

GRAPHITE

(IN POWDER)

Technical Bulletin

GRAPHITE is a coarse-sized lubricant agent used to lubricate the perforation in water-, oil- or synthetic-base mud systems. When drilling exhausted zones, where high differential pressures exist, the lubrication properties of **GRAPHITE** reduces the sticking tendencies due to differential pressure. It can be used to control the partial seepage in severe lost-circulation zones. **GRAPHITE** is completely inert and does not affect the rheological properties of the mud. **GRAPHITE** reduces torque and drag by increasing the lubrication. **GRAPHITE** lowers the spurt and total filtrate loss values in PPT.

Typical Physical Properties

Physical appearance.....Dark, gray to black powder
Solubility in water.....insoluble

Grind Size

Cumulative Retain

Mesh n° 20.....	0 – 1 %
Mesh n° 50.....	50 – 70 %
Mesh n° 80.....	80 – 99 %

Passing

Mesh n° 100.....	0 - 10%
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Applications and Functions

GRAPHITE is designed as a powerful lubricant agent. The recommended treatment (< 10 bbl/hr) is 15 to 20 lb/bbl (43 to 57 kg/m³) in spotted pills. The pills can be incorporated into the entire system for a total concentration of 5 to 10 lb/bbl (14 to 29 kg/m³). However, when the pills returns to the surface, the shaker screens must be monitored for possible losses and changed if necessary.

The recommended treatment for severe cases is between 20 and 50 lb/bbl (57 to 143 kg/m³) in spotted pills.

GRAPHITE can be used in combination with other materials to control severe lost-circulation.

GRAPHITE may require additional wetting agent when using it in oil- or synthetic-base mud systems.



Injection and Environmental Products

Advantages

- * Increases lubrication, reduce torque and drag in all mud systems.
- * Inert material with no adverse effects on the mud's rheology and compatible with all mud systems.
- * Do not require other additives, easily mixed and dispersed into the system.
- * Thermo-stable while working at temperatures higher than 500°F (260°C).

Limitations

- * Can be removed from the circulating system by shale shakers and other solids-control equipment. Requires close monitoring of the shale shakers.
- * Non-acid or water-soluble.
- * May not be suitable for open holes sections where acid solubility is required.

Toxicity and Handling

Bioassay information is available upon request. Handle as any other chemical product, wearing protective equipment and observing the precautions as described on Transportation & Materials Safety Data Sheet.

Packaging and Storage

The product is packaged in 25 kg multi-wall, paper sacks. Do not have any special storage requirements.

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