

## **Building a Static Model During Exploration: Enabler for Fast Track Field Development Plan**

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### **ABSTRACT**

Traditionally, exploration program and field development phases are detached. The exploration team concentrates on scanning leads, screening promising prospects and understanding the size of the prize (the hydrocarbons in place) and the POS (probability of success) based on key criteria such as the presence of source rock, migration, charge and seal. If the exploration program is successfully realized by confirming the presence hydrocarbons in an economical quantity, field development planning can start. A transition between a preliminary regional-based knowledge and a more local, field-specific effort operates. At that point of time, a first static reservoir model is constructed mainly to support and assist the subsurface team to design drilling plans, understanding reservoir properties distribution across the reservoir and forecasting the future performance of the field. Learnings from one case study in offshore East Malaysia shows that the availability of nearby field data to constrain the static model is critical. This method yields the best results in mature basin settings where the explorations targets are surrounded by well-known fields. Analogue learnings can be drawn from and directly applied to the exploration target. In a case of wild cat exploration, new and frontier basins, the challenge resides in constraining the pre-exploration static model with relevant data to provide meaningful range of outcomes and ultimately take better decision.