

compared with the northeastern and southwestern flanks (40-41°C/km). The northern end of the basin may have a gradient as high as 43°C/km. This high gradient may be associated with Tertiary igneous activity. The northern half of the basin is therefore more prospective than the southern half, due to shallower depths of maturity.

- (7) Lopatin Time - Temperature Maturation plots require the input of additional and refined data to show the effects of burial compaction and detailed paleoheat flow. Although such changes could upgrade areas, which based on present assumptions are only marginally mature, basic levels of maturity are unlikely to change significantly.
- (8) If it is assumed that the marine transgressive shales of the Demons Bluff Fm. are a regional seal then the maturation period of the underlying section is the most important aspect in considering generation and migration. The LTTMP shows that the following approximate thicknesses of lowermost EVCM entered the hydrocarbon generation-preservation zone following deposition of the Demons Bluff Fm.

Pelican 1	5,000'
Narimba 1	3,000'
Cormorant 1	2,500'