

UNIT WELL #15

Drilled in 1965, Well 15 has a pumping capacity of 2200 gallons per minute. It operates year-round and serves the East Washington corridor including Westchester Gardens, Mayfair Park, Bluff Acres, Carpenter-Ridgeway, Eken Park, and Emerson East neighborhoods. Well 15 also serves the High Crossing area east of Interstate 90/94.

In 2013, the well pumped 490 million gallons of water compared to its 5-year annual average of 687 million gallons. Pumping was down significantly at Well 15 in 2013 due to the well being out of service for facility re-construction and installation of an air stripper to remove volatile organic compounds, including PCE and TCE, from the source water.

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

Bacteria

In 2013, thirty-five samples were collected from Well 15 and tested for coliform bacteria, an indicator group of bacteria used to determine drinking water safety. None of the samples were found to have coliform bacteria present. Most samples (31) were from chlorinated water while four samples were from 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 Unit Well 15 contains calcium and magnesium that contributes to its hardness (400 mg/L [ppm] or 23 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. The utility 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

Water from Well 15 was tested six times in 2012 for radium and uranium in addition to other gross measures of radiation in water. The combined radium ranged from 0.1 to 2.4 picocuries per liter (pCi/L) while uranium ranged from 1.0 to 1.2 micrograms per liter (µg/L). The levels are below the maximum contaminant level (MCL) of 5 pCi/L radium and 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. Quarterly samples are currently collected at Well 15 due to the presence of [tetrachloroethylene](#) (PCE) and [trichloroethylene](#) (TCE) in the source water. Low levels of 1,4-dioxane were also found during recent investigative sampling by the utility.

Increasing levels of PCE, which were approaching the regulatory limit, led to the decision to construct a treatment facility to remove PCE and TCE from the water supplied by Well 15. The facility went into operation in June 2013 and successfully removes both PCE and TCE to below the detection limit.

The [Volatile Organic Compounds](#) table shows the list of substances that are 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.