

## PART II - VITRINITE REFLECTANCE DETERMINATIONS AND ORGANIC PETROLOGY

### ANALYTICAL PROCEDURE

Representative portions of each sample (crushed to -14+35 BSS mesh) were obtained with a sample splitter and then mounted in cold setting Glasscraft resin using a 2.5 cm diameter mould. Each block was ground flat using diamond impregnated laps and carborundum paper. The surface was then polished with aluminium oxide and finally magnesium oxide.

Reflectance measurements on vitrinite phytoclasts were made to Australian Standard AS 2486-1981 with a Leitz MPV1.1 microphotometer fitted to a Leitz Ortholux microscope and calibrated against synthetic standards. All measurements were taken using oil immersion ( $n = 1.518$ ) and incident monochromatic light (wavelength 546 nm) at a temperature of  $23 \pm 1^\circ\text{C}$ . Fluorescence observations were made on the same microscope utilising a 3 mm BG3 excitation filter, a TK400 dichroic mirror and a K510 suppression filter.

### RESULTS

A summary of the vitrinite reflectance data is presented in Table 1. Histogram plots of these data are included in Appendix A. Tables 2-4 present the results of the organic petrology.