

INTEGRATING GEOLOGY AND GEOPHYSICS TO THE PLANNING OF THE GUNTONG FIELD DEVELOPMENT

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The development of the Guntong Field has been significantly aided by the integration of seismic, well logs, cores and stratigraphic interpretations. Two disciplines have been of particular importance :-

- i) the use of 3D seismic data, and
- ii) sequence stratigraphic concepts.

Our detailed mapping of amplitudes, using time-slices and datumed lines, clearly defines channel morphology, and also the distribution of hydrocarbon as indicated by strong oil DHIs. The 3D seismic has opened a new dimension, not only to the field structural definitions, but also to the mapping of reservoir facies. The presence of sand-filled incised valleys as the major reservoir units in the Group I has been recognised only recently. Chronostratigraphic correlation of well logs using the latest sequence stratigraphic concepts, integrated with interpretations based on seismic and core data, has allowed accurate structural, facies and net thickness predictions ahead of the bit. As our experience in the development of the Guntong field expands, the advantages of an integrated approach become more apparent.