Benchmarking Well Performance for Drilling and Completions Techniques and Variable Geology in the Utica/Point Pleasant Play

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Drilling Info

Abstract

With over 400 producing wells, statistical insights are beginning to emerge from the Utica/Point Pleasant play in Eastern Ohio. As horizontal drilling and completions techniques evolve, and pad drilling becomes more prevalent, there remains a striking variability in performance of even adjacent wells. Analytic techniques provide a baseline for estimating the impact that well length, stage length, frac fluid volume and proppant masses have upon initial and longer-term well production rates. Adding a geologic perspective, with maps of phase variability (GOR/oil gravity), depth, fault proximity, thick-ness and rock character (breakdown pressure); provides a balanced model of the impact of where and how wells are drilling and completed in the Utica/Point Pleasant. Beyond sweetspot mapping for best gas/liquids fairways and identifying best engineering practices; analytics are providing dynamic insights into production sustainability and impacts of well spacing. Continuously mining the breadth of available geologic and engineering data with modern analytics is essential for driving optimized economic development of the complex Utica/Point Pleasant unconventional play.