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| **LAB NAME:** | Drilling fluids and cementing | **LAB NUMBER:** | 104 |
| **EQUIPMENT NAME:** | 35A Viscometer | **PREPARED BY:** | Mobeen Murtaza |

**Please provide as much information as you can for each equipment that you available in your lab**

1. **EQUIPMENT SPECIFICATION**

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| **Model** | **Electrical** | **Specifications** | **Temp-Press** | Viscometer Model 35 |
| **35A** | 115V, 60 Hz, 90W | 600, 300, 200, 100, 6, 3  R1 rotor sleeve, B1 bob, F1 torsion spring | Temperature 200°F (93°C), Atm. Pressure |

**Definition:** Fann Model 35 viscometers are direct-reading instruments, which are available in six- speeds. These viscometers are recommended for evaluating the rheological properties of fluids, Newtonian and non-Newtonian.

1. **OPERATION**

* This section describes the operating instructions for the Model 35 series viscometers. It also includes instructions for measuring gel strength.
* To start the test, add 350 ml of pre-stirred sample to the stainless-steel sample cup.
* The sample cup has a line that marks 350 ml
* A scribed line on the rotor indicates proper immersion depth.
* Damage to the bob shaft bearings may occur if this immersion depth is exceeded. If other sample holders are used, the space between the bottom of the rotor and the bottom of the sample holder should be one-half inch (1.27cm) or greater.
* The Model 35A viscometer operate at six speeds, ranging from 3 rpm to 600 rpm.
* To select the desired speed, set the speed switch (located on the right side of the base) to the high or low speed position as desired. Then turn the motor on and move the gear shift knob (located on the top of the instrument) to the position that corresponds to the desired speed.
* The viscometer gear shift knob may be engaged while the motor is running. Shear stress values are read from dial.

1. **RISKS INVOLVED USING THE EQUIPMENT**

* During operation, the motor surface may get hot and there is risk of getting burned if the surface is touched.
* The viscometer base cover has vents to help prevent heat buildup.
* Electrical shocks as the equipment is driven by 115 volt or 230 volt electrical power.
* Rotating parts of the machine
* Testing of chemical based drilling fluid

1. **SAFETY PRECAUTIONS:**

* Wear the proper hand protection to avoid getting burned.
* Do not block the vents.
* Keep hands, clothes and other objects away
* Power switch is on OFF position and unplugged from the source before cleaning or repairing or performing maintenance.
* Do not allow water to run into the base to cause damage to the electrical components.
* Use proper gloves and lab coat while working on equipment.