

***Biostratigraphy, microfacies, Depositional environments of Oligo-Miocene sediments Based on foraminifera in the Zagros zone (Interior and Coastal Fars***

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***Abstract***

*The Asmari Formation Oligo-Miocene is one of the main petroleum reservoir in the Middle East. To determine the biostratigraphy characteristics, facies types and sedimentary environments two stratigraphic sections in the internal Fars (Firouzabad section) with 270 meters thick and in the costal Fars (Bastak section) with 286 meters are collected. In both sections, Asmari Formation is largely composed of limestone and marly limestone. Based on distribution of benthic foraminifera four biozones with ages Oligocene (Rupelian to Chattian) to Miocene (Aquitanian) are distinguished. Facies analysis let to identification 12 microfacies belonging to inner (tidal flat and lagoon), middle (shoal) and outer ramp (open marine) facies groups that have been deposited in a homoclinal ramp with gentle slope during Rupelian to Aquitanian age. Frequency evaluation of facies indicates that outer ramp facies group shows most frequency in Firuzabad section and inner ramp facies group (specially lagoon subenvironment) is most abundant facies group of Bastak section. Results shows that during Asmari Formation deposition, the Basin depth of internal Fars (Firuzabad section) has been deeper than costal Fars (Bastak section).*

***Keywords:*** *Oligo-Miocene, Microfacies, Biostratigraphy, Asmari Formation.*