

The potential yield or genetic potential (S_1/S_2) is generally moderate to very good (2-20 mg/g) and is occasionally excellent (>20 mg/g). The production indices ($S_1/(S_1 + S_2)$) are largely affected by igneous activity observed at the Flinders 1 and are high (circa 0.3) above and immediately below the igneous intrusion, and decrease to approximately 0.15 below the intrusion.

POST MORTEM: The primary objectives of Flinders 1 were the fluvial sandstones of the lower to middle *M. diversus* (Primary Zone) of the Eastern View Coal Measures, located some 500m updip of the Pelican Field in a large fault bounded structure. The primary objective fluvial sandstones were intersected as prognosed, an amplitude anomaly observed on seismic data was caused by the presence of an igneous intrusion, intruded near to the top of the primary target. There were no significant shows associated with the primary target. Sandstones below the primary target, age dated as Palaeocene, over the intervals 2559-2562m and 2673-2676m have minor shows of fluorescence and cut, possibly resulting from early *insitu* generation or migration of hydrocarbons.

The secondary objective sandstones in the upper *M. diversus* zone which contained shows at Pipipa 1 also contained shows in Flinders 1 but were generally less well developed. It is now interpreted that these shows are probably due to local sourcing associated with the elevated maturity profile associated with the igneous intrusion, rather than being indicative of migration from the Pelican Trough as was proposed prior to drilling.

The presence of minor shows in Palaeocene sandstones towards total depth is indicative of either local sourcing as the sequence is in the early oil mature window or migration of hydrocarbons from down dip in the Pelican Trough. There is, therefore, a possibility of hydrocarbons being accumulated in deeper Palaeocene and late Cretaceous sandstones, if a trap were developed in this area. Unfortunately current mapping fails to find any closure at these levels in Flinders 1.

The "upper" EVCM closure of the Flinders-Pipipa high has resulted from the early Miocene intrusive wedging into the country rock, uplifting the overlying section. This structure may post date significant migration of hydrocarbons.

In summary Flinders 1 failed to intersect hydrocarbons in the primary target because a trap is not present at this level. It failed at the secondary objective most probably as a result of inadequate vertical migration, but it is also likely the culmination did not exist when hydrocarbons were expelled from Palaeocene and Late Cretaceous source rocks.