

# Inorganic Metals Removal Study

**Date:** Feb 26, 2018

**Method:** The conducted screening test was performed to evaluate the provided purifier units' initial filtration efficacy as per the client requested and laboratory developed protocol. The protocol represents a single test point challenge and is adapted from protocol NSF 53-2016:7.4 for Metals reduction efficacy. Two units were received on January 31st, 2018. Each of the units were assigned an identifier number. The units were conditioned, and primed by following the manufacturer's instructions before initiation of study. Following conditioning, 5.0 liters of laboratory grade reagent water was passed through each unit. Following the units were emptied of any residual water. For the challenge study, 2.0 Liters of laboratory grade reagent water were inoculated with aliquots of the indicated challenge species, and homogenized. A sample of the influent challenge water was removed and stabilized. A 1.0 liter aliquot of the challenge water was added to the upper reservoir of unit assembly and allowed to pass through each purifier unit by gravity. A sample of each effluent was collected and stabilized. All analysis of influent and effluent samples were conducted as per USEPA method 200.8.

**Filter Description:** Epic Water Filters - Pure Water Filter Pitcher - EW-RFP-TAP

**Analysis Used:** Inductive Coupled Plasma Mass Spectroscopy Analysis; EPA 200.8

**Results:**

Chromium (Cr)			
Filter Description	Chromium (Cr) Influent Concentration in ppm	Average Effluent concentration in ppm	Average Percent Removal
Epic Water Filters Pure Pitcher Filter	0.15	0.004	97.3%

Copper (Cu)			
Filter Description	Zinc (Zn) Influent Concentration in ppm	Effluent concentration in ppm	Average Percent Removal
Epic Water Filters Pure Pitcher Filter	0.15	0.004	97.3%

Arsenic (As)			
Filter Description	Influent Concentration in ppm	Effluent concentration in ppm	Average Percent Removal
Epic Water Filters Pure Pitcher Filter	0.22	0.019	91.4%

Cadmium (Cd)			
Filter Description	Influent Concentration in ppm	Effluent concentration in ppm	Average Percent Removal
Epic Water Filters Pure Pitcher Filter	0.17	0.0022	98.7%

Lead (Pb)			
Filter Description	Influent Concentration in ppm	Effluent concentration in ppm	Average Percent Removal
Epic Water Filters Pure Pitcher Filter	0.23	0.0031	98.7%

