

A New Strategy to Explore Tight Oil / Gas Reservoirs Fit for Purpose Acid Fracturing

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ABSTRACT

Marginal and unconventional reservoirs can have lots of resource potential and reserves, but may require horizontal well drilling, and/or multiple stage hydraulic fracturing to achieve economic production targets. This type of strategy is more expensive than conventional method(s) and is proven in some circles as potentially risky and many of these risks must be addressed and mitigated. In an effort to reduce risks and costs associated with the exploration process, a new stimulation strategy has been adopted for unconventional and tight intervals to explore and appraise these intervals using vertical wells and fir for purpose fracturing prior to going to horizontal wells.

This work presents and analyzes oil and gas exploration well cases study in which a new strategy has been applied and evaluated. Also demonstrates that this approach can lead to new resource discoveries, better reservoir understanding and improved well and completion design for future appraisal wells. Moreover, highlights some of the additional challenges that this strategy may evoke and shows how these challenges may be overcome in the future.