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UNIT WELL #8

Drilled in 1945, Well 8 has a pumping capacity of 1,980 gallons per minute. It is a seasonal well that generally operates only during summer months due to elevated levels of iron and manganese in the water. The well primarily serves the Schenk-Atwood-Starkweather-Yahara neighborhood and Marquette area homes east of the Yahara River. In 2024, Well 8 did not deliver any water to the distribution system.

In recent years, Well 8 pumping also has been reduced due to concerns about potential long-term movement of the groundwater contaminants from the Madison Kipp Corporation plume toward the municipal well. Neither tetrachloroethylene (PCE) nor trichloroethylene (TCE) has been found at the well. The Water Utility hired an independent groundwater expert to review the groundwater modeling and analysis performed by the consultant for Madison Kipp. The summary report can be found <u>here</u>. Long-range plans include re-construction of the well house and addition of an iron-manganese filter. In the interim, Water Utility staff continues to work with city, county, and state agencies, and limit production from the well, as the groundwater cleanup continues.

Unless otherwise noted, data contained in this report, are from 2022, because the well did not deliver water to the system in 2023 or 2024.

Bacteria

In 2024, one sample was collected from Well 8 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. The sample was collected and tested prior to any disinfection. Coliform bacteria were not present. The Water Utility chlorinates drinking water to protect against bacteria and viruses that may be present in groundwater and to provide additional protection as the water travels through water mains and premise plumbing.

Iron and Manganese

Water from Well 8 contains high levels of both iron and manganese, two minerals that can discolor the water. Water that contains iron or manganese above the EPA <u>secondary standards</u>, 0.3 mg/L and 50 μ g/L, respectively, may stain laundry and plumbing fixtures.

Instances of discolored water are random, infrequent, and temporary; the water usually clears up in 15-30 minutes without additional action. Running a lower-level, cold water tap at full force for a few minutes can help to flush out the minerals that cause the discoloration. If the color persists, call the Water Utility's Water Quality Line at (608) 266-4654. You should not use discolored water for drinking or cooking; instead run the water until it clears.

Hardness and Other Minerals

Like all groundwater, water from Well 8 contains calcium and magnesium that contribute to its hardness (324 mg/L [ppm] or 19 grains per gallon). Other naturally occurring constituents that are present in water from Well 8 can be found in the <u>Inorganics Table</u>.

Lead

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

Chromium

In 2022, naturally occurring chromium was not found in water pumped from Well 8.

Radionuclides

In 2021, water from Well 8 was tested for radium-226, radium-228, and other gross measures of radiation. Combined radium (226+228) measured 2.5 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 (<u>ATSDR</u>).

See <u>ATSDR</u> for more information on radon.

Human-made Contaminants

Madison Water Utility annually tests all of its municipal wells for human-made contaminants that may be present in groundwater. No volatile organic compound (VOC) was detected at Well 8.

The <u>Volatile Organic Compounds</u> 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.

Per- and polyfluoroalkyl Substances (PFAS)

No <u>PFAS</u> were found at Well 8 in 2022. In April 2024, the US Environmental Protection Agency (EPA) published final MCLs for six PFAS. Our website, <u>madisonwater.org</u>, has more detailed information about PFAS in drinking water and previous PFAS test results for this well.

Additional Information

Information on routine <u>water quality monitoring</u> activities, including current test results and links to additional resources, is available at <u>madisonwater.org</u>. In addition, you can sign-up to receive periodic updates on Madison drinking water quality or the water main flushing program through the <u>City of Madison</u> 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 <u>here</u> to view water quality reports for other Madison municipal wells.