conditions. However, protoliths can be recognised in the field and from geochemical data.

The first setting of mineralisation is associated with Triassic-rifting of the Pelagonian microcontinent. Basic lavas and terrigenous sediments infilled the rift, followed by construction of a Late Triassic-Jurassic carbonate platform. The extrusives are intercalated with lenses of Fe-rich oxide-sediments and interbedded and overlain by metre-sized lenses of massive and disseminated sulphide and ferruginous oxide-sediments. Manganese-rich siliceous sediments were deposited on adjacent lavas up to hundreds of metres away. Elsewhere, Mn cherts and mudstones were interbedded with mafic extrusives and terrigenous sediments within the rift zone.

Secondly, Mn-oxide sediments overlie basic extrusives within detached blocks in melange overlying the Jurassic carbonate platform. This melange formed in e foredeep and was emplaced, together with ophiolites from a small Pindos Mesozoic ocean basin to the west. The lava blocks preserve oceanic crust and/or seamounts within the Pindos ocean; these were incorporated into a subduction-accretion complex, then thrust into the foredeep above the subsided Pelagonian platform.

The Triassic rift-related metalliferous deposits are seen as mainly high temperature hydrothermal deposits, while the Mn-rich deposits on the oceanic extrsive, now melange blocks, relate either to low-temeperature vents or to the more disial effluent of high temperature vents.

Mineralogical and geochemical study is in progress.

THE EPANOMI GAS FIELD, THESSALONIKI - GREECE: A CASE OF NATURALLY FRACTURED RESERVOIR

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The EPANOMI Gas Field in THESSALONIKI area was discovered in 1988 by the well EPANOMI-1 (EP-1) in 2.605 m depth. In 1989 the EPANOMI-2 (EP-2) well, drilled in a smaller feature of the same structure gave a maximum production of 19X10 CFD of gas and small quantities of light oil.

The structure is formed by the paleoerosional surface of Mesozoic limestones buried below Tertiary clastic sediments.

The areal closure of the structures is 4 km and the maximum vertical closure is 200 m.

Distal turbidites facies of Upper Eocene - Lower Oligocene age are the excellent cap rock of the field. Source rocks were found at the lower part of the Eocene - Oligocene sequence in adjacent areas. The hydrocarbons migrated laterally into the reservoir form deeper parts of the Thermaikos basin.

The reservoir is composed of platform type limestones of Up. Jurassic - L. Cretaceous age with very low to zaro matrix porosity and locally of thin Eocene limestones.

The limestones are highly fractured. Fractures, faulted zones and Karsts provide the essential effective porosity and parmeability.

Outcrop measurements, aerial photos and well logs (such as the F.M.S. Log) was used to determina tha following fracture characteristics:

— Open fractures generally formed by tensional tectonics

— Predominant direction, N to NE. Surbordinata directions NW-SE and E-W.

— Fractura dips are subvertical (60°-80°)

— Fracture apertures varias from 0,2 mm to 3 cm. Tha most open are these of N-S general direction. Appertures greater than 4 mm corresponds probably to high fractured zones and Karsts.

— The average fractura spacing is 16 cm.

A minimum porosity of 1% is calculated from these data.

The reservas are estimatad to be $500X10^6$ M^3 of natural gas.

TECTONOMETAMORPHIC EVOLUTION OF THE GEOTECTONIC UNITS OF THE CHALKIDIKI PENINSULA

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Five at least tectonometamorphic avents have been recognized affecting tha geotectonic units of the Chalkidiki peninsula.

The youngest (5th) avant is responsible for tha transformation of the Sithonia granodiorite to augen gneiss and is recognizable within sll tha geotectonic units of the Chalkidiki peninsula, bat has not affected tha Stratoni granodiorite.

The fourth avent took place during the Lower Cretsceous and is the oldast ope which can be detected within the Tithonian molassic sediments. During this event, the Vertiskos, Kerdilion and Naa Madytos units, as well ss the Amaa granite, have been metamorphosed under low grade conditions.

The third event represents the first structure forming evant of the Circum Rhodopian Belt and tha Arnea granite and is responsibla for the dominant tectonometamorphic