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PERMIT BR.181.SE

GEOLOGICAL-GEOPHYSICAL INTERPRETATION

Prepared by:

R. De Mattia (Geophysicist)

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Copy to:

- U.N.M.I. - Roma

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1. INTRODUCTION

The block of permits BR.181.SE, BR.185.SE and BR.190.SE is located in the Central Adriatic Sea at an average distance from the coast ranging from 20 to 70 km (Fig.1).

Water depth ranges from 80 m in permit BR.190.SE to a maximum of 250 m in permit BR.181.SE.

The status of the permits can be summarized as follows:

	<u>BR.181</u>	<u>BR.185</u>	<u>BR.190</u>
1st period of validity	April 13,1983	June 21,1983	Aug. 2,1983
	April 13,1989	June 21,1989	Aug. 2,1989
Drilling deadline	May 31,1987	July 30,1987	Oct.31,1987
Maximum postponment	October 1988	Dec. 1988	Febr. 1989
Participating			
interest	Petromarine 40%	60%	55%
	CNWI 20%	10%	25%
	Somit 20%	10%	-
	Asamera 15%	15%	15%
	Polaris 5%	5%	5%
Gross acreage (ha)	29,772	28,560	36,699

2. GEOLOGICAL OUTLINE

From the geological point of view the area falls within the so-called Central Adriatic Basin.

2.1 Stratigraphy

On the basis of the wells drilled in the block and in the adjacent areas the stratigraphy can be summarized as follows (Fig.2):

Burano Fm (Upper Trias)

Upper Trias in Central Adriatic is represented by a sequence of dolomitic limestones and crystalline dolomites interbedded with anhydrites layers and locally by Black Shale layers (Emma 1 well). No oil or gas production and only slight traces of bitumen linked to this formation are known to-date.

Massiccio Fm (Lower Lias)

The sedimentation of Lower Lias continues that of the underlying Upper Trias and is represented by mostly micritic limestones and dolomites classified as "Massiccio".

No oil or gas discoveries in the Massiccio Fm in the Adriatic

area are known to-date. On the other hand, some heavy oil was recovered during the DST run in David 1 well but we are of the opinion that this occurrence is not conclusive.

Generally, the characteristics of reservoir of the Massiccio Fm seem to be poor.

Massiccio Fm's thickness in the Adriatic ranges from 180 to 1400 m.

Corniola Fm (Lower-Middle Lias)

Lower-Middle Lias is mostly represented by micritic limestone with chert nodules, typical of deep platform classified as Corniola Fm.

Also this formation does not seem to have yielded in the Adriatic any oil or gas discoveries. On the other hand, some DST run in well David 1 have recovered heavy oil in a small quantity. Corniola Fm characteristics of reservoir are also rather restricted.

Corniola Fm thickness in the Adriatic changes somewhat and in the area is of the order of 200 m.

Rosso Ammonitico Fm (Upper Lias)

The Corniola Fm sedimentation continues into Upper Lias which is represented by approximately 100 m of green and dark-brown-reddish marls with interbeddings of marly limestone classified as Rosso Ammonitico Fm.

Calcarei ad Aptici Fm (Dogger-Malm)

This formation consists of marly limestones at times changing to micritic and limestones with intraclasts with thin intercalations of marls and frequent chert nodules.

Also this formation which in the area displays a thickness of 250 m is to be considered a cover rock.

Maiolica Fm (Lower Cretaceous-Titonic)

The Lower Cretaceous, generally in continuity of sedimentation with the underlying Upper Jurassic, is represented mostly by micritic, whitish cherty limestones with episodes of limestones with intraclasts classified as Maiolica Fm.

No oil or gas productions linked to this formation are known to have been found in the Adriatic.

Maiolica Fm average thickness in the area applied for is approx. 150 m.

Marne a Fucoidi Fm (Middle Cretaceous)

The Middle Cretaceous is represented by a sequence of marls and marly limestones classified as Marne a Fucoidi Fm, the thickness of which is approx. 100 m in this area.

Scaglia Fm - Calcareous Member (Upper Eocene)

The "Scaglia Calcareo" is a sequence of cherty limestones with intercalations of calcarenites, intraclastic limestones and micritic limestones sometimes chalky.

The Scaglia Calcareo Fm represents a fair reservoir with primary porosity in the calcarenitic sequence. In the other sequences it represents a reservoir only if secondary porosity (fractures) exists. Nevertheless, in this particular area secondary porosity is expected rather than primary porosity.

Moreover, the upper part of the formation is usually tight while the middle and lower sections usually show some porosity.

