utility annually tests all of its municipal wells for man-made contaminants that may be present in groundwater. Except for disinfection by-products (DBP), no other volatile organic compound (VOC) was detected at Well 19 in 2013. DBPs form when chlorine interacts with impurities in groundwater. The chlorine is added to disinfect the water and guard against bacterial growth in water mains.

The Volatile Organic Compounds table shows the list of substances that were tested, the results, and how the detected levels compare with the maximum contaminant levels (MCL) established by the EPA.

Additional Information

Information on routine water quality monitoring activities, including current test results and links to additional resources, is available at madisonwater.org. In addition, you can sign-up to receive periodic updates on Madison drinking water quality or the water main flushing program through the City of Madison website.

If you have questions about the information in this report or on our website, our staff would be happy to answer them. Please call the Water Quality line at 266-4654 weekdays from 7:30 a.m. to 4:00 p.m.

Click here to view water quality reports for other Madison municipal wells.