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BRIDGE OIL LIMITED

Bass Basin

T - 19 - P

1985

SEISMIC INTERPRETATION PROJECT

TPR

OR. 0217

BASS BASIN T-19-P SEISMIC INTERPRETATION PROJECT
TABLE OF CONTENTS

1/	SUMMARY	PAGE 1.
2/	INTRODUCTION	PAGE 1.
3/	HORIZON IDENTIFICATION	PAGE 2.
4/	DATA QUALITY	PAGE 2.
5/	STRUCTURAL FRAMEWORK - 1985 SEISMIC PROGRAM AREA	PAGE 3.
6/	DISCUSSION OF MAPS & SEISMIC LINES	PAGE 4.
	A/ MAPS	PAGE 4.
	B/ KEY SEISMIC LINES	PAGE 5.
7/	PROSPECT & LEAD DISCUSSION	PAGE 7.
	A/ SEAL PROSPECT	PAGE 7.
	B/ MANATEE LEAD	PAGE 9.
8/	CONCLUSIONS	PAGE 11.

LIST OF FIGURES -

- -----
- 1/. TECTONIC ELEMENTS MAP (IN TEXT)
 - 2/. LINE BB-85-78 (REGIONAL LINE)
 - 3/. LINE BB-85-62 (REGIONAL LINE)
 - 4/. LINE BB-85-62 (FLATTENED ON TOP) EVCM (IN TEXT)
 - 5/. LINE BB-85-73 (SEAL)
 - 6/. LINE BB-85-72 (SEAL DRILLSITE)
 - 7/. LINE BB-85-70 (SEAL)
 - 8/. SEAL PROGNOSIS (IN TEXT)

LIST OF MAPS

- -----
- 1/ Top EVCM Structure (Seal)
 - 2/ Upper EVCM Structure (Regional)
 - 3/ Base EVCM Structure (Regional)
 - 4/ Lower EVCM Structure (Manatee)
 - 5/ Top EVCM - Upper EVCM Isochron (Seal)
 - 6/ Upper EVCM - Base EVCM Isochron (Seal)

SUMMARY

Exploration Associates International of Houston was contracted by Bridge Oil Limited, (Operator of the T-19-P joint venture), to conduct an interpretation of the 1985 seismic program.

The aim of this project was to integrate the new 1985 data with the existing interpretation in T-19-P in the hope of developing one or more drillable prospects.

The 1985 seismic program, which amounted to 404 kms of 120 trace 6000% data, was recorded by Western Geophysical in April 1985 & processed by Western Geophysical during May - July 1985 at their Singapore Digital Center. The data was made available to Exploration Associates on July 26th, 1985 and the interpretation completed on August 9th, 1985, the results of this interpretation were presented to the Joint Venture at a Technical-Operating Meeting in Sydney on August 14th, 1985.

The Seal Lead was confirmed as a drillable prospect demonstrating four-way dip closure at the top of the Eocene - Eastern View Coal Measures. The Seal Prospect has mapped areal closure of 3000 - 4000 Acres with a maximum of 280 feet vertical closure. It can be evaluated with at 5200 foot well.

Introduction

The main purpose of the 1985 seismic program in T-19-P was to provide detail coverage over the Manatee and Seal Leads.

The Manatee and Seal Leads flank the Central Graben of T-19-P which has been recognized as the most prospective portion of T-19-P due to the presence of a thick Eastern View Coal Measure section within the Graben.

This Graben is viewed as a potential sourcing area for hydrocarbons that might migrate up dip into the Seal or Manatee structures.

The Manatee anomaly was originally recognized on seismic line PB-81-12, where a strong reflector at 1.400 to 1.600 seconds dips westward below a major unconformity overlain by east dipping reflections.

The anomaly area lies along the western margin of the main Early Tertiary and pre-Tertiary Bass Basin depocenter and appears to be associated with a major basin forming, down-to-the-east, growth fault.

Westward expansion of the prospective section is recognized. It lies both to the east and to the west of the Mornington - King Island fault and has therefore been influenced by the early rifting tectonics as well as the later movements of this fault. Differential uplift, tilting, deformation and faulting caused the Manatee area to be broken into several fault blocks.

The Seal Structure was originally recognized on a 1965 vintage line EB-3 which indicated a pronounced NE-SW dip closure at top Eastern view draped over an irregular, slightly faulted basement surface.

The Seal structure is located on a NE tilted fault block typical of the Northwest Bass Basin. It lies upthrown on a large paleo-fault which represents the NE boundary of the central Graben depocenter which trends NW-SE into T-19-P. This depocenter plunges South-Eastward towards T-18-P and forms a natural migration ramp into T-19-P.

Horizon Identification

Regional horizon identification was established during mapping projects conducted in T-19-P in 1984. Therefore, the 1985 program was tied into this control. The only subsurface control in T-19-P is provided by the Konkon #1 well. Utilizing a synthetic seismogram from Konkon #1, and lines PB-82-24 & PB-81-10 an accurate correlation into the 1985 grid was developed. The reliability of this correlation is highest at Top Eocene shale & top P, asperopolus levels. Reliability decreases at lower Eastern View and basement levels. Considerable expansion, (as compared to Konkon #1.) of the Eastern View section is noted in the Manatee and Central Graben areas. Since this expansion occurs rapidly across major faults it is impossible to correlate which units in Konkon #1, are involved. It is probable that additional, older section is preserved in these expanded intervals whose stratigraphic equivalents were not drilled in Konkon #1. Speculation as to the lithology of these intervals involve regional projections.

Data Quality

Data quality was overall very good and showed considerable improvement over earlier data. The greatest improvement was in the area of multiple attenuation which was especially helpful in resolving the true thickness of section in the Central Graben. Previous data, plagued with multiples, did not convincingly resolve acoustic basement within the Central Graben. The 1985 data defines acoustic basement on lines BB-85-80, BB-85-78 & BB-85-62 as deep as 2.5 Sec within the Central Graben.

Structural Framework - 1985 Seismic Program Area

The structural framework in the 1985 Seismic Program Area is dominated by two major tectonic trends. (See Fig. 1).

- 1/ NW-SE trending tilted basement horst blocks dipping NE and faulted to the SW dividing the area into a series of half-grabens.
- 2/ NNE-SSW Mornington King Island Fault trend.

The NW-SE trending tilted fault blocks are typical of the Northwest Bass Basin. These faults developed during Cretaceous rifting and have a similar polarity of faulting (down to the SW) in the Northwest Bass. In the Southeast Bass the fault polarity is opposite, being down to the NE.

There are three major down to the SW faults in the T-19-P area of interest. One to the NE of Konkon #1. One which bounds the Seal trend, and one which bounds the Penguin trend. The area between the Seal and Penguin trends encompasses the Central Graben. The area between these faults are half-grabens which thicken to the NE and wedge-out to the SW towards the controlling fault. The NW-SE horst trends abruptly terminate against the NNE-SSW Mornington - King Island Fault System.

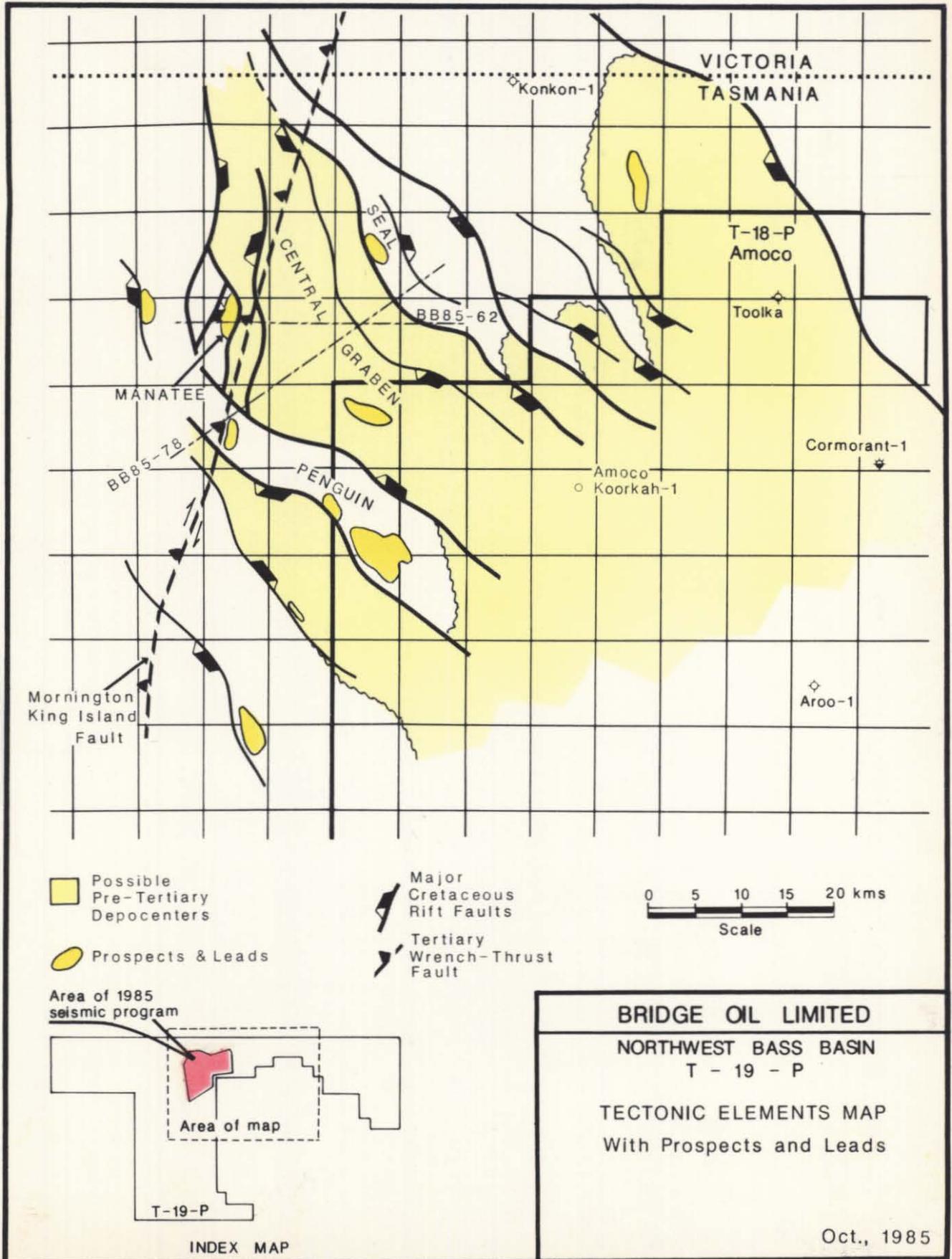
The Mornington - King Island Fault trend is parallel to the "transform" fault system observed by the BMR in their regional studies in the Bass. These "transform" faults or shear faults developed at right angles to the major rift faults and appear to have offset the rift faults much like the transform faults which offset the mid-ocean ridge spreading centers. The abrupt termination of the NW-SE horst trends into the Mornington - King Island fault implies that there has been lateral movement on the fault suggesting it may be a "relic" transform fault.

