The evolution of the latter basin was early interrupted by the fault plane curvature which impeded the activation of the fault section NE of the Avahira horst. As a consequence a small (12x8 km) basin was initiated during Serravallian (?) in Nestos with extremely rapid tectonic subsidence and terrestrial sedimentation 1500 m thick. At the same period a strong thermal anomaly is confirmed by coalification measurements.

The Nestos-Prinos basin was established in the Tortonian during a stage of intensive lithospheric thinning (average stretching factor - 1,45) associated with a total strike displacement of 12 km along the sturthern section of the fault. Lithospheric thinning progressed NW gradually through the formation of tilted fault blocks bounded by NW-SE faults. This lithospheric stretching propagated also SW of Prinos to the Orphanos basin, separated by another horst. Following the lithospheric thinning, the sedimentation since the Messinian has been associated with thermal subsidence.

A new target for oil exploration is suggested, connected with the tilted fault blocks in the submarine part of the basin. The restricted deeps between the blooks are considered favourable for the deposition of surce rocks, whereas the block geometry provides chances for tectonic and stratigraphic traps. In addition, the conglomerates deposited on the top of Tortonian sediments during a phase of erosion constitute a reasonable canditate resertoir and offer another possibility of stratigraphic traps. However, for the delimitation of such targets a seismic survey of improved penetration is required coping with the high absorbtion of seismic energy by the salt layers.

PALEOGEOGRAPHIC CONDITIONS OF PHOSPHORITES AND BLACK SHALES DEPOSITION IN EPIRUS: Contribution to the exprolation for phosphorites and hydrocarbons

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Stratigraphic sections pertaining to phosphorites and black shales in Epirus are described, as well as the distribution of the most significant occurences and the paleogeography during their formation. The correlative sedimentation of radiolarites, phosphorites and black sales during the Lower and Middle Jurassic and the Upper Cretaceous is ascribed to oceanic upwelligs from Tethys. Both, the Jurassic phosphorites and the relevant black shales were deposited during Domerian to Callovian and were associated with equatorial currents. The phosphorites were formed in the photic zone on submarine mountains whereas the black shales in basins a few hundred meters deep.

Two types of jurassic phosphorite occurences are distinguished: sedimentary veins filling fractures of the Pantokrator limestones and stratiform phosphorites covering a

smooth relief of the same limestones. The first type is ascribed to debris flows which deposited similar sedimentary breccias in the lower pelitic layers of the Lower Poshidonian Shales. The influence of strong currents is recognized in the second type by its laminated structure due to fossils of Possidonians accumulated in the smooth depressions of the underlying limestones.

The Upper Cretaceous phosporites overlie or mainly surround a submarine ridge west of the base of the continental shelf between tha Ionian and Gavrovo zone, whereas, the Cretaceous black shales were deposited deeper but close to submarine ridges. Both of them, Cretaceous phosphorites and black shales are associated with oceanic upwelling caused by trade winds.

The described black shales are good to excellent source rocks, allthough immature under normal tectonic conditions. It is estimated thouth that they have generated oil when burried deeper due to the overthrust tectonics. The controlling factor for the deposition of the rich organic sediments is the effect of oceanic upwellings, whereas anoxic conditions are not considered likely.

HARDNESS TEST USING A THIN SECTION LAPPING MACHINE. APPLICATION ON OPHIOLITIC SPECIMENTS FROM CHALKIDIKI / GREECE.

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Hardness of rocks can be expressed by the "abrasion loss of weight (AR)" as a measure of their mechanical behaviour and their ability to resist weathering. The used method is based to the calculation of the loss of weight of a pre-weighted sample after abrasion for a constant time under constant conditions. For this purpose a LOGITECH - LP 30 thin section lapping machine with constant rotation of 40 rpm is used. Tests are applied on mini cores of 24 mm diameter and 10 mm high, instead of 48 mm which is the ordinary hight used for other tests. This modification is considered necessary a) in order to obtain a more representative value of the loss of weight in relation to the total weight and b) for avoiding a possible damage coused on the specimen. The polishing material (sand) is emery No 400 and the specimens are loaded with 2 kg. The abrasion time is 1/2 h.

Twenty specimns from the gabbros and the peridotites of Chalkidiki are used for the tests. The calculated mean values of the abrasion loss of weight are 0.993 (std. dev.,