Scaglia Fm - Marly Member (Upper Eocene - Oligocene)

This Member of the Scaglia Fm is also known as "Scaglia Cinerea". It is represented by calcareous marls and it is a very good seal for the underlying Scaglia Calcareo Fm reservoir.

Bisciaro Fm (Lower Miocene)

It consists of marly limestone sometimes with chert and calcareous marls strongly fossiliferous with an approximate thickness of 200 m.

Schlier Fm (Middle Miocene)

It is represented by marls more or less calcareous approx. 150 m thick.

Gessoso Solifera Fm (Upper Miocene)

This formation consists of approx. 60 m of gypsum, anhydrite and clays.

Pliocene

It is mainly a shaly sequence with some sandy levels mainly in the Middle-Upper Pliocene.

Pleistocene

The Pleistocene is represented by approx. 1000 m of sands and clays. Its interest is restricted to the middle-lower part where the sand lenses could form good reservoirs.

2.2 Structural Asset

A strong tectonic activity developed through several phases in the area.

An Eocene-Oligocene phase is clearly visible in the North-eastern part where the "Scaglia Cinerea" and the upper part of the calcareous Scaglia are missing (Encls. 1, 2, and 5).

Signs of this tectonic phase are given also by the uplifting of the Enigma well area.

A subsequent phase of Middle Miocene connected with an Apenninic tectonics developed in the whole area and terminated with the sedimentation of the Gessoso Solfifera Fm (Encls. 1, 2, 3, 4 and 5).

The youngest tectonic phase, linked to the uplifting and to the erosion of the Apenninic interland, occurred in this area during Upper Pliocene causing a considerable subsidence of the Basin and the deposition of clastics exceeding 1000 m.

The depocenter axis of the Upper Pliocene Basin runs along an assumed line joining Spinello-Giovanna 1 and Emma W wells (Encls.1,2 and 3). Consequently, the area is effected by strong folding and thrusting related to these tectonic phases.

Faults involve the lithological sequence underlying the "Gessoso Solfifera Fm", i.e. all the Pre-Pliocene sequence, and show a major NW-SE trend, being split somitimes by possible strike-slip faults. All the Plio-Pleistocene clastic sequence is drapping over the Pre-Pliocene sequence reflecting the shape of the major deeper structures.

2.3 Targets and Oil and Gas Fields in the Surrounding Areas

The Scaglia Calcarea Fm is the main oil target in the Central Adriatic Sea area.

This formation is oil producing (generally heavy oil) in several fields such as Sarago Mare (estimated recoverable reserves 15,000,000 BO), Mormora Mare (estimated recoverable reserves 10,000,000 BO) and S.Maria (recoverable reserves 25,000,000 BO).

Moreover, San Giorgio Mare, David and Emilio fields, closest to our permits, produce gas from this formation.

On the basis of the data in our hands, the occurrence of oil most

probably depends on the following three main conditions :

- the existence of synchronous highs that is to say paleohighs which had the possibility during their formation to drain hydrocarbons from the naphtogenic layers of Lower Cretaceous (Marne a Fucoidi Fm) and/or Oligocene (shales and marls);
- the presence of structures in the Mesozoic which have not undergone major overthrusting and have, therefore, preserved the original hydrocarbon accumulation;
- the presence of levels with primary porosity in the Scaglia Calcareea Fm (calcareenites) to constitute good reservoirs at migration time.

Moreover, the proximity of a fault to a structure can positively influence the porosity of the reservoir by fracturing.

In particular the Scaglia Calcareea in the block area does not seem to constitute a good reservoir. In fact, the wells drilled in the area, do not put in evidence either the turbiditic calcarenitic facies which constitute the reservoir of the oil and gas fields in Central Adriatic or secondary porosity.

Moreover, it seems that no oil/gas migration occurred in the Scaglia in the block area since neither oil shows nor residual oil were yielded by the wells in spite of the fact that there have been

structural conditions for a migration (Enigma paleohigh - Encls. 2 and 4).

On the other hand, the presence of some oil accumulations have been put in evidence few kilometers from the permits in question.

Emma well, drilled 20 km NW of Enigma well, shows in fact oil impregnation in the whole Mesozoic sequence.

Consequently, the exploration target in the Enigma high could be represented by older Mesozoic terms such as dolomitic limestones of the Massiccio Fm.

Besides, the fact that Emma 1 well has crossed marly limestones equivalent to the Massiccio Fm leads to the supposition that a facies variation might exist S-SEwards.

