

RAPID LUBE™

DRILLING FLUID LUBRICANT / RATE OF PENETRATION ENHANCER

GENERAL DESCRIPTION:

Rapid Lube™ is a highly active, synthetic oil based drilling fluid lubricant. Rapid Lube™ greatly increases the overall lubricity of the wellbore, reducing torque and drag on drill string and increasing the rate of penetration. Adding small amounts to water based muds greatly reduces the differential sticking tendencies, reduces wear on equipment and improves the overall performance of the mud system.

Rapid Lube™ is considered environmentally friendly. The product demonstrates an LC₅₀ value of greater than 1,000,000 ppm at treatment levels of 8% by volume in a No. 7 generic mud system. The product is non-toxic, biodegradable, and contains no aromatics.

TYPICAL PHYSICAL PROPERTIES:

Appearance	Amber Liquid
Specific Gravity	0.85 to 0.89
Density, lbs./gal.	7.4 (typical)
Pour Point	10° F
Flash Point	> 220° F (PMCC)

APPLICATION GUIDE:

Rapid Lube™ is functional across a wide range of water based and polymer drilling muds and is effective in reducing the coefficient of friction, lowering torque and drag. Applications should be addressed individually and take into consideration specific well conditions.

A typical application involves the addition of 1% to 3% by volume based on entire mud system volume. Do not add the Rapid Lube™ in a single slug, the product should be added evenly through one entire circulation of drilling mud. After initial treatment, add make-up volume on a daily basis.

In horizontal applications with greater than 40° angle we recommend 3% to 5% by volume based on entire mud system volume. Continuous injection of product into suction of mud pump using a diaphragm pump will insure a complete treatment. Our technical representatives can assist you in setting up the continuous injection program.

Special Note: If the drilling mud is treated with an asphaltic material (gilsonite, lignite, etc.) it is highly recommended that a compatible coupling agent be used in conjunction with the lubricant. Synthetic oil based lubricants can cause asphaltic material to agglomerate and deposit onto shaker screens causing upsets in the solids control and handling phase of operations. Rapid Sperser™ is recommended at 0.5% to 1% depending on the asphalt treatment levels and the amount of lubricant added into the system. Field conditions will direct application volumes.