



DG-DRILL STICKS

PRODUCT BULLETIN

DG-Drill Sticks are condensate-dispersible water-soluble sticks containing a combination of surfactants and friction reducers. DG-Drill Sticks will perform in the presence of salt and fresh water systems.

Product Uses

DG-Drill Sticks are primarily recommended for use to increase drilling efficiency and life of the drill bits. The slick coating and foaming action increases the efficiency of the drilling process by preventing the clays from sticking and balling up on the drill bit while drilling operations are going on. This same slick coating and foaming action will also help prevent the jets on the drill bit from plugging, therefore optimizing mud and cutting returns to the surface and improving drill bit penetration into the ground formations.

DG-Drill Sticks can also be used to increase the swabbing efficiency and life of the swab cups. The perforations are often cleaned as a result of the detergent and swabbing action.

DG-Drill Sticks can be used to remove fluid from gas-condensate wells and flowing oil wells, however we offer other sticks specifically designed for the procedure. Specially DG-16 sticks, recommended for wells with up to 50% condensate or the DG-OF stick for wells with more than 50% condensate.

Product Advantages

DG-Drill Sticks are an economical way of improving the efficiency of drilling operations by keeping the drill bit clean of debris and improving mud and drill cuttings returns to the surface. Drill bit penetration into the ground formations will also increase due to bit and jets remaining clean of debris.

Treatment

The number of DG-Drill Sticks to be used varies from one drilling operation to another. The weight of mud, drilling depth and water weight can also affect the number of sticks to be dropped. Field tests indicate that the best results were achieved under normal drilling operations in the chart listed below:

| DG-Drill Stick Sizes | Sticks per Joint of Drill Stem Added to String |
|-----------------------|--|
| Medium (1 1/4" x 15") | 2-4 Sticks per joint |

NOTE: *This amount recommended is based on past field drilling tests and operating under normal drilling operations and procedures. To determine the optimum amount of sticks required for periodic treatments you may choose to gradually increase or decrease the number of sticks until the most economical treatment point is reached.*



DG-DRILL STICKS (CONT.)

Common Procedures

The most common procedure is to drop the specified number of sticks to be dropped from the chart each time an additional joint of drill stem is added to the drill string in the drilling operating. As the fluid moves down the hole the surfactants and friction reducer will dissolve and penetrate the drilling fluids and slick up the metal surfaces. It is important to add the desired volume of stick each time a new joint of drill stem is added to the string to maintain the slick film on the metal surfaces.

Product Packaging

| | | |
|-----------------------|--------|----------|
| Medium (1 1/4" x 15") | 36/Box | 75/Chest |
|-----------------------|--------|----------|

CAUTION: Avoid contact with eyes or skin. Wash thoroughly with water. Sticks should be stored in a cool dry place. *Always remove sticks from plastic bag or cardboard tube before using. Bag or tube can be used as a glove to avoid contact with hands.*

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