Uncovering the Bahariya Formation, Western Desert, Egypt: an Integration of Ichnolgy, Sedimentology and Stratigraphy

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Hydrocarbon exploration in the Western Desert of Egypt has found success in the development of the Cenomanian
Bahariya Formation. This formation has been informally divided into an upper and lower unit. The lower Bahariya Formation is
historically interpreted as an overall clastic estuarine succession deposited during an overall transgression of the Tethys Sea. A description of thirteen lower Bahariya cores has been completed. The rock is interbedded sandstone and shale that contains an overall trace fossil assemblage indicating a stressed environment. Intercalations of heavily bioturbated marine rocks are found in the northernmost wells, which is basinward. The goal of this study is to provide a paleoenvironment of deposition for the lower Bahariya Formation based on the integration of ichnology, sedimentology and stratigraphy, and to provide future exploration targets within this area of the Egyptian Western Desert.