

# AMC MAXI VIS™

Exceptional hole cleaning and suspension in an easy-to-mix package

AMC MAXI VIS<sup>™</sup> is a mixed-metal oxide (MMO) product that is easy to prepare, mix and maintain. It provides an enhanced rheological profile and stability for exceptional hole cleaning and suspension.

With its shear-thinning rheological profile, AMC MAXI VIS™ exhibits exceptional hole cleaning, cuttings suspension and minimises the formation of cuttings beds. The unique rheological properties of the AMC MAXI VIS™ system make it suitable for a variety of drilling applications; from diamond core to large diameter bores, and is particularly suited for HDD.

The unique flow profile stabilises mechanically weak and poorly-consolidated formations. High viscosity at low shear rates results in a static layer of fluid on wellbore walls which helps to minimise erosion from the flow of fluid and reduce fracture losses. In addition, the system requires a lower pump rate which further improves the stability in fractures of difficult formations. This also reduces torque and drag.



#### Rheological Profile Of AMC MAXI VIS<sup>™</sup> Versus Standard Approach

- Excellent hole cleaning and solids suspension
- Highly shear thinning

AMC MAXI VIS"

- Exceptional performance in high angle/horizontal wells
- Effective in unconsolidated formations and lost circulation zones
- Low working dosage results in minimal environmental impact.



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## AMC MAXI VIS™





## Flow Profile

- Protects poorly consolidated or fractured formations
- No shear stress to formation wall
- Minimises erosion of wellbore
- Helps to prevent seepage losses
- Minimises fluid loss
- Low formation damage and easy clean up

## Applications

- Horizontal wellbores
- Large diameter wellbores
- Cuttings removal
- Selective coring operations



AMC MAXI VIS<sup>™</sup> particles bond to the cation exchange sites on bentonite

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## **Advanced Chemistry**

AMC MAXI VIS<sup>™</sup> is a MMO product, which has an electron-deficient lattice when added to a prehydrated bentonite system or base. AMC MAXI VIS<sup>™</sup> particles bond to the cation exchange sites on bentonite, forming a strong complex, providing viscosity and gels. When added to a suspension of bentonite, particles displace the sodium or other cations typically residing on the clay face and forming strong associations with the anionic sites on clay platelets. This bonding means the system is relatively resistant to common contaminants.

## More about AMC MAXI VIS™

#### Guidelines for field use

MMO fluids are unique in nature. AMC MAXI VIS<sup>™</sup> fluids appear extremely viscous when static in comparsion to conventional bentonite fluids. Handlers may assume the viscosity is too high to be pumped but the fluid is extremely shear-thinning.

Dilution with water will affect the unique properties and their advantages (i.e. the high YP/PV ratio).

#### Pilot testing

Always conduct lab pilot tests in order to check the quality of the bentonite, the compatibility of the additives and appropriate dosages of AMC MAXI VIS<sup>™</sup>. Pilot tests should also be conducted prior to the introduction of any new additives.

#### Fluid loss control

Typical components include AMC NEUTRA DEX<sup>™</sup>, a modified non-ionic polysaccharide providing filtration control to normal water based muds and those that must remain free of ionic additives.

#### Incompatibility

The following typical ionic additives must not be applied to the AMC MAXI VIS<sup>™</sup> system: PHPAs, PACs, thinners, deflocculants, lignites and lignosulfonates.

Due to the electrostatic nature of AMC BEN<sup>™</sup> and AMC MAXI VIS<sup>™</sup> interactions, ionic additives must be strictly avoided resulting in a collapse of rheology.

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