East - West seismic sections across the Mornington-King Island fault show very recent vertical movement along the fault, and associated compressional and extensional features. The Mornington-King Island fault appears to represent an ancient transform fault which has been rejuvenated in recent times. The area to the west of the Mornington-King Island fault (Manatee) has seen considerable (+2000 feet) uplift since the Eocene.

The Manatee structure is more closely aligned with the Mornington-King Island fault and is bounded to the east by a narrow N-S trending graben related to extension along the Mornington-King Island Fault.

The Seal Structure is located atop one of the NW-SE trending tilted basement blocks, adjacent to the Central Graben.

5 cm



Discussion of Maps & Key Seismic Lines

Six Maps were constructed at 1:50,000 scale in the 1985 survey area:

- 1/ Top EVCN Structure (Seal)
- 2/ Upper EVCN Structure (Regional)
- 3/ Base EVCN Structure (Regional)
- 4/ Lower EVCN Structure (Manatee)
- 5/ Top EVCN - Upper EVCN Isochron (Seal)
- 6/ Upper EVCN - Base EVCN Isochron (Seal)

Five key-lines were chosen to define the structural style and illustrate the Seal Prospect and Manatee Lead.

- | | | |
|----|-----------------------------|----------------|
| 1/ | BB-85-78 - Regional Section | Fig. 2 |
| 2/ | BB-85-62 - Regional Section | Fig. 3, Fig. 4 |
| 3/ | BB-85-73 | Fig. 5 |
| 4/ | BB-85-72 | Fig. 6 |
| 5/ | BB-85-70 | Fig. 7 |

A/ Maps

Two regional maps were constructed over the entire 1985 survey area:

- 1/ Upper EVCN
- 2/ Base EVCN

The Upper EVCN horizon lies slightly below the Top EVCN horizon and appears to correspond to the Upper M. Diversus. Unconformity.

The Base EVCN horizon corresponds to acoustic basement throughout the Seal and Central Graben area. To the west of the Mornington - King Island Fault, the Base EVCN horizon represents the base of the reflective sequence and may or may not be basement.

The possibility of lateral movement along the Mornington - King Island Fault places in question the accuracy of reliably correlating across the fault.

Whatever the case, the Base EVCN horizon is the deepest event mapped and best displays the primary structural elements, prospects and leads.

The contour interval within the Manatee Area has been changed to 100 msec from 20 msec elsewhere on the map due to the steep dips observed at Manatee.

Locally, over the Seal Area three additional maps were constructed as follows:

- 1/ Top EVCN
- 2/ Isochron - Upper EVCN
- 3/ Isochron - Lower EVCN

The Top EVCM map resembles the Upper & base EVCM map within the Seal Area and defines four-way dip closure at the top of the EVCM.

The Upper EVCM Isochron shows a gradual westward thickening of the interval into the Central Graben. This interval encompasses the major sandstone objectives at Seal.

The Lower EVCM Isochron shows prominent thinning of the interval across the Seal trend in a NE-SW direction suggesting drape over the NW-SE trending basement tilted horst block. A closed thin is developed offset to the southeast of the present day structural closure.

Locally, over the Manatee Area a Lower EVCM map was constructed to illustrate the prominent east dip in the Manatee Area. In the southern part of this map the variation in the rate of east dip is due to drape of this horizon over the differentially eroded unconformity surface cut down into the Manatee fault blocks.

B/Key Seismic Lines

Two regional lines were chosen to illustrate the structural style of the survey area and show the relationship of the Manatee, Penguin and Seal structures to the Central Graben.

Line BB-85-78 (Figure 2) shot perpendicular (NE-SW) to the grain of the tilted Penguin and Seal horst block trends, illustrates the Central Graben and the Eastern View Coal Measure section draping into and filling the graben. It is apparent that section within the graben is not present on the surrounding uplifts. At the northeast end of the line, the Seal horst block is upthrown on a large, buried basement fault. At the SW end of the line another large, basement involved fault demonstrating almost one second of throw bounds the northeast flank of the Penguin horst which trends NW-SE. Just to the west of this large fault the Mornington - King Island Fault (MKIF) cuts through trending NNE-SSW. The Mornington - King Island Fault shows reverse movement cutting up through the Eocene. The EVCM section is considerably thicker on the upthrust side than the sub-thrust side implying lateral movement on the fault. Truncation of reflectors on the seafloor west of the MKIF indicates very recent movement.

Line BB-85-62 (Figure 3) crosses the Central Graben in an (E-W) direction at an oblique angle. BB-85-62 illustrates the Seal trend on the East end and the Manatee feature on the West end. The MKIF cuts the profile at S.P. 880. Unlike BB-85-78, the MKIF does not cut up through the EVCM section, but instead manifests itself as an eastward dipping sharp flexure. On line BB-85-62 the MKIF cuts through a narrow deep graben (Manatee Graben) which trends North-South.

Within this graben the EVCM section is 1.4 sec. thick as compared to Line BB-85-78, where the EVCM is 400 msec. thick at the location of the MKIF. The shallow basement and thin EVCM on BB-85-78 allows the basement movements to penetrate shallower than on BB-85-62 where the basement movements along the MKIF are absorbed in the thick EVCM section.

The Manatee structure is upthrown on the west side of this narrow N-S trending Manatee Graben that appears to be related to extensional transverse movement on the MKIF. The East Manatee structure is upthrown on the east side of the Manatee Graben. The genesis of the Manatee structure, which trends predominantly N-S is probably related to early, rapid, movement on the MKIF. A prominent unconformity cuts down into the Manatee structure and the Upper EVCM is draped across this unconformity.

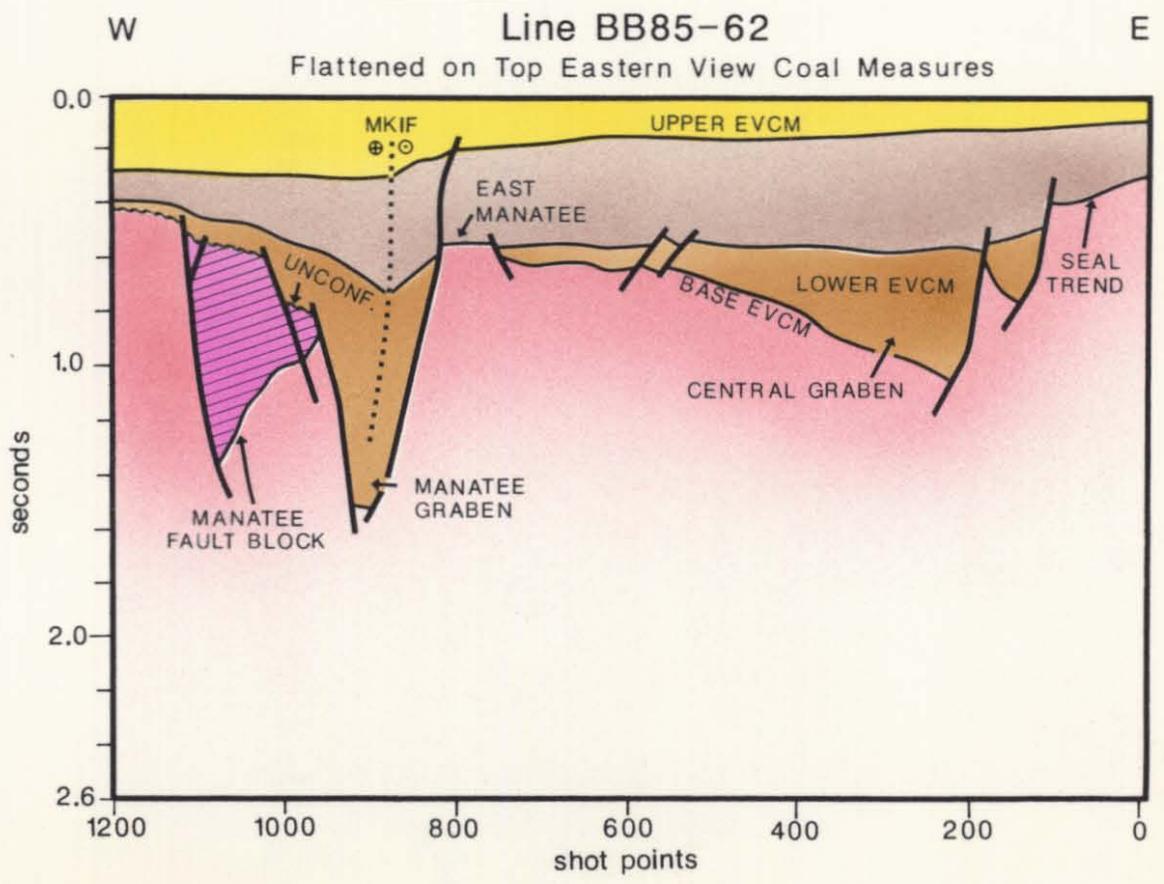
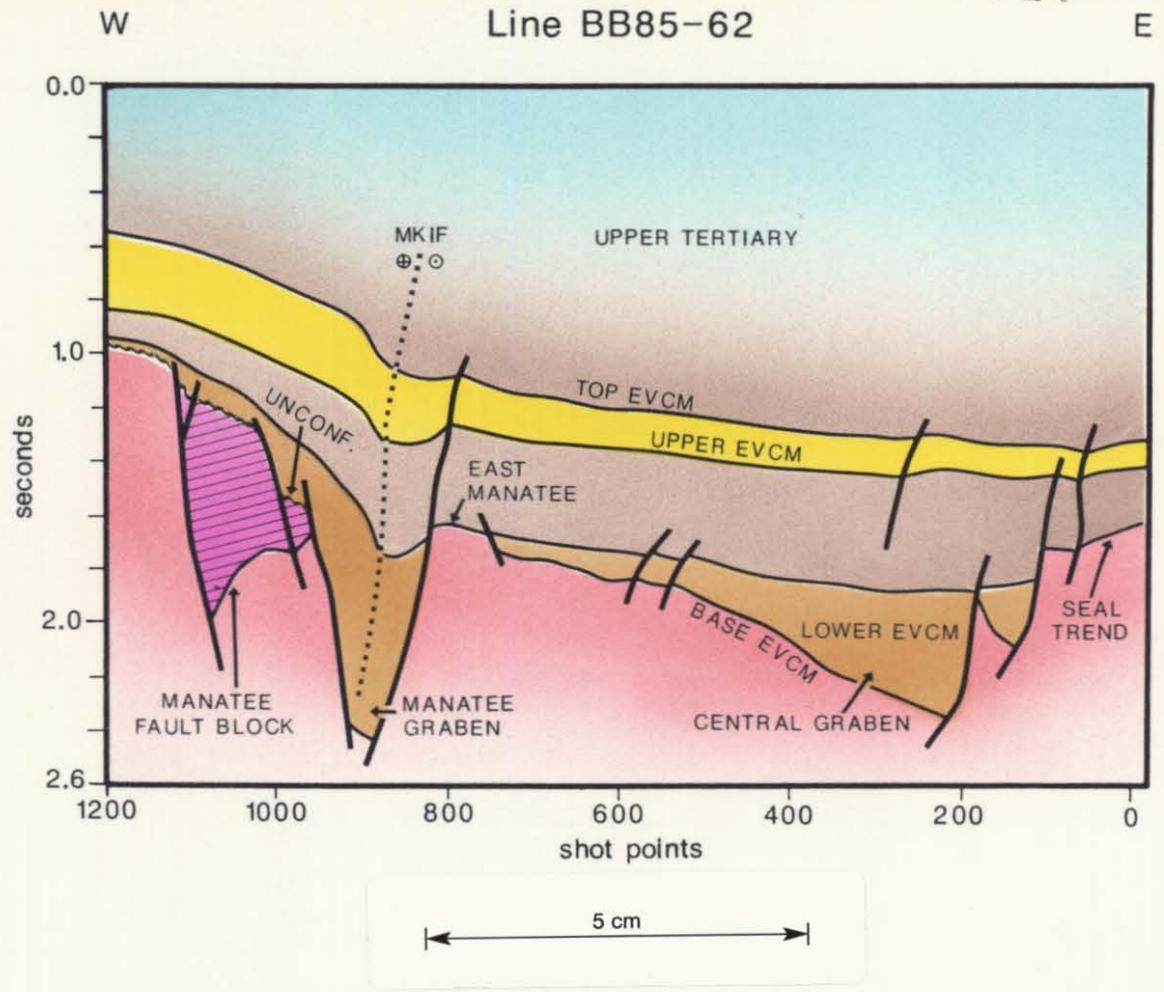
In profile, this draped section represents a half-graben fill thinning to the west and thickening eastward towards the MKIF.

