

Black Jack Clay Company  
PO Box 97  
Murchinson, TX 75778

August 27, 2009

### Inoculation Study

One 0.5 micron filter was received from Ron Mathis for a challenge study against generic *Escherichia coli*. One liter of water was inoculated with a known concentration of *E. coli*. The inoculated water was then passed through the filter and collected in a sterile sample bag. This water was plated onto violet red bile agar with MUG (VG) and incubated at 35°C for 18-24 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  $2.3 \times 10^6$  cfu/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 *Escherichia coli* is 100%.

Melody Thompson, MPH