



Sentinel Well Installation and Sampling NALF Fentress

June 2016

BACKGROUND

Perfluorinated compounds (PFCs) are man-made chemicals, which have been used since the 1950s in many household and industrial products because of their stain and water repellent properties. PFCs are now present virtually everywhere in the world because of the large amounts which have been manufactured and used. Once these compounds are released to the environment they break down very slowly.

The drinking water and groundwater on Naval Auxiliary Landing Field (NALF) Fentress was tested for PFCs in December 2015 in response to Navy policy because PFC-containing foam was used in years past for fire-fighting training. Groundwater and on-base drinking water sample results showed PFCs at levels above the US Environmental Protection Agency (EPA) provisional health advisory levels. Consequently, the Navy in conjunction with the Virginia Department of Health (VDH), City of Chesapeake, EPA, Virginia Department of Environmental Quality (VDEQ), and the Agency for Toxic Substances and Disease Registry (ATSDR) developed a plan for sampling homes in a designated sampling area surrounding the base. Residents in this area were notified on January 28, 2016 to request to sample their drinking water. Off-base drinking water sampling was conducted at no cost to residents in the sampling area in February 2016. Based on this sampling, two private wells were identified as having perfluorooctane sulfonate (PFOS) and/or perfluorooctanoic acid (PFOA), in their water at levels greater than the provisional health advisories of 0.2 ppb and 0.4 ppb, respectively. These homes were immediately supplied with bottled water. In May 2016, the EPA updated the provisional health advisories and issued a cumulative health advisory for PFOA and PFOS, of 0.07 ppb for the total concentration of both chemicals. This resulted in the need for supplying water to an additional four properties.

PLANNED SENTINEL WELL INSTALLATION

The Navy recognizes the potential for the PFCs to continue to move off the NALF Fentress property in the groundwater, which could impact the quality of drinking water for nearby residents who are not currently already impacted. In order to ensure the safety of surrounding residents and to evaluate alternatives for corrective action, the Navy in conjunction with the EPA and VDEQ have developed a strategy for installation of a sentinel monitoring well network, which will help define the lateral and vertical boundaries of the groundwater plume and will allow for continued monitoring of migration potential. Proposed monitoring wells are shown on the attached figure. Wells will be installed in June 2016, sampled in June and July 2016, and results will be received in July and August 2016. Sentinel wells will continue to be monitored periodically until a remedial action is completed to address contamination. If at any time, monitoring well data indicate additional well installation or drinking water sampling is necessary, the public will be notified.

There is no legal requirement to complete drinking water testing. Rather, the Navy has been performing and will continue to perform the testing as a voluntary measure because the water quality both on-base and for our off-base neighbors is a priority for the Navy. ***The Navy has provided alternate drinking water supplies to six off-base properties that were found to contain PFCs above the EPA health advisory. The Navy will continue to provide alternate drinking water to these properties while a long-term solution is implemented.***



Health Information

Exposure to PFOA and PFOS appears to be widespread. Studies have found both compounds in the blood samples of the general human population and wildlife nationwide. Exposure to PFOS and PFOA through ingestion is the primary health concern for people. Studies on exposed human populations indicate PFOS and/or PFOA may cause elevated cholesterol levels and possibly low infant birth weight. When animals are given large doses, they exhibit developmental, reproductive and liver effects. Other studies suggest a link with certain cancers.

Health effects from exposure to low levels of PFOS and PFOA are not well known and studies are continuing. At this time, it is not possible to link exposures to PFOS and PFOA in water to a person's individual health issues. Blood tests are available, but they are not routinely done because the results can be inconclusive and test results do not predict health effects. Long term exposure effects are still being investigated by EPA. ***Based on what is known and still unknown about PFOS and PFOA, the EPA recommends people not use water that contains PFOS and/or PFOA above the health advisory levels for drinking or cooking.***

WATER FILLING STATION

The Navy and City of Chesapeake have also set up a water station at **1564 Mount Pleasant Road, Chesapeake, Virginia 23322** (across the street from Butts Road Intermediate School), where other concerned residents can take containers to fill with potable drinking water treated by the City of Chesapeake.

FOR MORE INFORMATION

To answer any questions you may have on the sampling program, please call **757-433-3132** or email at fentressinfo@navy.mil.

The Navy has also established a website at www.cnmc.navy.mil/FentressInfo, which we will continue to update as more information becomes available.



Drilling Rig Used for Monitoring Well Installation

