



**Day: Wednesday 26 April**  
**Time: 10:45am**

**Session: 2**

## **Turbidite Systems of the East Andaman Basin (Myanmar): Impacts on Exploration**

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The Andaman Sea is characterized by series of pull-apart basins formed in a strike slip regime within a back-arc setting. This right lateral strike slip tectonic is due to the oblique subduction of the Indian plate below the Sunda plate that resulted in a strain-partitioning process that prevailed probably from Eocene to present day.

The stratigraphic sequence of the Andaman basins is composed of a volcanic basement overlain by carbonate and clastic sequences. The older deposits encountered by wells are Eocene in age (M5 Basin margin and Mergui Basin). The Oligocene-Lower Miocene series are characterized by thick shelf clastics sourced from the East and by carbonate platforms and reefs that develop mainly on western volcanic highs. A huge siliciclastic succession related to the Irrawaddy Delta took place from Upper Miocene to present.

That prograding deltaic system was initially sourced from the young Himalaya reliefs. However, during the Neogene, the uplift of the Indo-Burma range cut-off the Irrawaddy from the Himalayan sediment sources and that newly erected range became the main sediment source of the Irrawaddy river.

The Irrawaddy behaved as an axial distributary system, mainly feeding the North-South elongated basin, (Fig.1), and regularly bypassing any saddle to the West, entering directly into the Bengal Gulf. The Neogene transgressive-regressive cycles of the Kyaukkok Formation and the Irrawaddy Group in the gulf of Moattama show that the progradation of the deltaic sediments occurred through rapid pulses. Individual parasequences correlate, and therefore traveled, for 100km or more from North to South, providing abundant sediments at the shelf-edge during relative sea level lowstands.

The eastern side of the basin appears globally starved of sediment and then, its contribution to the sourcing of the basin from the Middle Miocene remains unclear.

Recent 2D seismic acquired on YWB block exhibits large channels along the present-day slope, which probably extends in the abyssal plain. Similar channel levee systems are also observed in the Pliocene and deeper sections (Fig.2) that constitute attractive exploration targets for the block.

A remaining question is the presence of lobe systems at the slope toe in addition to channel-levees. This would represent an additional target for the emerging exploration in deep water of East Andaman Basin.

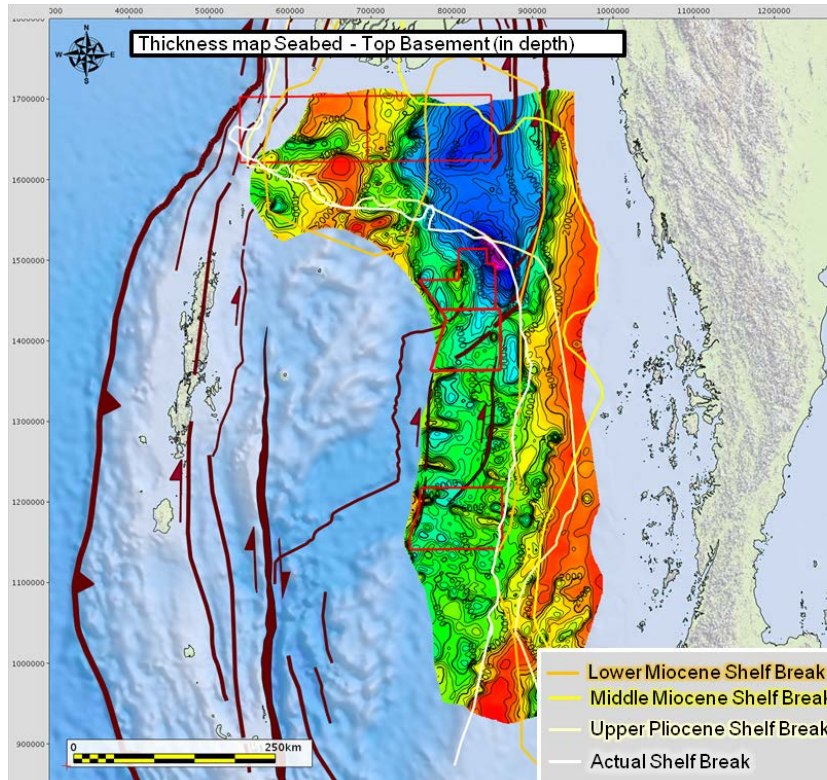


Figure 1: Thickness map of the sedimentary cover of Moattama, Tanyhtary and East Andaman Basin - offshore Myanmar, Total interests in offshore Andaman Sea indicated by red polygons.

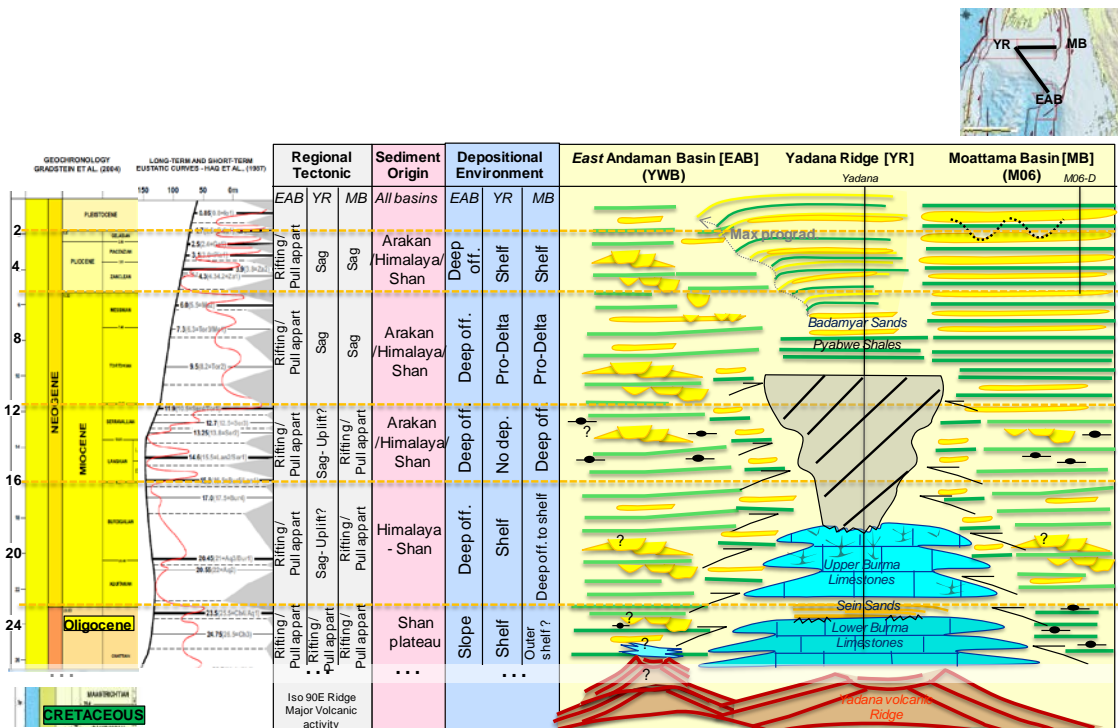


Figure 2: Simplified stratigraphic chart of the Moattama basin, Yadana Ridge and East Andaman Basin.