FLORIDA DEPARTMENT OF TRANSPORTATION
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Florida Method of Test
for
SAND CONTENT OF SLURRY

Designation: FM 8-RP13B-3

1. SCOPE

1.1 Description: The sand content of mud is the volume percent of particles larger than 75 microns. It is measured by a sand-screen set (Fig. 1).

1.2 This test method has been adapted from Section 5 of the American Petroleum Institute (API) Recommended Practice 13B-1: Standard Procedure for Field Testing Water-Based Drilling Fluids (RP13B-1).

2. EQUIPMENT

2.1 200-mesh sieve, 63.5 mm (2.5 in.) in diameter.

2.2 Funnel to fit sieve.

2.3 Glass measuring tube marked for the volume of mud to be added. The tube is graduated from 0 to 20 percent in order to read directly the percentage of sand.

3. PROCEDURE

3.1 Fill the glass measuring tube with mud to the "mud" mark. Add water to the next mark. Close the mouth of the tube and shake vigorously.

3.2 Pour the mixture onto the clean, wet screen. Discard the liquid passing through the screen. Add more water to the tube, shake, and again pour onto the screen. Repeat until the tube is clean. Wash the sand retained on the screen to free it of any remaining mud.

3.3 Put the funnel upside down over the top of the sieve. Slowly invert the assembly and insert the tip of the funnel into the mouth of the glass tube. Wash the sand into the tube by spraying a fine stream of water through the screen, making sure not to overflow the tube (tapping the sides of the screen may facilitate this process). Allow the sand to settle. From the graduations on the tube, read the volume percent of the sand.

Note: When testing polymer slurries, an additive might be necessary to properly wash the sample through the sieve to obtain an accurate sand content reading. Consult with the polymer slurry's manufacturer for the recommended additive, if necessary.

3.4 Report the sand content of the mud in volume percent. Report the source of the mud sample, i.e. above shaker, suction pit, etc. Coarse solids other than sand will be retained on the screen (e.g., lost circulation material) and the presence of such solids should be noted.

FIG. 1
SAND-CONTENT SET