Stratigraphic study of the surface middle to upper Eocene Dammam Formation, United Arab Emirates

Said Khouya, Falah Sheikh, Ali Almuntaser, Miyra Aljabri, Osman Abdelghany and Mahmoud Abu Saima
United Arab Emirates University, UAE

Middle to late Eocene diagnostic planktonic foraminifera (Cribrohantkenina inflata and Hantkenina longispina) and shoal bank accumulations of benthonic (Asterocyclina pentagonalis, Discocyclina sp. and Nummulites sp.) were discovered from marls and limestones of the Dammam Formation, at Jabals Hafit, Malaqet and Mundassah in Al Ain area and Jabals Buhays and El Aqabah, El Fayiah area in the United Arab Emirates. Lithostratigraphic and biostratigraphic correlations are proposed based on fossil data. The Dammam Formation unconformably overlies nodular limestone rocks of the Rus Formation. The described fossils are highly sensitive to environmental changes, especially fluctuations in sea level. Variable sizes of pores reaching up to a few cm in diameter were observed and provide strong possibility for high permeability conditions. Such conditions make the Dammam Formation as a potential aquifer or hydrocarbon reservoir at depth.

Biography
Said Khouya is an undergraduate third year student at the Department of Geology, United Arab Emirates University (UAEU), UAE. His research interest includes Stratigraphy and Paleontology. This presentation is a part of his research project supported by UAEU.

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