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ANNUAL REPORT
 EXPLORATION LICENCE 6/79 (CATAMARAN)
 FOR THE PERIOD 16.5.83 TO 15.5.84

OPEN FILE

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SUMMARY

Exploration work during the tenement year 16.5.83 to 15.5.84 involved the collation, re-interpretation and reappraisal of all work undertaken by Marathon Petroleum Australia, Ltd. within EL 6/79. Limited field work was also carried out.

The results of this work are contained within a report entitled "A Geological Evaluation of EL 6/79 Catamaran" by Perkins and Dunn 1984. The evaluation report accompanies this annual report.

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2.0 INTRODUCTION

Exploration Licence 6/79 Catamaran covers an area of 136 square kilometres in the vicinity of Recherche Bay, southeast Tasmania. The Exploration Licence was granted to Marathon Petroleum Australia, Ltd. on May 16, 1980 for a period of six (6) months and renewed on November 16, 1980 and May 16, 1981 for further six (6) month periods. On November 16, 1981 the licence was renewed for twelve (12) months, followed by a renewal for six (6) months on November 16, 1982 and then renewed for a further twelve (12) months on May 16, 1983.

This report outlines work carried out on EL 6/79 (Catamaran) during the period May 16, 1983 to May 15, 1984.

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3.0 GEOLOGY OF EL 6/79 CATAMARAN

EL 6/79 is situated within the Tasmanian Basin which covers an area of approximately 20,000 square kilometres and contains over 1000m of Permo-Triassic intruded and faulted clastic continental and paralic sediments. These sediments overly Ordovician marine sediments of the Junee Group and have been intruded by sills of Jurassic dolerite (Spry and Banks, 1962).

Rocks outcropping in EL 6/79 range in age from Ordovician to Recent. They are predominantly sedimentary rocks of fluviatile origin with some marine units (Ordovician). Dolerite and basalts from the Jurassic and Tertiary are also present.

3.1 Stratigraphy

3.1.1 Ordovician

Limestones, sandstones and conglomerates of Ordovician age outcrop to the west of the Lune River Fault.

The limestone is presently being extracted for use in the zinc works at Hobart.

3.1.2 Permian

Within EL 6/79 glacial-marine rocks of Permian age outcrop to the west of the Lune River Fault and on the coast in the vicinity of Southport.

3.1.3 Triassic

Triassic Basal Sandstone:

The Triassic Basal Sandstone unit consists of predominantly well sorted sandstones of fine to medium grain size which

are typically bedded. Drilling within the E.L. indicates that this unit is greater than 238m thick.

Triassic Coal Measures:

The upper unit or Triassic Coal Measures lies conformably on top of the Triassic Basal Sandstone and drilling indicates that the unit is greater than 140m.

The sequence comprises a sequence of sandstone, siltstone, mudstone, carbonaceous mudstone and coal seams. The coal seams are banded, dull, and typically have a high inherent ash.

3.1.4 Jurassic Dolerite

Tholeiitic Jurassic dolerite has intruded the Triassic rocks within EL 6/79, and appears to have been emplaced in the form of sills which is consistent with other observations around the Tasmania~~y~~ Basin. Only minor thermal metamorphism seems to have occurred near most margins of the sills. Dolerite scree covers a large proportion of the Triassic rocks.

3.1.5 Tertiary Basalt

Basalt occurs as minor ⁹flaws generally less than a few kilometres long. Basalt has only been recognized in the north of the area.

3.2 Structure

The structure of EL 6/79 is dominated by fault bounded dolerite intruded blocks. Dolerite has intruded the Triassic sediments throughout the Tasmania~~y~~ Basin.

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4.0 WORK CARRIED OUT

Since the granting of EL 6/79, Marathon have undertaken work including drilling programmes, photogeological studies, aeromagnetic surveys, landsat studies, ground magnetic and gravity surveys, coal quality studies and geological mapping in an attempt to delineate economic coal deposits.

During the tenement period 16.5.83 to 15.5.84 work was carried out aimed at reappraising all data collected from within EL 6/79. This involved the reinterpretation and synthesis of all information. Limited field work aimed at checking previous mapping was also undertaken.

The results of this reappraisal of exploration work carried out are contained within a report entitled "Geological Evaluation of EL 6/79 Catamaran" which accompanies this Annual Report.

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FUTURE WORK

Future work within EL 6/79 Catamaran will involve further drilling to delineate the small in situ coal resource which is inferred to be present (Perkins and Dunn 1984) and the testing of three areas with some potential to contain small coal deposits, but as yet untested.

6.0 REFERENCE

Perkins, N.T. and Dunn, D.L.J., 1984:
Geological Evaluation of EL 6/79 Catamaran.