PHOENIX
GRAVITY

PHOENIX GRAVITY Performance de filtration

Résumé des performances

Type de contaminant	Contaminants filtrés	Cartouche de filtre à charbon Phoenix Gravity Résultats des tests (%)
Chimique	Chlore	99.9%
	Plomb	99.9%
PFOA ET PFOS	PFOA	>99%
	SPFO	>99.5%
	PFOA ET PFOS	>99.66%
Contaminants des métaux lourds	Aluminium	99.9%
	Antimoine	99.9%
	Arsenic	99.9%
	Béryllium	99.9%
	Bismuth	99.4%
	Bore	99.9%
	Baryum	99.9%
	Cadmium	99.9%
	Chrome	97.2%
	Cuivre	97.9%
	Le fer	98.3%
	Managanèse	99.9%
	Mercure	99.9%
	Nickel	99.9%
	Sélénium	99.9%
	Zinc	82.6%
Désinfectants et contaminants inorganiques non métalliques	Chloramines	99.9%
	Chlore libre	99.9%
	Chlorure	98.2%
Inorganic Non-Metallic Contaminants	Nitrates	99.0%
	Nitrites	99.9%
	Fluorure	75.5%
Contaminants des médicaments pharmaceutiques	Caféine	99.9%
	Bisphénol A	99.9%
Contaminants organiques volatils	Dischlorodifluorométhane	99.9%
	Chlorométhane	99.9%
	Chlorure de vinyle	99.9%
	Bromométhane	99.9%
	Chloroéthane	99.9%
	Trichlorofluorométhane	99.9%
	1,1-Dichloroéthane	99.9%

Résumé des performances Con'd

Contaminant Type	Contaminants Filtered	Phoenix Gravity Carbon Filter Cartridge Testing results (%)
Contaminants organiques volatils	Chlorure de méthylène	99.9%
	trans-1,2- Dichloroéthène	99.9%
	MTBE	99.9%
	1,1-Diéchloréthane	99.9%
	cis-1,2-diéchloréthane	99.9%
	2,2- Dichloropropane	99.9%
	Bromochlorométhane	99.9%
	Chloroforme	99.9%
	Tétrachlorure de carbone	99.9%
	1,1,1- Trichloroéthane	99.9%
	1,1-Dichloropropane	99.9%
	Benzène	99.9%
	1,2-dichloroéthane	99.9%
	Trichloréthylène	99.9%
	Dibromométhane	99.9%
	1,2-Dichloropropane	99.9%
	Bromodichlorométhane	99.9%
	cis-1,3-Dischloropropène	99.9%
	Toluène	99.9%
	trans-1-2-Dichloropropène	99.9%
	Tétrachloroéthane	99.9%
	1,1,2-Trichloroéthane	99.9%
	Chlorodibromométhane	99.9%
	1,3-Dichloropropane	99.9%
	Éthylbenzène	99.9%
	Chlorobenzène	99.9%
	1,1,1,2- Tétrachloroéthane	99.9%
	m-Xylène	99.9%
	0-Xylène	99.9%
	Styrène	99.9%
	Bromoforme	99.9%
	Isopropylbenzène	99.9%
	n-Propylbenzène	99.9%
	Bromobenzène	99.9%
	1,1,2,2-Tétrachloroéthane	99.9%
	1,3,5-Triméthylbenzène	99.9%
	2-Chlorotoluène	99.9%

Résumé des performances Con'd

Contaminants Type	Contaminans Filtrés	Cartouche de filtre à charbon Phoenix Gravity Résultats des tests (%)
Contaminants organiques volatils	1,2,3-Trichloropropane	99.9%
	4-Chlorotoluène	99.9%
	tert-butylbenzène	99.9%
	1,2,4-Trimenthylbenzène	99.9%
	Sec-Butlbenzène	99.9%
	4-Isopropyltoluène	99.9%
	1,3-Dichlorobenzène	99.9%
	1,4-Dichlorobenzène	99.9%
	n-Butylbenzène	99.9%
	1,2-Dichlorobenzène	99.9%
Microbiologique	Bactéries	>99.999%
	Rotavirus (Virus)	>99.9%
	Cryptosporium (kystes)	>99.999%
	E.Coli	>99.999%

Résumé des performances du média FluoRid

Contaminants Type	Contaminants filtrés	Résultats du test FluoRid media (%)
Métal	Fluorure	>95%

PHOENIX
GRAVITY

Rapports de laboratoire de tiers

Cartouche de filtre à charbon PFOA et PFOS

Atom Testing Laboratory

A procedure to prove the existence

Accreditation: NABL(ISO/IEC 17025:2017)

#B-376,9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,
Bangalore - 560 058 Phone : 080-42021842 E-mail : atomprocedure@gmail.com

Analytical Report

Perfluorooctanic acid (PFOA) and

Perfluorooctanesulfonate (PFOS)

Data for Rama Water Filter.

Filter Model	CARBON GRAVITY FILTER
Product Code	PHOENIX GRAVITY FILTER
Batch Number	RMU1023
Report Number	2312042
Report Date	December 08, 2023
Sample Details	210mm L X 70mm OD
Flow rate	3-5 LPH
Customer Name	RAMA PURE WATER #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115
Date of Reporting	08-12-2023

Testing Methodology and Quality Standards Overview

1. The test results presented were obtained using a single filter. For systems utilizing two filters, the capacity may be doubled.
2. The testing was carried out under controlled conditions in an ISO/9000:2015 & ISO 17025:2017 accredited laboratory.
3. Flushing time:

   The system/unit is flushed in accordance with the manufactures instructions using test water. The system is challenged using appropriate influent challenge water.

