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Simulating Horizontal Well Matrix Acidizing and Contrasting the Outcomes with Actual Data from Coiled Tubing PLT and DTS

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Abstract

Carbonate reservoirs have different approaches to acid stimulation techniques. In order to achieve the most effective results, it varies by utilizing different diverters, acid systems, and pumping types. Even after improving the coiled tubing placement and numerical model predictions, it was previously challenging to determine where the injected fluids actually went during a stimulation job; therefore, the outcomes were frequently ineffective.

This scientific paper aims to investigate and contrast the Kinetix Matrix simulation software results of horizontal well matrix acidizing with actual data obtained from coiled tubing production logging and distributed temperature sensing techniques. The comparison with real-time data helps validate the accuracy of the simulations and provides valuable insights into the field application of this acid stimulation technique.