

60 Elm Hill Ave. Suite 1, Leominster, MA 01453-4225

Analysis of Filters Report # 122812492

Objective:

Analyze KDF-55, LIFE Ionizers Fluoride Super Filter AR-100F, LIFE Ionizers Super Filter AR-100, and Activated Alumina filters using challenge water spiked with various analytes of interest. Test 1 introduced 10 gallons of challenge water spiked with 4.0 mg/L of Fluoride into the Activated Alumina filter and the LIFE Ionizers Fluoride Super Filer AR-100F. Test 2 introduced 10 gallons of challenge water into the KDF-55 filter and LIFE Ionizers Super Filter AR-100 spiked with Lead, Mercury, Chromium, Copper, and Chloroform at the following concentrations: 0.150 mg/L, 0.004 mg/L, 0.0002 mg/L, 1.30 mg/L, and 0.050 mg/L respectively. A test sample was collected at the end of the 10 gallon throughput for each of the filters.

Results:

Test 1 for the analysis of Fluoride was conducted using a spectrophotometer. The results of which showed that the Activated Alumina filter removed all but 0.20 mg/L of Fluoride while the LIFE Ionizers Fluoride Super Filter AR-100F removed all 4.0 mg/L of Fluoride.

Test 2 for the analysis of Lead, Mercury, Chromium, and Copper were analyzed using an ICP-MS. The results showed that the KDF-55 filter removed all of the Chromium and Mercury from the challenge water but failed to remove 0.053 mg/L of Copper and 0.010 mg/L of Lead. The results for the LIFE Ionizers Super Filter AR-100 removed all of the Chromium, Copper, Mercury, and Lead from the challenge water.

The analysis for Chloroform in Test 2 was analyzed using a GC-MS. The results indicate that Chloroform was completely removed by both filters.



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12/28/2012 Date:

P.O.Number:

Earthtrade Water Life Ionizers 6352 Corte Del Abeto, Suite-H Carlsbad, CA 92011-

Matrix: **Filters** Client:

-Earthtrade Water Life Ionizers

Sample Location

Phone

. Point of collection: Test #2-AR100

VOC Scan Report

Results

Organic Analysis

Benzene **Not Detected Bromobenzene** Not Detected **Bromochloromethane Not Detected** Bromodichloromethane Not Detected **Bromoform Not Detected Bromomethane** Not Detected n-Butylbenzene **Not Detected** sec-Butylbenzene Not Detected tert-Butylbenzene **Not Detected** Carbon-Tetrachloride Not Detected Chlorodibromomethane **Not Detected** Chloroethane **Not Detected** Chloroform **Not Detected** Chloromethane **Not Detected** 1.2-Chlorotoluene Not Detected 1,4-Chlorotoluene **Not Detected** 1,2-Dibromo-3-chloropropane Not Detected Dibromomethane **Not Detected** 1,2-Dibromomethane Not Detected 1,3-Dichlorobenzene **Not Detected** 1,2-Dichlorobenzene Not Detected 1,4-Dichlorobenzene **Not Detected** Dichlorodifluoromethane **Not Detected** 1,1-Dichloroethane **Not Detected** 1,2-Dichloroethane **Not Detected** 1,1-Dichloroethylene **Not Detected** cis-1,2-Dichloroethene Not Detected trans-1,2-dichloroethene Not Detected 1,2-Dichloropropane **Not Detected** 1,3-Dichloropropane **Not Detected** 2,2-Dichloropropane **Not Detected** 1,1-Dichloropropene Not Detected 1,3-Dichloropropene Not Detected trans-1,3-Dichloropropene Not Detected Ethylbenzene **Not Detected**

> The integrity of the sample and results are dependent on the quality of sampling. The results apply only to the actual sample tested. Environmental Testing and Research Laboratories shall be held harmless from any liability arising out of the use of such results.



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Client: Earthtrade Water Life Ionizers

<u>Sample</u> Location

Phone

. Point of collection: Test #2-AR100

VOC Scan Report

	<u>Results</u>	
Fluorotrichloromethane	Not Detected	
Hexachlorobutadiene	Not Detected	
Isopropylbenzene	Not Detected	
Methyl-t-Butyl Ether (MTBE)	Not Detected	Massachusetts DEP Limit
p-Isopropyltoluene	Not Detected	
Methylene Chloride	Not Detected	
p-Isopropylbenzene	Not Detected	
Monochlorobenzene	Not Detected	
Napthalene	Not Detected	
n-Propylbenzene	Not Detected	
Styrene	Not Detected	
1,1,1,2-Tetrachloroethane	Not Detected	
1,1,2,2-Tetrachloroethane	Not Detected	
Tetrachloroethylene	Not Detected	
Toluene	Not Detected	
1,2,3-Trichlorobenzene	Not Detected	
1,2,4-Trichlorobenzene	Not Detected	
1,1,1-Trichloroethane	Not Detected	
1,1,2-Trichloroethane	Not Detected	
Trichloroethylene	Not Detected	
1,2,3-Trichloropropane	Not Detected	
1,2,4-Trimethylbenzene	Not Detected	
1,3,5-Trimethylbenzene	Not Detected	
Vinyl Chloride	Not Detected	
o-Xylene	Not Detected	
m+p Xylenes	Not Detected	
Misc. Tests		
Chromium	Not Detected	An Inorganic Chemical
Copper	Not Detected	Indicates Plumbing Corrosion
Mercury	Not Detected	An Inorganic Chemical
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Not Detected

Lead

Lead