4. Test Run: 50% ON / 50% OFF cycle.
5. Methods
   - As per the Standard guidelines of NSF 53 AND NSF 42
   - Test methods followed as per APHA 22ND EDITION

Vivekanand Bhat
General Manager

Authorised Signatory

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Analytical Report

- Test methods followed as per AOAC 20TH EDITION
- Test methods followed as per NSF/ANSI53 -2020 INFORMATIVE Annex 5
- Test methods followed as per EPA guidelines

6. Test water to be analyzed for perfluorooctanic acid (PFOA) and Perfluorooctanesulfonate (PFOS) are directly injected and then analyzed by liquid chromatography triple quadrupole mass spectroscopy LC/MS/MS in electrospray negative mode. Method sensitivity is 10 ng/L
7. Prepared the standard and samples solution as per NSF/ANSI53 -2020

Contaminant	Liters Tested as of 07/12/23	Influent Challenge Concentration Before Filtration (ug/L)	Effluent Concentration After Filtration (ug/L)	Maximum Allowable Effluent Concentration (ug/L)	Testing Status
PFOA	0	0.5	<0.005		Passed
PFOS	0	1	<0.005		Passed
PFOA+PFOS	0	1.5	<0.005	0.02	Passed
PFOA	250	0.5	<0.005		Passed
PFOS	250	1	<0.005		Passed
PFOA+PFOS	250	1.5	<0.005	0.02	Passed
PFOA	500	0.5	<0.005		Passed
PFOS	500	1	<0.005		Passed
PFOA+PFOS	500	1.5	<0.005	0.02	Passed
PFOA	1000	0.5	<0.005		Passed
PFOS	1000	1	<0.005		Passed
PFOA+PFOS	1000	1.5	<0.005	0.02	Passed
PFOA	1500	0.5	<0.005		Passed
PFOS	1500	1	<0.005		Passed
PFOA+PFOS	1500	1.5	<0.005	0.02	Passed

Vivekanand Bhat
General Manager
Authorised Signatory

PHOENIX
GRAVITY

Rapports de laboratoire de tiers

Cartouche de filtre à charbon
Métaux lourds

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Analytical Report

REPORT ISSUED TO: RAMA PURE WATER PVT LTD **Date: 20112023**

Customer Address: #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115

Report Number: 2311159

Test Data Summary :

Sample Name	**: CARBON GRAVITY FILTER**
Product Code	**: PHOENIX GRAVITY FILTER**
Batch Number	**: RMU1023**
Sample Details	**: 210mm L X 70mm OD**
Capacity Of Block	**: More than 4000L**
Flow Rate	**: 3-5 LPH**

Flushing time:

The system/unit is flushed in accordance with the manufactures instructions using test water. The system is challenged using appropriate influent challenge water.

Test Run: 50% ON / 50% OFF cycle.

Instruments used for the testing:

- **ICPMS: Inductively Coupled Plasma Mass Spectrophotometer for Heavy Metals.**

Methods

- **As per the Standard guidelines of NSF 53 AND NSF 42**
- **Test methods followed as per APHA 22ND EDITION**
- **Test methods followed as per AOAC 20TH EDITION**
- **Test methods followed as per EPA guidelines.**
- **Microbiology as per the test methods of NSF PROTOCOL**

Vivekanand Bhat
General Manager
Authorised Signatory

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Analytical Report

Results

Parameters	General Test Water	Target
pH	7.0 to 7.68	6.5 to 8.5
Temperature	20.0°C to 23.5°C	20.5°C
TDS	200 to 400 mg/L	50-500 mg/L
Turbidity	1 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	2.0 to 3.0 mg/L	2 to 5 mg/L

Table 2: - Challenge Water Properties

Parameters	Influent Challenge Water	Target
pH	8.5-9.3	8.5 to 9.5
Temperature	18.5-21.3°C	20.5°C

Table 3: - Input Water Properties

TDS	1250-1658 mg/L	1250-1700 mg/L
Turbidity	3 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	10 to 15mg/L	10 to 15 mg/L

Chemical Test Reports

Heavy Metal Contaminants, µg/L

Element	Input Concentration	Output Concentration	% Reduction
Aluminum	200	<2	99.9 +
Antimony	21	<0.5	99.9 +
Arsenic	200	<0.5	99.9 +
Beryllium	200	<0.2	99.9 +
Bismuth	50	0.3	99.43
Boron	20	<1	99.9 +
Barium	20	<1	99.9 +
Cadmium	20	<0.2	99.9 +
Chromium	200	7.2	97.21
Copper	2000	40.8	97.96
Iron	1500	25.9	98.35
Lead	150	9.0	94.00
Manganese	500	<0.5	99.9 +
Mercury	10	<0.1	99.9 +
Nickel	100	<0.5	99.9 +
Selenium	100	<0.5	99.9 +
Zinc	150	26.1	82.60

Vivekanand Bhat
General Manager
Authorised Signatory

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Analytical Report

Disinfectant and Inorganic Non-Metallic Contaminants in mg/L

Element	Input Concentration	Output Concentration	% Reduction
Chloramines	3.02	<0.1	99.9+
Free Chlorine	2.0	<0.1	99.9+
Chloride	236	10	98.2+