On the basis of stratigraphic correlations (Encls.1 and 2), we believe that Lower Lias dolomites may be reached in Enigma well area at approx. 3500 m.

A secondary target, however equally important, is also represented by the exploration of gas traps in the overlying Middle and Upper Pliocene sections and in the Pleistocene.

Some gas fields, generally linked to folds, in the Upper Pliocene

such as Emma W (estimated reserves about 7 billion cu.m or 250,000 MMCF), Squalo Centrale (estimated reserves about 7 billion cu.m or 250,000 MMCF), Fratello and most recently Giovanna, have been discovered very close to our block.

2.4 Wells Drilled in the Block Area

2.4.1 Inside the Block

- Stefania 1 T.D. 1944 m in Scaglia Calcareo Fm. DST in Scaglia Calcareo Fm. Result : salt water. DST in Pleistocene. Result : salt water with dissolved gas.
- Patrizia 1 T.D. 1648 m in Scaglia Calcareo Fm. DST in Scaglia Calcareo Fm. Result : no fluid recorded.
- Enigma 1 T.D. 2228 m in Scaglia Calcareo Fm. No DST.
- Spinello Mare 1 T.D. 5889 m in Corniola Fm. DST in Bisciario Fm. Result : dry test.

2.4.2 In the Proximity of the Block

- Edgar 1 T.D 2276 m in Corniola Fm. No DST.
- Edgar 2 T.D 2100 m in Massiccio Fm. DST in Scaglia Calcareo Fm. Result: Salt water. Dst in Corniola Fm. Result: Salt

water with traces of gas.

- Ernesto Nord 1 T.D 6173 m in Burano Fm. No DST.
- Edmond 1 Tris T.D 4195 m in Burano Fm. No DST.
- Esmeralda 1 T.D 3837 m in Maiolica Fm. No DST.
- Emma 1 T.D 4871.5 m in Burano Fm. DST in Scaglia Calcarea Fm.
Results : good oil shows. DST in Burano Fm. Result : salt water.
- Emma W2 T.D 2300 m in Middle Pliocene. Gas producing well in
Upper Pliocene.
- Squalo Centrale Field Gas producer from Upper Pliocene.
- Fratello Est Field : Gas producer from Middle Pliocene.
- Fratello Nord Field : Gas producer from Upper and Middle Pliocene.
- Emilio Field : Gas producer from Scaglia Calcarea Fm.
- Giovanna Field : Gas producer from Upper Pliocene.

3. GEOPHYSICS

3.1 Data Acquisition

A new seismic acquisition program has been planned for 1984 by Petro-marine Italia.

On account of the limited budget, the seismic grid has been planned taking into consideration the main targets, the structural and geological information already in our hands as well as the seismic lines in our possession shot on the block by the previous titleholder.

A seismic survey for a total of 520.8 km has been shot over the permits block by Junak vessel, sub-contracted by Western G.C. from July 2, 1984 to July 8, 1984 (Fig.3).

The survey has been shot using the following acquisition parameters:

- Navigation: Syledis, subcontracted to G.S.O.
- Energy source: Bolt Corp. Par Airgun System
- Detector cable: 2400 meters. 96 groups x 25 meters. 20 geophones
x group. Group interval: 25 meters. Cable depth:
6 - 7.5 meters (Fig.4)
- Laboratory: T.I. DFS V - 96 channels - Floating point
- Filters Lo Cut: Out