Figure - 4 is a set of profiles based on Line BB-85-62.

The Top profile is the present day structural configuration. The bottom profile has been flattened on Top EVCM to eliminate the recent movement on the MKIF. The flattened profile approximates the structural configuration at the end of Eastern View deposition. Two primary observations can be made:

- 1/ The Manatee graben and the central graben are filled with a Lower EVCM section which thickens towards the East with similar polarity.
- 2/ The area to the west of the MKIF has seen considerable uplift since the end of EVCM deposition. Note the relative uplift of the Manatee feature relative to the Central Graben.

Lines BB-85-73, 72 and 70 (Figures 5, 6, & 7) cross the Seal Prospect and demonstrate the four-way independent dip closure in the EVCM section. More discussion of the Seal Prospect is contained in the section entitled Prospect & Lead Discussion. S.P. 140, Line BB-85-72 has been chosen as a location to test the Seal Prospect.



A/ Seal Prospect

INTRODUCTION

The Seal No. 1 well, to be located at S.P. 140, line BB-85-72 is designed to test an independent four way dip closure at the top of the Eastern View Coal Measures. Drilling to a total depth of 5200 feet would provide an adequate test of Eocene and Paleocene sands overlying economic basement composed of Lower Cretaceous volcanics.

STRUCTURE

The Seal structure was originally recognized on a 1965 vintage line EB-3 which indicated a pronounced NE-SW dip closure at top Eastern View draped over an irregular, slightly faulted basement surface. Seismic surveys recorded by Weaver in 1981-1982 and by Bridge in 1985 provided enough additional infill and detailed coverage to allow for reliable mapping and definition of a four-way dip closure.

The Seal prospect is situated on a SE plunging tip-tilted basement fault block. The northeastward tilted fault block is controlled by a down to the SW fault which bounds the Seal prospect to the SW. This fault shows considerable growth during Eastern View deposition and forms a possible conduit for hydrocarbons migrating from the deeper part of the basin.

Northeast - Southwest dip closure is well demonstrated on line BB-85-72. Critical Northwest dip is well demonstrated on lines PB-82-21, BB-85-73, and BB-85-71. The structure shows good paleogrowth within the Eastern View section across the tip-tilted basement fault block.

Mapping at top Eastern View Coal Measures indicates an areal closure of 3000-4000 acres and a vertical closure of 280 feet.

PROJECTED STRATIGRAPHY

Stratigraphic control for the Seal prospect is provided by the Konkon No. 1 well, located 24 kilometers to the northeast. Utilizing a synthetic seismogram from Konkon No. 1 and lines PB-82-24 & PB-82-10 an accurate correlation was developed. The reliability of this correlation is highest at top Eocene shale & Top P. asperopolus levels. Reliability decreases at lower Eastern View and basement levels.

The Seal no. 1 well should encounter a section very similar to Konkon No. 1. Prospective reservoirs of N. Asperopolus and P. Asperopolus age (Eocene) were drilled in Konkon No. 1. Two individual sand bodies with thicknesses of 250 and 300 feet were encountered. Sidewall cores taken within these sands indicated fair to good porosity and permeability. These Eastern View sands are the primary objectives at Seal. Secondary objectives are provided by lower Eocene and Paleocene sands. Top seal is provided by the thick Eocene shale section (Demons Bluff) which overlies the Eastern View.

REGIONAL SETTING

233012

The Seal structure is located on a NE tilted fault block typical of the Northwest Bass Basin. It lies upthrown on a large paleo-fault which represents the NE boundary of the Central Graben Depocenter which trends NW-SE into T-19-P. This Depocenter plunges south-eastward towards T-18-P and forms a natural migration ramp into T-19-P. As much as 14000 feet of section may exist in the Central Graben in T-19-P. Geochemical studies in the Northwest Bass Basin indicate an oil window between 9000 - 12000 feet. Although the Seal structure itself is not within this oil window, 2 adjacent areas of the Central Graben are, and should be generative. Migration paths are provided by the large faults bounding Seal to the southwest, as well as along the SE plunging Seal trend.

It should be noted that an F.I.T. taken in Cormorant No. 1 located 60 kilometers SE of Seal recovered 20000 cc of 22° API oil at a depth of only 4922 feet. This occurrence of live oil almost 3500 feet above the oil window testifies to the vertical migration efficiency of associated faulting. To a lesser extent, Yolla N. 1 encountered good shows of oil at 6000 feet or 3000 feet above the oil window. Yolla was also drilled on a structure with associated faulting and thick flanking depo-centers.

At Seal, there is also a suggestion of additional section sub-cropping below a prominent unconformity on the Northeast flank of the Seal structure within four kilometers of the proposed drill site. Evidence of this is demonstrated on the NE end of line BB-85-70 and line B-71-A-39S. Thicknesses of up to 9000 feet are suggested.

Seal, although shallow appears to be surrounded on both flanks by areas of thick section ranging from 9000 - 12000 feet. Only one well, Konkon No. 1 has been drilled in the area that currently encompasses T-19-P. The Konkon structure was controlled by two seismic lines. Vintage 1966-1967. It is at best a loosely controlled, extremely subtle structure, programmed to test an interpreted closed wedge of Eastern View sediments on the flank of a large SE plunging nose.

In addition to it's questionable trapping mechanism, Konkon No. 1 was far removed from the Central Graben Depocenter and showed no evidence of thick flanking section. Migration paths to Konkon would have been primarily lateral, distant and complicated.

Although the Seal prognosis looks very similar to the Konkon No. 1 well, It's regional setting is strikingly different due to it's proximity to the Central Graben Depocenter.

Seal No. 1 will represent a valid test of a closed top Eastern View structure and will aid in determining the generative potential of the Central Graben.

RESERVES

Minimum - 2000 acres x 75 feet x 200 BO/AF = 30 MMBO

Maximum - 4000 acres x 100 feet x 200 BO/AF = 80 MMBO

For Prognosis, see Figure - 8

For Line through drilling location (BB-85-72) see Figure -6.

