United States Department of the Interior

GEOLOGICAL SURVEY
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Artesia, New Mexico 88210

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ARTESIA, OFFICE

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MUD CONTROL REQUIREMENTS

General. The characteristics, use, and testing of drilling mud and the conduct of related drilling procedures shall be such as are necessary to prevent the blowout of any well. Quantities of mud materials sufficient to insure well control shall be maintained readily accessible for use at all times.

A. Mud System Monitor. Before reaching a depth of 5,000 feet, the following mud systems monitoring equipment, with derrick floor indicators, must be installed on the well and kept in operation until total depth is reached:

1. Recording mud pit level indicator to determine mud pit volume gains and losses. This indicator shall include a visual or audio warning device.

2. Mud volume measuring device for accurately determining mud volumes required to fill the hole on trips.

3. Mud return indicator to determine that returns essentially equal the pump discharge rate.

B. Mud Control. Before starting out of hole with drill pipe, the mud shall be circulated with the drill pipe just off bottom until the mud is properly conditioned. When coming out of the hole with drill pipe, the annulus shall be filled with mud before the mud level drops below 100 feet, and a mechanical device for measuring the amount of mud required to fill the hole shall be utilized. The volume of mud required to fill the hole shall be watched, and any time there is an indication of swabbing, or influx of formation fluids, proper blowout prevention precautions must be taken; and the mud must be properly conditioned. The mud shall not be circulated and conditioned except on or near bottom, unless well conditions prevent running the pipe to bottom.

James A. Knauf
District Engineer