



Southwestern Drilling Mud Service, Inc.

P. O. BOX 2477 • 915 683-2801 24 HR.
MIDLAND, TEXAS 79702

SOLIDS CONTROL AND RELATED MUD EQUIPMENT

The importance of the drilling fluid solids control program during the drilling of any well cannot be overemphasized. Both laboratory and field data suggest that the control of mud solids is perhaps the most important variable in running a successful drilling fluid. The optimum solids control program will result in improved and more manageable fluid properties, reduced drilling fluid maintenance costs and improved penetration rates which, when translated into economics, can result in impressive savings in the cost per foot for a well.

The goal of any solids control program is to eliminate as many undesirable solids as possible. Solids that are undesirable are all drilled solids and, in weighted muds, as many colloidal size solids as are practically feasible.

For your well, we recommend the following solids control program. During the various water intervals, we recommend the use of a complete flocculant (Jet Jel or MF-1) while drilling with returns.. The use of this type product will cause the small colloidal size solids that are most detrimental to penetration rate to flocculate into larger particles that will settle out of the water when the individual particles will not settle out.

During the weighted mud interval, we recommend the following pieces of mechanical solids control equipment:

- 1) High speed, fine screen shaker
- 2) Silt separator
- 3) Centrifuge (when mud weights reach 11 lb/gal)

The high speed, fine screen shaker is perhaps the most important piece of equipment since the remaining equipment will not operate at peak efficiency without the shaker. The more solids removed on the first circulation, the better since when solids are recirculated, they grind down into smaller particles that are extremely difficult to remove with any mechanical equipment.