P R O G N O S I S

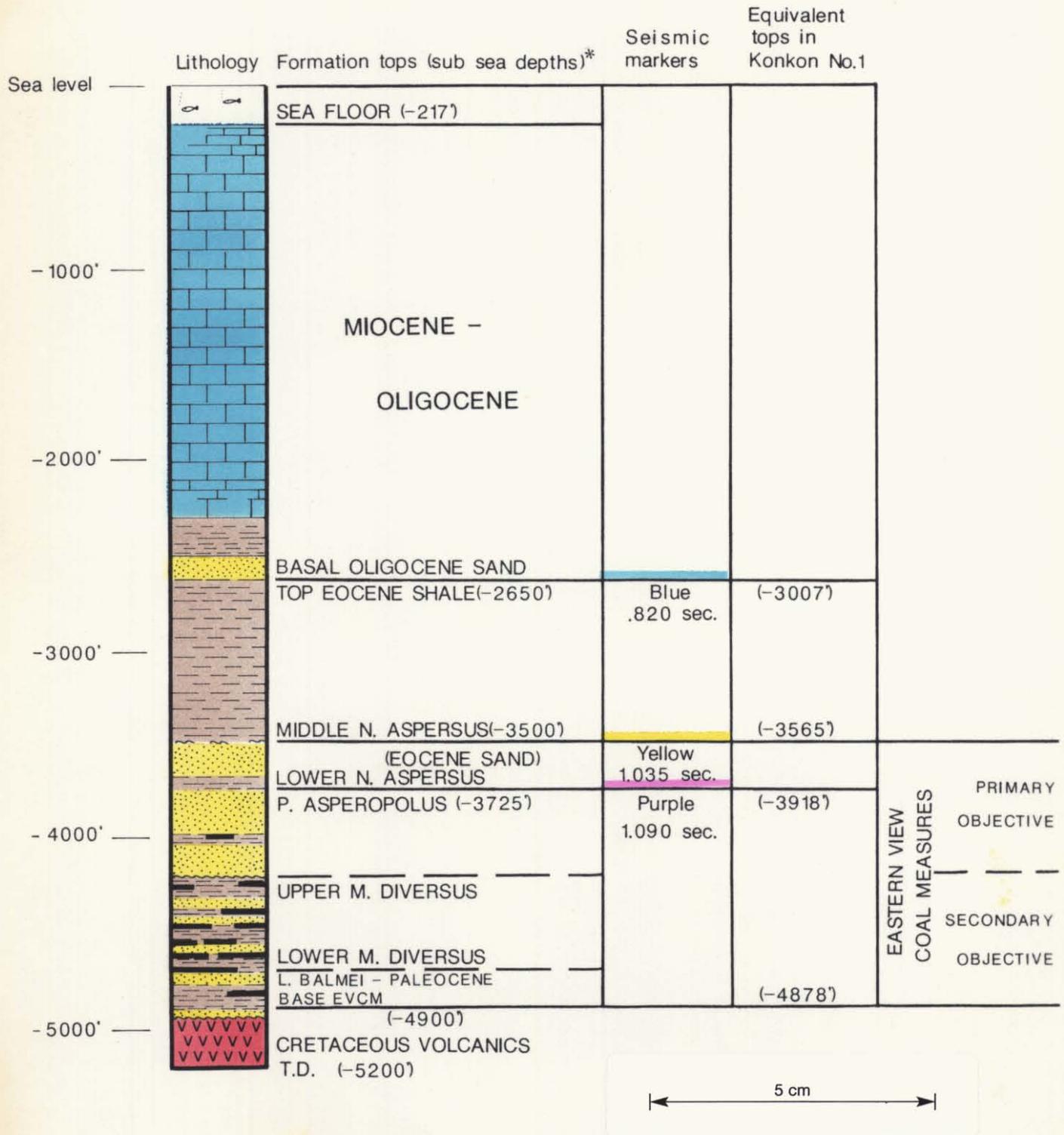
SEAL No.1

233013

Location: Line BB85-72, S.P. 140

Water Depth: 217 feet

P.T.D. 5200 feet



*Source of velocity data: Konkon No.1 time /depth curve

Manatee Lead

1/ Introduction

The Manatee anomaly was originally recognized on seismic line PB-81-12, where a strong reflector at 1.400 to 1.600 seconds dips westward below a major unconformity overlain by east dipping reflections.

The anomaly area lies along the western margin of the main Early Tertiary and pre-Tertiary Bass Basin depocenter and appears to be associated with a major basin forming, down-to-the-east fault.

Westward expansion of the prospective section is recognized. It lies both to the east and to the west of the Mornington - King Island fault and has therefore been influenced by the early rifting tectonics as well as the movements on this fault. Differential uplift, tilting, deformation and faulting caused the Manatee area to be broken in several fault blocks.

2/ Structure

Based on the Pre-1985 mapping the Manatee anomaly was divided into two features; the main Manatee structure lying to the west of the MKIF and the East Manatee structure lying to the east of the MKIF.

Line BB-85-62 illustrates the East Manatee structure in profile view between S.P.'s 840-720. The feature shows excellent E-W turnover, however data acquired in 1985 fails to define north dip which is critical dip. East Manatee appears to be a southward plunging, faulted nose. Its west bounding fault forms the east side of the north-south trending Manatee Graben which is interpreted to have formed during extensional transverse movement on the MKIF.

To the west of the MKIF lies the main Manatee structure. Four dip lines illustrate the high amplitude, steeply dipping event that characterizes Manatee. (Lines PB-82-25, BB-85-62, BB-85-79 and PB-81-12). Each of these lines show approx. 400 msec. of west dip below a major unconformity. Above this unconformity, dips in the Upper EVCN are to the east. The structure appears to have been formed during a very rapid westward rotation of the Manatee fault block.

This rotation was taken up on the two major faults which bound Manatee to the east and west. The resulting high relief structure was rapidly eroded, and an eastward dipping erosional scarp developed. The debris from this erosion was dumped eastward into the Manatee Graben. This sequence of events was probably triggered by a strong extensional movement on the MKIF which simultaneously formed the Manatee Graben and the resulting Manatee structure. The erosional surface above the strong westward dipping event is irregular and demonstrates differential erosion as if the section eroded is non-homogeneous, suggesting a variation in lithology that controls the rate of erosion. The strong westward dipping event that dips from 1700 msec. to 2000 msec. on BB-85-62 appears to be more resistant than the section immediately above, which has been cut back further by erosion.

This differential rate of erosion suggests that the strong reflector may represent a resistant sandstone body and the overlying section a less resistant shale.

Two strike lines were shot in 1985 to define south closure on the Manatee structure (BB-85-51 & 85-53). Line BB-85-53 ties the four dip lines mentioned above and confirms that the strong westward dipping event is the same event from line to line, however only a minor amount of south-dip is present on this line with the bulk of the dip being north. This suggests that Manatee is a northward plunging, westward tilted block. In fact, Manatee appears to represent 2 mirror image of East Manatee with each feature flanking the Manatee Graben, and dipping and plunging in opposite directions. The limited amount of south dip on BB-85-53 reduces the potential areal closure of Manatee to about 1000 Acres. It may have as much as 100 msec. of vertical closure against the bounding fault. If some of the cross-faults in the Manatee area were sealing on the down thrown side, the areal closure could be larger.

3/ Projected Stratigraphy

Since the Manatee tilted fault block is surrounded by major faults and lies below a prominent unconformity it is impossible to directly correlate its stratigraphy to any well control. One can only speculate on the age of the section. The prominent unconformity bears a resemblance to the prominent unconformity observed on seismic sections in the Duroon Area at the opposite (SE) end of the basin. At Duroon No. 1, this unconformity is of Mid-Upper Cretaceous age. Below it lies Upper Cretaceous (*C. triplex* *A. distocarinatus*) shale followed by the Lower Cretaceous.

It is likely that the rocks within the Manatee structure are within the Lower EVCM and are probably of Cretaceous age (possibly Lower Cretaceous). The differential erosion on the unconformity surface suggests a variation in lithology between a more resistant sandstone and less resistant shale.

Conclusions

The results of the T-19-P, 1985 Seismic survey have confirmed the existence, configuration and depth of the Central Graben in T-19-P. As much as 2.5 seconds of section is present within the Central Graben in T-19-P.

The Seal Lead was confirmed as a drillable prospect demonstrating four-way dip closure at the top of the Eocene - Eastern View Coal Measures. The Seal Prospect has mapped areal closure of 3000 - 4000 Acres with a maximum of 280 feet vertical closure. It can be evaluated with a 5200 foot well.

The Manatee Lead has been downgraded due to it's limited areal extent, however the new data has confirmed that the strong west dipping events observed on earlier shooting (lines -81-12 & 82-25) are not spurious data or diffractions but rather represent real sedimentary section. The age and lithology of the section at Manatee is speculative.

LINE BB85-73
S.P. 65-691

SP	MS	ST	ST
59.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

SP	MS	ST	ST
134.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

SP	MS	ST	ST
209.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

SP	MS	ST	ST
284.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

SP	MS	ST	ST
359.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

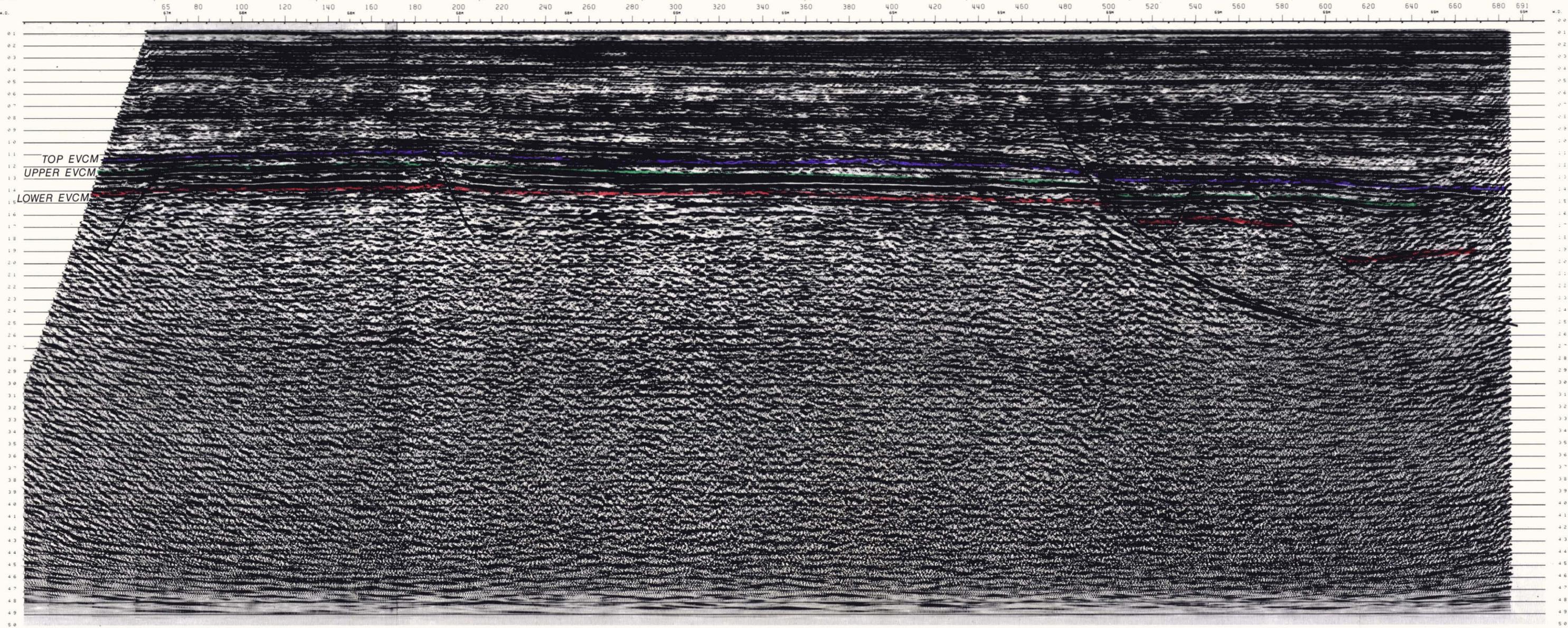
SP	MS	ST	ST
434.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

SP	MS	ST	ST
509.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

SP	MS	ST	ST
584.50	1800	1800	1800
0.10	1810	1810	1810
0.20	1820	1820	1820
0.30	1830	1830	1830
0.40	1840	1840	1840
0.50	1850	1850	1850
0.60	1860	1860	1860
0.70	1870	1870	1870
0.80	1880	1880	1880
0.90	1890	1890	1890
1.00	1900	1900	1900
1.10	1910	1910	1910
1.20	1920	1920	1920
1.30	1930	1930	1930
1.40	1940	1940	1940
1.50	1950	1950	1950
1.60	1960	1960	1960
1.70	1970	1970	1970
1.80	1980	1980	1980
1.90	1990	1990	1990
2.00	2000	2000	2000

