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Upper Campanian to Maastrichtian foraminiferal assemblages of the Palmyra Region, Syria

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The biostratigraphical and sedimentological results were obtained from cutting samples from four exploration wells (Al Mahr-1, Jihar-1, Jihar-5 and Palmyra-1) located in the Palmyra Region in Syria. The detailed micropaleontological analyses were performed on planktonic and benthonic foraminifera assemblages of the Campanian and Maastrichtian sediments.

Upper Campanian to Lower Maastrichtian sediments in the Al Mahr-1 well are composed of

argillaceous limestones of wackestone to wackestone/packstone types; sediments in the Jihar-5 are consisted of argillaceous peloidal biomicrites, partly redeposited and thin layers of sandstone; and sediments in the Palmyra-1 well are composed of marls to calcareous marls with occurrences of chert and glauconite. The Upper Maastrichtian interval of the Palmyra-1 well is presented by marls and limestones of mudstone/wackestone type, with occasional occurrences of dolomites. However, in the Jihar-1 and Al Mahr-1 wells sediments are mostly composed of dolomitized argillaceous wackestones and argillaceous limestones of mudstone/wackestone type, respectively.

The micropaleontological investigation was focused on the vertical distribution, diversity and composition of the planktonic and benthonic foraminiferal assemblages according to Caron (1985), Kaiho (1998), Pessagno (1967), Premoli Silva & Verga (2004) and Robaszynski et al. (1984).

Upper Campanian to Maastrichtian sediments are documented by the following in-

dex species of planktonic and benthonic foraminifera: *Abathomphalus mayaroensis, Globotruncanella petaloidea, Globotruncanella havanensis, Globotruncanita stuarti, Globotruncanita stuartiformis, Globotruncanita conica, Gansserina gansseri, Contusotruncana contusa, Globotruncana aegyptica, Pseudotextularia elegans, Rugoglobigerina rugosa, Muricohedbergella monmouthensis, Lenticulina műnsteri, Lenticulina rotulata, Bolivina incrassata, Gaudryna laevigata, Gavelinella monterelensis, Cibicidoides dayi and Bolivinoides dracco.*

The rich and highly diversified foraminiferal association and lithological characteristics of the Campanian and Maastrichtian sediments suggest the Mediterranean bioprovince with tropical to subtropical climate, and the deposition in the outer shelf to deeper marine environment. This the Upper Campanian to Maastrichtian sections of the Palmyra Region in Syria may provide important paleoclimatic data for this interval during which some of the world's major petroleum reservoirs were generated.

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