Parsley Energy's Wolfcamp Position in the Southern Delaware Basin: From Exploration and Appraisal to Development

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ABSTRACT

Parsley Energy has amassed approximately 43,000 net acres in Pecos and Reeves counties, Texas in and around a portion of the prolific Delaware Basin known as the Coyanosa Sub-Basin. This area near the western edge of the Central Basin Platform has produced from vertical well completions in the Delaware sands down to the Devonian carbonates, but economic horizontal wells in the Wolfcamp formation were lacking. After taking an initial deal in July 2013 consisting of approximately 24,000 net acres of fee and GLO lands, Parsley embarked on a 3 vertical well exploratory program in early 2014. Concurrent with the drilling of the exploratory wells, a 52 square mile 3D survey was acquired over a majority of the acreage in the summer of 2014. The first two exploratory wells were drilled without the seismic data and encountered drilling problems, but found working hydrocarbon systems in Woodford through Bone Spring formations. The third vertical well location was confirmed by seismic data and produced oil from the Wolfcamp at sufficient rates to initiate horizontal appraisal of the Upper Wolfcamp formation. An appraisal program kicked off in 2015 and included participation a non-operated well, the Cilantro 2524-C3-1H, which had a 30 day IP of 1479 BOEPD. The Parsley operated Trees State #16-1H was spud in October 2015 and completed in December 2015 with a 30 day IP of over 1151 BOEPD. Parsley continued to expand its position in the Southern Delaware Basin and made significant acquisitions starting with over 14,000 net acres of additional leasehold with production in Reeves and Pecos counties in April of 2016 immediately followed by purchase of 30,000 net acres of minerals and 24,000 acres of surface in Pecos and Reeves counties. Parsley drilled 5 additional horizontal Wolfcamp wells in 2016. During the appraisal phase, 567' of whole core, several hundred sidewall cores, petrophysical data and pressure data were collected for seismic calibration and reservoir characterization. An active develop- ment drilling program is p