233019

5 cm



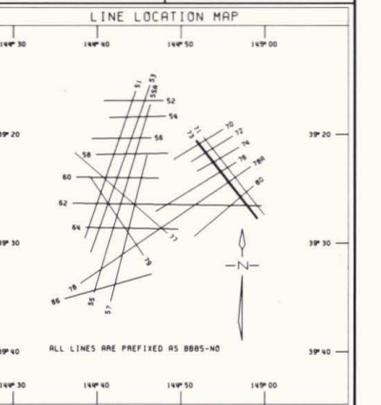
MIGRATED SECTION
LINE : BB85-73
S.P. 65 TO 691
SOUTHEAST
CORRECTION SHOT= 141 DEGREES

120TRACE 6000Z OBS STK DAS MIG RMS BPF

BRIDGE OIL LIMITED
AREA : BASS BASIN
T-19-P

WESTERN GEOPHYSICAL
DIVISION OF OILFIELD INDUSTRIES
SINGAPORE DIGITAL CENTRE
RECORDED APRIL 1985
PROCESSED MAY 1985

RECORDING DATA	PROCESSING SEQUENCE
DATE: 1985-04-10 TIME: 10:00 LOCATION: BASS BASIN SURVEY: T-19-P INSTRUMENT: 24 CHANNELS SAMPLE RATE: 1000 Hz RECORD LENGTH: 6000Z CORRECTION: 141 DEGREES	SAMPLING INTERVAL: 4 MS. FORMAT CONVERSION INPUT: 24 CHANNELS SEC 0 4000-10000 OUTPUT: 24 CHANNELS SEC 0 4000-10000 SIGNATURE DECONVOLUTION OPERATOR: J.S.M. DECONVOLUTION TIME: 1.000000 WINDOW: 1.000000 COMMON DEPTH POINT SORT M.A.P. VELOCITY ANALYSIS VELOCITY: 1500 M/S BANDPASS FILTER: 10-90 HZ
COMMENTS DATUM PLANE : SEA LEVEL CORRECTION APPLIED ON FINAL DISPLAY SURF CORRECTION : 0000 MS DITH CORRECTION : 0000 MS DISPLAY POLARITY : NEGATIVE NUMBER ON TRACE REPRESENTED BY A THROUGH	FINAL FILTER SCALE: 100.000 HORIZONTAL: 30.000 VERTICAL: 2.000 GEOPHYSICAL: 10.000 SAMPLE RATE: 1000.000



TIME	SP	29.50
0.00	1450	1450
0.10	1500	1500
0.31	1710	1801
0.48	1800	1968
0.65	1920	2313
0.77	1960	2164
1.08	2130	2503
1.16	2160	2530
1.30	2300	3235
1.40	2350	2923
1.49	2480	3990
1.79	3300	5868
2.04	3620	6297
2.41	4110	5703
5.00	4990	5688

TIME	SP	109.50
0.00	1450	1450
0.10	1500	1500
0.42	1925	2090
0.67	1940	1965
0.77	1970	2160
0.97	2075	2437
1.14	2140	2978
1.24	2230	3075
1.35	2410	3804
1.60	2880	4861
2.62	3500	5227
2.71	4150	5637
5.00	4890	5642

TIME	SP	179.50
0.00	1450	1450
0.10	1470	1470
0.42	1730	1804
0.58	1820	2025
0.75	1850	2368
0.99	2080	2442
1.11	2170	2804
1.24	2250	2893
1.33	2490	2783
1.44	2450	3895
1.53	2750	5703
2.23	3550	4860
3.10	4250	5662
5.00	4980	5993

TIME	SP	259.50
0.00	1450	1450
0.10	1480	1480
0.31	1810	1944
0.53	1960	2154
0.80	2000	2076
1.11	2130	2434
1.30	2270	2958
1.39	2320	2949
1.51	2480	3879
1.56	2550	4140
1.63	2740	5469
1.75	3050	5804
1.95	3600	6586
2.05	3820	6574
2.33	3890	6193
2.53	4250	6358
3.05	4500	5257
5.00	4960	5717

233020

5 cm

SEAL PROSPECT

Proposed Location
Seal No.1
P.T.D. 5200'

NE

Line BB85-72

MIGRATED SECTION

LINE : BB85-72

S.P. 35 TO 350

NORTHEAST

DIRECTION SHOT= 058 DEGREES

120TRACE 6000Z DBS STK DAS MIG RMS BPF

BRIDGE OIL LIMITED

AREA : BASS BASIN
T-19-P

WESTERN
GEOPHYSICAL
DIVISION OF LITTON INDUSTRIES
SINGAPORE DIGITAL CENTRE

RECORDED APRIL 1985
PROCESSED MAY 1985

RECORDING DATA

BOAT
WESTERN ODYSSEY PART: 86
NAVIGATION BY MAX LIPSON
MAP LOCATIONS ANTENNA POSITION

SOURCE
AIR GUN VOLUME 1530 CU/IN
AIR GUN PRESSURE 4800 PSI.
GUN DEPTH 6 M.
S.P. INTERVAL 26.67 M.
POP INTERVAL 26.67 M.
SHOOTING RATE 37.5 POPS/HR.
NO. OF GUNS 19

INSTRUMENTS
SYSTEM L.A.S. 16
FORMAT SEC-D 16250 BPI
FILTERS 12 HZ, 375 HZ
RECORD LENGTH 5 SECONDS
SAMPLE RATE 1000
POLARITY COMPRESSION NEGATIVE

CABLE
STREAMER 3000 M.
GROUPS 240
GROUP INTERVAL 13.33 M.
LEAD IN 132 M.
CABLE DEPTH 12 M. AVERAGE

ARRAY FORMED SPECIFICATIONS
TRACES 120
TRACE INTERVAL 26.67 M.
FILTERS 12 HZ, 180 HZ
FILTER SLOPES 6 / 180 DB/OCT
SAMPLE RATE 2 MS.

PROCESSING SEQUENCE

SAMPLING INTERVAL 4 MS.
FORMAT CONVERSION
INPUT: 120 CHANNELS SEC-D ARRAY-FORMED
OUTPUT: WEG CODE & FORMAT IFL. P.I.1

SIGNATURE DECONVOLUTION
OPERATOR DESIGNED FROM AVERAGE
OF RECORDED NEAR FIELD SIGNATURES.

DECONVOLUTION
TYPE-LEAST SQUARES
MINIMUM PHASE INVERSE FILTER
2 WINDOWS
WINDOW #1 INA OFFSET: 300-3000 MS.
WINDOW #1 STOP TIME VEL 2500 MS.
WINDOW #2 INA OFFSET: 2500-5000 MS.
WINDOW #2 STOP TIME VEL 5000 MS.
AUTOCORRELATION LENGTH 240 MS.
MINIMUM PREDICTION LAG 12 MS.
OPERATOR LENGTH 232 MS.

COMMON DEPTH POINT SORT
M.A.F.
MULTIPLE ATTENUATION FILTER

VELOCITY ANALYSIS
2 CDFS/ANALYSIS EVERY TWO KILOMETER
N.M.O. STACK
6000Z N.M.O. CORRECTION

RESIDUAL VELOCITY WORK
Q.C. OF STACKING VELOCITIES
RESTACK IF NECESSARY

DECONVOLUTION
TYPE-LEAST SQUARES
MINIMUM PHASE INVERSE FILTER
ONE WINDOW
AUTOCORRELATION LENGTH 180 MS.
MINIMUM PREDICTION LAG 26 MS.
OPERATOR LENGTH 160 MS.

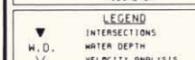
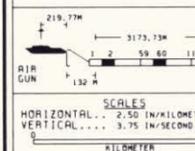
BANDPASS FILTER 10-90 HZ.

MIGRATION
FINITE DIFFERENCE

RMS GAIN
WINDOW LENGTH 64 MS.- 1024 MS.

FINAL FILTER
SLOPE 10B/OCTAVE 18 36
TIME OF APPLICATION 0000-5000 MS. 10 90

PLAYBACK
SCALE, HORIZONTAL 30 TR/IN.
SCALE, VERTICAL 3.75 IN/SECOND
GEOSPACE GAIN 16 DB.
SAMPLE RATE 4 MS.

