RBA

Product Information

LESS DAMAGING BRIDGING AGENT

RBA is a fine size organics bridging agent used to bridge and seal porous and micro fracture formation in water (wbm), oil (obm) or synthetic base mud systems. It is a less-damaging / less-invasive treatment of drilling fluid for reducing dynamic fluid loss / filtration to formation, minimize wall cake thickness and improve its firmness, thus reduce differential sticking. Sealing minor lost at weak formation, and drilling through severe sloughing shale section by sealing a micro fracture of shale layer. It is able to prevent a formation damage by sealing the micro pore at the well bore skin by its unique fiber, granule and flake material characters, specially during drilling the production zone. Effective sealing of heterogeneous formation with same fluid type and composition and able to increase the fracture gradient. It reduces torque and drug by increasing lubricity. It can be use to control seepage to partial lost circulation zone. RBA is made of 100% organic materials and environmentally safe and it is completely inert and does not effect the properties of drilling fluid systems.

Physical Properties

Appearance	Light brown
Specific Gravity	0.8 - 1
Solubility in water @ 20°C	Insoluble
Particle size distribution	70μ / 150μ / 200μ

Applications

RBA is designed to bridge and seal porous and micro fracture formation while drilling with non-aqueous fluids. It is effective for minimize wall cake thickness, reducing differential sticking, minimize formation damage, increase fracture gradient, reducing torque and drug through increase lubricity and combat lost circulation.

- The recommended treatment as main additive for less damaging / low invasive mud system, minimize wall cake thickness, reducing differential sticking, minimize formation damage, increase fracture gradient, reducing torque and drug is 5 to 10 lbs/bbl (17 to 29 kg/m^3) mixed into active system. Add 1 sack every depht increase per 1 joints drill pipe or depend on the drilling rate for purpose of RBA concentration maintenance in system.
- The recommended treatment for seepage loss (<10 bbl/hour) is 15 to 20 lbs/bbl (43 to 57 kg/m^3) in spotted pills.
- The recommended treatment for partial loss (<50 bbl/hour) is 20 to 50 lbs/bbl (57 to 143 kg/m^3) in spotted pills. RBA can be used in combination with other lost circulation materials to control partial to severe losses.
- There is no need special equipment for using RBA, just add through hopper. Its also reduce the cost for finer shaker screen by its ability to pick up the sub colloidal solid when passing a shaker.
- RBA can also be used dry blended with cement to effectively seal off induced microfractures and inhibit further propagation while cementing process.

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General Advantages

- Can be used in water (wbm), oil (obm) and synthetic mud system
- Effective bridging and sealing agent for wide range of formation and severity of losses
- Minimize wall cake thickness and improve its firmness, thus reduce differential sticking
- Effective sealing of heterogenous formation with same fluid type and composition and able to increase the fracture gradient
- Reduces torque and drug by increasing lubricity
- It can be use to control seepage to partial lost circulation zone
- Inert material and does not effect the properties of drilling fluid systems
- RBA is made of 100% organic materials and environmentally safe
- Easy maintained in the entire circulating system due to its particle size distribution
- Easily be pumped through down-hole tools in concentration up to 100 lb/bbl (285 kg/m^3)
- Temperature stable to 500°F (260°C)

Specialty Advantages

- Less-damaging / less-invasive treatment of drilling fluid for reducing dynamic fluid loss / filtration to formation
- Bio-degradable and partially acid-degradable will prevent formation damage by sealing the micro pore at the well bore skin by its unique fiber, granule and flake material characters, specially during drilling the production zone
- Seal the entire well bore in physical form a "virtual blocking" which protect the formation by invasion of filtrate, mud and solid into the porous formations and prevent return permeability decreased in production zone
- In shale layer can reduce hole instability due to shale swelling mechanism and will resulting in perfect drill holes and reduce the risk of stuck pipe
- Thin membrane due to the use of RBA will be very easy to remove from the wall in the formation during well completion that is sufficient to conduct drilling fluid backflow.

Limitations

- Decrease consentration in system by forming a thin wall cake and partially removed with system
- Can be wasted from the circulating system by shale shakers and solid control equipment.

Toxicity and Handling

RBA does not contain any component which is classified as dangerous to health, however, exposure to the dust can cause respiratory problems. Use of appropriate respirator, gloves, goggles and apron is recommended for employee comfort and protection. RBA is non-toxic and considered to be harmless in the marine ecosystem. RBA does not have a restricted classification for transportation by international or domestic regulatory agencies.

Packaging and Storage

RBA is packaged in 25 lb (11.3 kg) multi-wall paper bags, 40 bags / pallet. Store in dry, well ventilated area. Keep the container closed. Store away from incompatibles.