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CORE POSTER
SILURO-DEVONIAN RESERVOIRS OF THE ILLIZI-BERKINE BASIN

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The Siluro-Devonian reservoirs of the Illizi-Berkine basins are some of the most prolific plays in Algeria and remain an attractive target for exploration.

The main reservoir of this period is constituted by the F6 reservoir comprising the Ludlow / Pridoli stages of the Upper Silurian and the Lochkovian / Pragian stages of the Lower Devonian. During this period, the area can be subdivided in two sub basins: Southward, the Illizi basin, characterized by a low subsidence rate and limited eastward by the active Tihemboka High. Northward, the Berkine basin, widely open to the north and the East, was differentiated by a higher subsidence rate. The two sub basins were separated by the active uplift of the Ahara high acting as a barrier for the sediment supply coming from the south.

The sedimentological environments and their sequential organization within this serie are illustrated in this poster with two wells:

- GRA-1, located in the north east of the Illizi basin, shows the complete series: a wave dominated shoreface prograding northward on a low subsidence platform during the Upper Silurian, followed by an emersion period during the early Devonian terminated by the Emsian transgression.
- Located in the north of the Berkine basin, RE-1, presents a thick accumulation of fluvial sandstone, characteristic of the higher subsidence rate of this basin during the Lower Devonian.

For each well, a set of core photographs, core descriptions and wireline log signatures will be displayed to characterize the main facies associations. The dynamic evolution of the sedimentary environments will be summarized by a sequence stratigraphic interpretation and a correlation panel will be proposed.