Validated Sample Results



Below are the validated test results confirming that your drinking water is <u>below</u> the U.S. Environmental Protection Agency's (EPA) lifetime health advisory levels for certain per- and polyfluoroalkyl substances (PFAS). These results indicate that <u>no further action</u> is required for your property at this time.

The Navy is working in partnership with the EPA Region 3, the Agency for Toxic Substances and Disease Registry, the Virginia Department of Environmental Quality, and the City of Virginia Beach.

Results of Laboratory Analytical Tests for PFAS with U.S. EPA Lifetime Health Advisory Levels

Chemical Name	Result (ppt)	Health Advisory (ppt)
Perfluorooctanoic acid (PFOA)		70
Perfluorooctanesulfonic acid (PFOS)		70
Total PFOA-PFOS (sum)		70

ppt – parts per trillion (1 ppt = 1 ng/L (nanogram per liter))

Results for Other PFAS with No Established U.S. EPA Lifetime Health Advisory Levels

Chemical Name	Result (ppt)	Other Screening Value, if available (ppt)
Perfluorohexanoic acid (PFHxA)		N/A
Perfluoroheptanoic acid (PFHpA)		N/A
Perfluorononanoic acid (PFNA)		N/A
Perfluorodecanoic acid (PFDA)		N/A
Perfluoroundecanoic acid (PFUnA)		N/A
Perfluorododecanoic acid (PFDoA)		N/A
Perfluorotridecanoic acid (PFTrDA)		N/A
Perfluorotetradecanoic Acid (PFTeDA)		N/A
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)		N/A
n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)		N/A
Perfluorobutanesulfonic acid (PFBS)		40,000 *
Perfluorohexanesulfonic acid (PFHxS)		N/A

Results for Other PFAS with No Established U.S. EPA Lifetime Health Advisory Levels (continued)

Chemical Name	Result (ppt)	Other Screening Value, if available (ppt)
Hexafluoropropylene oxide dimer acid (HFPO-DA)		N/A
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)		N/A
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)		N/A
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9CI-PF3ONS)		N/A

ppt – parts per trillion (1 ppt = 1 ng/L (nanogram per liter))

N/A – Not available.

^{*}Although there is not a health advisory for PFBS, U.S. EPA has estimated a toxicity value for possible health effects when PFBS is ingested. This toxicity value was used by the U.S. EPA to calculate a "Regional Screening Level" or RSL. The RSL is a conservative, risk-based level that is used at "Superfund" sites to identify sites that may warrant further investigation or site cleanup.

Explanation of Laboratory Results

You will notice that the data report comes with several laboratory descriptions that may not be familiar to you. The following definitions of those descriptions may assist you in understanding your sample results:

- Analyte the chemical or substance of interest.
- **CAS No.** (Chemical Abstracts Service Number) a universal system to provide a unique, unmistakable identifier for chemical substances.
- Result (ng/L) the amount of an analyte (chemical or substance of interest) determined to be present in the sample analyzed by the laboratory; the reporting units ng/L (nanograms per liter) is the same as ppt (parts per trillion)
- **DL (Detection Limit)** The lowest analyte concentration that can confidently be distinguished from zero (or a blank) concentration.
- **LOD (Limit of Detection)** The lowest analyte concentration that must be present in a sample to be confidently (i.e., consistently) detectable.
- **LOQ (Limit of Quantitation)** The lowest concentration that produces a quantitative result within known and recorded precision and accuracy.
- ND (Non-Detect) indicates the analyte was not detected.
- Qualifiers
 - o "J" (Estimated Value) indicates the value reported for the analyte is above the DL but below the LOQ and was detected. The value reported is considered estimated.
 - o "B" (Blank) indicates that this compound was also detected in the method blank.
 - "D" (Diluted Sample) indicates that this sample result was determined from a dilution analysis.

The red, handwritten markups are a result of a third party data validator. A third party data validator reviews laboratory packages in accordance with the United States Department of Defense General Data Validation Guidelines; this includes reviews of analytical instrument calibration, quality control samples, calculations of results, and many other checks.