

Southwestern Drilling Mud Service, Inc.

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Solids Control Equipment (continued)

The Silt Separator is recommended as an additional piece of equipment to remove drilled solids. The high speed shaker will only remove solids 178 microns or larger, while the silt separator will remove solids down to approximately 74 microns. The removal of these drilled solids before they can degrade into smaller and more troublesome particles is very important. Field results have shown that the use of a silt separator will give lower drilled solids content and reduce total barite consumption due to reductions in dilution requirements.

The centrifuge is recommended to control the inevitable build-up of colloidal size solids in a weighted mud. These are the solids that are most detrimental to mud rheology (viscosity) and penetration rate. The use of a centrifuge will provide a means of controlling (other than water dilution) these colloidal solids at the minimum level necessary to suspend barite.

The use of this solids control program will minimize drill solids build-up in the mud. In addition to the economic benefits of reduced mud costs and improved penetration rates, the lower drill solids contents will also tend to minimize particle plugging in the Morrow formation which could lead to improved productivity.