

## **SIGNIFICANT EXPLORATORY DEVELOPMENTS OF 1953**

*by*

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### **Abstract**

The results of wildcatting in the United States' active oil frontiers of 1953 demonstrated that the current optimistic predictions for those big, sparsely tested areas are not just wishful thinking.

During 1953, exploratory thinking was further broadened and brightened by the completion of oil or gas-producing wildcats across the country. Some of these discoveries were in the wide-open spaces, others hugged or were within areas of big production; some were completed as significant producers, others made only small wells but afforded concrete evidence of the potentialities of a hitherto unproductive area or formation.

None of these wildcat discoveries opened what can yet be recognized as an exceptionally large reserve. It will take development drilling during the next few years to determine how much oil and gas was found. But, regardless of the final tally, the discoveries resulting from last year's unprecedented reaching out and down into the unknown have stimulated further exploratory efforts that will lead to more major oil and gas fields.

## **COMPOSITION OF CRUDE OIL AND ITS RELATION TO STRATIGRAPHY IN WYOMING<sup>2</sup>**

*by*

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### **Abstract**

Although the crude oils of Wyoming vary widely in their composition, nearly all of them can be classified into two major groups on the basis of the average composition of oils from each formation. These two groups of oils are found in rocks representing different environments of deposition. The high-sulphur, low-gasoline, aromatic-naphthene base crudes are associated with thick limestone, dolomite, and shale sequences which were deposited in broad shallow seas under conditions of prolonged crustal stability. The low-sulphur, high-gasoline, paraffin-naphthene base crudes are associated with sand-shale sequences deposited in areas of moderate tectonic activity with high rates of subsidence and deposition. Differences in oils within a formation are correlative with differences in environment of deposition and with depth of burial. In the Pennsylvanian-Permian formations of Wyoming the oils associated with the dolomite-evaporite facies at the east are more aromatic and naphthenic than the oils associated with the dolomite-shale facies at the west. Within the Frontier formation the oils from areas of low

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