ID 2371

EXTRACT

Final Report
Interpretation
ADRIATIC SEA AREA

For

B.P. PETROLEUM DEVELOPMENT LTD.

By

DIGICON INC.
3701 Kirby Drive
Suite 112
Houston, Texas
77006
U.S.A.

European Division
Via Ressi, 16
20125 Milano, Italy

PERMIT A.R14.BP

I. Introduction:

A detail interpretation review was conducted by DIGICON Inc. in the Adriatic Sea on blocks A.R14.BP, A.R19.SA and A.R22.BP for BP Petroleum. Approximately 665 miles of 12 fold coverage was interpreted in August and September 1972. The objectives of the study were to re-examine the seismic sections and to produce maps in depth using the available velocity data located in the area of interest.

II. Interpretation

A. Methods:

Continuous reflections on VAR wiggle trace sections were mapped in time. The times were then plotted on the calcomp V-study velocity display. RMS velocities were then plotted on maps and contoured. The times and RMS velocities for each shot point were then listed and depth values were computed.

Variations in velocities set up many velocity anomalies and in some cases it reversedthe dip that is shown on the time maps. To average the velocity values, say on a 3.5 by 3.5 kilometer grid, only makes the contoured depth picture more like the time map. Plate I shows the velocity curve at S.P. 151 on line 272, the lithology and possible geologic ages are inferred from adjacent well information, and the seismic sections. It is interesting to note at this time, that the total section between horizons B, C and D increase rapidly toward the north, while the A-B interval decrease in the same direction.

B. Maps: Block A.R14.BP

1. Horizon "A"; Intertertiary Unconformity: Enclosure 1

The time contour on this map represents an erosional surface, the structure have no counterpart either above or below in the section. The seismic marker is continuous, the regional strike is northwest-southeast and the dip is to the southwest. Feature 2 is a strong erosional high and Pliocene pinchouts are very evident along its flank.

2. Horizon "B"; Top of Cretaceous (?): Enclosure 2

This horizon contoured in time is on a continuous marker that has a northwest-southeast strike and dips to the southwest. The horizon pinches out toward the north and possible closure is indicated at Feature 2, this pinchout is located just beneath the strong erosional feature shown on the horizon "A" map. Feature 6 is a very small closure located on Line AR-113 south of block A.R14.BP, it is the first expression of a deep ridge system that runs completely through the mapped area.

3. Isochron "A-B"; Eocene Interval (?): Enclosure 3

This time map shows the convergence of the two horizons until the horizon A truncates the top of horizon "B" and the interval is completely missing on to the north.

The thick section located in the area of Feature 2 is due to the erosional topography of horizon "A". The thin areas located along lines 9, 10 and at Feature 6 are along the crest of a deeper ridge system.

4. Horizon "C"; Within the Jurassic (?): Enclosure 4

On this time map we see the prevailing northwest-southeast strike with the dip to the southwest. Developments of normal faulting along some of the lines are evident at this level and small closures at Features 4, 5 and 6 can be seen in time along the crest of the older ridge system.

5. Horizon "C"; Within the Jurassic (?): Enclosures 5 & 6

This depth map was constructed from the contoured maximum velocity (unaveraged) map for horizon C. Feature 6 is a strong velocity and time anomaly. Feature 5 is a good velocity anomaly, but the time map shows nearly horizontal beds in that area. The depth map more clearly defines the north-south ridge system that is very prominent at deeper depths.

6. Horizon "B"; Top of the Triassic (?): Enclosure 7

All of the features on this map are associated with a northsouth trending ridge system. The west side of which is flanked with normal faulting. Features 4, 5 and 5a are small closures along the crest of the ridge. Features 6 and 6a are strong anticlines, that are flanked to the west by normal faulting. The regional strike is northwest-southeast and the dip is to the southwest.

7. Horizon "D"; Top of the Triassic (?): Enclosure 8, 9, 10 & 11

Two different attempts were made at mapping this horizon in depth. One method was to compute the depths from a maximum R.M.S. velocity map, the other was to average the R.M.S. velocities on a 3.5 by 3.5 kilometer grid or in other words average all the velocity points in each tied loop.

All of the features were enhanced when the two different methods were applied. As would be expected the average velocity method depth map is characteristically like the time map, while the maximum velocity method yields more north dip or closure on structure and differs substantially from the time map.