

Advanced Course :: Sequence Stratigraphy

Application for exploration and production of natural resources..

This is a methodological and hands-on course based on seismic, well logs, cores and outcrops, focusing on chronostratigraphic correlation, facies prediction, and identification of stratigraphic traps. This approach used by the oil industry is also employed to the exploration of other natural resources such as water, coal, phosphate and placer deposits.

COURSE TYPE: LIVE STREAMING (05 DAYS, 20 HOURS)

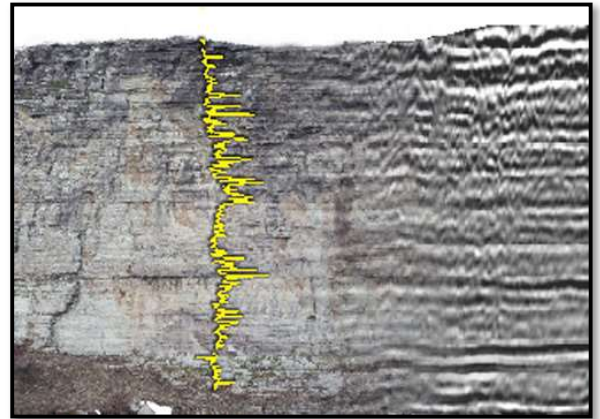
GROUP 01: 07 - 11/APR (PORTUGUESE)

GROUP 02: 09 - 13/JUN (ENGLISH)

GROUP 03: 22 - 26/SEP (PORTUGUESE)

GROUP 04: 20 - 24/OCT (ENGLISH)

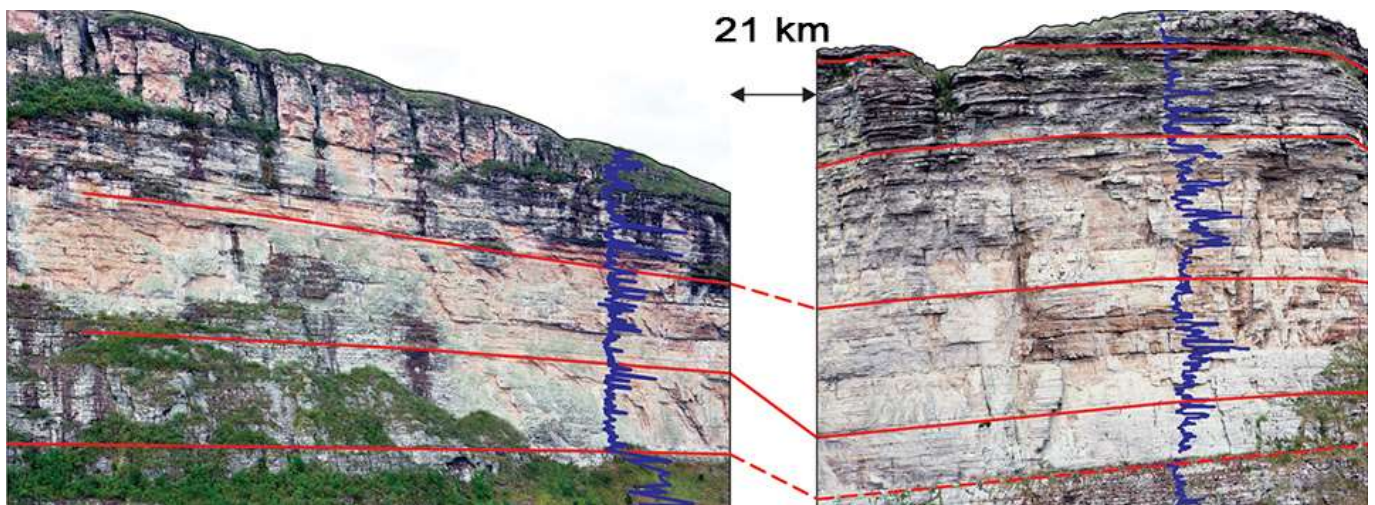
COST: € 1500 :: + VAT



Why is sequence stratigraphy so crucial for the exploration of natural resources?

Sequence stratigraphy is a method that helps to understand the evolution of sedimentation through time and space in sedimentary basins. Currently, regional studies that support the exploration of natural resources are based on the understanding of the sedimentary processes that form the deposits and the sedimentation breaks that limit them.

The exploration and production of natural resources formed or related to sedimentary processes depend on the construction of chronostratigraphic frameworks that allow paleogeographic reconstructions that in turn increase our understanding of the temporal and spatial distribution of deposits of economic interest such as source rocks, seals and reservoirs of oil and other natural resource deposits..



Regional chronostratigraphic correlation, Chapada Diamantina, Brazil.

Objectives

At the end of the course, participants are expected to:

- Understand the principles, concepts and workflow of sequence stratigraphy;
- Assess the quality of available data, integrate data from different methods, and analyze uncertainties related to the interpretation of the chronostratigraphic framework;
- Expand the understanding of the temporal and spatial evolution of hydrocarbon reservoirs, source rock and seals;
- Identify stratigraphic sequences and potential prospects for the exploration of oil and other natural resources.,.

Content

It is a hands-on course based on seismic, wells, cores and outcrops data. The course focuses on stratigraphic correlation, facies prediction, and identification of stratigraphic traps and heterogeneities.

Participants will practice the sequence stratigraphy methodology through exercises to identify stratigraphic surfaces and propose chronostratigraphic correlations.

- Workflow of sequence stratigraphy;
- Accommodation and displacement of depositional systems: definitions of accommodation, base level, fluvial graded profile, transgression, normal and forced regression;
- Sequence stratigraphic surfaces: subaerial unconformity, correlative conformity, basal surface of forced regression, regressive surface of marine erosion, maximum regressive surface, wave and tide ravinement surfaces, maximum flooding surface;
- Stratigraphic sequences: depositional, genetic, and T-R sequences;
- Systems tracts: highstand, falling stage, lowstand, transgressive, low- and high-accommodation;
- application for the exploration of petroleum and other natural resources.

Who should attend

Geologists, geophysicists, and engineers who are working on the exploration of petroleum or other natural resources.

Instructor

- A.J.C. Magalhães, PhD