



FUNNEL VISCOSITY

Funnel viscosity is an indication of the overall viscosity of a drilling mud. It is affected by the concentration, type, size and size distribution of the solids present and the electrochemical nature of the drilling mud's solid and liquid phase. Consequently funnel viscosity should only be used to provide an indication of change or consistency of viscosity from time to time. Since gel strength can have a great effect on the magnitude of the funnel viscosity, the measurement should be taken as quickly as possible.

FUNNEL CALIBRATION

With the funnel in an upright position, fill it with freshwater (at 20°C) to the level of the screen with a finger placed over the orifice. With the aid of the measuring cup (viscosity cup) the time taken for one quart of water to pass through the funnel orifice tube should be 26 seconds.

TEST PROCEDURE

1. With the funnel in an upright position, cover the orifice with a finger and rapidly pour a freshly collected mud sample through the screen and into the funnel until the mud just touches the base of the screen, (1500 ml). See note below.
2. Immediately remove the finger from the orifice and measure the time required for the mud to fill the viscosity cup to the one (l) liter level.
3. Report the result to the nearest second as the marsh funnel viscosity, at the temperature of measurement in degrees Celsius.

NOTE: It is also permissible to overfill the funnel to some level above the screen and begin timing when the mud level reaches the screen. This is sometimes done in conjunction with not placing the finger over the orifice. In this manner the effect of gel strength on funnel viscosity is minimized.