

*Paper 12***Seismic sequence stratigraphic interpretation enhances remaining hydrocarbon potential of the SE Collins Field****ROBERT WONG HIN FATT**

PETRONAS, Exploration Management Department

The SE Collins Field is a marginal oil field that was discovered in 1972. It is located within the complexly faulted central portion of the Inboard Belt of the NW Sabah Basin. The field is an elongated, 8 km by 1.5 km, N-S anticlinal structure supported by reverse faults on the north, west and south. The north and central culminations have been tested to be hydrocarbon bearing. The main reservoirs are the Middle Miocene lower Stage IVA sands.

High quality, close grid seismic data were acquired over the field in 1989. This has enabled seismic sequence stratigraphic interpretation to be carried out. The study has resulted in the identification of two third-order sequences within the Stage IVA. The lower sequence consists of two systems tract — transgressive and highstand. The upper sequence comprises another two systems tract — lowstand and transgressive.

This work has led to a better understanding of the stratal patterns within the two sequences and hence, the distribution of the reservoirs and seals. The main reservoirs and seals have been correlated and mapped and the reserves estimated. The proven reserve was assessed to be more than twice the amount that was initially predicted. The untested southern culmination is perceived to contain hydrocarbons reservoired in mainly coastal to shallow sands of the upper sequence of the Stage IVA.