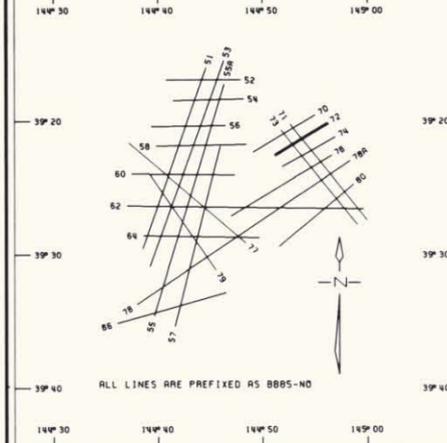


LEGEND
INTERSECTIONS
W.D. WATER DEPTH
V VELOCITY ANALYSIS

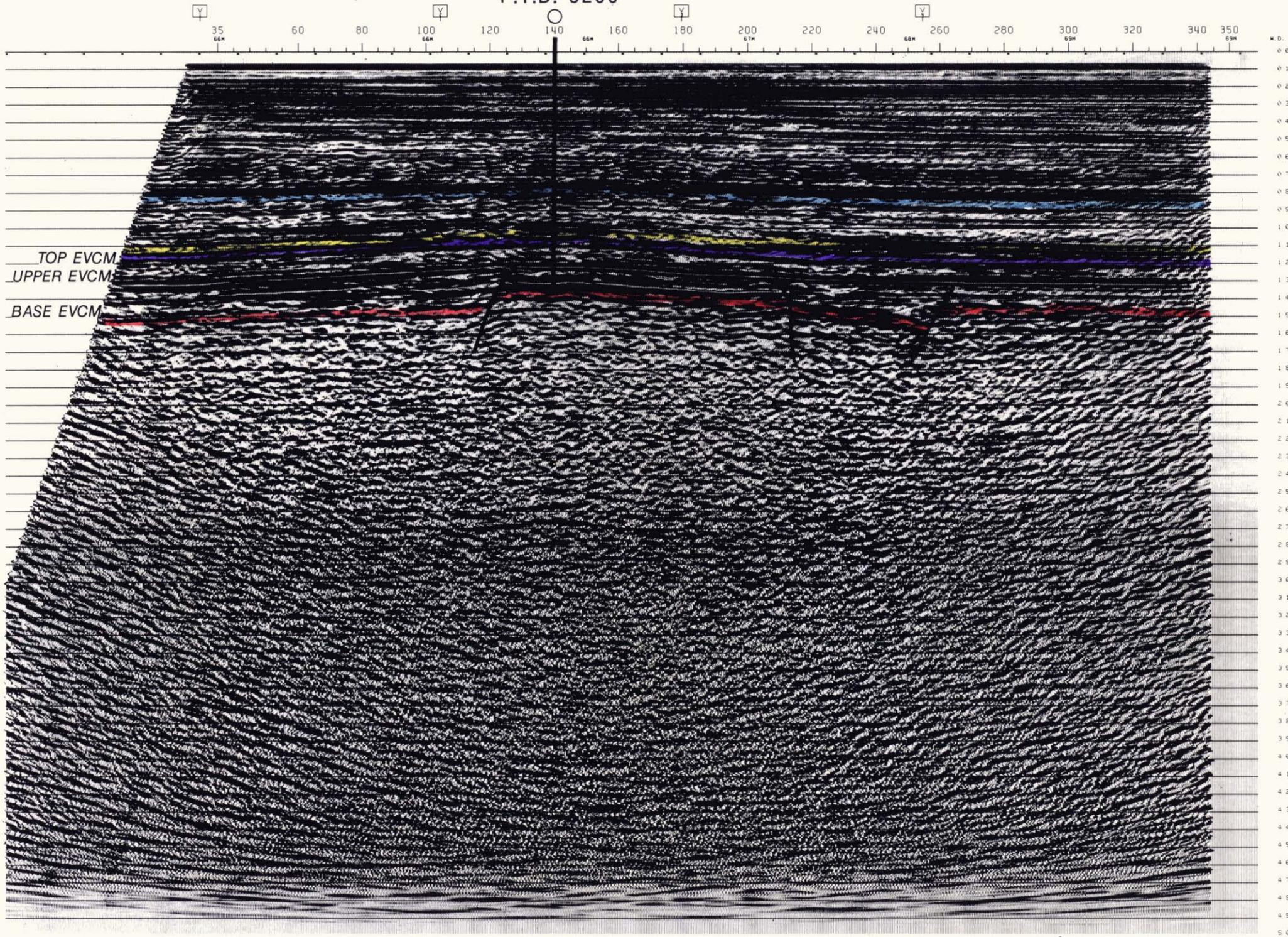
COMMENTS
DATUM PLANE : SEA LEVEL
CORRECTION APPLIED ON FINAL DISPLAY
GUN CORRECTION..... + 0000 MS.
CABLE CORRECTION..... + 0008 MS.
TOTAL CORRECTION..... + 0008 MS.

DISPLAY POLARITY
NEGATIVE NUMBER ON TAPE
REPRESENTED BY A TROUGH

LINE LOCATION MAP



ALL LINES ARE PREFIXED AS BB85-ND



TOP EVCM
UPPER EVCM
BASE EVCM

Figure 6

TPR 02-02/17

LINE BB85-70
S.P. 35-405

TIME	MS	VEL	DIS INT
0.00	1450	1450	
0.10	1480	1480	
0.18	1710	1960	
0.40	1880	1998	
0.71	1980	2094	
1.16	2190	2554	
1.38	2310	3132	
1.42	2410	3793	
1.50	2510	4500	
1.55	2590	5281	
1.58	2680	6189	
1.60	2740	7150	
1.62	2810	8180	
1.64	2890	9280	
1.66	2970	10450	
1.68	3060	11700	
1.70	3150	13030	
1.72	3240	14440	
1.74	3330	15930	
1.76	3420	17500	
1.78	3510	19150	
1.80	3600	20880	
1.82	3690	22690	
1.84	3780	24580	
1.86	3870	26550	
1.88	3960	28600	
1.90	4050	30730	
1.92	4140	32940	
1.94	4230	35230	
1.96	4320	37600	
1.98	4410	40050	
2.00	4500	42580	

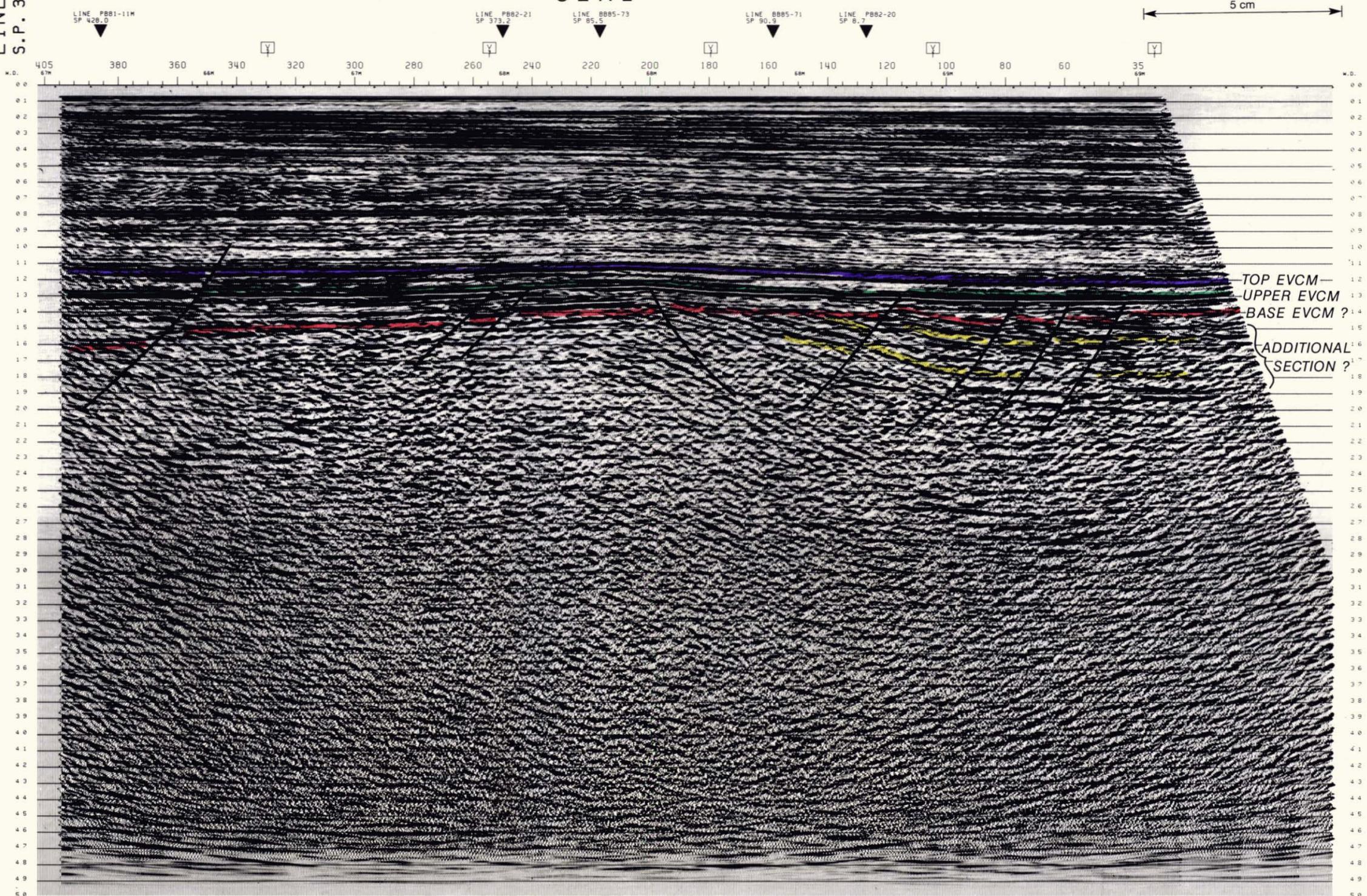
TIME	MS	VEL	DIS INT
0.00	1450	1450	
0.10	1470	1470	
0.17	1670	1920	
0.31	1740	1821	
0.55	1810	1891	
0.67	1890	2220	
0.78	2020	2881	
1.00	2190	3533	
1.15	2280	4289	
1.20	2380	5089	
1.25	2480	5989	
1.30	2580	6989	
1.35	2680	8089	
1.40	2780	9289	
1.45	2880	10589	
1.50	2980	11989	
1.55	3080	13489	
1.60	3180	15089	
1.65	3280	16789	
1.70	3380	18589	
1.75	3480	20489	
1.80	3580	22489	
1.85	3680	24589	
1.90	3780	26789	
1.95	3880	29089	
2.00	3980	31489	

TIME	MS	VEL	DIS INT
0.00	1450	1450	
0.10	1490	1490	
0.30	1780	1909	
0.43	1880	2093	
0.73	1980	2257	
1.13	2180	2535	
1.22	2280	2881	
1.39	2370	3312	
1.47	2470	3841	
1.53	2570	4471	
1.59	2670	5201	
1.63	2770	6031	
1.67	2870	6961	
1.71	2970	7991	
1.75	3070	9121	
1.79	3170	10351	
1.83	3270	11681	
1.87	3370	13111	
1.91	3470	14641	
1.95	3570	16271	
1.99	3670	17901	
2.03	3770	19631	
2.07	3870	21461	
2.11	3970	23391	
2.15	4070	25421	
2.19	4170	27551	
2.23	4270	29781	
2.27	4370	32111	
2.31	4470	34541	
2.35	4570	37071	
2.39	4670	39701	
2.43	4770	42431	
2.47	4870	45261	
2.51	4970	48191	
2.55	5070	51221	

TIME	MS	VEL	DIS INT
0.00	1450	1450	
0.10	1500	1500	
0.18	1510	1653	
0.33	1770	1984	
0.63	1890	2000	
0.80	1990	2441	
1.18	2110	2813	
1.20	2210	3213	
1.23	2310	3613	
1.27	2410	4013	
1.31	2510	4413	
1.35	2610	4813	
1.39	2710	5213	
1.43	2810	5613	
1.47	2910	6013	
1.51	3010	6413	
1.55	3110	6813	
1.59	3210	7213	
1.63	3310	7613	
1.67	3410	8013	
1.71	3510	8413	
1.75	3610	8813	
1.79	3710	9213	
1.83	3810	9613	
1.87	3910	10013	
1.91	4010	10413	
1.95	4110	10813	
1.99	4210	11213	
2.03	4310	11613	
2.07	4410	12013	
2.11	4510	12413	
2.15	4610	12813	
2.19	4710	13213	
2.23	4810	13613	
2.27	4910	14013	
2.31	5010	14413	

