



Drilling Fluids, Inc.

Viscosifier

GEO ZAN

Description

GEO ZAN is a high molecular weight organic viscosifier. GEO ZAN is a clarified xanthan polymer.

Uses

GEO ZAN is a very efficient viscosifier. It works in most salt and fresh water systems. It should not be used in Calcium Chloride solutions exceeding 9.4 ppg (14% Calcium Chloride by weight). In muds contaminated by calcium or other divalent hardness cations the pH should be kept below 10.0 to prevent the precipitation of the GEO ZAN. In muds with a pH greater than 10.0 the hardness should be controlled less than 240 ppm. Simultaneous treatment with a biocide such as Ambergaurd 425 may be necessary to prevent the biological degradation of GEO ZAN. It can be used in clear brine fluids as the sole viscosifier to provide extremely high Low Rate Shear Viscosity (LSRV). In gel based mud GEO ZAN can be used to improve Yield Point for better hole cleaning without significantly increasing solids content.

Benefits

GEO ZAN develops extremely high LSRV, the factor most responsible for removal of drilled cuttings on the low side of the well, where fluid moves the slowest (*See Figure A Below*). GEO ZAN increases the yield point without increasing the plastic viscosity. GEO ZAN continues to work under salt and calcium contamination. GEO ZAN does minimal damage to producing formations and can be oxidized from the formation with SDIC, Lithium Hypochlorite, or Sodium Hypochlorite.

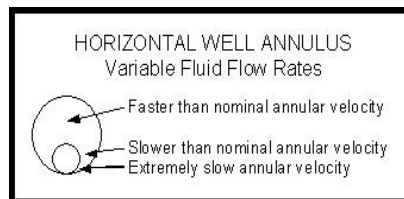


Figure A

Treatment

GEO ZAN is used in various concentrations ranging from 0.2 to 2.0 pounds per barrel. It should be mixed at 25 to 30 minutes per sack to minimize fish-eyes. GEO ZAN can be used in temperatures to 250°.



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GEO ZAN (Continued)

Function

GEO ZAN develops viscosity through the large molecular size and through molecule interaction. At high concentrations of over 1.5 ppb the molecules become entangled with each other increasing the viscosity.

Typical Physical Properties

Physical appearance.....Tan free flowing powder
Specific Gravity.....1.5
Bulk Density..... lb/ft³
pH in water.....Neutral

Safe Handling Recommendations

Utilize normal precautions for employee protection when handling chemical products. Use of appropriate respirator, gloves, goggles, and apron is recommended for employee comfort and protection. See Material Safety Data Sheet (MSDS) for this product prior to use.

Packaging

GEO ZAN is packaged in 25 lb multi-walled bags