

SEISMIC INTERPRETATION IN FOLD-AND-THRUST BELTS

TRAINING COURSE
(2 DAYS)

Course Description

"Fold-and-thrust belts represent an absolutely average sample of global hydrocarbon resources, they are oil prone because they are a very good sample of an oil-prone world" (Cooper, 2007).

Fold-and-thrust belts contain major hydrocarbon accumulations in complex structural traps. Hydrocarbon exploration in many onshore fold-and-thrust belts is commonly very difficult because of rugged topography and complex structures. Seismic interpretation in these terrains could be arduous due to the generally poor quality of seismic data. The correct application of thrust tectonics concepts and the relationships between folding and thrusting (e.g. thrust-related folding) become a powerful tool helping the interpreter in deciphering and reconstructing the complex subsurface geometries of structural traps. The course provides an overview on how the use of the concepts of structural geology can be applied to make better structural interpretations. The principles behind the construction of balanced cross-sections are discussed. The participants will learn theoretical and technical approaches in seismic structural interpretation of compressional structures illustrated by numerous examples from around the world and experienced by hands-on exercises.

List of Contents

Main contents of the course are:

1. Principles of compressional tectonics and structures
2. Seismic imaging in thrust belts: processing issues and velocity models
3. Seismic interpretation in compressional regimes
4. Seismic interpretation in inversion/transpressional regimes
5. Principles of balancing and structural restoration

Participants

The course is designed for petroleum professionals including geophysicists, geologists, geoscientists, geomodellers and subsurface engineers working for the exploration. Ideally, the components of a subsurface team would greatly benefit from participating together.

The minimum number of participants to run the course is 4, while the maximum number is 10.

Instructors

The course will be run by Raffaele Di Cuia, Alberto Riva and Paolo Pace, part of the GEPlan Consulting team.

Raffaele is geoscientist with more than 20 years' experience in the oil industry. He has worked and consulted for major to small independent oil companies in Africa, Europe, Middle East and the Americas. His main expertise is the related to the exploration and characterization of carbonate and fractured reservoirs.

Alberto is a geoscientist specialized in exploration and development of carbonate reservoirs and adjunct professor of Petroleum Systems Modeling at the University of Ferrara. Alberto holds a PhD in stratigraphy and sedimentology from the University of Ferrara.

Paolo is a structural geologist specialized in structural characterization of carbonate-dominated fold-and-thrust belts integrating both field surface and subsurface data. He holds a PhD in Structural Geology from the 'G. d'Annunzio' University of Chieti-Pescara carried out in collaboration with the Geology and Petroleum Geology Department of the University of Aberdeen. His PhD Thesis was awarded by the 2015 SPE-EAGE-ASSOMINERARIA "Gustavo Sclocchi" Award.

Location

The course will be run in GEPlan Consulting office in Ferrara (Italy). GEPlan office is easily accessible from everywhere due to its location close to the main transport routes and to international airports (Bologna, Venice). The course can be also run in other locations, if required by a minimum (5) number of participants.

Registration cost

The cost of the course (when run in GEPlan Consulting office) is 1.200 euro per participant. The cost includes the material presented during the course. When the course is run in GEPlan Consulting office it also includes coffee breaks and lunches

About GEPlan Consulting

GEPlan is a consulting firm based in Italy that provides innovative and integrated geoscience consulting services for exploration and reservoir characterization activities to international E&P companies.

GEPlan also offer a series of training courses, field trips and seminars for petroleum industry professionals. Since 2004 we have run more than 50 courses & field trips with more than 700 participants working for international and national oil companies. Our training courses are run with innovative techniques of teaching and communication with original visual aids and materials. We have run field courses in Italy, France, Spain and Middle East with participants coming from all over the world.

for more information
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