

Black Jack Clay Company
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Inoculation Study

One 0.5 micron filter was received from Ron Mathis for a challenge study against generic *Vibrio parahaemolyticus*. This organism was used as a surrogate for *Vibrio cholerae* due to the similarities in size and biochemical characteristics. One liter of water was inoculated with a known concentration of *V. parahaemolyticus*. The inoculated water was then passed through the filter and collected in a sterile sample bag. This water was plated onto thiosulfate citrate bile salts sucrose (TCBS) enriched agar and incubated at 35°C for 24 hours. After incubation the plates were inspected for typical growth. The bacterial counts were compared before and after filtering to determine the effectiveness of the filter.

Results

The initial bacterial inoculum was >110000000 mpn/mL. After the water was passed through the filter, bacteria could not be cultured from the water. Therefore the filtering percentage for this size filter for *Vibrio parahaemolyticus* is 100%.

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