

New Geological Concepts in the Evaluation of the Southern Basins of Libya, with Particular Reference to the Al Shararah Trend of the Murzuq Basin

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ABSTRACT

The oil accumulations discovered in the Ordovician Mamuniyat and Hawaz clastic reservoirs on the Al Shararah trend of the Murzuq Basin have opened up a new exploration play of great significance. These discoveries, the majority of which were made during the 1990s and since the year 2000, demonstrate the importance of new geological concepts and highly sophisticated technology in increasing the reserves base of Libya. Although the oil-bearing Ordovician reservoirs of the Murzuq Basin had been on production from fields in the Algerian Illizi Basin since the 1960s the potential of these remote and difficult discoveries was not immediately realised. Among the factors that made it feasible for development to go ahead in the 1990s were new thinking about the reservoir development of these glacial and pre-glacial deposits and about the details of their depositional facies. Once the early discoveries were properly understood and the seismic technology was available, discoveries were made in fast succession extending the Al Shararah trend eastwards. It is anticipated that the technical successes in the Murzuq Basin will encourage greater exploration efforts in Al Kufrah Basin using analogues derived from the Murzuq Basin and using technologies developed in its exploration and development.