

## Acorn Field—a Plum in the Lansing–Kansas City Pudding

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Production was established in Dundy County, extreme southwestern Nebraska, in 1957 in the Jones field. The primary reservoirs in the area include carbonate zones in the Upper Pennsylvanian Lansing–Kansas City, Douglas, and Shawnee Groups. Forty-two fields have produced nearly 4,000,000 stock tank barrels of oil (STBO). During 1998, 74 wells produced 344,000 STBO. The Acorn field township has produced 2,467,171 STBO, nearly 62% of the county's production.

The Acorn field was discovered in September 1995 by the Advantage Resources No. 3–33 Ham in sec. 33, T. 2 N., R. 37 W. This well was completed for 113 barrels of oil per day (BOPD) from the Lansing–Kansas City D zone. After three apparently unsuccessful offset wells were drilled, BEREXCO completed the Howard–Ham No. 15–28 from the Lansing–Kansas City E zone, in October 1997 for 494 BOPD and 5BWPD. By March 1998, the field contained an additional four producers, the E zone is the major reservoir. Field production peaked in 1998 at about 1,000 BOPD and averaged 614 BOPD from six wells—the highest daily oil-production rate in the state.

Structural trends in the Acorn field area on the Lansing–Kansas City A zone are interpreted as being generally northwest-southeast, parallel to the strike of the Cambridge Arch. This trend differs from the northeast-southwest structural trends usually presented in Dundy and adjacent Hitchcock County. Analysis of original bottom-hole pressures, production tests, and stratigraphy indicate that the E zone locally is complex and consist of multiple carbonate buildups. Additional drilling is needed to verify these interpretations. With only about 400 wells, Dundy County is under-explored for an area that contains numerous subtle, complex reservoirs.