

CLEARBROOK LABS

Date: 07/27/2016

Project: WOF0105W16

Client: Woder Water Filters

Scope: Test Woder-FRM in-line Fluoride cartridge in accordance with NSF/ANSI Standard 42 adapted for specific tests. Fluoride Reduction. Woder also requested effluent samples test for Aluminum.

Comments: While NSF/ANSI 42 is designed for POU/POE filtration systems to measure the reductions of aesthetic and or non-health related contaminants such as chlorine, taste, odor and particulates commonly found in drinking water...Clearbrook Labs does not maintain that anything commonly found in drinking water is necessarily safe or non-health threatening. The use of NSF/ANSI Protocols and other EPA Protocols are common and establish a benchmark standard for testing a variety of POU/POE devices. These Protocols establish Methods for preparing devices for tests in specific accordance to the Protocol. Other contaminants may be added at a client/customers' requests to provide addition contaminant reduction information. Additional requests may give reason to change the Protocol. In these Woder tests...CBL utilized NSF/ANSI 42 because Fluoride is commonly used in the treatment of Drinking Water and is permitted to an MCL of 4mg/l.

Summary: Woder provided a point of use/POU FRM single and dual stage system to test the reductions of Fluoride.

The Clients rated capacity is 5000 gallons or 1.5 years (4 persons, kitchen lavatory)

The FRM Fluoride reduction cartridges were purged with distilled water and set up to run a Fluoride Challenge of >MCL. The first test influent was 4.5mg/l and the second test was 5.8mg/l.

The flow rate was established at 4 and 6l/hr for 20min on and 20min off for 16hours with samples at the end of each cycle for 5 cycles and thereafter every 5 cycles to capacity.

Both units tested <.5ppm Fluoride ion present in each effluent sample throughout the range of testing indicating the Woder FRM cartridge units have a very strong absorbability and or chelating effect on Fluoride.

The challenge water for both units tested free of Aluminum. The Effluent samples from each unit also tested free of Aluminum.

The information provided in this "Summary" document is intended for Woder Water Filters and permission is given to Woder for its own use.