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Effect and Optimization of Rheology Control Agent of Non-Damaging Drilling Fluid

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Abstract

Drilling mud is one of the most important things in Oil and Gas well drilling operation. The most important is to decompose that used drilling mud. Conventional drilling mud is non-biodegradable in nature and harmsthe environment. In this study some specific biopolymerssuch as XC-polymer (XCP), pregelatinized starch (PGS) has been used tomake in laboratory called Non-Damaging Drilling Fluid (NDDF) which is biodegradable, environment friendly. XC-polymer generally used as a viscosifier which controlsthe viscosity of the mud. Pregelatinized starch (PGS) is used asfluid loss control agent. CalciumCarbonate is used as weighing and bridging material. Biocide is used to prevent the bacterial action in the drilling mud. A rigorous study has been performed on the mud properties and found their excellent role in respective purpose in the Reservoir Drilling Fluid (RDF)

Keywords:
Environment friendly, XC-polymer, PGS, NDDF, RDF

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