

September 26th, 2016



Test Parameter	Spiked Solution	After Filtration	% Removal
	Inorganic Parameter	s	
Cadmium	0.245 mg/L	0.075 mg/L	69.4%
Mercury	0.364 mg/L	<0.0005 mg/L	>99.9%
Selenium	0.229 mg/L	0.024 mg/L	89.5%
Copper	1.30 mg/L	0.20 mg/L	84.6%
Lead	0.200 mg/L	0.003 mg/L	98.5%
Free Chlorine	2.1 mg/L	0.1 mg/L	95.2%
Chloride	250 mg/L	10.5 mg/L	95.8%
Fluoride	8.1 mg/L	0.15 mg/L	84.0%
	Micro-organisms		
E. Coli	2.0 x 10 <sup>4</sup> CFU/mL	2.1 x 10 <sup>3</sup> CFU/mL	89.5%
Klebsiella pneumoniae	10 <sup>8</sup> CFU/L	10 CFU/L	99.99999%
Amoeba	10 <sup>8</sup> CFU/L	10 CFU/L	99.99999%
Rotavirus	10 <sup>7</sup> CFU/L	10 CFU/L	99.999%
Giardia lamblia	10 <sup>7</sup> CFU/L	10 CFU/L	99.999%

Results above based on test performed under laboratory conditions stated by the EPA 1987 protocol microbiological water purifier testing. The results show straw meets and exceeds the EPA requirements of LOG 6 reduction for bacteria LOG 3 reduction for protozoan parasites. Results may vary depending on water source and duration of use.



ENVIROTEK LABORATORIES, INC.

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## PROONE PROSIP FILTER PARASITE TEST REPORT

Report # 17-259-Parasite ((ProOne ProSip Filter) Report Date: 09/09/2017 Customer Name: ProOne

#### EXECUTIVE SUMMARY

Ten gallons of tap water was spiked with parasites to have a final concentration of  $10^4$  Units/L; the spiked tap water was filtered through the filter element and tested; the parasites in the tap water were reduced by more than 99.999 % after 10 gallons.

#### INTRODUCTION

Ten gallons of tap water was spiked with parasites to have a final concentration of  $10^4$  Units/L; the spiked tap water was filtered through the filter element and tested following the Standard Methods of Analysis of Water  $21^{st}$  Edition, the parasites in the tap water were reduced by more than 99.999 % after 10 gallons.

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#### **REAGENTS, MATERIALS, AND LAB EQUIPMENT**

Copepods 5280+, Algae Barn, Catalog #5280, Lot # 1705659. Microspora amoena, Carolina Biological Supply Company, Catalog #152350. Cyanobacteria Set, Carolina Biological Supply Company, Catalog #151515. Amscope EPI Fluorescence Microscope FM-320TA-3M. Barnstead Lab-Line Incubator. Propur ProSip Filter.

#### PROCEDURE

Ten gallons of tap water was spiked with parasites in a tank and mixed well; this solution was tested and adjusted to have a final concentration of 10<sup>4</sup> Units/L; the influent water properties are summarized in Table 1 below. The solution was filtered through the ProSip Filter, tested following the Standard Methods of Analysis of Water 21<sup>st</sup> Edition. The results are summarized in Tables 2, and 3 below.

Table 1

#### RESULTS

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Influent Challenge Water Properties						
Parameter		Influent Challenge Water	Target			
pН		7.45	7.00 to 8.00			
Temperature		20.5 °C	20 ± 2.5°C			
TDS		480 mg/L	200 to 500 mg/L			
Turbidity		0.90 NTU	<1 Nephelometric Turbidity Units			

#### Table 2

Copepods Parasites Test Results					
Parasite Tested	Influent Water Concentration	NSF % Reduction requirement	% Reduction At 10 gallons		
Tigriopus californicus	$10^{4}/L$	≥99.999%	99.999		
Tisbe biminiensis	$10^{4}/L$	≥99.999%	99.999		
Apocyclops panamensis	10 <sup>4</sup> /L	≥99.999%	99.999		

## Table 3

Blue-Green Algae Test Results					
Accumulated volume	Influent Water	NSF % Reduction	% Reduction		
	Concentration	requirement	At 10 gallons		
Microspore amoena	$10^{4}/L$	≥99.999%	99.999		
Anabaena	$10^{4}/L$	≥99.999%	99.999		
Eucapsis	$10^{4}/L$	≥99.999%	99.999		
Fischerella	$10^{4}/L$	≥99.999%	99.999		
Spirulina	$10^{4}/L$	≥99.999%	99.999		
Merismopedia	$10^{4}/L$	≥99.999%	99.999		
Toltpothrix	$10^{4}/L$	≥99.999%	99.999		

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## **CONCLUSION:**

The ProOne ProSip Filter reduces the Parasites concentration by more than 99.999% for up to 10 gallons.

## **CERTIFICATION OF RESULTS:**

I certify in writing that all analyses, and reporting performed herein, comply with all requirements set forth in N.J.A.C. 7:9E and N.J.A.C. 7:18, and hereby certify that this laboratory is in compliance with all laboratory certification and quality control procedures and requirements as set forth in N.J.A.C. 7:18; the NYCRR Subpart 55-2 and the National Environmental Laboratory Accreditation Conference (NELAC) Institute Standards.

**Disclaimer:** The test results are only related to the filter sample tested.

Jaime A. Young Lab Director



The reduction of contaminants or other substances that may be present in your water supply may vary depending a wide variety of factors. The purchaser of this filter cannot rely on the results from this lab report, and there is no guarantee that the purchaser of this filter will obtain the same or similar results to those in this lab report. Actual results may vary from the results in this lab report depending upon water sources, the installation of the water filter and related products and other factors. The contaminants or other substances reduced are not necessarily present in all users' water. Some contaminants maybe more easily filtered than others. Percentage of reduction will vary over the life of the filter based on the level of contaminants found in your water supply, user rate and psi of your water source. Testing was performed under standard laboratory conditions. Do not use with water that is microbiologically unsafe or of unknown water quality without adequate disinfection. This filter is covered by a 30-day money back refund and limited warranty. For more information, see <u>www.prooneusa.com</u>, Terms and Conditions.

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