

## **Geochemistry Characters of Effective Source Rocks in Block D of Irrawaddy Basin, Myanmar**

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### **Abstract**

The Block D is located in the center of northern deep depression of Irrawaddy Basin. The Eocene Tilin Formation and Tabyin Formation are the main source rocks. The reservoir sand body of the Eocene Tabyin Formation is the main petroleum producing formation. The main objectives of this study were to define the type of effective source rocks in delta with a large number of terrestrial organic matter input and their geochemistry characters, and finally to improve further exploration in Block D and other Tertiary delta basins in the world.

In order to achieve this aim, the methods including source rock pyrolysis, organic petrology, chromatography-mass spectrometry and stable carbon isotopes were used in our research. The types of source rocks were classified based on the saturated hydrocarbon biomarker parameters. The effective source rocks were identified by the oil-source rock correlation.

The results show that there are two types of effective source rocks which include A and B, and three types of oils in Block D. The type A of source rocks are divided into sub-type A1, A2 and A3, and type B are divided into sub-type B1, B2 and B3, respectively. The type A2, A3 and B1 are the effective source rocks. The hydrocarbon generation potential of A2 and A3 are fair-good and type B1 is poor.