

***Paleontology and depositional environment of the upper part of the Pabdeh Formation and the lower part of the Asmari Formation in the A and B wells Marun oilfields, Northeast Ahwaz***

**M. Goodarzi<sup>\*1</sup>, H. Amiri Bakhtiar<sup>2</sup> and M. Noraii Nejad<sup>3</sup>**

1- Dept., of Geology, Faculty of Science, Ferdowsi University of Mashhad, Mashhad

2- National Iranian South Oil Company (NISOC), Ahwaz

3- Faculty of Earth Sciences, Shahid Beheshti University, Tehran

\* mohammadgoodarzi45@yahoo.com

Received: 2019/10/23 Accepted: 2020/1/7

**Abstract**

In this study, in order to determine the age, identification of the microfacies, sedimentary environments and carbonate associations 100 thin sections from the well A (275.5 m thick) and 150 thin sections from the well of well B (272.5 m thick) related to the upper part of the Pabdeh Formation and the lower part of the Asmari Formation were studied. The dominant lithologic units in studied wells are mainly limestone, dolomitic limestone, sandstone and calcareous shale and the contact between two formatios is continuous. After examination and study of thin sections, 40 genera and 57 species in well A and 42 genera and 60 species of benthic and planktonic foraminifera in well B were identified. Based on their distribution, three assemblage zones from Late Eocene - to Chattian have been introduced.

1-Globigerina spp - Hantkenina sp - Turborotalia cerroazulensis Assemblage zone

2-Lepidocyclina - operculina - Ditrupa Assemblage zone

3-Archaias hensoni - Archaias asmaricus - Miogypsinoides complanatus - Spiroclypeus blanckenhorni Assemblage zone.

Based on the identification of allochems, 8 microfacies in well A and 6 microfacies in well B belong to basin, outer ramp, middle ramp (distal and proximal), shoal and inner ramp (patch reef, open lagoon) were identified. In addition four carbonate associations including nanofluor, Rhodalgal, foralgal and foramol were identified.

**Keywords:** Benthic foraminifera, Eocene, Oligocen, Depositional environment, Carbonate ramp