Hi Cut: 128 Hz/72 DB/Octave

LINE INDEX MAP

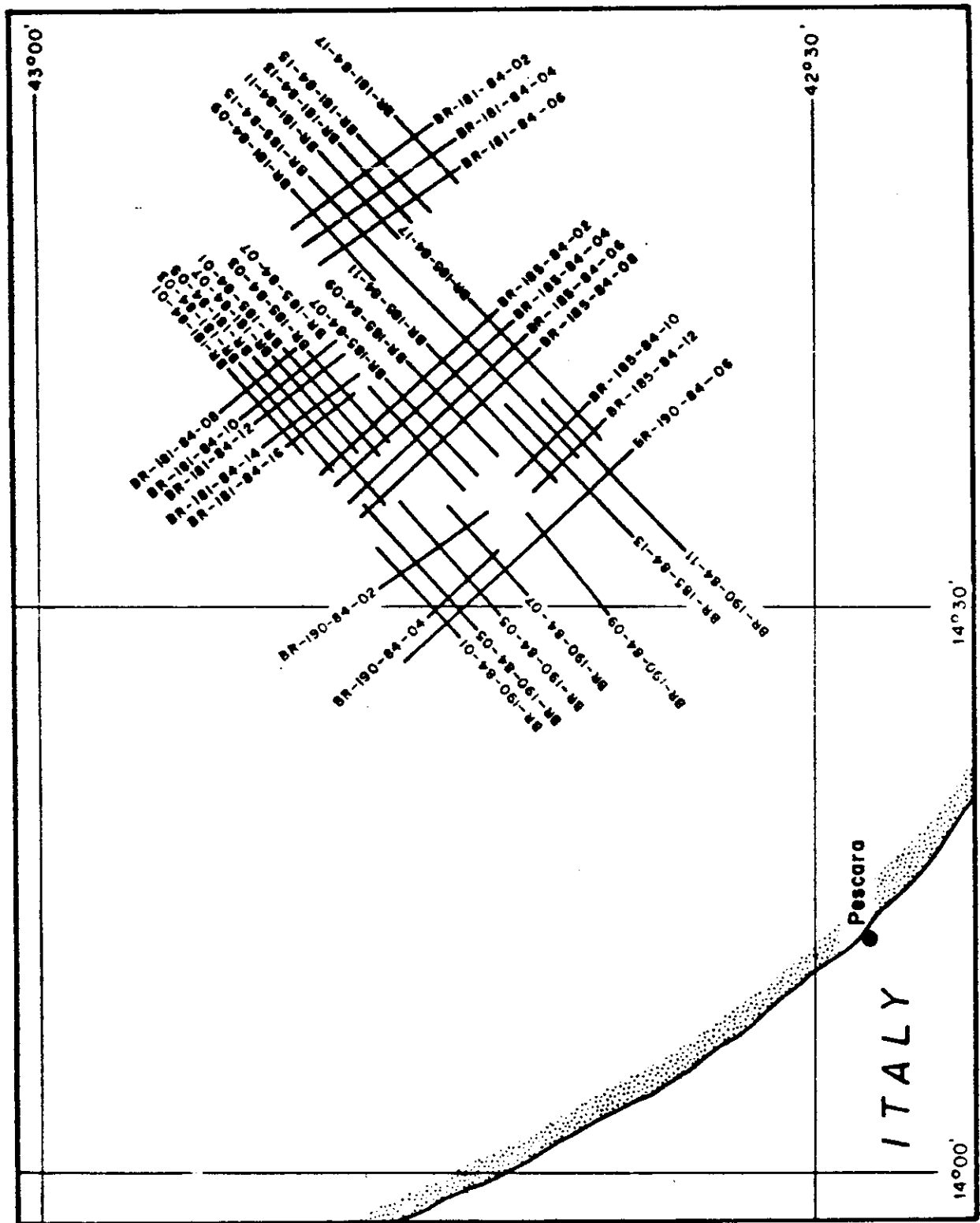
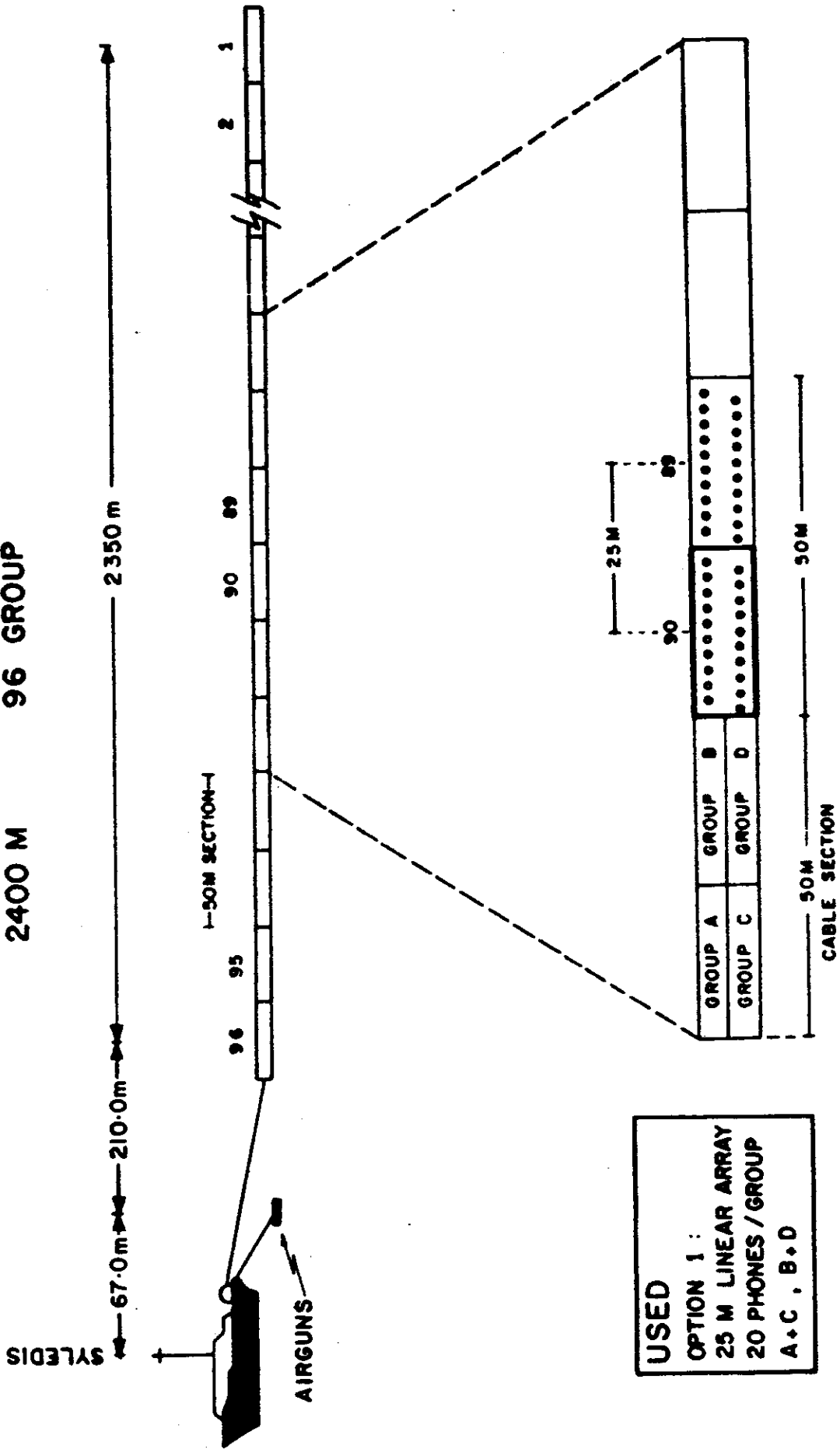


