

Role and Contribution of Depositional Model and Facies Development in Maximizing Economic Recovery and Production Efficiency from Hydrocarbon Bearing Carbonate Reservoir, Ras Fanar Field, Gulf of Suez, Egypt

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Depositional system reorganization and Facies development play an important role in defining the details distribution of reservoir rocks and fluids content with the ultimate goal of a reservoir management scheme. This reorganization aims to provide facts and information necessary to control production operations and to optimally develop any oil or gas field by obtaining the maximum possible economic recovery from the reservoir units. Also, it helps in the reservoir characterization modeling process which embodies the integration of the technical disciplines of the exploration and the development phase.

This study describe the Carbonate Reservoir Depositional Model of Ras Fanar field (as one of the oil fields which produce hydrocarbons mainly from Carbonates of Middle Miocene age), Gulf of Suez, Egypt.

Sedimentological, Petrographical and Petrophysical data in addition to microfacies associations and diagenetic examination were used to follow up the development history and reservoir characterization. Test results and production data of the drilled wells are also used to develop a better understanding of reservoir dynamics and to improve the depositional model of the reservoir aiming to predict the content and the production behavior of wells in order to formulate a plan for the development of the carbonate reservoir in the field.