TIME	MS	VEL	DIS INT
0.00	1450	1450	
0.10	1500	1500	
0.22	1660	1782	
0.48	1860	2174	
0.73	1990	2050	
0.84	2060	2475	
1.00	2240	2822	
1.10	2340	3240	
1.20	2440	3658	
1.25	2540	4076	
1.30	2640	4494	
1.35	2740	4912	
1.40	2840	5330	
1.45	2940	5748	
1.50	3040	6166	
1.55	3140	6584	
1.60	3240	7002	
1.65	3340	7420	
1.70	3440	7838	
1.75	3540	8256	
1.80	3640	8674	
1.85	3740	9092	
1.90	3840	9510	
1.95	3940	9928	
2.00	4040	10346	
2.05	4140	10764	
2.10	4240	11182	
2.15	4340	11600	
2.20	4440	12018	
2.25	4540	12436	
2.30	4640	12854	
2.35	4740	13272	
2.40	4840	13690	
2.45	4940	14108	
2.50	5040	14526	

233021



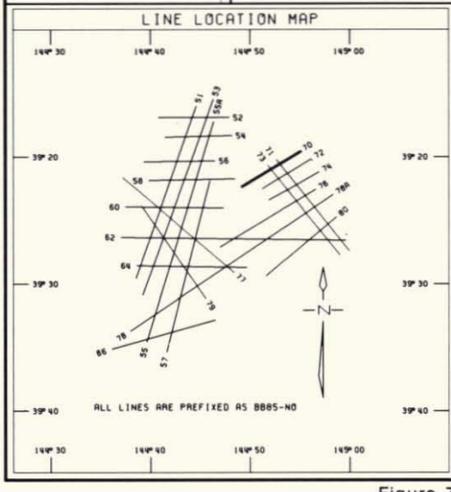
MIGRATED SECTION
LINE : BB85-70
S.P. 35 TO 405
SOUTHWEST
DIRECTION SHOT - 239 DEGREES

120TRACE 6000Z DBS STK DAS MIG RMS BPF

BRIDGE OIL LIMITED
AREA : BASS BASIN
T-19-P

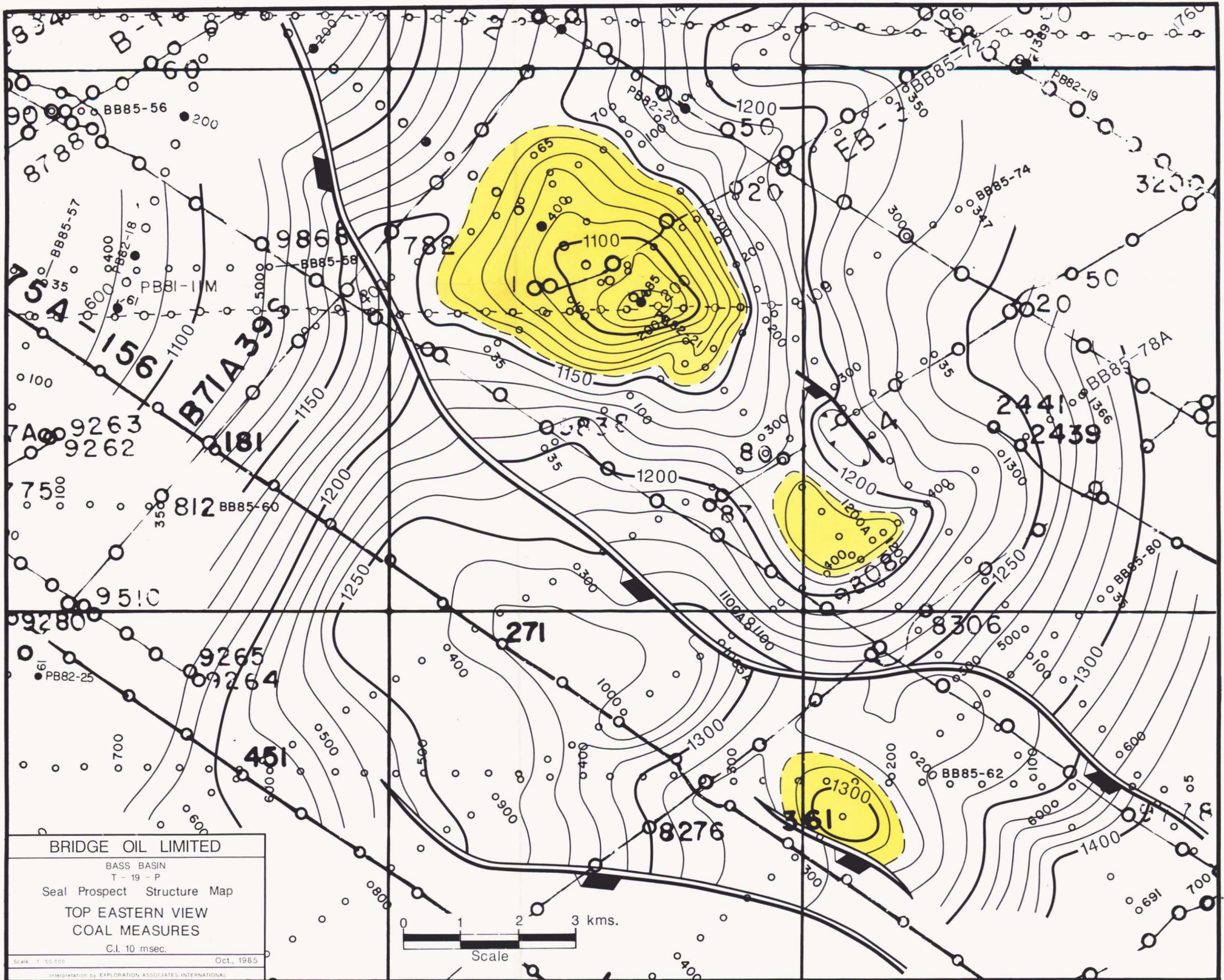
WESTERN GEOPHYSICAL
DIVISION OF LITTON INDUSTRIES
SINGAPORE DIGITAL CENTRE
RECORDED APRIL 1985
PROCESSED MAY 1985

RECORDING DATA	PROCESSING SEQUENCE
BOAT WESTERN DISSEY PART: 86 NAVIGATION BY: MARIAN MAP LOCATIONS: ANTENNA POSITION SOURCE AIR GUN VOLUME: 1530 CU/IN AIR GUN PRESSURE: 4600 PSI GUN DEPTH: 6 M S.P. INTERVAL: 26.57 M POP. INTERVAL: 26.57 M SHOOTING RATE: 33.5 POPS/HR. NO. OF GUNS: 13 INSTRUMENTS SYSTEM: L.R.S. 16 FORMAT: SEG-D / 8250 BPF FILTER SLOPES: 12 HZ / 72 DB/OCT RECORD LENGTH: 6 SECONDS SAMPLE RATE: MS POLARITY: COMPRESSION NEGATIVE CABLE STREAMER: 3200 M GROUP: 2ND GROUP INTERVAL: 13.33 M LEAD IN: 132 M CABLE DEPTH: 12 M, AVERAGE ARRAY FORMED SPECIFICATIONS TRACES: 120 TRACE INTERVAL: 26.67 M FILTER: 12 HZ / 180 HZ FILTER SLOPES: 8 / 180 DB/OCT SAMPLE RATE: 2 MS.	SAMPLING INTERVAL 4 MS. FORMAT CONVERSION INPUT: 120 CHANNELS SEG-D ARRAY-FORMED OUTPUT: SEG CODE 4 FORMAT (V.L. PT.) SIGNATURE DECONVOLUTION OPERATOR DESIGNED FROM AVERAGE OF RECORDED NEAR FIELD SIGNATURES. DECONVOLUTION TYPE-LEAST SQUARES MINIMUM PHASE INVERSE FILTER 2 WINDOWS WINDOW #1 INA OFFSET: 300-3000 MS. WINDOW #2 STEP TIME VEL: 2500 MS. WINDOW #3 STEP TIME VEL: 5000 MS. AUTOCORRELATION LENGTH: 240 MS. MINIMUM PREDICTION LAG: 12 MS. OPERATOR LENGTH: 232 MS. COMMON DEPTH POINT SORT M.A.F. MULTIPLE ATTENUATION FILTER VELOCITY ANALYSIS 2 CDFS/ANALYSIS EVERY TWO KILOMETER N.M.O. STACK 8000Z N.M.O. CORRECTION RESIDUAL VELOCITY WORK D.C. OF STACKING VELOCITIES RESTACK IF NECESSARY DECONVOLUTION TYPE-LEAST SQUARES MINIMUM PHASE INVERSE FILTER ONE WINDOW AUTOCORRELATION LENGTH: 190 MS. MINIMUM PREDICTION LAG: 24 MS. OPERATOR LENGTH: 100 MS. BANDPASS FILTER 10-90 HZ. MIGRATION FINITE DIFFERENCE RMS GAIN WINDOW LENGTH: 64 MS.- 1024 MS. FINAL FILTER SLOPE (DB/OCTAVE): 18 H.C. TIME OF APPLICATION: 0000-5000 MS. 10 30 PLAYBACK SCALE: 1:15,768 HORIZONTAL: 30 CM/IN VERTICAL: 3.75 IN/SECOND GEOPHONE GAIN: 15 DB SAMPLE RATE: 4 MS.



