**3-D Printer Video Script**

**YouTube Information:**

Title: Virtual Hydraulics Lab Tour – The 3D Printer

Description: A brief overview of how 3D printing is used to advance hydraulics research.

**Script:**

3D printing has enabled our engineers to quickly print accurate scaled models, molds, and mounts for our various experiments. This technology has replaced the need to create models by hand, and the digital models can also be used for computational fluid dynamics simulations.

**508 Caption Description:**

This video shows a mold being created one layer at a time in a 3D printer, using time-lapse photography to speed up the process. A tray shifts quickly in the horizontal plane while the printer nozzle moves left and right and slowly upwards as the plastic model is constructed. The video cuts to two halves of a mold being separated, revealing a miniature concrete dolos inside. The miniature dolosse is strapped to sticks and placed in the flume for an experiment. A computer simulation model of the experiment shows flow directions and velocities around virtual dolosse to compare to the flume results.