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**Siluro-Devonian (F6 Interval) Reservoir Characterisation from the Ohanet and Dimeta-
West Fields, Algeria**

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The F6 interval, dated Late Silurian (Late Ludlow/Early Pridoli), is dominated by a thick (over 40m) fluvial sandstone emplaced over marine to coastal plain deposits. The fluvial sandstones, that form the bulk of the F6 reservoir, are characterised by a variety of channel types (predominant low sinuosity and braided systems), plus rarer floodplain to lacustrine deposits. The fluvial complex is organised as two stacked transgressive parasequences, and the flooding zones correspond to the floodplain or even bayfill sediments. Primary porosities are high, ranging 15-20%, and permeabilities are commonly >1000mD. Intergranular porosity has been reduced mainly through cementation with minor compaction effects. Cements include eodiagenetic quartz, berthierine and siderite, indicating fluvial to marginal marine depositional settings.

The marine to coastal plain deposits that underlie the major F6 fluvial reservoir are organised into a transgressive-regressive sequence. The reservoir sandstones such as tidal channels and storm deposits are of limited extent and interconnectivity, and lower porosity and permeabilities.

Biostratigraphic investigation has been of invaluable help in constructing a chronostratigraphic framework for the reservoir sandstones, and providing palaeoenvironmental data. The studied area, which is located on the southeastern edge of the Ahara Arch, was subjected to numerous truncations of the F6 interval below the Middle to Upper Devonian transgressive sequences. The transgressive marine shales overlying the F6 have been dated Late Givetian to Early Frasnian, with a stratigraphic gap of 30-35my between these shales and the top F6 reservoir sandstones.