QFT LABORATORY, LLC.
41 D Germay Drive, Wilmington, DE 19804
PHONE 856-583-0445 www.enviroteklab.com
EPA ID # DE00946 IAPMO ID# 000102 NY ELAP ID # 12044

Send To:

Jean Dlugopolski

IAPMO

Hickory Creek Drive Suite 220

Mokena, IL 60448

708-995-3006

Result: Passed

Date: 01/21/2019

Customer Name: BellaVie Water LLC

Tested To: NSF/ANSI Standard 53 Chloroform Reduction PT 200%

Description: Gravity Filter EWPHAIAF

Test Type: Qualification

Project Manager: Jaime Young

Thank you for having your product tested by QFT Laboratory, LLC.
Please contact your Project Manager if you have any questions or concerns pertaining to this report.

Report Authorization *Jaime A. Young* Date: 01/21/2019

Jaime A. Young
Lab Director

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NSF/ANSI Standard 53 Chloroform Reduction PT 200%: Passed

Date Sample Received: 11/20/2018

Date Test Completed: 01/18/19

Trade Designation/Model Number: EWPHAIAF

Sample Type: Qualification

Flow Rate: 1 GPH

Filter Capacity: 200 gallons

Conditioning Procedure: Fill upper tank full and dispose of the first batch of filtered water (used general test water)

Physical Description of Sample: Gravity filter

Performance Indicator Device: No, test to 200% of Capacity

Unit Volume: 0.1L

Performance Standard: NSF/ANSI 53 – 2017

Pass/Fail Criteria ($CHCl_3$ Maximum Product Water Concentration)**:** 15 µg/L

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Filter #1 Data Summary Table

Sample Point	Influent 1 $CHCl_3$ (µg/L)	Accumulated Volume Effluent 1	Effluent 1 $CHCl_3$ Concentration (µg/L)	% Reduction
Start	330	Start	0.4	99.9%
10%	309	20 gallons	0.1	99.9%
20%	330	40 gallons	<0.1	>99.9%
30%	318	60 gallons	<0.1	>99.9%
40%	298	80 gallons	0.2	99.9%
50%	291	100 gallons	0.3	99.9%
60%	302	120 gallons	<0.1	>99.9%
70%	329	140 gallons	<0.1	>99.9%
80%	330	160 gallons	0.3	99.9%
90%	330	180 gallons	0.2	99.9%
100%	271	200 gallons	<0.1	>99.9%
110%	270	220 gallons	<0.1	>99.9%
120%	275	240 gallons	0.6	99.8%
130%	288	260 gallons	0.3	99.9%
140%	293	280 gallons	0.3	99.9%
150%	297	300 gallons	0.8	99.7%
160%	325	320 gallons	1.3	99.6%
170%	324	340 gallons	0.2	99.9%
180%	316	360 gallons	0.4	99.9%
190%	275	380 gallons	0.2	99.9%
200%	295	400 gallons	0.2	99.9%

Filter #2 Data Summary Table

Sample Point	Influent 2 $CHCl_3$ (µg/L)	Accumulated Volume Effluent 2	Effluent 2 $CHCl_3$ Concentration (µg/L)	% Reduction
Start	330	Start	<0.1	>99.9%
10%	309	20 gallons	<0.1	>99.9%
20%	330	40 gallons	0.2	99.9%
30%	318	60 gallons	<0.1	>99.9%
40%	298	80 gallons	0.5	99.8%
50%	291	100 gallons	0.5	99.8%
60%	302	120 gallons	<0.1	>99.9%
70%	329	140 gallons	<0.1	>99.9%
80%	330	160 gallons	<0.1	>99.9%
90%	330	180 gallons	0.7	99.8%
100%	271	200 gallons	0.1	>99.9%
110%	270	220 gallons	0.1	>99.9%
120%	275	240 gallons	0.7	99.7%
130%	288	260 gallons	0.8	99.7%
140%	293	280 gallons	0.2	99.9%
150%	297	300 gallons	0.3	99.9%
160%	325	320 gallons	1.5	99.5%
170%	324	340 gallons	0.4	99.9%
180%	316	360 gallons	0.6	99.8%
190%	275	380 gallons	0.3	99.9%
200%	295	400 gallons	0.3	99.9%

