



Drilling Fluids, Inc.

MAX-LOCK LOST CIRCULATION MATERIAL

A TOTAL SOLUTION FOR SEVERE DOWNHOLE LOSSES

The **MAX-LOCK™** lost circulation material (LCM) is a magnesia-based material designed to mitigate severe or totally lost circulation. It is especially effective in vugular or cavernous formations, plug and abandonment operations, and in establishing sustained casing pressure.

Lost circulation is one of the major contributors to drilling NPT. Conventional bridging materials are designed to cure seepage and partial losses, but these systems are often not enough to counteract severe or totally lost circulation incidents. Increasing the concentration of conventional bridging agents in order to handle more extreme losses has long been a challenge because the increased pressure required to pump them could actually cause losses to increase. Combating severe or total losses by using cement plugs, while common, has also caused problems such as increased NPT, difficulty obtaining the desired thixotropic fluids behavior, and poor cement bond.

The **MAX-LOCK** LCM sets in, and seals, flowpaths that are many times larger than conventional LCMs can handle. It prevents the downtime that cement jobs would require, and its thixotropic properties enable it to seal loss zones that that cement can't reach.

Environmental information

The **MAX-LOCK** LCM has been evaluated in Baker Hughes drilling fluids' bioassay program. The US EPA Drilling Fluids Toxicity Test resulted in minimal toxicity for 5.0 lb/bbl of the **MAX-LOCK** LCM in a generic #7 mud system. It also passes static sheen and oil and grease standards for offshore Gulf of Mexico use. For additional information concerning environmental regulations applicable to GEO drilling fluids' products, contact the Health, Safety, and Environmental Department.

Safe handling recommendations

Use normal precautions for employee protection when handling products. Read safety data sheet prior to use.

Packaging

The **MAX-LOCK** LCM includes up to seven components, packaged in 25-lbm or 50-lbm sacks or in 55-gal drums.

Measurement Specifications

Appearance	white liquid
Maximum BHT	250°F (121°C)
Density range	Up to 16.0 ppg
Acid solubility	> 90%

APPLICATION

- Operations with potential for severe or a total losses
- Applications where acid solubility is critical
- Areas where gas migration is a concern
- Plug and abandonment operations
- Zonal isolation, casing repair, or other
- environmentally sensitive operations

FEATURES AND BENEFITS

- Thixotropic shear thinning gels
 - Easy to pump through bit
 - Prevents gas migration
 - Resists flow through loss zones before settings
- Strengthens loss zones
 - Enables drilling to section target depth
- Can function as an isolation plug
 - High acid solubility, 90% or greater
 - Safe to use in production zone
- Rapid deployment
 - Can be pumped from slug tank
 - Eliminates unnecessary trips
- Customizable setting time
 - Avoid pumping more than necessary
 - Minimizes risk associated with flash setting
 - Increases chances of bridging across loss zone
- High tolerance to contamination
 - Allows variation with mix water
 - Negligible deviation with setting time and strength with contamination

GEO Drilling Fluids, Inc.

1431 Union Avenue
Bakersfield, CA 93305

1-800-GETSGEO

[661]325-5919

geodf@geodf.com

For more info visit:

geodf.com