Inorganic Non-Metallic Contaminants in mg/L

Drinking Water Containment Tested	Influent Water Concentration in µg/L	Filter Element Effluent Concentration in µg/L	% Reduction
Nitrates	42	0.3	99.0
Nitrites	3.8	<0.1	99.9 +
Fluoride	8000	1960	75.5

Fig 1: - Candle

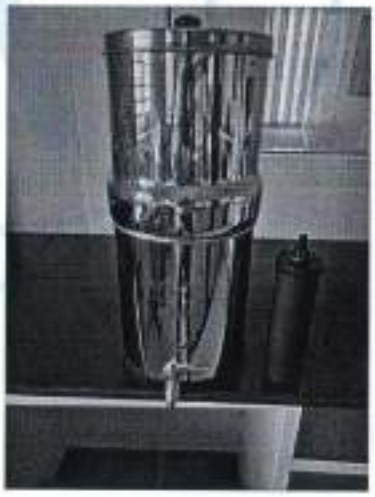

Fig 2: - Filtering Unit

CONCLUSION:

The Filter Element meets the requirements for the Chemical Reduction NSF Protocol Passed.

Vivekanand Bhat
General Manager
Authorised Signatory

PHOENIX
GRAVITY

Rapports de laboratoire de tiers

Cartouche de filtre à charbon Produits pharmaceutiques, COV

Atom Testing Laboratory

A procedure to prove the existence

Accreditation: NABL(ISO/IEC 17025:2017)

#B-376, 9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,

Bangalore - 560 058. Phone : 080-42021842 E-mail : atomprocedure@gmail.com

Analytical Report

REPORT ISSUED TO: RAMA PURE WATER PVT LTD **Date: 20112023**

Customer Address: #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115

Report Number: 2311160

Test Data Summary :

Sample Name	**: CARBON GRAVITY FILTER**
Product Code	**: PHOENIX GRAVITY FILTER**
Batch Number	**: RMU1023**
Sample Details	**: 210mm L X 70mm OD**
Capacity Of Block	**: More than 4000L**
Flow Rate	**: 3-5 LPH**

Flushing time:

The system/unit is flushed in accordance with the manufactures instructions using test water. The system is challenged using appropriate influent challenge water.

Test Run: 50% ON / 50% OFF cycle.

Instruments used for the testing:

• GCMSMS: Gas chromatography with Mass Spectroscopy for the evaluation of Pesticides Polyaromatic hydrocarbons, Polychlorinated biphenyls and Volatile Organic Compounds.

Methods

- **As per the Standard guidelines of NSF 53 AND NSF 42**
- **Test methods followed as per APHA 22ND EDITION**
- **Test methods followed as per AOAC 20TH EDITION**
- **Test methods followed as per EPA guidelines.**
- **Microbiology as per the test methods of NSF PROTOCOL**

Vivekanand Bhat
General Manager
Authorised Signatory

Analytical Report

Results

Parameters	General Test Water	Target
pH	7.0 to 7.68	6.5 to 8.5
Temperature	20.0°C to 23.5°C	20.5°C
TDS	200 to 400 mg/L	50-500 mg/L
Turbidity	1 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	2.0 to 3.0 mg/L	2 to 5 mg/L

Table 2: - Challenge Water Properties

Parameters	Influent Challenge Water	Target
pH	8.5-9.3	8.5 to 9.5
Temperature	18.5-21.3°C	20.5°C

Table 3: - Input Water Properties

TDS	1250-1658 mg/L	1250-1700 mg/L
Turbidity	3 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	10 to 15mg/L	10 to 15 mg/L

Pharmaceutical Drugs Contaminants in µg/L

Drinking Water Containment Tested	Influent Water Concentration in µg/L	Filter Element Effluent Concentration in µg/L	% Reduction
Caffeine	18.6	<0.1	99.9 +
Bisphenol A	20.2	<0.1	99.9 +

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Analytical Report

Volatile Organic Contaminants µg/L (Considered mainly as a Chloroform)

Drinking Water Contaminant Tested	Influent Water Concentration in µg/L	Filter Element Effluent Concentration in µg/L	% Reduction
Dichlorodifluoromethane	80.5	<0.5	99.9+
Chloromethane	80.2	<0.5	99.9+
Vinylchloride	80.1	<0.5	99.9+
Bromomethane	80.0	<0.5	99.9+
Chloroethane	80.0	<0.5	99.9+
Trichlorofluoromethane	80.0	<0.5	99.9+
1,1-Dichloroethene	81.0	<0.5	99.9+
Methylene Chloride	80.1	<0.5	99.9+
trans-1,2-Dichloroehene	80.2	<0.5	99.9+
MTBE	80.1	<0.5	99.9+
1,1-Dichlorethane	80.5	<0.5	99.9+
cis-1,2-Dichloroethene	80.2	<0.5	99.9+
2,2-Dichloropropane	80.0	<0.5	99.9+
Bromochloromethane	80.0	<0.5	99.9+
Chloroform	80.0	<0.5	99.9+
Carbon Tetrachloride	80.0	<0.5	99.9+
1,1,1-Trichloroethane	80.0	<0.5	99.9+
1,1-Dichloropropene	80.0	<0.5	99.9+
Benzene	80.0	<0.5	99.9+
1,2-Dichlorocthane	80.0	<0.5	99.9+
Trichloroethene	80.2	<0.5	99.9+
Dibromomethane	80.2	<0.5	99.9+
1,2-Dichloropropane	80.1	<0.5	99.9+
Bromodichloromethane	80.0	<0.5	99.9+

