

EVALUATING HORIZONTAL WELL POTENTIAL IN THE SPRAYBERRY TREND

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ABSTRACT

Eight attempts have been made to drill and complete horizontal wells in the Sprayberry trend of West Texas. The results have been largely disappointing to date. The methodology employed in each attempt will be discussed, along with the production results. By using the drainhole production results and results from vertical well completions, a model for predicting the performance of these wells will be proposed. The key input to the model is a modified Coates-Denoo relationship between porosity and permeability that utilizes openhole wireline inputs. The model predictions will then be compared to actual performance results. The model will then be used to help predict the optimum completion strategy for wells in the Sprayberry trend.