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GEOCHEMICAL CHARACTERIZATION AND MODELLING OF THE SOURCE ROCKS CENOMANO-TURONIAN (CRETACEOUS) OF THE DJEBEL BOTTENA (SOUTH EAST AREA OF CONSTANTINE-ALGERIA)

The South Eastern Constantine basin is located in the South eastern part of the Saharian Atlas.

The petroleum system is of upper Crétaceous age, the principal source rocks are represented in the Turonian, Cenomanian and the upper Albian (Vraconian).

According to the study of the kerogen it is an amorphous marine originated type, with a small proportion in continental, it is early oil phase in the Turonian, oil-gas phase in the Cenomanian.

Modelling the dynamic aspect of source rocks using the software PetroMod 09 "1D" allowed us to determine the timing, type and quantities of hydrocarbons generated and expelled for different the source rocks of Upper Cretaceous and confirm the good capacity levels rocks located between the junction of the South Atlasic Fault, mainly the Vraconian, which reached a conversion rate of 86%.

The Cenomanian is less important, with 51%, and finally the Turonian with 31%. They enter the phase of hydrocarbon generation in Cretaceous and Tertiary between 76 and 55 Ma, with quantity of oil and gas expelled reaching 13 MTons and 0.29 Mtons on 12 Mtons and 0, 26 Mtons respectively generated, the timing of expulsion are very new, it takes place between the Miocene and the current period.