

## 10 **MATURITY MODELLING**

### 10.1 **Objectives**

The objective of the maturity modelling study was to:

- 1) Establish potential hydrocarbon type and source potential of the Eastern View Coal Measures (EVCM) in the Pelican Trough,
- 2) Establish maturity profiles in key wells,
- 3) Create isorefectance maps using well-control and new regional structural maps,
- 4) Determine the timing of hydrocarbon generation,
- 5) Identify mature source areas,
- 6) Document possible migration routes.

This was achieved by creating models simulating the maturation history of sediments within T/25P and adjacent areas, and integrating relevant geochemical, geophysical and geological data.

### 10.2 **Maturity Modelling**

Modelling was carried out on a personal computer using version 3.15 of Basin Mod<sup>®</sup>, a commercially available modular software program from Platte River Associates Inc.

Maturation modelling using BMOD<sup>®</sup> requires the input of:

- 1) A geological model of the sedimentary section,
- 2) A heat flow model,
- 3) A lithology and porosity compaction model from which thermal conductivity with time can be evaluated,
- 4) A model of the kinetic parameters of the kerogens within each source rock interval.