

## Petroleum Geology Conference and Exhibition 2008

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### Geology Paper 24

#### MORE OIL FROM AN OLD FIELD

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Baram field is located in Sarawak Basin, East Malaysia. The field was discovered in 1963 by Baram-1 well in the down-thrown side of the main growth fault. Six additional appraisal wells including the discovery well for Baram South Fault Block were drilled prior to formulating development plans (Figure 1).

The depositional environment is predominantly fluviomarine-coastal inner neritic reservoirs from Late Miocene to Early Pliocene in age (Upper Cycle V to Lower Cycle VI). Oil bearing reservoirs occur at depth 2500 to 9000 ft tvdss in the sand-shale intercalation settings.

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In recent years, a systematic detail re-evaluation of the field was carried out to identify further development opportunities. For the G&G aspect it covered the re-analysis of the well correlation, seismic interpretation, hydrocarbon fluid distribution, and uncertainties analysis. 3D static model has been used and developed for the analysis. (Figure 2).

Dealing with the multi-stacked with various thicknesses; range around 10 ft to 60 ft tvdss is challenging. But with the effectiveness use of 3D static modeling, state of art drilling technology, challenging the past assumption and maximizing the development of the minor reservoirs have resulted in identification of upside potential and new reserves. (Figure 3).

In 2005 until 2007, 15 wells were drilled from two drilling platforms to further appraise and develop Baram South field, while 4 sidetracks wells, 1 workover & 3 wells were drilled to develop Baram A area, which gave very encouraging results. The overall production of the field has reached the same level as in 1974, i.e 32 years after first field production. (Figure 4).

## References

PCSB. May 2003. Baram South Field Development Plan. Unpublished. 229p.

PCSB. August 2005. BADP-A Revisit 4 Technical Proposal. Unpublished

PCSB. February 2007. BADP-E Revisit 1, Baram A – Block 3 Field Development Plan. Unpublished. 78p.

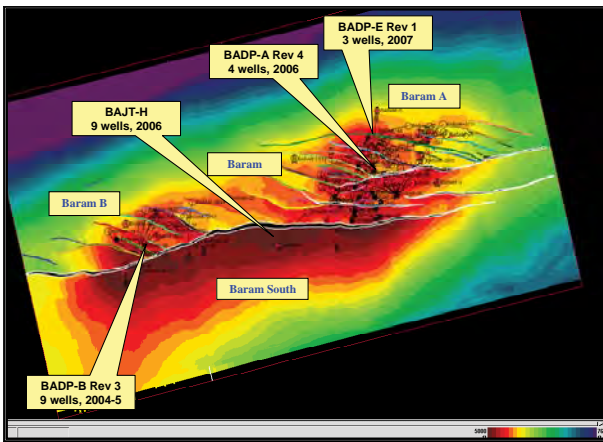


Figure 1: Structure of Baram Field.

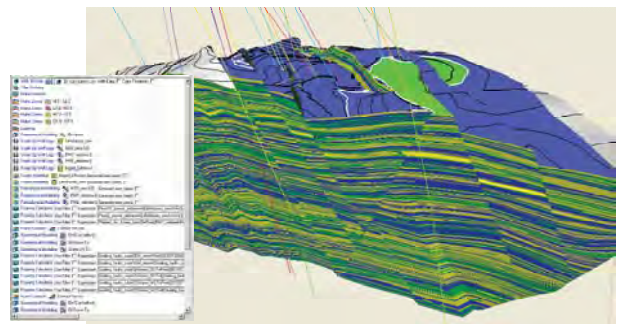


Figure 2: 3D static model that has been used for the analysis.

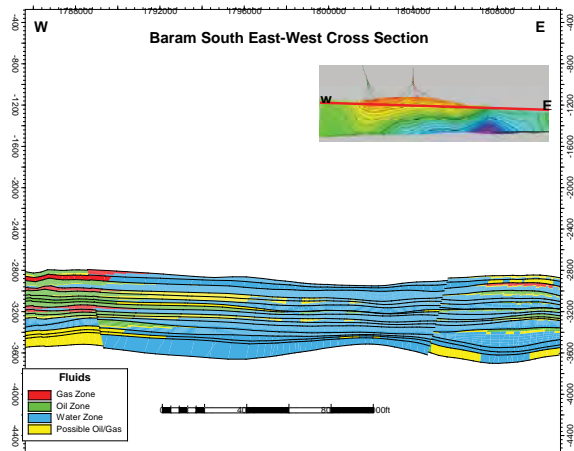


Figure 3: Multistacked reservoirs with various thicknesses in Baram.

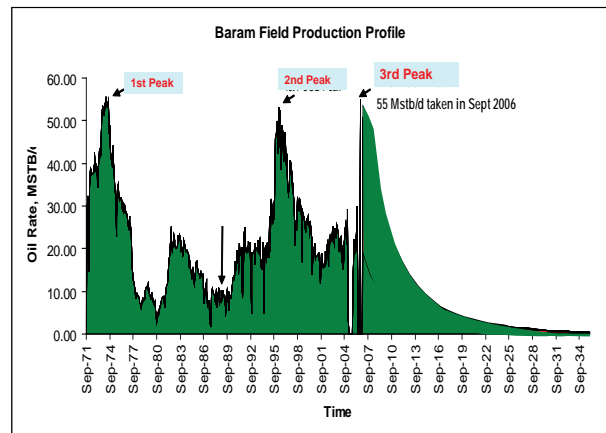


Figure 4: Baram Field Production Profile.