THE MERRIMELIA OIL AND GAS FIELD

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BIOGRAPHIES

Jim Bowering graduated from the University of Adelaide in 1964 with a B.Sc. (Hons.) degree in geology. He then held geological positions with Beach Petroleum, West Australian Petroleum Pty. Ltd. and Pexa Oil N.L. He worked for several years as a hydrogeologist and petroleum geologist with the South Australian Geological Survey before joining Delhi Petroleum, where he currently holds the position of Senior Petroleum Geologist. He is a member of the American Association of Petroleum Geologists and the Geological Society of Australia, and is currently President of the South Australian branch of the Petroleum Exploration Society of Australia.

Dennis Harrison obtained his B.Sc. at the University of Melbourne in 1969. He has since gained experience as an Exploration Geologist in coal, iron ore, base metals and petroleum. Petroleum experience was with Australian Aquitaine Petroleum N.L. and Beach Petroleum N.L. He joined Alliance Oil Development in January, 1982, and currently holds the position of Senior Geologist. He is a member of the G.S.A., P.E.S.A. and A.I.M.M.

SUMMARY

The Merrimelia 1 well was drilled as an exploratory well for Permian gas, following the discovery of a commercial gas field in the nearby Gidgealpa structure. It was designed as a stratigraphic test well on the flank of a large northeast-trending anticlinal structure which seismic data indicated to be bald of Permian sediments at the crest.

The well penetrated "Gidgealpa Group" sediments and recorded two small uneconomic gas flows from sands within what is now known as the Patchawarra Formation. Four subsequent wells were drilled for Permian gas, and of these, only Merrimelia 5 was completed as a potential gas producer. Merrimelia 2 recorded the first positive indications of hydrocarbons from the Triassic in the Cooper Basin.

Later discoveries of oil and gas in several fields in sediments of the Eromanga Basin sequence led to the upgrading of the prospectivity of Jurassic and Early Cretaceous sandstones. Merrimelia 6 was drilled at the crest of the Merrimelia structure as a structural test for hydrocarbons in the Eromanga sequence, and recorded commercial flows of oil from the Namur and Hutton sandstones and gas from the Nappamerri Formation. Merrimelia 7, located downdip from Merrimelia 6, recorded commercial flows of both oil and gas from the Nappamerri Formation. The Merrimelia field thus became the first within the Cooper and Eromanga Basins

to be hydrocarbon productive from Jurassic, Triassic and Permian reservoirs.

Merrimelia 8 which produced substantial flows of oil and gas from three separate Mesozoic reservoirs provides further evidence of the great potential of the Merrimelia field. Like other oil fields of the Eromanga Basin, Merrimelia is a structural accumulation with some apparent stratigraphic control on trapping.