

### 5.2.3 Discussion

In the different stratigraphic intervals, source rock quantity and type directly reflect the depositional environment. The Otway Group is believed to be entirely a continental depositional system. The EVCM are predominantly continental, but with marine incursions of increasing frequency through time in the north. The Demons Bluff and Torquay Group are totally marine. Likewise, the general trend of source type through time is from gas prone, typical of continental sediments, to more oil prone, typical of marine sediments. The system has also evolved from a predominantly sandstone/siltstone dominated clastic system in the Otway Group, through to a shale dominated system during Demons Bluff Formation deposition. Hence, as a general feature, the relative quantity of oil prone source rock per unit of section has increased through time.

## 5.3 MATURATION

### 5.3.1 Introduction

The degree of maturation of a section can be estimated by a variety of methods, either by direct measurement, e.g. vitrinite reflectance, or by modelling, e.g. Lopatin Time Temperature Maturation Plots. The application of these techniques is discussed in the following sections.