$CHCl_3$ Detection Limit: 0.1 µg/L

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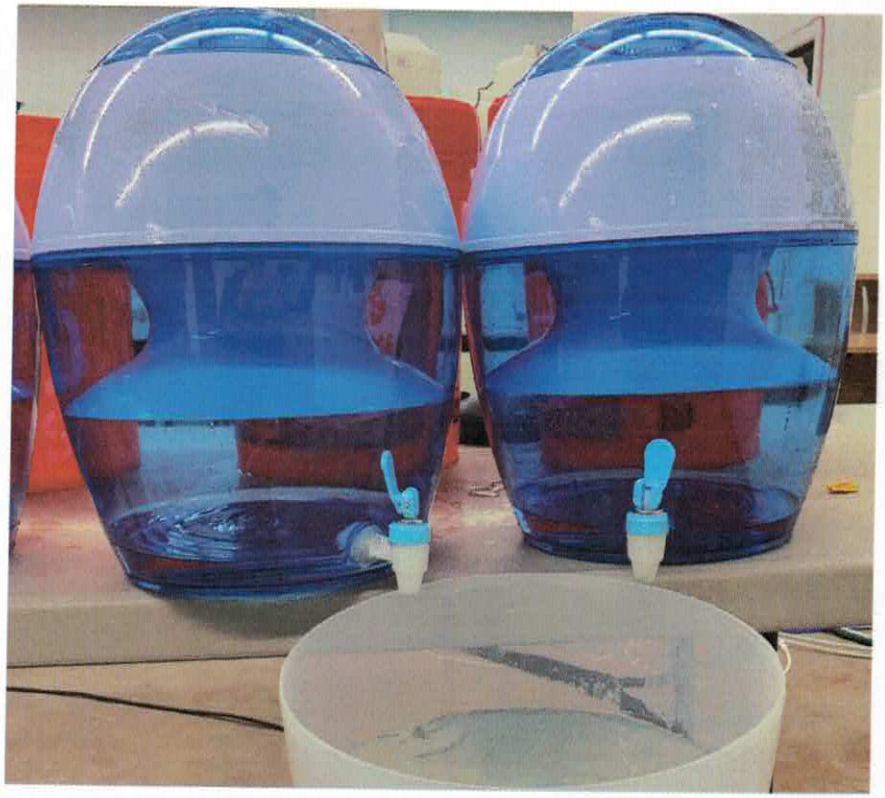
Water Characteristics Filter 1 and 2.

Sample Point	pH (7.5±0.5)	Temperature (20±3°C)	TDS (200 to 500 mg/L)	TOC (≥1.0 mg/L)	Turbidity (<1 NTU)
Start	7.28	22.0	274	1.1	0.1
20 gallons	7.31	22.0	271	1.2	0.1
40 gallons	7.37	22.0	276	1.1	0.1
60 gallons	7.39	22.0	259	1.1	0.1
80 gallons	7.37	22.0	262	1.2	0.1
100 gallons	7.28	22.0	257	1.1	0.1
120 gallons	7.24	22.0	253	1.1	0.1
140 gallons	7.31	21.5	259	1.1	0.1
160 gallons	7.29	22.0	251	1.2	0.1
180 gallons	7.18	22.0	289	1.1	0.1
200 gallons	7.29	21.5	282	1.2	0.1
220 gallons	7.31	21.5	284	1.1	0.1
240 gallons	7.27	22.0	279	1.2	0.1
260 gallons	7.24	22.0	287	1.1	0.1
280 gallons	7.28	21.5	286	1.1	0.1
300 gallons	7.32	21.5	279	1.1	0.1
320 gallons	7.24	22.0	283	1.2	0.1
340 gallons	7.33	22.0	279	1.2	0.1
360 gallons	7.34	22.0	285	1.1	0.1
380 gallons	7.21	22.0	289	1.1	0.1
400 gallons	7.29	22.0	291	1.2	0.1
Average	**7.29**	**21.9**	**275**	**1.1**	**0.1**

Filter System Tested



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CERTIFICATION OF RESULTS:

I certify in writing that all analyses, and reporting performed herein, comply with all requirements set forth in NSF/ANSI Std 53, and hereby certify that this laboratory is in compliance with all laboratory certification and quality control procedures and requirements as set forth in IAPMO certification, ISO 17025; 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 cartridges tested, in the condition received at the laboratory.