TPR OR-02/17

Figure 7

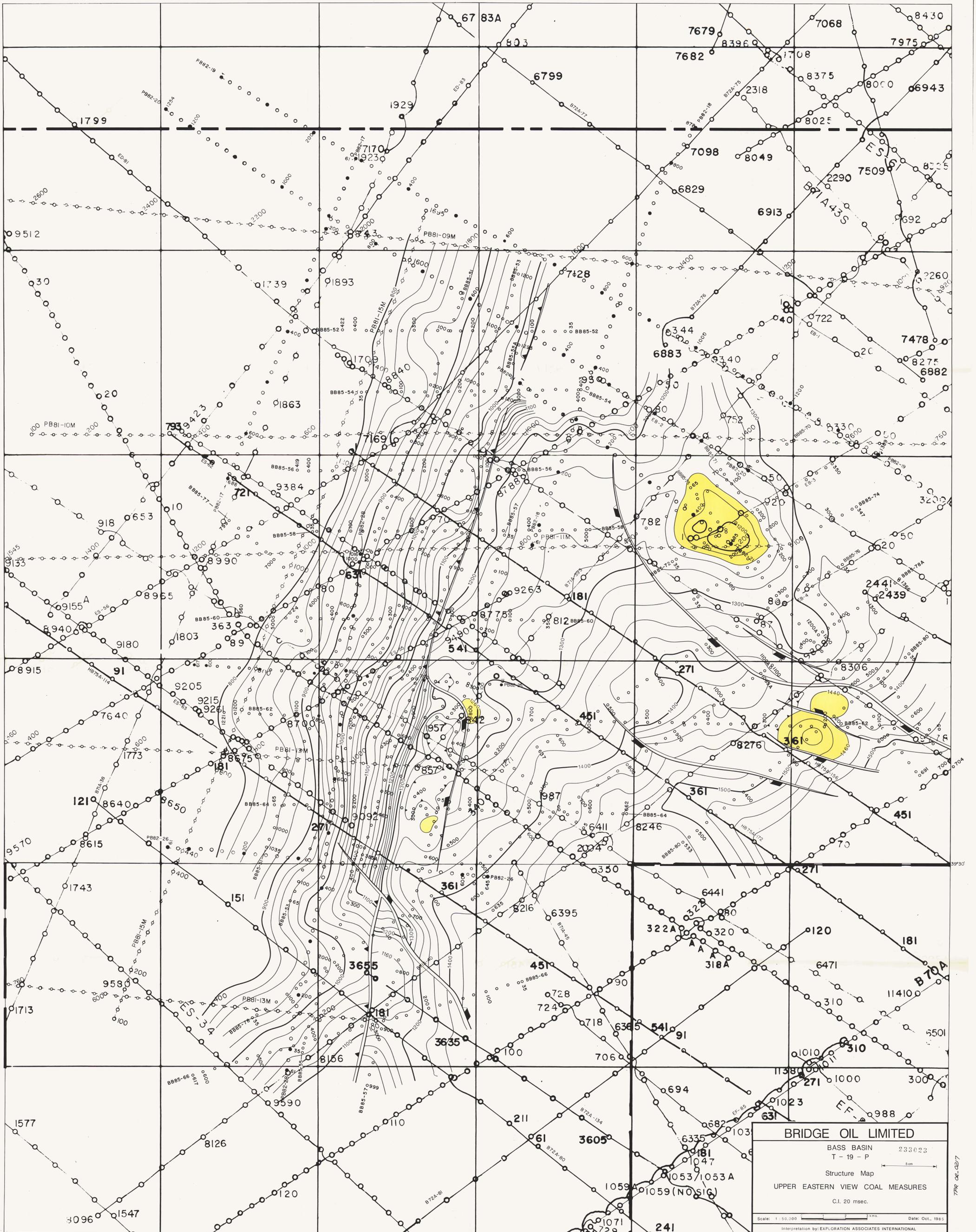


MAP 1

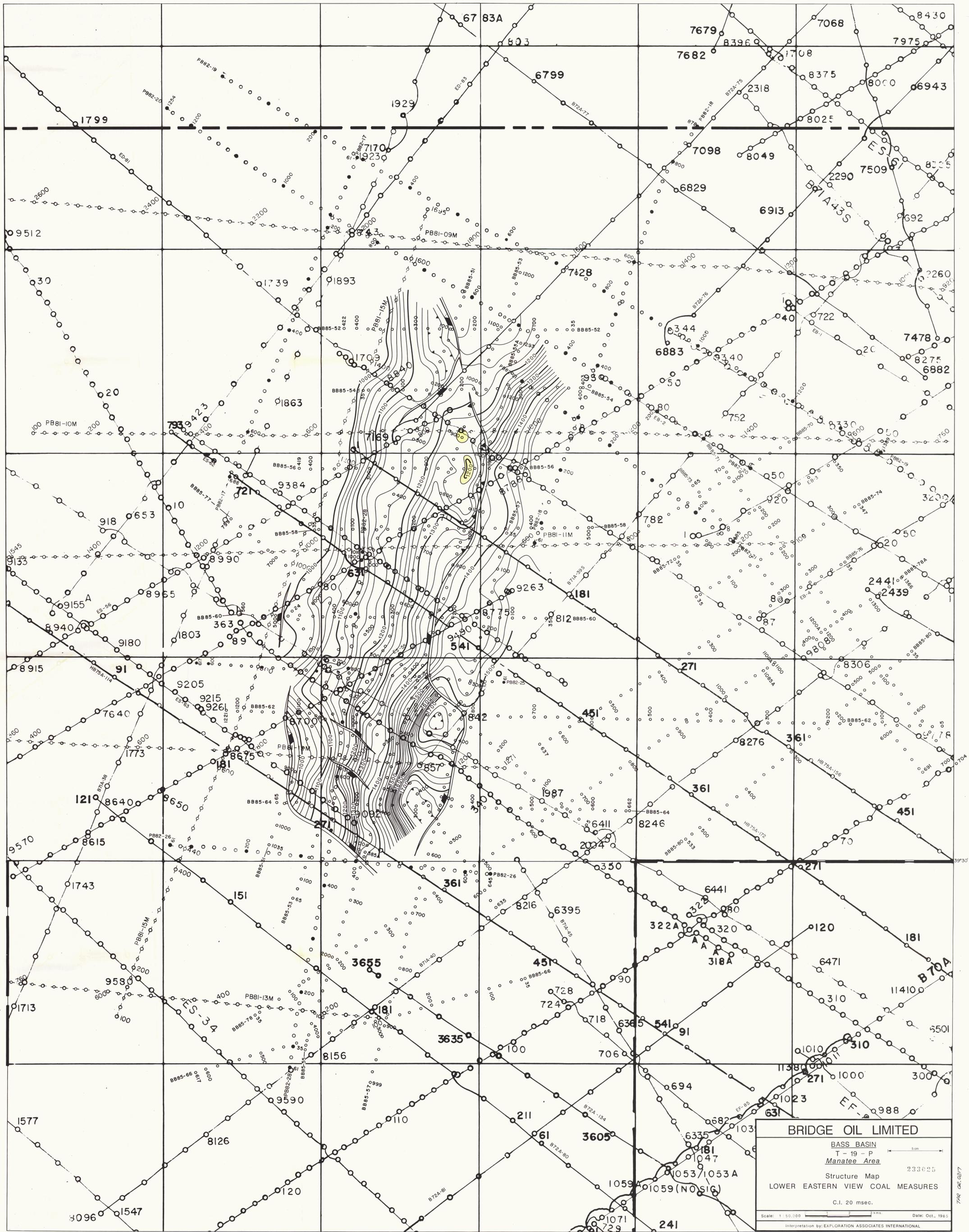
233022

TFR OR-0217

5 cm



TFR 04-02/7



BRIDGE OIL LIMITED

BASS BASIN
 T-19-P
 Manatee Area

Structure Map
 LOWER EASTERN VIEW COAL MEASURES

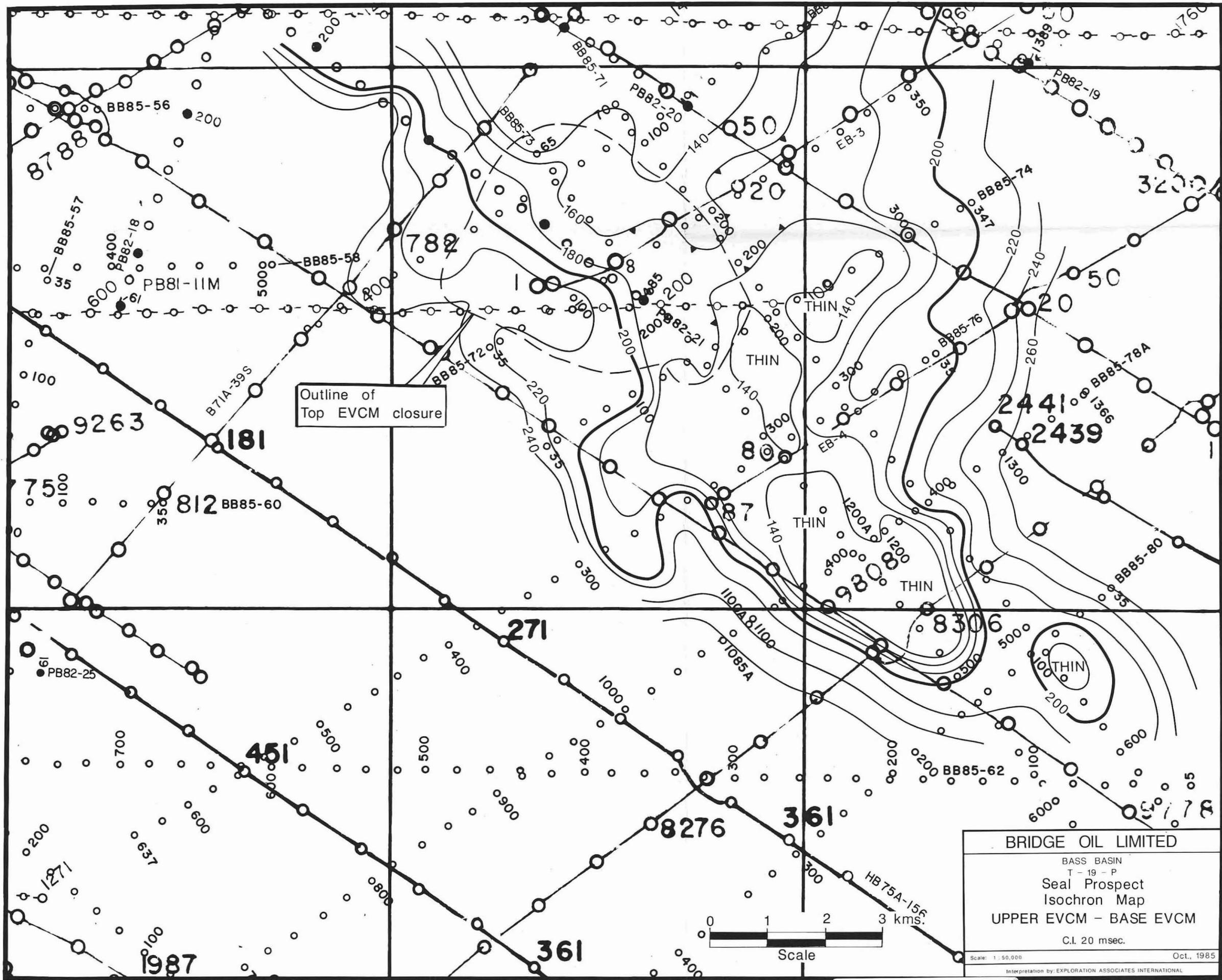
C.I. 20 msec.

Scale: 1" = 50,000'

Date: Oct., 1985

Interpretation by: EXPLORATION ASSOCIATES INTERNATIONAL

MAP 4



TPR CR-02/17

5 cm 233027 MAP 6