

Raoutella terrigena, Virus (MS-2) and Cysts (3.0 Microspheres) Filtration Efficacy Study; General Test Water 1 (GTW1, Dechlorinated Municipal water); Eastern Pure Industrial Co.

| Client ID | BCS ID | Flow Rate, in mL/min | Running Pressure, in inches Mercury | Bacterial Filtration Efficacy | | | Viral Filtration Efficacy | | | Cysts (Parasite) Filtration Efficacy | | |
|-------------------------|---------|----------------------|-------------------------------------|--|--|-------------------|--------------------------------------|--------------------------------------|-------------------|---|---|-------------------|
| | | | | Ratoutella terrigena Influent Concentration (cfu/mL) | Ratoutella terrigena Effluent Concentration (cfu/mL) | Percent Reduction | MS-2 Influent Concentration (pfu/mL) | MS-2 Effluent concentration (pfu/mL) | Percent Reduction | 3.0 Microsphere Influent Concentration (Particles/mL) | 3.0 Microsphere Effluent Concentration (Particles/mL) | Percent Reduction |
| Elanwell Filter Straw 1 | 1910291 | 500mL/ Minute | 3.6 | 4.9E+05 | < 0.3 | > 99.99994 | 2.4E+05 | 109 | 99.95% | 2.20E+04 | < 0.6 | > 99.997 |
| Elanwell Filter Straw 2 | 1910292 | 500mL/ Minute | 3.6 | | < 0.3 | > 99.99994 | | 180 | 99.92% | | < 0.6 | > 99.997 |
| Elanwell Filter Straw 3 | 1910293 | 500mL/ Minute | 3.6 | | < 0.3 | > 99.99994 | | 94.8 | 99.96% | | < 0.6 | > 99.997 |

The received filter straws units were received from the study sponsor. The units were assigned the referenced BCS identifier numbers 1910291-93. The received units were tested for their initial efficacy to reduce microbiological contaminants from contaminated water under laboratory conditions. Each of the received units were conditioned by passing 2 liters of General Test Water 1 (GTW1; Dechlorinated municipal water). For the challenge, aliquots of *Raoutella terrigena* (ATCC 33257) culture, MS-2 15597-B1 virus and 3.0 micron spheres (Cryptosporidium Cysts surrogate) were added to GTW1 and the water was homogenized. A sample of the challenge water was removed and enumerated for the respective microorganisms prior to challenge initiation. One liter of challenge water was aspirated through the unit at 0.5 liters per minute at a the resulting vacuum/pressure. During the challenge the water level was maintained at height below 1/3 of the length of the device; this was done to eliminate the possibility of the challenge water bypassing the filter. All analysis was conducted in triplicate at minimum. The number of microorganisms was determined in each sample. The respective percent reductions were concentration obtained in the filter influent and analyzed effluent sample. Study & analysis was conducted as per laboratory's accredited ISO17025:2005 methodology