Jaime A. Young
Jaime A. Young
Lab Director

Table 7.6 – Organic chemicals included by surrogate testing

Chemical	Drinking water regulatory level[1] (MCL/MAC) mg/L	Influent challenge concentration[2] mg/L	Chemical reduction percent	Maximum product water concentration mg/L
alachlor	0.002	0.050	> 98	0.001[3]
atrazine	0.003	0.100	> 97	0.003[3]
benzene	0.005	0.081	> 99	0.001[3]
carbofuran	0.04	0.190	> 99	0.001[3]
carbon tetrachloride	0.005	0.078	98	0.0018[4]
chlorobenzene	0.1	0.077	> 99	0.001[3]
chloropicrin	—	0.015	99	0.0002[3]
2,4-D	0.07	0.110	98	0.0017[4]
dibromochloropropane (DBCP)	0.0002	0.052	> 99	0.00002[3]
o-dichlorobenzene		0	> 99	0.001[3]
p-dichlorobenzene	0.075	0.040	> 98	0.001[3]
1,2-dichloroethane	0.005	0.088	95[5]	0.0048[5]
1,1-dichloroethylene	0.007	0.083	> 99	0.001[3]
cis-1,2-dichloroethylene	0.07	0.170	> 99	0.0005[3]
trans-1,2-dichloroethylene	0.1	0.086	> 99	0.001[3]
1,2-dichloropropane	0.005	0.080	> 99	0.001[3]
cis-1,3-dichloropropylene	—	0.079	> 99	0.001[3]
dinoseb	0.007	0.170	99	0.0002[4]
endrin	0.002	0.053	99	0.00059[4]
ethylbenzene		8	> 99	0.001[3]
ethylene dibromide (EDB)	0.00005	0.044	> 99	0.00002[3]
haloacetonitriles (HAN)				
bromochloroacetonitrile	—	0.022	98	0.0005[3]
dibromoacetonitrile	—	0.024	98	0.0006[3]
dichloroacetonitrile	—	0.0096	98	0.0002[3]
trichloroacetonitrile	—	0.015	98	0.0003[3]
haloketones (HK):				
1,1-dichloro-2-propanone	—	0.0072	99	0.0001[3]
1,1,1-trichloro-2-propanone	—	0.0082	96	0.0003[3]
heptachlor (H-34, Heptox)	0.0004	0.025	> 99	0.00001
heptachlor epoxide	0.0002	0.0107[6]	98	0.0002[6]
hexachlorobutadiene	—	0.044	> 98	0.001[3]
hexachlorocyclopentadiene	0.05	0.060	> 99	0.000002[3]
lindane	0.0002	0.055	> 99	0.00001[3]
methoxychlor	0.04	0.050	> 99	0.0001[3]
pentachlorophenol	0.001	0.096	> 99	0.001[3]
simazine	0.004	0.120	> 97	0.004[3]

Table 7.6 – Organic chemicals included by surrogate testing

Chemical	Drinking water regulatory level[1] (MCL/MAC) mg/L	Influent challenge concentration[2] mg/L	Chemical reduction percent	Maximum product water concentration mg/L
styrene	0.1	0.150	> 99	0.0005[3]
1,1,2,2-tetrachloroethane	—	0.081	> 99	0.001[3]
tetrachloroethylene	0.005	0.081	> 99	0.001[3]
toluene	1	0.078	> 99	0.001[3]
2,4,5-TP (silvex)	0.05	0.270	99	0.0016[4]
tribromoacetic acid	—	0.042	> 98	0.001[3]
1,2,4-trichlorobenzene	0.07	0.160	> 99	0.0005[3]
1,1,1-trichloroethane	0.2	0.084	95	0.0046[4]
1,1,2-trichloroethane	0.005	0.150	> 99	0.0005[3]
trichloroethylene	0.005	0.180	> 99	0.0010[3]
trihalomethanes (includes): chloroform (surrogate chemical) bromoform bromodichloromethane chlorodibromomethane	0.080	0.300	95	0.015
xylenes (total)	10	0.070	> 99	0.001[3]

[1] These harmonized values were agreed upon by representatives of USEPA and Health Canada for the purpose of evaluating products to the requirements of this Standard.

[2] Influent challenge levels are average influent concentrations determined in surrogate qualification testing.

[3] Maximum product water level was not observed but was set at the detection limit of the analysis.

[4] Maximum product water level is set at a value determined in surrogate qualification testing.

[5] Chemical reduction percent and maximum product water level calculated at chloroform 95% breakthrough point as determined in surrogate qualification testing.

[6] The surrogate test results for heptachlor epoxide demonstrated a 98% reduction. These data were used to calculate an upper occurrence concentration that would produce a maximum product water level at the MCL.