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Analytical Report

cis-1,3-Dichloropropene	80.0	<0.5	99.9+
Toluene	80.0	<0.5	99.9+
trans-1,3-Dichloropropene	80.0	<0.5	99.9+
Tetrachloroethene	80.0	<0.5	99.9+
1,1,2-Trichloroethane	80.0	<0.5	99.9+
Chlorodibromomethane	80.0	<0.5	99.9+
1,3-Dichloropropane	80.0	<0.5	99.9+
Ethylbenzene	80.0	<0.5	99.9+
Chlorobenzene	80.0	<0.5	99.9+
1,1,1,2-Tetrachloroethane	80.0	<0.5	99.9+
m-Xylene	40.0	<0.5	99.9+
o-Xylene	40.0	<0.5	99.9+
Styrene	80.0	<0.5	99.9+
Bromoform	80.0	<0.5	99.9+
Isopropylbenzene	80.0	<0.5	99.9+
n-Propylbenzene	80.0	<0.5	99.9+
Bromobenzene	80.0	<0.5	99.9+
1,1,2,2-Tetrachloroethane	80.0	<0.5	99.9+
1,3,5-Trimethylbenzene	80.0	<0.5	99.9+

2-Chlorotoluene	80.0	<0.5	99.9+
1,2,3-Trichloropropane	80.0	<0.5	99.9+
4-Chlorotoluene	80.0	<0.5	99.9+
tert-Butylbenzene	80.0	<0.5	99.9+
1,2,4-Trimethylbenzene	80.0	<0.5	99.9+
sec-Butylbenzene	80.0	<0.5	99.9+
4-Isopropyltoluene	80.0	<0.5	99.9+
1,3-Dichlorobenzene	80.0	<0.5	99.9+
1,4-Dichlorobenzene	80.0	<0.5	99.9+
n-Butylbenzene	80.0	<0.5	99.9+
1,2-Dichlorobenzene	80.0	<0.5	99.9+

Vivekanand Bhat
General Manager
Authorised Signatory

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Analytical Report

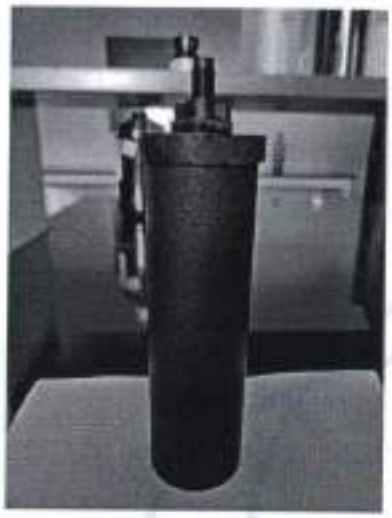

Fig 1: - Candle

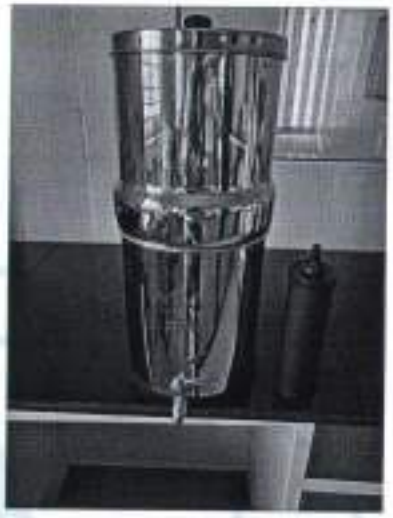

Fig 2: - Filtering Unit

CONCLUSION:
The Filter Element meets the requirements for the Volatile Organic Compounds Reduction NSF Protocol Passed.

Vivekanand Bhat
General Manager
Authorised Signatory

CVR Labs (P) Limited

CIN NO: U 74140TN1999PTC043582
Dignity Centre, II Floor, No. 2/9, Abdul Razack Street,
Saidapet, Chennai - 600 015. +91 44 2433 0382 to 85
9444709669 info@cvrlabs.com www.cvrlabs.com

TEST REPORT

016705

Report Number	: 21080072.01	**Sample Description**	: Water
Sample Received on	: 09/09/2021	**Analysis completed on:**	16/09/2021
Date of report	: 16/09/2021	Sample: Phoenix Carbon Filter Cartridge Product name: Phoenix GRAVITY Product No: P17C2D2	
Issued to	: **M/S. Rama Pure Water Pvt Ltd,** No:146/196, East Coast Road, Chennai.		

S.No	VOC Compounds	Method of Analysis	Analysis Report			
			Before Spike ppb	After 100 ppb Spike	After Filtration ppb	% of performance Efficiency
1	1,1,1,2-Tetrachloroethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
2	1,1,1-Trichloroethane	CVR/INS/SOP GCMSMS/016	0.000	100	BDL(DL:0.5)	100
3	1,1,2,2-Tetrachloroethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
4	1,1,2-Trichloroethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
5	1,1-Dichloroethene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
6	1,1-Dichloropropene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
7	1,2,3-Trichlorobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
8	1,2,3-Trichloropropane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
9	1,2,4-Trichlorobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
10	1,2,4-Trimethylbenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
11	1,2-Dibromo-3-chloropropane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
12	1,2-Dibromoethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
13	1,2- Dichlorobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100

V.M

Verified By

V - MAYYAPPAN
16/09/2021

.....cont.....

