ARE THE COMPLEX ALGERIAN METEORITIC CRATERS POTENTIAL HYDROCARBON TRAPS?

D. Belhai, O. Merle, P. Vincent, A. Afalfiz, B. Devouard

In the Algerian Sahara four meteoritic craters are described. They account for 26,6% of all the craters which exist in the African continent. Two as of them are of simple type and two others of complex type.

All of these craters, are studied : They are Amguid, Maadna (Talemzane), Tin Bider and Ouarkziz.

They are all located in the Saharan Platform, and form circular depressions. There diameter varies from 450 m (Amguid) to 6 km (Tin Bider).

The Tin Bider and Ouarkziz are of complex type :

Tin Bider is located on the 1/200 000 of Tilmas Lamra map, in North east of the erg Açfer at 265 km in the East of In Salah, in the Tinrhert plateau (27°36 ' north 005°07' East).

The Ouarkziz is crater is located near algero-Morrocan bondary, at 170 km North-East of Tindouf and to 20 km in the North-West of Foum-Defili (7°33' and 29° 00 ' North). Its diameter is 3500 meters.

Called round of Ouarkziz by Fabre and Al (1970), one recognized there all the characteristics of a meteoritic craters.

World wide some meteoritic structures are recognized as hydrocarbon deposit. The most documented structures are those of Avac (Alaska) (Kirschner and Al, 1992) and Viewfield and Red Creek (Donofrio, 1981).

The Geological analysis of the meteoritic craters of Tin Bider and Ouarkziz reveals indentical characters to those of Avac and Viewfield. Their detailed study confirm the possibility of the presence of hydrocarbons.

Key words : Meteoritic crater, Hydrocarbons, Saharan Platform, Algeria, Tin Bider and Ouarkziz