O4-2	USING OF THE RECENT GEOPHYSICAL DATA FOR THE ESTIMATION OF OVERTHRUSTING AND REFLECTION FROM FLYSCH TOWARDS CARBONATIC SEQUENCES IN SOUTHERN PART OF ALBANIDES

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The aim of this paper is to given a quantitative evaluation of the overthrusting the amplitude of carbonate structures and flysch foldings by using a throughly interpretation of geophysical data. The paper is showing our experince in the regions with heavily overthrusting tectonics and duplex carbonate structures, almost above each other. Such phenomenon is called “imbricated” tectonic style. Hydrocarbon traps, as “individual slices” represent in such tectonic style Enviroment.

Flysch folding have always been objects of numerous geological and geophysical investigations. The goal was to find their structural and geological relationships with the top of carbonate structures and draw some conclusions in that respect. Knowing the behaviour of flysch deposits helps you to predict carbonate structures, underneath them.

On the field cases, where the seismic is poor, many efforts have been concentrated to improve both acquisition and processing of seismic signal.

Our experince on exploration for carbonate reserviors has shown that the axial flysch folds, sometime does not fit with that of the carbonate structures. This misfit increases going deeper.

The paper analyses some factors that have conditioned the anticlinal flysch folds and their consedimentation. The Osmanzeza flysch (central part of the Southern Albanides) associated with plenty of soil shows is clarified.

One of the most important question, discussed in the paper is a new methodology of time-depth converting for reflection horizons on the multibeds environment, and especially for those ones below the carbonatic overthrusting. This have to do with complex processing of seismic recordings by knowing better the alteral gradient of seismic velocity and by using interpretative programs and methods that consider this lateral change of seismic velocities on processing and modeling aspects.

The analyses of the overthrusting and the reflection response from the flysch deposits sitting on top of the Carbonate structures is treated as following:

- geological surveys
- the interpretation of regional seismic lines using the work-station.
- using of the dip-meter well results.
- using of synthetic time section.
- using of logs to determine minor faults within the flysch deposits.

An effective depth migration could be achieved by using processing softwares that converse the seismic signal like DIMIG, etc., which is based on knowing the total spreading of seismic horizons and the variations of seismic velocities is respect to lithological composition of the beds. Good results have been achieved by using of new methods, understanding surface and subsurface seismo-geological conditions in the areas, and recording the very complicated carbonatic levels.

The analyses of the seismic data give a good information of the presence of a great assymmetry as regards to the reflection of subsurface flysch folds on deepest levels up to the carbonatic ones. Seismic modelling and other geophysical data made possible the identification of the seismic horizons

through all deposits on the studied section. This is of great interest on the areas where the flysch folds belongs to “flysch thrust belts” on Southern Albanides.

On several cases the anticlinal flysch folds are not reflected up to the carbonatic deposits (Bodari region, Libohova region, etc). The small amplitude flysch folds, in the front of orogene, as shown from seismic data, have little changes to be linked with respective carbonate folding. The folds are called as “flysch folds without roots”.

The recent geological and geophysical investigations on the studied areas have come to a conclusions that the higher of the amplitude of the overthrusting, the greater is the axial asymmetry for the flysch fold into depth. This concept is nowadays been used for searching attractive subthrusts in the areas of Delvina, Sqepuri, Pristha, etc.

The final goal of the many aspect described in the paper is to set up a sound geological model as a prerequisite for searching subthrusts in heavily tectonized regions

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