For CVR LABS (P) LIMITED

S.M. PARVEEN BANU
Authorised Signatory

CVR Labs (P) Limited

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Saidapet, Chennai - 600 015. +91 44 2433 0382 to 85
9444709669 info@cvrlabs.com www.cvrlabs.com

016695

TEST REPORT

14	1,2 -Dichloroethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
15	1,2-Dichloropropane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
16	1,3,5-	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
17	1,3-Dichlorobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
18	1,3-Dichloropropane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
19	1,4-Dichlorobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
20	2,2-Dichloropropane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
21	2-Chlorotoluene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
22	4-Chlorotoluene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
23	4-Isopropyltoluene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
24	Benzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
25	Bromobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100

Verified By

V-MBYAPPAN
16/09/2021

.....cont.....

For CVR LABS (P) LIMITED

S.M. PARVEEN BANU
Authorised Signatory

CVR Labs (P) Limited

CIN NO: U 74140TN1999PTC043582
Dignity Centre, II Floor, No. 2/9, Abdul Razack Street,
Saidapet, Chennai - 600 015. +91 44 2433 0382 to 85
9444709669 info@cvrlabs.com www.cvrlabs.com

016696

TEST REPORT

26	Bromochloromethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
27	Bromodichloromethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
28	Bromoform	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
29	Bromomethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
30	Chlorobenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
31	Chloroethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
32	Chloroform	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
33	Chloromethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
34	Cis-1,2-Dichloroethene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
35	Cis-1,3,-Dichloropropene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
36	Dibromochloromethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
37	Dibromomethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
38	Dichlorodifluoromethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
39	Ethylbenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
40	Hexachlorobutadiene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100

Verified By

16/09/2021

.....cont.....

For CVR LABS (P) LIMITED

S.M. PARVEEN BANU
Authorised Signatory

CVR Labs (P) Limited

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016697

TEST REPORT

41	IsoPropylbenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
42	Methylene Chloride	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
43	m-Xylene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
44	Naphthalene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
45	n-Butylebenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
46	n-Propylbenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
47	o-Xylene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
48	p-Xylene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
49	sec-Butylbenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
50	Styrene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
51	tert-Butylbenzene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
52	Tetrachloroethene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
53	Toluene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100

For CVR LABS (P) LIMITED

S.M. PARVEEN BANU
Authorised Signatory

Verified By V. MEYYAPPAN
16/09/2021

.....cont.....

CVR Labs (P) Limited

CIN NO: U 74140TN1999PTC043582
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016698

TEST REPORT

54	trans-1,2-Dichloroethene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
55	trans-1,3 Dichloropropen	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
56	Trichloroethene	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
57	Trichlorofluoromethane	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100
58	VinylChloride	CVR/INS/SOP GCMSMS/016	0.0000	100	BDL(DL:0.5)	100

Contaminate -- H

S.No	Metals	Method of Analysis	Analysis Report			
			Before Spike ppb	After 200 ppb Spike	After Filtration ppb	% of performance Efficiency
1	Arsenic as As	3500-B APHA 23rd Edition:2017	0.00000	200	BDL(DL:0.001)	100
2	Cadmium as Cd	3500-B APHA 23rd Edition:2017	0.00000	200	BDL(DL:0.001)	100
3	Chromium as Cr	3500-B APHA 23rd Edition:2017	0.00000	200	BDL(DL:0.001)	100
4	Lead as Pb	3500-B APHA 23rd Edition:2017	0.00000	200	BDL(DL:0.001)	100
5	Nickel as Ni	3500-B APHA 23rd Edition:2017	0.00000	200	BDL(DL:0.001)	100

S.No	Parameter	Method of Analysis	Analysis Report			
			Before Spike ppm	After 2.0 ppm Spike	After Filtration ppm	% of performance Efficiency
1	Fluoride as F	4500-F' D APHA 23rd Edition:2017	0.98	3.00	0.30	90
2	Free Residual Chlorine	IS 3025 (Part 26)	BDL(DL:0.1)	2.00	BDL(DL:0.1)	100

BDL: Below Detection Limit; **DL:** Detection Limit.

Verified By V. MEYYAPPAN 16/09/2021

***** END OF REPORT *****

For CVR LABS (P) LIMITED
S.M. Parveen Banu
S.M. PARVEEN BANU
Authorised Signatory

PHOENIX
GRAVITY

Rapports de laboratoire de tiers

Cartouche de filtre à charbon
Microbiologique

Atom Testing Laboratory
A procedure to prove the existence
Accreditation: NABL(ISO/IEC 17025:2017)
#B-376,9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,
Bangalore - 560 058 Phone : 080-42021842 E-mail : atomprocedure@gmail.com

Analytical Report

REPORT ISSUED TO: RAMA PURE WATER PVT LTD **Date: 20112023**

Customer Address: #196, East Coast Road, Injambakkam, Chennai, Tamilnadu - 600115

Report Number: 2311162

Test Data Summary :

Sample Name	**: CARBON GRAVITY FILTER**
Product Code	**: PHOENIX GRAVITY FILTER**
Batch Number	**: RMU1023**
Sample Details	**: 210mm L X 70mm OD**
Capacity Of Block	**: More than 4000L**
Flow Rate	**: 3-5 LPH**

Flushing time:

The system/unit is flushed in accordance with the manufactures instructions using test water. The system is challenged using appropriate influent challenge water.

Test Run: 50% ON / 50% OFF cycle.

