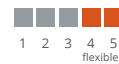


## Pyrenees - Based Events (Spain)

### Designed for:

The course is designed for Geoscientists, Petrophysicists, Reservoir Engineers and Well Engineers. Ideally structured for groups working in multi-discipline asset-based teams.

### Duration (days)



### Learning Level:

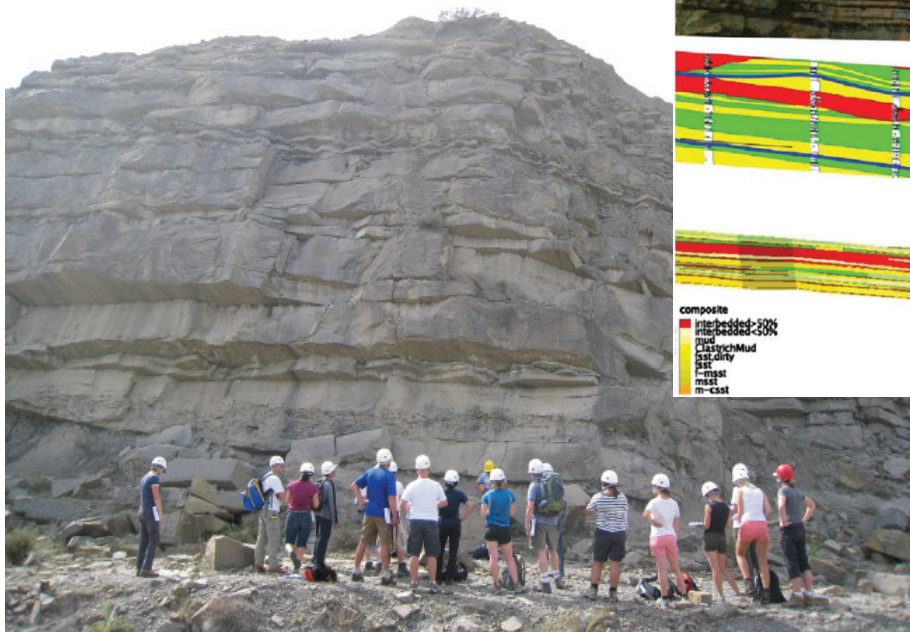
Skills	■ ■ ■
Knowledge	■ ■ ■
Awareness	■ ■ ■

### Deepwater systems, Tidally –influenced systems, Fluvial systems

#### What's here?

Ability to view a wide range of clastic depositional systems focusing on reservoir scale sandstone bodies and their architecture in a basinal context.

- Deepwater turbidite channels, levee deposits and mass transport complexes of the Ainsa and Jaca basins (including core data).
- Two regional scale fluvial systems 1) Eocene axial, thrust sheet-top fluvial system; 2) Oligo-Miocene transverse fluvial system feeding into the Ebro foreland basin.
- Tidally influenced sandstone bodies (Roda Sandstone) of the Tremp-Graus Basin.



Early Development  
E&P Overview  
Reservoir  
Wells

Business & Risk  
**Open Air**  
Coaching  
Master Class



### Pyrenees - Based Events (Spain) continued

#### Geological Theme and Course Content

The region offers the ability to focus on a number of technical themes including:

- The analysis and interpretation of the sedimentology, stratigraphic architecture and reservoir potential of alluvial fan, fluvial, tidal- and wave-dominated shorelines/shelves, and deepwater deposits.
- The interpretation of a range of deepwater sandstone bodies from slope canyons, through basin floor channels to basin plain.
- The analysis of regional scale sediment transport paths in terms of their reservoir potential, the controls that determine length scales of down-dip changes along the transport paths, and predictions that can be made in terms of reservoir presence and characteristics.
- The relation between the spatial distribution of reservoir potential to the structural geometry of tectonically active basins in an exploration sense.
- The differences between fluvial, shallow marine and deep marine depositional systems from a modelling perspective.
- The evaluation of the use of outcrop analogue data for building better reservoir models and understanding reservoir zonation from a geological (rather than engineering) perspective (supported by outcrop-based models for development planning scenarios).

#### Access

Fieldwork is carried out in the foothills of the southern Pyrenees and on the Huesca Plain. Outcrops are partly road-side, in addition to quarries and hillside viewpoints. Access is by coach with short walks of up to 2 km over scrubby ground and rocky terrain can be expected. Participants should be aware that some localities are at an altitude of around 1000 m (3000 ft) and field temperatures may exceed 25 degrees celsius.

#### Logistics

Pyrenees, Spain: fly in/out Barcelona. Accommodation in Tremp, Ainsa and Ayerbe depending on outcrops to be visited.

#### Duration

3-5 days depending on content required.

One day travel in UK-Barcelona, one day-return.

#### Courses available from this series:

Moray Firth-based Events (Scotland)  
Northumberland-based Events (England)  
Yorkshire-based Events (England)  
Derbyshire-based Events (England)  
Dorset-based Events (England)  
Pembrokeshire-based Events (SW Wales)  
Somerset-based Events (England)  
County Clare-based Events (Ireland)  
Annot-based Events (France)  
Provence-based Events (France)  
Tabernas-based Events (Spain)  
Pyrenees-based Events (Spain)  
Utah-based Events (USA)  
East Kentucky-based Events (USA)  
Sicily-based Events (Italy)

#### Course Tutors



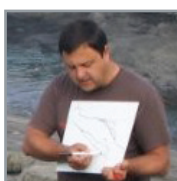
##### John Howell PhD

**Main Series tutoring:** Reservoir, Open Air

**Industry experience:** over 25 years, geoscience

**Career background:** Gaps, University of Liverpool, University of Bergen, Rocksource ASA

**Personal:** Published over 100 scientific articles and edited three books



##### Pau Arbués MSc

**Main Series tutoring:** Open Air

**Industry experience:** over 25 years, geoscience

**Career background:** Catalan Geological Survey, Universitat de Barcelona

**Personal:** Author scientific articles, researcher and associate professor Universitat de Barcelona.