Fig. 3

LRS PROGRAMMABLE CABLE

2400 M 96 GROUP



USED
OPTION 1 :
25 M LINEAR ARRAY
20 PHONES / GROUP
A + C , B + D

Fig. 4

- Tape format: 9-track half inch - SEG B, 1600 BPI
- Shot Point Interval: 25 meters
- Popping rate: 40 pops x km
- Fold: 4800%
- Sample rate: 2 msec.
- Record length: 6 sec.

3.2 Data Processing

Data has been processed by WESTERN RICERCHE in Milan in October 1984 with a sample rate of 4 msec. and the following processing sequence:

- DEMULTIPLEX
- DECONVOLUTION
- VELOCITY ANALYSIS
- N.M.O. CORRECTIONS
- 4800% STACK
- R.M.S. GAIN
- TIME VARIANT FILTER
- MIGRATION

All lines have been processed in T.V.F. and R.A.P. versions. Not all

the lines have been migrated in time but only that one showing a certain marker dip and/or tectonical problems.

3.3 Data Quality

Continuity and clarity of the seismic markers are good, sometimes very good especially in the shallower section to the top of Messinian age anhydrites.

The block has not been covered completely by the new seismic and somewhere (mainly a great portion of permit BR.190.SE) the only data were old seismic surveys shot in the past.

Quality of the old seismic is usually much poorer than the new one, and being shot in different times with different acquisition techniques and parameters, some problems arose in tying together old data and with new ones.

Nevertheless all the block has been fully evaluated; structural interpretation is to be considered reliable at all levels and all over the block. Stratigraphic themes have also been carefully studied and have been fully defined in areas covered by new seismic.

In the other portions of the block, the poorer quality of seismic and the lower detail of the seismic grid might have masked some minor

feature.

On the other hand, it does not look like as if any economically-sized prospects yet undetected may exist in these areas.

3.4 Interpretation

Six horizons have been picked on the seismic sections (Encls.6,7 and 8) because of their stratigraphical importance:

- Horizon "B" (within Quaternary)
- Near top Upper Pliocene
- Near top Middle Pliocene
- Near top Upper Miocene
- Near top "Scaglia Calcareo Fm"
- Near top "Maiolica Fm"

All these horizons have been followed all over the block using for the interpretation 520 km of new seismic plus about 800 km of old seismic lines already in our possession.

