Bentonite Cement Diesel Oil Slurry (BCDO)

Lost Circulation Material

Bentonite cement diesel oil (BCDO) slurry is a blend of bentonite and cement mixed with diesel oil. This slurry forms a thick, paste-like material when contacted by water or water-based drilling muds, making an effective lost-circulation material. Granular, flaked, or fibrous lost-circulation additives can be used with BCDO slurries.

Applications

BCDO slurries are effective at bottomhole static temperatures (BHSTs) between 60° and 250°F (15.6° and 121°C). A typical BCDO slurry consists of 94 lb of cement and 100 lb of bentonite. Using 3 sk of cement per 1 sk of bentonite can increase the compressive strength of the set material. Typical slurry weights range from 10 to 13.5 lb/gal.

Compatibility

BCDO slurries are not recommended for use in cementing oil wells.

Benefits

BCDO slurries can provide the following benefits:

• They can help control severe lost circulation in areas where other lost-circulation materials are ineffective.
• When cement is added to a BCDO slurry, the slurry will provide a squeeze material with low compressive strength.

Special Information

The following guidelines are recommended for jobs with BCDO slurries:

• Drain all water and mud from the pumps and tanks.
• Use diesel oil to thoroughly flush the tub, mixer, pumps, and tanks on all trucks.
• Avoid contaminating BCDO slurries with mud or water in the suction lines and pumps.
For more information on the benefits Bentonite Cement Diesel Oil Slurry can bring to your cementing operations, contact your local Halliburton representative.