

**AAPG HEDBERG CONFERENCE**  
*“Paleozoic and Triassic Petroleum Systems in North Africa”*  
February 18-20, 2003, Algiers, Algeria

**PETROLEUM EXPLORATION AND SANDBODY PREDICTION  
TRIASSIC PALEOSOLS OF THE SAHARAN PLATFORM  
EXAMPLE OF THE RHOURE NOUSS REGION**

AÏT SALEM Hamid \*, FEKIRINE Berrached \*, OUAÏCHOUCHE Fatma \*

\*Sonatrach - Centre de Recherche et Développement  
01, avenue du 1er Novembre, 35000 - Boumerdès, Algérie  
hamid\_aitsalem@yahoo.fr

The problems concerning the petroleum exploration and correlations of Triassic series of the Saharan platform are always in debate.

These continental and Paleozoic deposits were studied in detail by many geologists and until today there is no stratigraphic agreement between them because of the absence of time lines. This paper is oriented to the study of the paleosols which are considered today by the geologists:  
— as excellent stratigraphic lines to establish short and long distance correlations in continental deposits,  
— and also as excellent guides to a more precise understanding of petroleum exploration.

Thus, in this study, the maturity stages of the paleosols in the Rhourde Nouss region allowed us to:

- predict, in short distance (around 15 km), the presence or absence of sandy reservoirs in the neighborhood of non productive or productive wells,
- improve the correlation between the reservoirs; that will give us a better evaluation of the reserves,
- better evaluate the geometry and orientation of sandy reservoirs and make easier the horizontal drilling,
- better determine the location of the stratigraphic traps.

The work which is presented here shows that the paleosols study is practical, rapid, cheap and is oriented to specific petroleum objectives: prediction, orientation, extension and connection of Triassic sandbody reservoirs; these are the principal factors to improved petroleum exploration in the area.

Key words: Sahara, Trias, Paleosols, Maturity, Prediction, Connection, Reservoirs, Exploration.