Moreover, some additional horizons in the Quaternary have been picked over limited extensions as they showed local seismic amplitude anomalies.

Consequently, six two-way time contour maps have been drawn at a 1:50,000 scale.

The well data were tied to seismic by utilising velocity information available for all the wells previously drilled in the block, i.e. Patrizia 1 Bis, Stefania 1, Enigma 1 and Spinello 1.

The deepest horizon, "Maiolica Fm", could be tied only with Spinello 1 well as the other ones did not reach this formation.

Moreover, a certain control was obtained also from Emma W2, Giovanna 1, Edgard 1 and Ernesto Nord 1, whose velocity survey was not available, and an estimated velocity was used.

Consequently, a very good control of the horizons picked was obtained all over the block.

3.5 Discussion of Maps

3.5.1 Seismic Amplitude Anomalies "A-B₁-C-D-E-F-G" (within Quaternary)

(Encl.9)

The map defines the structural trend and the extension limits of some amplitude anomalies of the seismic marker which might indicate the presence of gas in the Quaternary clastic section.

The so-defined "A" anomaly is in the western part of permit BR.181.SE

and is trended N-S wards.

The below sea level target depth is approx. 440 m.

The characteristics of this bright spot are excellent in its northern part but progressively worsen southwards.

Patrizia 1 well was located near the top zone but has not explored such a trend since most probably at that time this was not considered a possible target.

For this reason no electric logs have been recorded in this section.

Nevertheless, some shows were recorded by the gas detector, as reported on the final log of the well.

The sea depth in the area of interest ranges from 225 to 240 m.

Prospect's surface is 8 sq.km the maximum pay is 30 m.

If from one side the prospect seems to be rather attractive, from that of the seismic response and of the remarkable sizes notwithstanding the considerable water depth and above all its shallowness make the economics rather questionable.

The seismic anomaly B₁ is located astride permits BR.181.SE and BR.185.SE in their north-western part and has roughly a NE-SW trend. The characteristics of the seismic response of such an anomaly are

quite good in its northern part worsening progressively SW wards. The trap seems to be provided Northwards by a pinch-out against the structural high at Plio-Pleistocene level in Patrizia 1 well area and by dipping in the other directions.

A reprocessing test carried out on seismic line 181-84-03 by Digicon seems to confirm such interpretation.

Well Stefania 1 has partially explored such stratigraphic lead and a DST was run in the sandy level this anomaly corresponds to at a depth of approx. 700 m.

The result of this test which was salt water with traces of dissolved gas, remains questionable due to the immediate plugging of the filters. In fact, after few minutes of draw down, the BT recorded only a build up curve.

Scouting information obtained from the previous Operator, is conflicting with the reliability of such a test.

Nevertheless, considering the clear improvement of the seismic response NEward of the well, there would be "a positive" area even in the event of a negative result of Stefania 1 well.

Sea depth in the area of our interest is approx. 210-220 m.

The prospect extends over a max. area of 45 sq.km (approx. 11,100

acres); however, if we consider only the area updip of well Stefania 1, such an area will be reduced to approx. 15 sq.km (approx. 3,700 acres). The max. net pay is 10-15 m.

The interest of this lead is conditioned by the result apparently negative of the test carried out in Stefania 1 well and by the considerable water depth.

An evaluation of the seismic response indicating possible mineralization however seems to be positive. Furthermore, the size of the prospect is considerable.

The seismic amplitude anomaly denominated "C" is located at the northern boundary of permit BR.185.SE.

The seismic response is good northwards and becomes fair in the southern part of the anomaly.

Sea depth in such a zone is approx. 210 m and the possible target is at approx. 600 m b.s.l.

Anomaly's covered area is approx. 5 sq.km (approx. 1,200 acres) and the max. pay is approx. 10 m.

The seismic anomaly defined by "D" is located near the northern

boundary of permit BR.185.SE.

The seismic response is average, sea depth is approx. 200-210 m, the depth of the anomaly is approx. 450 m and covers an area of approx. 2.5 sq.km (approx. 600 acres) while the maximum pay is approx. 10 m.

The seismic anomaly defined by "E" is located in the central part of the permit BR.185.SE. The seismic response is average and the structural trend is a monocline updipping southwestwards blandly reversing in correspondence with the structural culmination at anhydrites top level.

Water depth is approx. 160-180 m and the depth of the lead is approx. 700 m. The anomaly extends over approx. 30 sq.km (approx. 7,400 acres) and has an average pay of 10 m.

