INTRODUCTION

From 26 October to 29 October 1972, Geophysical Service International, Party 931, aboard the M/V McDERMOTT II conducted a marine geophysical survey for Hematite Petroleum Proprietary Limited in the Otway Basin. The prospect, designated the Portland-King Island prospect, is located near 39° S latitude and 143° E longitude (Figure 1).

GEONAV, an integrated satellite positioning system (described in Appendix A), was the onboard navigation system and provided horizontal control for the survey. No secondary system was used in this project.

Mylar base maps, scaled 1:100,000 and 1:250,000, showing shotpoint locations were generated at the processing center. The maps, employing a Transverse Mercator projection and standard U.T.M. parameters, have been submitted under separate cover. Grid and graticule listings of the shotpoints have also been submitted prior to this report. The shotpoint locations are based on the Australian National Spheroid and the Australian Geodetic Datum.

SUMMARY OF OPERATIONS

The seismic survey was conducted with an airgun energy source and a 3200-m, 48-group streamer. A 33-1/3-m shotpoint interval was controlled by the GEONAV system, and the position of each shotpoint was recorded on magnetic tape. This shotpoint interval produced 48-fold seismic data. Shotpoint positions represent the center of the airgun array at the moment of discharge. The plot frequency for the 1:100,000 scale map is every sixth (6) shotpoint and for the 1:250,000 scale, every twenty-fourth (24) shotpoint. Only satellite fixes occurring during the shooting of a line are plotted or annotated in the listings.