

INTRODUCTION

The East Mereenie No. 2 is the third well to be drilled in the Mereenie field by Exoil (N.T.) Pty. Ltd. and its partners. It was the first deep oil exploratory hole to be air drilled in Australia. Air drilling was introduced to this area by Exoil as a result of the extreme difficulties encountered while drilling with mud in previous holes. The well was drilled on Oil Permit 43 issued by the Northern Territory of Australia to Magellan Petroleum Corporation. Partners with Exoil in the venture were Magellan Petroleum (N.T.) Pty. Ltd., Farmout Drillers N.L. and Krewliff Investments Pty. Ltd.

The well was sited six and one half miles south-east from East Mereenie No. 1 along the plunging crest of the Mereenie Anticline. It was located structurally with the intention of proving additional gas column or alternatively, an oil column. Continuous coring was recommended to Exoil in order to determine the reservoir conditions of the Pacoota Sandstone.

The erratic nature of the Pacoota reservoir, where rapid alternations of sandstones and shale are combined with extreme variations in the development of permeability in the sandstone, makes it difficult to obtain representative core data. In addition, the necessity of using heavy mud to control the high pressure Lower Stairway gas increases the costs and mechanical difficulties of coring.

Drilling costs of Mereenie wells can be further decreased by air or gas drilling to mechanical and engineering limits i.e. large shows of gas or oil. Had this been done at East Mereenie No. 2, savings estimated at £15,425, would have been feasible.