INTEGRATED APPROACH TO MAXIMIZING ASSET VALUE IN THE MATURE PALAS FIELD, MALAYSIA

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The Palas field, located offshore Peninsula Malaysia, was discovered in 1977 and has been producing for over 20 years. The field was developed in two stages with an initial drilling program in 1985 focused on Lower Miocene Major I reservoirs with Minor I reservoirs as secondary targets, and a subsequent drilling program in 2000 focused on Group J reservoirs.

With maturing production from the Major I and Group J reservoirs there has been a shift in focus towards the less depleted Minor I reservoirs. This paper describes the evolution of Minor I reservoir drilling targets, from secondary objectives with opportunistic completions, to key targets in a recent infill drilling campaign.

The Lower Miocene Minor I reservoirs are comprised of tidally influenced, lower delta plain sandstones and occur as discrete channels to amalgamated channel complexes. Reservoir compartments are separated by intervening shales resulting in multiple fluid contacts and oil columns ranging from 15 to 70 meters. Seismic imaging is challenged by the relatively thin nature (5 – 10m gross thickness) of the sandstones and numerous interbedded coals. Reservoir-scale mapping is primarily based on well data.

Opportunity generation was guided by mixed but encouraging production performance from the sparse oil completions taken in the Minor I reservoirs and included collaborative Geoscience and Reservoir Engineering construction of 3D geologic and reservoir simulation models to high-grade infill drilling opportunities. This effort resulted in several proposed development wells in the Minor I reservoirs, two of which were drilled as part of a recent infill program. Encouraging results from these two wells are being used to further the understanding of the Minor I reservoirs and mature additional infill opportunities.