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William B. Hansen¹ (1) Consulting Geologist, Jireh Consulting Services, Great Falls, MT

Gas Resources of Montana

Natural gas production has been an integral part of the Montana economy since its discovery on the Sweetgrass Arch in the 1920's. Gas caps associated with the giant Kevin-Sunburst (Mississippian) and Cutbank (Lower Cretaceous) oil fields of Northwest Montana were utilized prior to record keeping. Most of the recorded gas production in Montana to date, however, comes from the Upper Cretaceous Eagle/Virgelle/Milk River/Shannon (Campanian) interval around the Bearpaw Mountain Uplift and the Cedar Creek Anticline. Production has exceeded a TCF since the early 1970's and development drilling for the shallow biogenic gas continues. However, only a small portion of the state underlain by the Eagle/Virgelle interval has been explored.

In the early 1980's gas production was established in the Northern Montana Thrust Belt at Blackleaf Canyon (Mississippian), Two Medicine (Mississippian), and East Glacier (Cretaceous) fields. Blackleaf Canyon has produced about 6.9 BCF from four wells, with ultimate in-place reserves estimated at 30-60 BCF. The Mississippian play is still in the frontier exploration stages and has an estimated undiscovered resource potential of 2.5 - 12.6 TCF. A frontier Cretaceous play may also exist in the Montana Foothills.

The Crazy Mountain Basin is an unexplored 'deep' basin, and contains source rocks, maturities, and reservoirs suitable for significant future gas production. Montana contains the largest coal reserves in the lower 48 states, but coalbed methane has just begun to be developed in the Northern Powder River Basin. Several other basins throughout Montana contain both coalbed methane potential and existing pipelines.