

GEOLOGICAL NOTES

THE KEVIN-SUNBURST OIL FIELD, MONTANA¹

The Kevin-Sunburst oil field of Montana has made slow but steady progress toward the position of a major field. Discovered in 1922, it was the first field in the United States to yield a truly important amount of oil from Jurassic strata, and while at present small quantities of oil may be produced from the Sundance formation of Jurassic age in Wyoming, the Kevin-Sunburst field, which draws its major production from the basal sand of the Ellis formation, remains the only important field that depends on the Jurassic.

The field is on a great, low dome, with the oil apparently perched on the northwest side of the dome. No explanation for this position of the oil and its apparent absence on the other flanks and the crest of the dome is offered in this paper, nor, so far as the reviewer is aware, in any other discussion of the field that has been published. This "perched" position of the oil is by no means unique, but the Sunburst field is an example on a grand scale of what has been observed on many much smaller domes and anticlines, and it may prove to be an especially favorable place to look for an explanation of this habit that has been observed in so many oil fields.

Although the deepest production apparently comes from the basal sand of the Jurassic, there has been persistent search for deeper horizons, and one well on the very crest of the structure was drilled to a depth of 4,445 feet, proving the existence of 770 feet of Madison limestone (Lower Mississippian), 335 feet of limestones that are probably Devonian, 275 feet of anhydrite that may be Silurian, and 1,585 feet of limestones, shales, anhydrites, and sands that are Silurian or older.

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AGE OF PRODUCING HORIZON, RICE COUNTY, KANSAS

Attention was called to the Rice-Reno County district of central Kansas by the completion of a 140-barrel well on the Welch farm in the southeast corner of the SW. $\frac{1}{2}$ of the NW. $\frac{1}{2}$ of Sec. 35, T. 20 S., R. 6 W., in March, 1924. The oil occurs in a white to gray chert, encountered at

¹ *Press Notice*, United States Geological Survey, January 12, 1926.