Methods

- **As per the Standard guidelines of NSF 53 AND NSF 42**
- **Test methods followed as per APHA 22ND EDITION**
- **Test methods followed as per AOAC 20TH EDITION**
- **Test methods followed as per EPA guidelines.**
- **Microbiology as per the test methods of NSF PROTOCOL**

Vivekanand Bhat
General Manager - Quality
Authorised Signatory

#B-376,9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,
Bangalore - 560 058 Phone : 080-42021842 E-mail : atomprocedure@gmail.com

Analytical Report

MICROBIOLOGICAL TEST REPORT

PROCEDURE

Flushed the filter element with approximately 1 gallon of sterile water. Prepared 20 gallons of general test water daily for 6 consecutive days with Klebsiella at a concentration of 10^6/L, Rotavirus at 10^4/L, and microspheres at 10^6/L. Two days of stagnation. Prepared 20 gallons of challenge water for the following 4 days without adding the micro- organisms and two additional days of stagnation. Table 1 and 2 summarize the general test and challenge water properties. Passed 20 gallons of the general test water through the filter element per day, every day for the first 6 days. Collected the effluent water and analyzed the filtered water for micro-organisms following the Standard Methods of Analysis of Water 21st Edition, methods SM 9222-D (bacteria); SM 9510-B (virus); SM9711-B (cyst).

Left the filter system in stagnation for the following 2 days, then added 20 gallons per day of the challenge water and analyzed the filtered water for micro-organisms following the Standard Methods of Analysis of Water 21st Edition, methods SM 9222-D (bacteria); SM 9510-B (virus); SM9711-B (cyst). The results are summarized in Table 3, 4, and 5 below.

RESULTS

Parameters	General Test Water	Target
pH	7.0 to 7.68	6.5 to 8.5
Temperature	20.0°C to 23.5°C	20.5°C
TDS	200 to 400 mg/L	50-500 mg/L
Turbidity	1 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	2.0 to 3.0 mg/L	2 to 5 mg/L

Table 2: - Challenge Water Properties

Parameters	Influent Challenge Water	Target
pH	8.5-9.3	8.5 to 9.5
Temperature	18.5-21.3°C	20.5°C

Table 3: - Input Water Properties

TDS	1250-1658 mg/L	1250-1700 mg/L
Turbidity	3 to 5 NTU	3 to 5 Nephelometric Turbidity Units
TOC	10 to 15mg/L	10 to 15 mg/L

Vivekanand Bhat
General Manager - Quality

Authorised Signatory

Bacterial Reduction

Analytical Report

Accumulate Volume	Influent Water Concentration	Filtered Water Concentration	% Reduction	Criteria: Minimum % Reduction: 99.9999
Day 1 (20 gallons)	10^6/L	<10 CFU/L	99.9999	Passed
Day 2 (40 gallons)	Not Tested	Not Tested	N/A	N/A
Day 3 (60 gallons)	10^6/L	<10 CFU/L	99.9999	Passed
Day 4 (80 gallons)	Not Tested	Not Tested	N/A	N/A
Day 5 (100 gallons)	Not Tested	Not Tested	N/A	N/A
Day 6 (120 gallons)	10^6/L	<10 CFU/L	99.9999	Passed
Day 7 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 8 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 9 (140 gallons)	10^6/L	<10 CFU/L	99.9999	Passed
Day 10 (160 gallons)	10^6/L	<10 CFU/L	99.9999	Passed
Day 11 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 12 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 13 (180 gallons)	10^6/L	<10 CFU/L	99.9999	Passed
Day 14 (200 gallons)	10^6/L	<10 CFU/L	99.9999	Passed

Table 4

Rotavirus (Virus) Test Results

Accumulate Volume	Influent Water Concentration	Filtered Water Concentration	% Reduction	Criteria: Minimum % Reduction: 99.99
Day 1 (20 gallons)	10^4/L	<10 PFU/L	99.99	Passed
Day 2 (40 gallons)	Not Tested	Not Tested	N/A	N/A
Day 3 (60 gallons)	10^4/L	<10 PFU/L	99.99	Passed
Day 4 (80 gallons)	Not Tested	Not Tested	N/A	N/A
Day 5 (100 gallons)	Not Tested	Not Tested	N/A	N/A
Day 6 (120 gallons)	10^4/L	<10 PFU/L	99.99	Passed
Day 7 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 8 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 9 (140 gallons)	10^4/L	<10 PFU/L	99.99	Passed
Day 10 (160 gallons)	10^4/L	<10 PFU/L	99.99	Passed
Day 11 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A

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General Manager - Quality
Authorised Signatory

Analytical Report

Day 12 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 13 (180 gallons)	10^4/L	<10 PFU/L	99.99	Passed
Day 14 (200 gallons)	10^4/L	<10 PFU/L	99.99	Passed

Table 5

Microspheres (Cryptosporium) Test Results

Accumulate Volume	Influent Water Concentration	Filtered Water Concentration	% Reduction	Criteria: Minimum % Reduction: 99.99
Day 1 (20 gallons)	10^5/L	<10 oocysts/L	99.99	Passed
Day 2 (40 gallons)	Not Tested	Not Tested	N/A	N/A
Day 3 (60 gallons)	10^5/L	<10 oocysts/L	99.99	Passed
Day 4 (80 gallons)	Not Tested	Not Tested	N/A	N/A
Day 5 (100 gallons)	Not Tested	Not Tested	N/A	N/A
Day 6 (120 gallons)	10^5/L	<10 oocysts/L	99.99	Passed
Day 7 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 8 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 9 (140 gallons)	10^5/L	<10 oocysts/L	99.99	Passed
Day 10 (160 gallons)	10^5/L	<10 oocysts/L	99.99	Passed
Day 11 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 12 (Stagnation Day)	Not Tested	Not Tested	N/A	N/A
Day 13 (180 gallons)	10^5/L	<10 oocysts/L	99.99	Passed
Day 14 (200 gallons)	10^5/L	<10 oocysts/L	99.99	Passed