The structural feature defined by "F" is located in the central part of permit BR.185.SE. It displays characteristics of seismic anomaly only on some segments of the seismic lines as put in evidence by Enclosure 9. The relevant horizon is the same one defined B₁ except for one phase. The quality of the seismic response is good, sea depth is approx. 160 m and the target is approx. 700 m deep.

The anomaly extends over approx. 9 sq.km (approx. 2200 acres) and it has a max. pay of 10 m.

This feature is in harmony with a structure at Scaglia Calcarea Fm level (refer to paragraph 3.5.6).

The seismic amplitude anomaly defined as "G" is located in the eastern part of permit BR.181.SE.

It is put in evidence on some segments of the seismic lines as shown on Encl.9.

From the structural viewpoint it is a nose updipping northwestwards. The seismic amplitude anomaly is located on the flank of this nose but appears to coincide with a structural culmination at Scaglia Calcarea Fm level (refer to paragraph 3.5.6).

The quality of the seismic response ranges from average to good. Water depth is approx. 215 m. The feature is approx. 1,000 m below sea level. Its extension is approx. 10 sq.km (2,500 acres) with a maximum pay of approx. 10-15 m.

3.5.2 Horizon B (within the Quaternary)

(Encl.10)

This map represents a seismic horizon in the Quaternary which can be correlated on the entire block. This horizon put in evidence at times some seismic anomalies (features B₁ and F - paragraph 3.5.1). The characteristics of the seismic marker are good on the entire permits block.

The map defines a positive axis trending N-S along the Patrizia 1-Enigma 1 and Spinello 1 wells alignment.

Two negative axes are located East and West of such alignment.

The horizon cannot seismically be picked in the high structural zone of Patrizia 1 well, due to possible lack of sedimentation or to a shale-out.

3.5.3 Near Top Upper Pliocene

(Encl.11)

This map represents the top of a sandy-shaly sequence which is a gas producer at Giovanna and Emma W fields adjacent to the block.

The seismic response quality over the entire block is fair.

A positive structural trend along the axis defined by Patrizia 1-

Stefania 1 and Enigma 1 wells is put in evidence on the map.

The peak of this axis is in Patrizia 1 well area. It has not been possible to define with absolute reliability whether there is a structural closure in Patrizia 1 or the positive trend continues Northwards because of lack of seismic.

Two important low structural areas are located in correspondence with the Southeastern part of permit BR.181.SE and with the Northeastern part of permit BR.190.SE.

The horizon clearly updips both along the Eastern and Western boundaries of the block.

The closure of Giovanna field is definitely put in evidence.

No seismic anomaly is detectable on the block and moreover no situations of structural closure are put in evidence.

The only feature which might have occurred is a nose located in the south-eastern part of permit BR.181.SE with a trend roughly NW-SE along seismic line BR-181-84-04.

In order to ascertain a possible feature, such line should be reprocessed to better define its seismic character; in addition to that, a continuous velocity analysis processing should be performed

to find out structuring possibility in depth.

3.5.4 Near Top Middle Pliocene

(Encl.12)

The interpreted horizon is tied to a possible target (gas producer at Emma W and Giovanna fields).

The seismic marker is fair in permits BR.181.SE and BR.185.SE while is very good in permit BR.190.SE.

The map traces roughly the trend of Upper Pliocene Top (Encl.11) and shows a positive structural axis along Patrizia 1-Enigma 1 and Spinello 1 wells alignment.

A low structural zone is located in correspondence with the Southern boundary of permit BR.181.SE. The whole area of permit BR.190.SE is involved by a negative structural axis trended NW-SE.

A monocline with a West updip towards Squalo Centrale Field culmination exists West of such an axis.

The culminations of Emma W and Giovanna fields as well as a feature located in the Southeastern part of permit BR.181.SE are well defined. This structural lead defined as "H" shows a fair amplitude anomaly of the seismic marker and coincides with a Pleistocene seismic

amplitude anomaly and with a deep structuring both at anhydrites and Scaglia Calcareo Fm levels.

Sea depth is approx. 215 m and the target is approx. at 1,400 m below sea level. The closed surface is approx. 5 sq.km (1,200 acres) for a max. pay of about 15 m.

This possible prospect can be better defined by reprocessing the seismic shot in 1984 over this area and by acquiring new seismic over the areas not previously covered.

No other possible structural closures or hydrocarbon indications have been defined.

3.5.5 Near Top Upper Miocene

(Encl.13)

Upper Miocene is lithologically represented by anhydrites which provides an excellent seismic marker in the whole block.

