Mud Sand content set

TYPE: SL-ZNH

Function

This instrument is used for measuring the sand content of mud.

Sand content is the volume percentage of the sands with diameter beyond 0.074mm out of the total mud. (If the sand diameter is beyond 0.074mm, it can’t get through the screen)

Construction and Mechanics

This instrument is composed of three parts: filter (1), funnel (3) and glass measuring cylinder (4). Spare: one glass measuring cylinder.

There is a stainless steel screen cloth (2) in the filter. The screen cloth is 80 pores per square centimeter.

Type SL-ZNH-2  Type SL-ZNH-1

1. filter  2. funnel  3. funnel  4. glass measuring cylinder

The glass measuring cylinder is used for measuring the volumes of the mud and the sand content. The diameter of type ZNH-1 is about 45mm, and the maximum volume is 200mL. The top shrinks and it can be sealed by fingers. The bottom is thin and long. Its volume is 5mL and the minimum volume is 0.2mL, which is convenient to watch the mud.

The diameter of Type ZNH-2 is about 35mm and the maximum volume is 100mL. The top can be sealed by fingers and the bottom is cone-shaped with a volume of 30mL.

Operating rules
1. put 20-40mL mud into the glass measuring cylinder and then pour into it certain amount of water. Seal the top by fingers and shake up and down, making the mud and water mixed completely.

2. put the mixed liquid of glass measuring cylinder into the filter and put some water into the glass measuring cylinder. Shake and put the glass measuring cylinder into the filter. after the liquid through the screen is clear. The remains on the screen are the sands which can’t get through the screen with 80 pores per square centimeter.

3. put the funnel on the filter and reverse and put them into the glass measuring cylinder. Wash the sands remained on the screen into the glass measuring cylinder with water.

4. until the sands settled to the bottom, read the data from type ZNH-2 and ZNH-1, and then compute the sand content with the following formula:

   a) The sand content=the sands volume(mL)/the mud volume(mL)×100%

**Notice:**

   b) wash all the instruments with fresh water before measuring.

   c) for type ZNH-1, the mud volume should not be more than 40mL and the total volume of mud and water should not be more than 160mL. And for type ZNH-2, the mud volume should not be more than 30mL and the total volume of mud and water should not be more than 100mL. Otherwise, the mud may be difficult to be diluted and shaked up.

   d) make sure the water comes from all round and flows slowly when washing the mud of filter with water.

   e) wash the instruments after using.

**Standard executive number:** SY/T5378-91