Marginal field developments are always challenging but they can be done commercially and in reasonable time frames if an innovative development approach and effective risk reduction efforts are applied to control costs and manage risks.

An example is the Cendor field which is located offshore Peninsular Malaysia, in block PM-304 along the eastern part of what is known as the “Jambu-Liang Anticline.” Cendor began production in 2005 with the placement of seven development wells utilizing a Mobile Offshore Production Unit (MOPU). Since that time, more than 15MM barrels have been produced averaging between 14,000-15,000 BOPD from upper H Group reservoirs. Seismic and geological interpretations have divided the Jambu-Liang structure into six fault blocks; 1) Cendor, 2) Cendor Graben, 3) East Desaru, 4) West Desaru, and 5) Irama. The structure trends east-west and each fault block is defined by predominantly north south trending faults that probably formed in response to the structural growth of Jambu-Liang that initiated in post-H group time.

In 2008-09, the PM-304 partners continued the development approach mindset by performing a successful five well near-field appraisal campaign in East Desaru, West Desaru and Irama. Each well encountered hydrocarbons in the upper H group and identified two gas/oil contacts in East and West Desaru indicating that the faults are sealing (at least in the upper H group) and compartmentalization exists.

The current in-house seismic has played a strategic role in identifying drilling opportunities, particularly in the H-15 sands, in each of the fault blocks but limitations do exist due to the resolving power of the sands and the presence of shallow gas that has negatively impacted the signal/noise, to varying degrees, over 75% of the interpretation area. Angle offset data and simultaneous inversion volumes have identified “sand fairways” over the Jambu-Liang structure which have led the partnership to consider three possible depositional settings; 1) A lower delta plain with channels and crevasse splays, 2) A channel belt with “sweet spot” channel sands and an associated sandy flood plain, and 3) Younger channels eroding into an older sandy system. In 2010, the partnership hopes to continue evaluating PM-304 with emphasis on innovation, risk-reduction, and cost control.