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**Seismic Indications of Deep-Seated Faults and Their Impact on Trapping System
(Hassi-Messaoud area)**

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Increasing evaporites influence on the seismic data quality of the Cambrian horizons in the transition zone between the south-eastern part of Hassi-Messaoud, the giant oil field in Algeria and the Dorban through, is one of the most important problem and the chief risk when prospect is evaluated. Using new seismic data enabled the mapping of deep Cambrian seismic horizons a horsts-grabens, strike-slip-faults-bounded type of traps, often with different oil/water contacts. The sub-Evaporites Ordovician Hamra Quartzites formation have been mapped at the new Hassi Terfa (HTF-1) prospect.

At the beginning of the year 2000, the well HTF –1 (Hassi Terfa) has reached the depth of 11000 feet, spudded in 1999 this well has for objective to explore the Paleozoic section mainly the Cambrian sandstones similar to those producing in Hassi-Messaoud field (500 000 BOPD).

The Cambrian reservoir quality was not as good as expected, but the Ordovician Hamra was relatively very thick (330 feet). The well log analysis indicated an interesting high resistivity interval of 51 m, the estimated porosities from logs range from 5 to 7 %, no significant shows was recorded while drilling due to oil based mud system. The results obtained through a drill stem test indicated an average flow rate of 1600 BOPD.

This HTF-1 is a very significant discovery, which further confirmed the prospectivity and petroleum potential of the Hassi-Dzabat area, and suggesting that important additional reserves to be found in satellites traps, controlled by complex strike-slip faults, and located at the South-East of the super giant field.