

Bio Enhanced Energy Recovery – Innovative Carrier Fluid for Reservoir Optimization

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Abstract

Energy politics changed in the last years, therefore a need in an environmental friendly option to optimize reservoirs evolved. The formulation of the Bio Enhanced Energy Recovery-Fluid (BEER-fluid) itself is known in the drilling industry for years. As BEER fluid, it will be used with changed concentrations in other application areas.

The aim of this research project is an optimized, economically friendly method of operating in the field of hydraulic stimulation and sand control using a carrier fluid, the BEER-fluid, in combination with glass proppants. The fluid consisting out of four components (water, linear polymer, potassium carbonate and glass proppants) needs to be adjusted to keep the outstanding properties of its components, like friction reduction, corrosion inhibition or clay stabilization, but also to get an economically and logistically friendly product for the oil, gas and geothermal industry. Additional requirements are a good transport capacity for the proppants, compatibility with rock formations and reservoir fluids and the possibility for a controlled breaking of the fluid for well clean up after treatment. Laboratory results and the preparation of the BEER-fluid for the first field test will be shown in this presentation.