

UNIT WELL #15

Drilled in 1965, Well 15 has a pumping capacity of 2200 gallons per minute. When operating, the well serves the East Washington corridor including the Greater Sandburg, Mayfair Park, and Truax neighborhoods and part of Carpenter-Ridgeway. Well 15 also serves the High Crossing area east of Interstate 90/94 and the Ridgewood neighborhood. In 2019, the well pumped 52 million gallons of water compared to its 5-year annual average of 309 million gallons.

On March 4, 2019, Madison Water Utility made the decision to take Well 15 out of service until more information is available about the potential health and safety concerns stemming from PFAS-contaminated ground and drinking water. **The well is currently not in service** and, therefore, the utility did not collect routine and annual samples from this well in 2019.

While Well 15 is out of service, other wells in Pressure Zone 6E will supply water to homes and businesses in northeast Madison. These wells include [#7](#), [#11](#), [#13](#), and [#29](#).

Per- and Polyfluoroalkyl Substances (PFAS)

PFAS were first detected at Well 15 in 2017. Since that time, ten different [PFAS](#) have been detected. The combined PFAS level measures 56 ng/L or parts per trillion (ppt). Although there is no state or federal drinking water standard for any PFAS, Wisconsin Department of Health Services (DHS) recommended a health-based groundwater standard of 20 ppt for two PFAS (PFOA+PFOS). The level of PFOA+PFOS at Well 15 is below this proposed standard; however, levels of different PFAS exceed drinking water standards established by other states, namely New Hampshire and Vermont. Wisconsin DHS staff are evaluating studies on the effects of these additional PFAS on human health and expect to release their findings and propose additional standards in the fall or winter. This information from the public health community will help guide future decisions about the operation of Well 15. It may also determine whether wellhead treatment to remove PFAS from drinking water will be required at Well 15. Our website, madisonwater.org, has more information about PFAS in drinking water.

Unless otherwise noted, data contained in this report, which is updated annually, are from **2018**.

Bacteria

In 2019, nine water samples were collected from Well 15 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. None of these samples were found to contain coliform bacteria. Most samples (8) were chlorinated water while one sample was from untreated groundwater. The Water Utility chlorinates all drinking water to protect against bacteria and viruses that can be present in groundwater.

Hardness and Other Minerals

Like all groundwater, water from Unit Well 15 contains calcium and magnesium that contributes to its hardness (384 mg/L [ppm] or 22 grains per gallon). Other naturally occurring constituents that are present in water from Well 15 can be found in the [Inorganics Table](#).

Iron and Manganese

Water from Well 15 contains low levels of iron and manganese. Both minerals are well below the US EPA [secondary standards](#), which are 0.3 mg/L for iron and 50 µg/L for manganese.

Chromium

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 15. The level is well below the existing drinking water standard of 100 µg/L for total chromium. More information can be found on the [chromium](#) page.

Lead

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

Radionuclides

In 2014, water from Well 15 was tested for radium-226, radium-228, and other gross measures of radiation in water. Combined radium (226+228) measured 1.3 picocuries per liter (pCi/L) – well below the maximum contaminant level (MCL) of 5 pCi/L.

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 wells for man-made contaminants that may be present in groundwater. Quarterly samples collected at Well 15 confirm that [tetrachloroethylene](#) (PCE) and [trichloroethylene](#) (TCE) were being removed from the source water by the air stripper installed in 2013. Low levels of four disinfection by-products (DBP) were detected at Well 15 in 2018. DBPs form when chlorine reacts with impurities in groundwater. Chlorine is added to disinfect water and to guard against bacterial growth in water mains.

The [Volatile Organic Compounds](#) table lists the substances that are tested, the results, and how the detected levels compare with the maximum contaminant levels (MCL) established by the EPA.

Periodic testing also found small amounts (0.1 – 0.2 µg/L) of [1,4-dioxane](#) at Well 15; an MCL has yet to be established.

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 7:45 a.m. to 4:00 p.m.

Click [here](#) to view water quality reports for other Madison municipal wells.