

PAST DISCOVERY PATTERN: A KEY TO FUTURE EXPLORATION POTENTIAL IN THE ARKLA-MAFLA TREND

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ABSTRACT

Discovery pattern and size of the fields in Arkansas, Louisiana, Mississippi, Alabama and Florida, producing from Norphlet, Smackover, Buckner and Haynesville formations, have been analyzed. There are 325 fields in this 400 mile long and 250 mile wide play. The ultimate recoverable reserves are 1,600 million barrels of oil and 9,000 billion cubic feet of gas.

The play is 56 years and mature by all standards. If discovered reserves were to follow log normal distribution, then the reserves remaining to be discovered are small. However, combining statistical analyses with known geology indicate the possibility of larger reserves. Larger undiscovered reserves dictate a different exploration strategy. The size of the remaining reserves, the exploration signature, and the economics for each group within the play are discussed. A case history of "large undiscovered reserve strategy" in drilling of a deep wildcat in Mobile county Alabama and a comparison with California's mature plays is presented.