

**PETROLEUM EXPLORATION PERMIT
T13/P**

**Annual Report for Permit Year 1
4th April, 1979 – 3rd April 1980**

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**TPR
OR-0093**

PETROLEUM EXPLORATION PERMIT T 13/P

ANNUAL REPORT FOR PERMIT YEAR I
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Exploration of the permit began with the acquisition of all available data relating to previous exploration of the area. Much of these data were acquired from the previous holder of permits over the eastern part of T 13/P, Magellan Petroleum, who transferred their entire technical archives to Otter.

Field tapes for all seismic lines shot by Magellan in the eastern portion of T 13/P were acquired from the Australian Archives and approximately 450 kilometres reprocessed.

The lines reprocessed were:

1. Magellan East Gippsland Survey 1969
Lines M15T, M20T, M22T, M33T, M35T and M39T
totalling 160 kilometres

It had originally been intended to reprocess all lines from this survey which extended into the permit. The survey had been shot as 2 x 24 fold and processed with 2 to 1 horizontal and vertical stack to bring it down to 12 fold.

Unfortunately, when we began experimental processing of this data, we found that the tapes obtained from archives were not field tapes but the vertically stacked pre-processing tapes. Thus, it was not possible to reprocess these lines 24 fold and the data enhancement originally hoped for could not be achieved.

We therefore decided to re-process only a limited number of key lines at this stage and postponed work on the balance until data from our planned new survey had been processed.

2. Magellan Tasman-Bass Strait Survey 1969
Lines M55T, M56T, M57T, M58T, M59T and M60T
totalling 115 kilometres

All lines from this survey within the permit were reprocessed as the original 24 fold field tapes were available.

3. N.S.W. Oil & Gas Sailfish Survey 1971
Lines G7, G35, G37 and G39
totalling 175 kilometres

As this survey was a very close spaced grid, only four lines were selected for reprocessing at this stage.

T/13/P Part 1

No attempt was made at this stage to carry out full scale re-mapping of all the existing seismic data as there was insufficient time available to complete such a project prior to planning the new seismic program. Also, it was considered that any re-mapping of the area was best delayed until the new higher resolution data was available which would enable more accurate identification of stratigraphic horizons.

The re-processed data was therefore examined with the primary aim of determining basic regional structure and the location of possible structural anomalies worthy of further investigation.

On the basis of this work, a programme of approximately 400 kilometres of new seismic was drawn up which will be shot in early May 1980. (This survey is in progress as of the date of this report).

This programme has been designed in the form of a broad zig-zag covering the eastern part of the permit from north to south. It is tied in the north to a new seismic survey to be carried out in Victoria waters to the north of T 13/P which in turn, will be tied to existing wells of Esso/B.H.P. Thus, it should be possible to follow key stratigraphic horizons into T 13/P with much greater reliability than has been possible in the past. The primary objective of the survey is to obtain better definition of the structure in the eastern portion of the permit. Existing data indicates the presence of a major down to the east, north-south trending fault in this region forming the western margin of an area of thick pre-Tertiary sediments.

A number of structural anomalies are shown on the existing seismic in the vicinity of this fault, both on the upthrown and downthrown sides. The new programme has been designed to cross a number of these to indicate whether future detailed work is warranted.

The final survey objective is to investigate the southern portion of the permit where the only existing data is a limited number of very poor quality sparker traverses. The programmed lines should be sufficient to determine whether a prospective sedimentary section is present in this part of the permit.

Enclosed are two copies of the programme map for the survey on which the position of structural leads has been noted.

Transparent copies of re-processed seismic lines will be forwarded to you as soon as possible.

Expenditure for the year to 3rd April, 1980 was:-

Technical studies and supervision	12,911
Seismic re-processing	12,924
Data acquisition, drafting and plan printing	10,453
Administration	1,402
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	\$ 37,690
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NB Additional costs of \$36,826 for reprocessing were incurred during the year but not paid within the period and will be included in the expenditure for Year II.

