

Sample results:

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many products to make them waterproof, stain-resistant, or nonstick. Because of their widespread use, PFAS are found in the environment and have the potential to be in drinking water. When drinking water samples are tested for PFAS, the results are reported for multiple PFAS in a table format like the example below.

Analyte	Method	Result	Value	Qual	DF	RL	Units
Perfluorooctanoic Acid (PFOA)	537.1	<4.31	0.0987	U	1	4.31	ng/L

Analyte – Name of the chemical being analyzed.

Method – Name of the approved way the laboratory analyzed the sample.

Result – How much of the chemical was in the sample. If the result has a less than symbol (<) before the number, it means the chemical was not found at or above the reporting limit. The reporting limit is the amount of the chemical the lab can accurately measure.

Value – If the result is less than the reporting limit but a very small amount of the chemical is in the sample, this is the estimated or calculated amount of the chemical in the sample. If the result is above the reporting limit, the exact amount is reported.

Qual or Qualifier – If there was an issue with the sample analysis that caused it to not meet the required quality standards, a special symbol is applied to the sample result. These special symbols are called “Qualifiers” and commonly used ones are U, J, and B. Each of these is explained below.

- **U** – The chemical was not detected at a concentration greater than the method detection limit (the calculated lowest level of the chemical the lab is confident in detecting).
- **J** – The reported result is estimated. This is used when the result is lower than the reporting limit but higher than the method detection limit.
- **B** – The chemical was found in both the sample and the blank sample. During sampling, a second bottle (called a “blank”) must be filled with PFAS-free water sent from the lab in the sample collection kit. When the blank also contains PFAS, that means that contamination may have occurred during collection, transport, or analysis, and may not actually be from the drinking water.

DF or Dilution Factor – Any dilution of the sample that was needed for the lab to analyze the sample will be reported here. If it shows the dilution factor is 1, the sample was not diluted.

RL or Reporting Limit – This is sometimes called the Method Reporting Limit or MRL. The reporting limit is the lowest amount of the chemical the laboratory can confidently measure and report.

Units – The standard unit of measurement associated with the Result and Reporting Limit. Typically, PFAS results are reported in nanograms per liter of water (ng/L), or the equivalent parts per trillion (ppt). Microgram per liter (µg/L) is also used when reporting water concentrations and is equal to 1000 ng/L.

Sample result explanation:

Using the example sample result table above, the following information can be seen:

PFOA was not detected in the sample. The value presented, with the U qualifier, is less than the method detection limit and contains too much uncertainty to be a detection. The sample was not diluted for analysis. There are no other data qualifiers, which means that there did not seem to be any errors during sampling, transport, or analysis of the sample.

The results for six PFAS can be compared to U.S. EPA drinking water standards to understand if consuming the water presents a health concern. Please see the fact sheet [PFAS in Drinking Water](#) for a table of the standards. If you have concerns about the PFAS levels in your drinking water, consult with your healthcare provider.

Results can also be used to help make decisions on whether to install treatment equipment to reduce or remove the PFAS in the water. Please see the fact sheets [PFAS – Whole House Water Treatment](#) and [PFAS - Point of Use Water Treatment](#) for additional information about water treatment which can be found on the [Ohio PFAS webpage](#).

For more information:

For more information on PFAS, including the health effects of PFAS, PFAS in drinking water, water testing and treatment, and other PFAS activities in Ohio, visit the [Ohio PFAS webpage](#).

For more information on treatment systems, please see the information on the [ODH Private Water Systems webpage](#) or the [U.S. EPA Reducing PFAS in Drinking Water with Treatment Technologies](#).

If you have any questions, contact the ODH Residential Water and Sewage Program at BEH@odh.ohio.gov or (614) 644-7558.