

Foraminiferal Associations and Paleoecology of the Oligocene Sediments in Zagros Basin, SW Iran

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Abstract : The Oligocene carbonates are widespread along Fars Province, Zagros Basin, SW Iran. Distribution of planktonic and larger benthic foraminifera, stratal patterns and facies architecture are used as a tool to define microfacies and foraminiferal associations of these strata at Kavar Section. The presence of Nummulites spp. indicated the age of the sequence as Rupelian-Chattian (Nummulites vasculus-Nummulites fichteli and Archaias asmaricus/hensoni-Miogyropsinoides complanatus assemblage zones). The paleoenvironmental setting is interpreted as a homoclinal ramp environment according to the recognition of eight microfacies types. Four foraminiferal associations are recognized in the investigated ramp setting. They represent a salinity of 34-40 to 50 psu and higher than 50 psu in more restricted conditions. The depth ranges from 200 m as evidenced by the presence of planktonic foraminifera and to less than 30m in the more restricted inner ramp environment. Warm tropical and subtropical water with temperature of 18-25° C is proposed.

Keywords : foraminiferal associations, microfacies, oligocene, paleoecology

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