This marker is important because it defines an excellent repere since the entire overlying clastic sequence is more or less structured in conformity with its trend.

From the structural point of view, the positive structural trend along the axis defined by Patrizia 1-Stefania 1 and Enigma 1 wells is

still put in evidence.

A structurally low zone East of Enigma 1 well separates another zone of relative high in correspondence with the eastern boundary of permit BR.181.SE.

The entire area of permit BR.190.SE is involved by a monocline dipping West towards the coastal line.

A positive situation is clearly put in evidence in correspondence with Giovanna Field.

An erosion channel located in the eastern part of permit BR.181.SE with a NE-SW trend involves this formation. This horizon is not believed to have been involved by tectonic events since the faulting seems to stop right underneath.

3.5.6 Near Top Scaglia Calcareo Fm

(Encl.14)

The seismic marker followed represents the top of Eocene carbonates which are classified as Scaglia Calcareo Fm.

This horizon is important because it represents a possible reservoir. The seismic signal is characterized by a fair to good response considering also that it represents the change from a calcareous marl

(Scaglia Cinerea Fm) to marly limestones.

The structural asset of the area has been conditioned by an important tectonic phase with a compressive component which has caused thrusting.

In particular, an important upthrust, explored by Enigma 1 and Stefania 1 wells is clearly visible. This upthrust crosses NW-SE wards permit BR.185.SE and is coupled with reverse faults having the same trend. An overthrust with a N-S front swinging Southwestward drilled by well Patrizia 1 is included in this feature.

More Eastwards in the Eastern portion of permit BR.181.SE there is another upthrust with a NW-SE trend complicated by other overthrust fronts. A negative structural axis separates the two upthrusts.

The Western part of the block is involved by a monocline updipping E-NEwards culminating in the downthrow of the thrust fault which bounds SWwards the Enigma 1 upthrust.

The Patrizia-Stefania-Enigma positive trend updips Northward and seems to reach culmination at the North-Western boundary of permit BR.181.SE, near well Patrizia 1.

Lack of seismic coverage does not allow a reliable definition of a structural inversion North of Patrizia 1 well. The existence of a

structural closure incorrespondence with Stefania 1 and Enigma 1 wells does not seem to be confirmed.

South of well Enigma 1 a structure closed NEwards in a downthrow position against the Enigma upthrust is put in evidence (defined by "I").

The closed area is approx. 55 sq.km (13,600 acres) with a maximum pay of 350 m. The target is approx. 2,200 m below sea level and the water depth is approx. 160 m.

In spite of the incomplete seismic coverage, the interpretation is to be considered quite reliable.

The coincidence of the structural culmination with that of feature "F" in the Pleistocene is to be kept in mind (paragraph 3.5.1).

As far as the target is concerned, we think that the possible oil accumulation in this prospect could have taken place in older rocks as mentioned in point 2.3.

The interpretation of this horizon has put in evidence, moreover, the existence of a possible prospect in the South-Eastern part of permit BR.181.SE in coincidence with the above-cited upthrust never explored (defined by "L").

It is to be remembered that the interpretation of this particular area is not altogether reliable because of the rather complicated tectonic asset and incomplete seismic grid.

Moreover, a better definition of this feature could be obtained through reprocessing of the seismic data acquired in 1984 and the acquisition of new ones in the areas not yet covered by seismic.

In any event, the current interpretation defines a structural closure with an area of approx. 6 sq.km (approx. 1,500 acres) with a maximum pay of approx. 80 m.

The target is approx. 1,800 m below sea level and water depth is approx. 215 m.

The coincidence of this culmination with those of the features at Pleistocene and Middle Pliocene levels already dealt with in paragraphs 3.5.1 and 3.5.4 is to be pointed out here.

3.5.7 Near Top of Maiolica Fm

(Encl.15)

This map defines the structural behaviour of a marker which, although not being directly involved by the oil and gas exploration, thanks to its good characteristics of seismic response, help notwithstanding to understand the deep trends.

The interpretation horizon is conformable with that relevant to Scaglia Fm.

For this reason the pertinent description is set out in the preceding paragraph 3.5.6.

4. CONCLUSIONS AND RECOMMENDATIONS

A full interpretation of the block formed by permits BR.181.SE, BR.185.SE and BR.190.SE and an evaluation of all potential oil and gas bearing levels have been carried out.

The main attractive potential gas-bearing leads have been defined in the Quaternary and Pliocene sequences (refer to paragraphs 3.5.1 and 3.5.4) and in the Scaglia Calcareo Fm as far as oil target is concerned (refer to paragraph 3.5.6).