Vivekanand Bhat
General Manager - Quality
Authorised Signatory

#B-376,9th Cross, Ring Road, Peenya 1st Stage, Peenya Industrial Estate,
Bangalore - 560 058 Phone : 080-42021842 E-mail : atomprocedure@gmail.com

Analytical Report

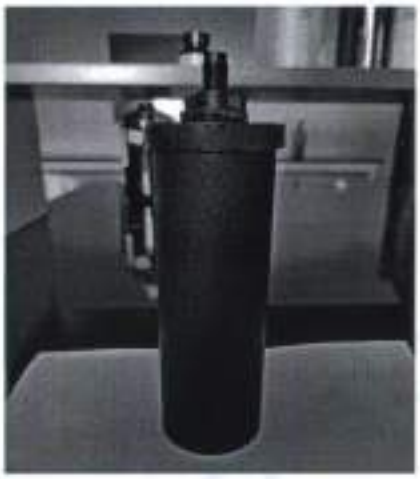

Fig 1: - Candle

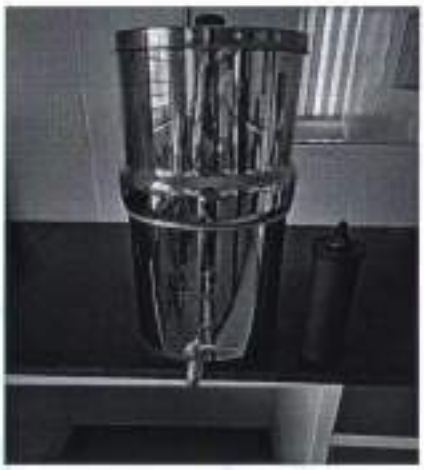

Fig 2: - Filtering Unit

CONCLUSION:

The Filter Element meets the requirements for the Microbiological Reduction NSF Protocol P231 Passed.

Vivekanand Bhat
General Manager - Quality
Authorised Signatory

PHOENIX
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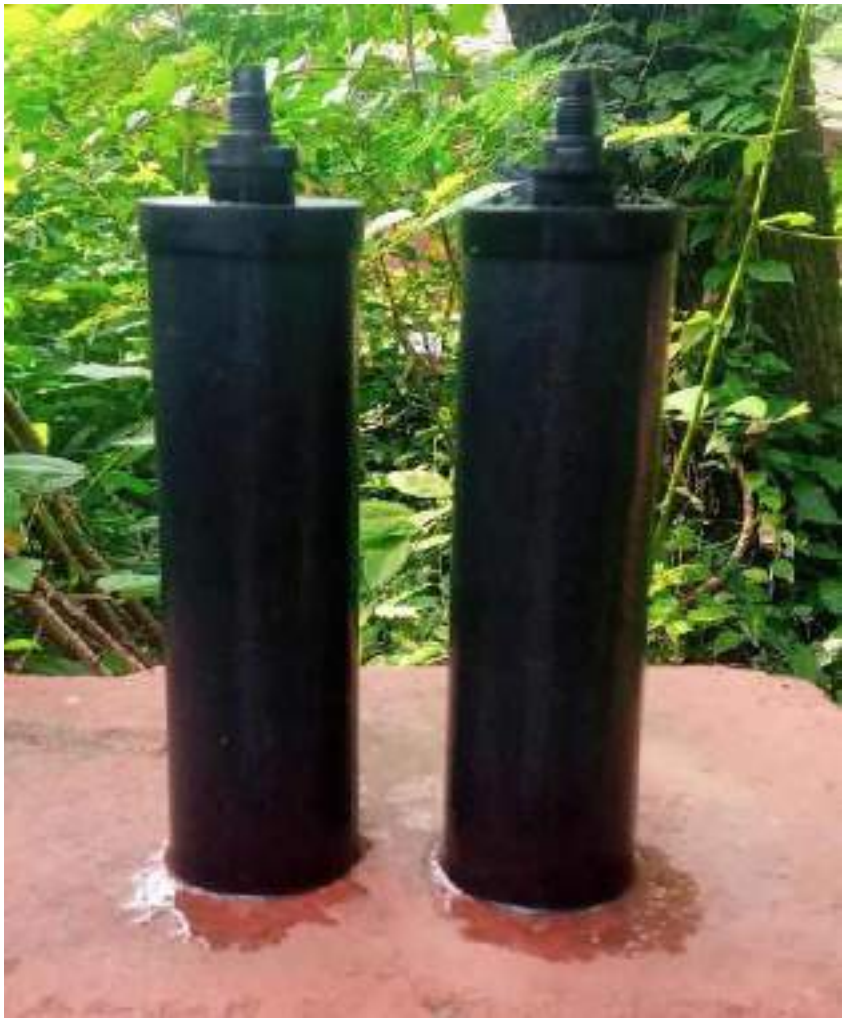
Rapports de laboratoire de tiers

Cartouche de filtre à charbon




PHOENIX

Environmental Monitoring Service

Testing and research laboratory for water, soil and food products
Aurobrindavan, Auroville, T.N., India - 605101
Phone: 91-0413-2964096, 9786620685
E-mail: ems@auroville.org.in

Test Report

Customer name:Rama Pure Water P. Ltd.,
Nature of sample:Phoenix Carbon Filter

Analysis started:22/02/2023
Analysis completed:Mention below
Sample collected:By lab person
Lab ID: 049

Objective: To find out efficiency of the water filters 1 and 2 for the removal of the chlorine, lead and E. coli.
Procedure: Filters was conditioned by passing 10 L tap water and check for flow rate before trial started.
Chemical parameters:
Tap water having TDS 178 mg/l and pH 6.7 was used. Spiked concentration for chlorine ans lead in the table.
Microbiological Parameter:
The stabilized tap water was spiked with E. coli more than 1 million/100 ml, after passing spike water for 10 minutes samples where collected and tested for removal rate.

