

South Hallettsville Field (Wilcox), Lavaca County, Texas

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ABSTRACT

The South Hallettsville Field, a two-well shallow (6,900 ft) Wilcox field with a cumulative production of 4.48 billions of cubic ft of gas (BCFG) and 46.3 thousand barrels of condensate (MBC), was discovered in 1994 and remains productive. It is a stratigraphic trap with structural contributions, best described as a compaction feature. It is located on the northeast flank edge of the Paleocene/Eocene Yoakum Gorge. The productive reservoir is located 800 ft below the top of the Wilcox. The discovery well, the Konvicka G.U. No. 1, was drilled based on 2-D seismic data, with an excellent bright spot amplitude anomaly. A 5-square-mi 3-D seismic data set was subsequently acquired and confirmed the anomaly. A bit of “wildcatting/entrepreneurship,” but more importantly confidence in the bright spot gained from past experience played its part, as the discovery was located 800 ft west of a 13,093-ft dry hole. In 1994 dollars, the discovery cost \$335,000 as a completed flowing well. Fortunately, 2-D seismic data allowed us into the ballpark for a “grand-slam”-type discovery; however, it was the 3-D seismic data set that provided the actual structural delineation of the stratigraphic trap and more importantly, information on the shape and size of the producing reservoir. Knowing this allowed us to drain adequately the reservoir without the cost of drilling additional unnecessary take points. During the major life of the reservoir, gas prices were between \$1.50 and \$2.50 per million British thermal units (MMBTU). The field generated approximately \$12.2 million in gross and \$10.1 million in net revenue during this gas price regime, for a finding cost of \$0.07 per MMBTU to the working interest. Are there any more anomalies of this type to be found? Probably yes, and they will probably be found “accidentally on purpose.”