Title: The Effect of Rice Husk and Sawdust on the Properties of Oil-Based Mud at Varied Temperatures.

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Abstract: The effect of rice husk and sawdust additive to oil based mud has been investigated. It was discovered that the pH values obtained were slightly acidic for the rice husk but slightly alkaline for the sawdust based mud samples. It was also observed that while the addition of rice husk to an oil-based mud increases the mud densities from 9.5 for 5g additive to 10.0ppg for 25g additive and increases the apparent viscosities from 55 for 5g additive to 115cP for 25g rice husk additive. As expected the apparent viscosity reduced with increasing temperature (55 to 37.5 from 60o-100oC for Sample B). The addition of sawdust additive to similar oil based mud causes much lower effect on densities (9.60 for 5g to 9.8ppg for 25g sawdust added) and viscosities. The results show that rice husk can be used as filtration loss additive in oil-based mud slight modifications to attain the desired mud cake thickness. It was also observed that increase in temperature resulted to increase in the filtration rate and decrease in plastic viscosities, apparent viscosities and gel strength of the oil-based mud.