Both chemical and microbiological tests are run separately

Filters ID: Sl. No.1 - PCC8/FX20230106, Sl. No. 2 - PCC8/FX20230107.

Sl. No.	Sample ID	Flow rate L/hr.	Removal %		
			Free Cl-	Lead (as Pb)	E. coli
50 L (23-02-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
1	1	5.0	99.9	99.9	99.9998
2	2	5.6	99.9	99.9	99.9998
500 L (03-03-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
3	1	5.0	99.9	99.9	99.9996
4	2	5.6	99.9	99.9	99.9994
1000 L (18-03-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
5	1	3.6	99.9	99.9	99.9997
6	2	3.9	99.9	99.9	99.9998
2000 L (08-04-2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
7	1	3.9	99.9	99.9	99.9998
8	2	4.1	99.9	99.9	99.9992
3000 L (04/05/2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
9	1	3.6	99.9	99.9	99.79
10	2	3.9	99.9	99.9	99.93
4000 L (07/07/2023) Spike: free chlorine 3 mg/L & lead 0.2 mg/L					
11	1	3.5	99.9	99.9	-
12	2	3.6	99.9	99.9	-

Test has been accelerated hereon with 5x the concentration of Chlorine in tap water. Starting here, every 1000 litres tested is equivalent to 5000 litres of chlorinated tap water.

5000 L (08/08/2023) Spike free chlorine: 15 mg/L & lead 1.0 mg/L					
13	1	3.4	99.9	99.9	-
14	2	3.3	99.9	99.9	-

6000 L (10/10/2023) Spike free chlorine: 15 mg/L & lead 1.0 mg/L					
15	1	3.3	96.3	96.1	-
16	2	3.2	97.1	95.5	-

Conclusion:

The filter cartridges have been found to remove Chlorine at tap water concentrations of 3ppm, and remove Lead at 200ppb, at greater than 95% efficiency for over 10,000 litres per filter.

They have also been found effective at removing E.coli at greater than 5 log concentration for over 2000 litres per filter

Method of testing:

Free Chlorine - APHA 20, 4500-CL
Lead - APHA 20, 3111-Pb
E.coli - IS-15185:2002l ISO -9308-1:2000

Analyst

Lab executive

PHOENIX
GRAVITY

Rapports de laboratoire de tiers

Acier POSTreat

Environmental Monitoring Service

Testing and research laboratory for water, soil and food products
Aurobrindavan, Auroville, T.N., India - 605101
Phone: 91-0413-2964096, 9786620685
E-mail: ems@auroville.org.in

Test Report

Customer name: Rama Water Filters
Nature of sample: Water
Sample ID: Filter PTS - AA

Analysis started: 05/11/2021
Analysis completed: 30/12/2021
Sample collected: by lab person
Lab ID: 400

Objective: To find out life time of the filter for fluoride removal.

Experiment: Filter was conditioned by passing 10 L tap water and check for flow rate before trial started.
Tap water having TDS 171 mg/l and pH 6.4 is spiked with fluoride to get 2 ppm and passed through the filter, samples were collected in a period of intervals and test for the removal rate of fluoride and flow rate was given below.

Delta P - 30 cm

Water passed in liters	Flow rate L/hr	Initial F^- ppm	Residue after filter, ppm	Removal %
250	2.6	2.0	< 0.1	> 95
500	2.8	2.0	< 0.1	> 95
750	2.6	2.0	< 0.1	> 95
1000	2.9	2.0	< 0.1	> 95

Delta P - 60 cm (This testing after 1000-Litres has been accelerated to speed up the testing time)

Water passed in liters	Flow rate L/hr	Initial F^- ppm	Residue after filter, ppm	Removal %
1250	3.9	2.0	0.13	93.5
1500	4.1	2.0	0.17	91.6
1750	3.7	2.0	0.31	84.3
2000	3.8	2.0	0.44	78.2

Method of testing for Fluoride - 4500-F−.C, APHA 23rd 2017

Analyst

Lab executive

Certificat AQE

Water Quality Association
Gold Seal Certificate

Rama Pure Water Pvt. Ltd.

196, East Coast Road, Chinnadi Kuppam, Injambakkam
Kotivakkam, Tamil Nadu India

Facility: Rama Pure Water Pvt Ltd

Certification Date: May 10, 2022

Authorized By:

Caren L. Sattler
Process Improvement Manager
Water Quality Association
2379 Cabot Drive
Lisle, IL 60532, USA

Products are evaluated according to Product Certification Scheme Type 5, as defined in ISO/IEC 17067 (current version).
This Certificate, or any part thereof, may not be used in a misleading manner and validation of its use is contingent upon the Official WQA web -listing.
Please contact your Project Leader for product expiration terms. All Standards referenced in the Product Certification Schemes by Standard Name.

Revision: 09/27/2021

FORM.12046