

## UNIT WELL #14

Drilled in 1960, Well 14 has a pumping capacity of 2,450 gallons per minute; however, the pump typically delivers 1,440 gallons per minute through the use of a variable frequency drive. It operates year-round and serves Madison's West side neighborhoods such as Spring Harbor, Old Middleton Greenway, Sunset Village, and Regent. Well 14 also serves the Village of Shorewood Hills and parts of the University of Wisconsin campus. In 2023, Well 14 pumped 256 million gallons compared to its 5-year average of 613 million gallons annually. The well was out of service for maintenance from January through June.

Unless otherwise noted, data contained in this report, which is updated annually, are from 2023.

### *Bacteria*

In 2023, four samples were collected from Well 14 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. Each sample was collected and tested prior to any disinfection. None of these samples had coliform bacteria present. The Water Utility chlorinates drinking water to protect against bacteria and viruses that can be present in groundwater and to provide protection as the water travels through water mains and premise plumbing.

### *Hardness and Other Minerals*

Like all groundwater, water from Well 14 contains calcium and magnesium that contributes to its hardness (520 mg/L [ppm] or 30 grains per gallon). Other naturally occurring constituents that are present in water from Well 14 can be found in the [Inorganics Table](#).

### *Iron, Lead, and Manganese*

Water from Well 14 does not contain significant amounts of iron, lead, or manganese.

### *Chromium*

Low levels of naturally occurring chromium, including hexavalent chromium, have been found at Well 14. The level is well below the drinking water standard of 100 µg/L for total chromium. More information can be found on the [chromium](#) page.

### *Sodium*

The level of [sodium](#) in Well 14 water exceeds an EPA guideline which recommends drinking water not to exceed 20 mg/L sodium; in 2023, sodium measured 71 mg/L. These guidelines are intended for higher risk populations including some individuals with pre-existing heart conditions or those on "no salt" diets. See the WI Department of Health [website](#) for more information. Road salt likely contributes to elevated sodium levels in water pumped from some Madison wells.

## ***Radionuclides***

In 2020, water from Well 14 was tested for radium-226, radium-228, and other gross measures of radiation in water. Combined radium (226+228) measured 1.1 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.

## ***Human-made Contaminants***

Madison Water Utility annually tests all of its wells for human-made contaminants that may be present in groundwater. A trace amount of trichlorofluoromethane was found in 2023. Three disinfection by-products (DBP) were also detected at Well 14 in 2023. DBPs form when chlorine reacts with impurities in groundwater. Chlorine is added to disinfect water and to guard against bacterial growth in water mains. Periodic testing for [synthetic organic chemicals](#) consistently has found small amounts of two pesticides – [atrazine](#) and metolachlor.

Trace amounts (0.1 µg/L) of [1,4-dioxane](#) also have been found at Well 14; an MCL has yet to be established. The [Volatile Organic Compounds](#) table lists the substances that were tested, the results, and how detected levels compare with the maximum contaminant levels (MCL) established by the EPA.

### **Per- and Polyfluoroalkyl Substances (PFAS)**

Six different [PFAS](#) were found at Well 14 in 2023. The combined PFAS level is **estimated at 17 ng/L or parts per trillion (ppt)**. In 2022, the Wisconsin Department of Natural Resources adopted drinking water standards for PFOA & PFOS set at 70 ppt. In April 2024, the US Environmental Protection Agency published final federal MCLs that were set at 4 ppt. For information about PFAS in drinking water, see our website, [madisonwater.org](#).

## ***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.