

DESCRIPTION

CM3315 is an Engineered BioFluid (EBF™) designed for superior clay control targeted at preventing both fines migration and hydration of reactive clays (swelling). CM3315 is a dual functional biopolymer that both encapsulates and electronically interacts with reservoir colloids allowing for the optimization of completion fluids by combating two issues with one product.

CUSTOMER NEED

To stabilize shale reservoirs by inhibiting clay hydration and fines migration. These problems are caused by any non-native fluid introduction to the formation particularly during drilling, workover and hydraulic fracturing operations. Some rocks interact with water so readily that they are called “reactive” clays. More common in shale reservoirs are clays and colloids (<10um diameter) from rock forming minerals that are liberated during the fracturing process and flow back operation. These particles are carried as migrating fines that can plug pore throats and negatively affect the reservoir performance. Both of these clay varieties must be addressed during primary stimulation in order to minimize reservoir damage and maximize production efficiency.

INTEGRITY BIO-CHEM SOLUTION

CM3315 is a novel and unique functionalized biopolymer that is specifically designed to control clay swelling and fines migration. The electronically optimized substituents engineered on our biopolymer backbone electronically interact with clays, anchoring the molecule for the encapsulation process. CM3315 is proven to be effective at low treatment concentrations. Furthermore, this is achieved with one chemical instead of the industry standard approach of using one chemical for swelling and another for stabilization/fines mitigation. CM3315 differentiates itself by enhanced inhibitive chemistry with finer media. Capillary suction time results from -200 mesh media yield are more consistent with the intended interaction of the fluid with the clay fraction in the rock. Filtrate from finer grind media yield important additional data regarding the rate of filtrate recovery and the nature of the filtrate.

- Dual functionality
- Rapid capillary suction time
- Rapid clay inhibition

PHYSICAL PROPERTIES [all properties tested at 25°C ± 1°C]

Color : Light Yellow to Tan
pH : 5.0 – 7.0
Specific Gravity : 1.108 ± 0.03
Density : 9.230 (lbs/gal) ± 0.25

Freezing Point : -13.3°C
Pour Point Range : -13 to -10°C
Flash Point : > 94°C
Hazardous : N/A

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