

O16-12**TECTONIC AND PROSPECT OF THE OIL AND GAS IN
"KRUJA" ZONE (EXTERNAL ALBANIDS)****HAZBI SHEHU**

Oil and Gas Institute, Berat, Albania

"Kruja" tectonic zone takes place in the external Albanids. It has always been a studying object for oil and gas exploration, where many geologo-geophysical studies were performed. Based on these works the perspective structures were determined.

The purpose of this study is presented as follows:

- The geological features of "Kruja" tectonic,
- Its oil and gas bearing outlook,
- Recommendation on the exploration in the future.

The eastern boundary of "Kruja" zone is not observed because of "Krasta-Cukali" zone overthrust west-ward.

During the carbonate rocks formation "Kruja" zone from structural point of view was presented as a ridge. It is located between two troughs: "Krasta-Cukali" zone east-ward and "Ionian" one west-ward.

Sedimentation of neritic nature has continued from Jurassic to Eocene.

Mesozoic and Paleogenic Carbonate series are more obviously explained and the better according to normal sections of "Tervoll", "Renzi" Structures. On the eroded Eocene limestones lies the upper part the eroded Eocene limestones lies the upper part of the transitory packet that belongs to lower oligocene (there is a gap in sedimentation). Following above the section is normally made up of flysch-flyschoidal deposits of the lower Oligocene.

At the beginning of terrigenous flysch deposits sedimentation the unification of "Kruja" and "Ionian" zones was made. The flysch-flyschoidal deposits are characterized by clay, silt, sandstone intercalations with olistostromes. Their thickness ranges according to the studied sections, from 600 m up to 1500 m for lower oligocene and over 1200 m belongs to Middle Oligocene. The total Oligocene flysch thickness increases from west to east.

The folding of "Kruja" tectonic zone has begun before Eocene and has continued during Oligocene. The folding of "Kruja" tectonic zone has begun before Eocene ("Kulmake" structure, etc.) and has continued during Oligocene (the transgressive setting of Oligocene deposits in "Kulmake", "Qeshibesh", "Valesh" structures, etc.). A series of structural ranges (like: "Ishmi", "Fush-Kruja", "Makareshi", "Dajti" ones) was verified by surface, geologo-geophysical works and well data (fig. 1.).

All ranges and structures verified up to now have a linear extending and are represented in step form. Their eastern flank is normal, while the western one is intersected by the tectonic fault. The "Kruja" zone in "Gramsh" region becomes narrow, because a great part of it is completely covered by "Mirdita" zone through the "Devolli" massif and that of "Krasta" zone. In "Leskoviku" region it is completely covered by "Mirdita" overthrust west-ward and is appeared again beyond the Albanian borders in Greece, where it is called "Gavrova" zone.

The eastern boundary of "Kruja" zone is not well observed because of "Krasta-Cukali" overthrust west-ward.

It's important to underline the presence of transversal tectonic fault with a small vertical and horizontal magnitude, which are almost parallelly with Vlora-Elbasan transversal line.

They are explained by the means of differentiated tectonic blocks movements. This change in the presenting character of structures north-ward of it, is conditioned by:

- The geological development of Kruja itself in time and space.
- The influence of the adjacent tectonic zones, particularly of eastern ones.
- In the "Kruja" tectonic zone 18 wells have been drilled for oil and gas exploration in the carbonate structure and 13 wells in the tortonian sandstones.

In the "Kruja" zone we have no positive results concerning the oil and gas exploration. The negative result in this zone are explained by the fact that some wells drilled has not reached the carbonate structure with favorable conditions for commercial oil accumulation. The well drilled in

sandstones have not reached structures in good conditions for the forming the oil pools. Based on the arguments mentioned in this study (as comlex geochemical studies, etc.).

Ithink that tha “Kruja” tectonic zone is perpective from oil gas point of view, with a great number of structures, which have all conditions for oil and gas accumulatian.

I recommended geological researchers to be performedfor oil and gas exploration in the structural ranges and the following structures:

- In the western structural ranges which are covered by the flysch and not eroded,
- In the anticlinal structural rangesfolded in flysch eastern-ward of “Dajti” line,
- In the closed structures of ranges controlled by the drilling works, but in more favorable conditions,
- In some concrete structures ex: “Kllojka”, “Sheleani”, “Yba”, “Papri” etc.

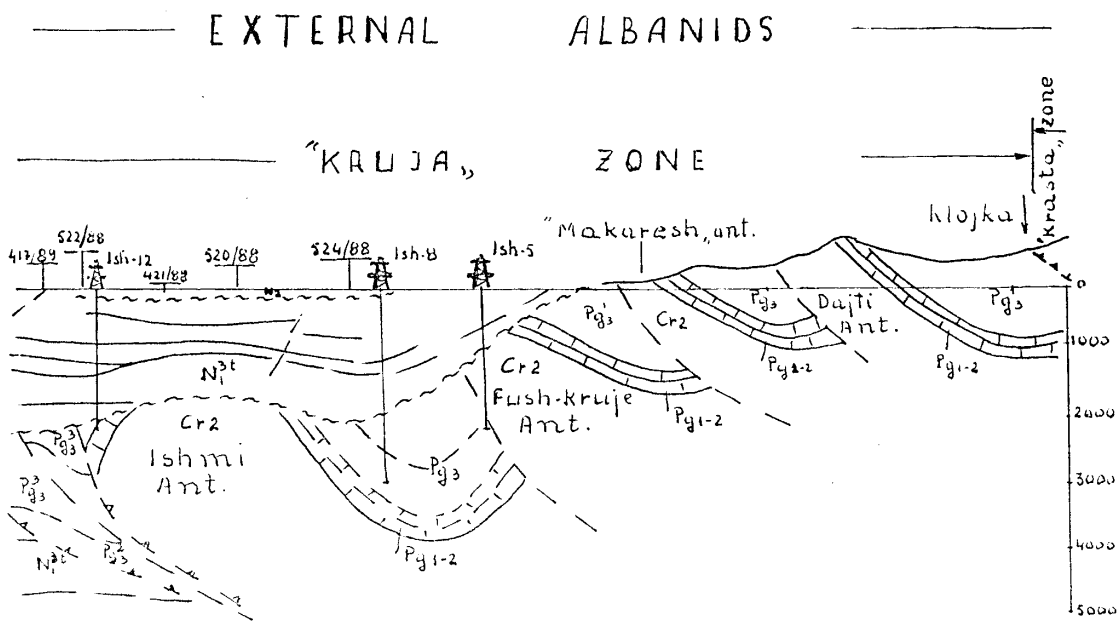


Fig.1 Geological profile Tirane-Ishem Region