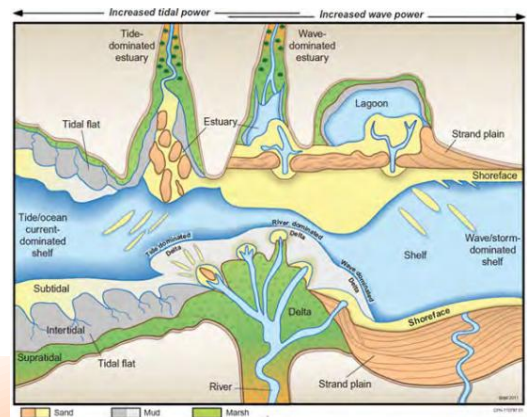


Integrated Shallow-water depositional systems

This hands-on course provides participants with practical recognition criteria, mapping strategies, dimensional datasets, and reservoir architectures of different coastal to shallow marine depositional systems that are known for producing conventional subsurface reservoirs. From a landward to basinward transect, this course systematically introduces participants to the main environments of deposition (EoD) and focuses on where reservoir quality sands are deposited. This course delivers modern examples, outcrop analogues, core photos, well-log signatures and seismic data for each EoD. Facies, facies associations, log and seismic response, geomorphology, as well as recognition criteria for each EoD is thoroughly discussed and evaluated. By the end of the course, participants predict reservoir geometries, dimensions, and net-to-gross ratios of fluvial and paralic sedimentary systems.



..... Sequence boundary (inferred/covered) ——— Distributary channel base ——— Transgressive surface



Integrated Shallow-water depositional systems

COURSE CONTENT

- Sequence stratigraphic interpretation method
- Clastic facies in transitional marine environments
- Facies, log motif and seismic response of fluvial and transitional systems
- Facies, log motif and seismic response of river-, wave-, and tide-dominated systems
- Recognition criteria and mapping strategies for play elements in terrestrial and shallow marine settings

LEARNING OUTCOMES

- Recognize and describe sedimentary structures from coastal plain to shallow marine strata
- Document coastal plain to shallow marine (also known as marginal marine, paralic or transitional) siliciclastic systems from core
- Interpret siliciclastic depositional environments from core, well logs, and seismic data
- Identify reservoir quality sandstone using subsurface datasets from siliciclastic systems
- Predict distributions of clastic reservoirs and architectures along depositional strike and dip
- Map seismic facies to de-risk reservoir presence and predict net-to-gross ratios in shallow marine and fluvial systems
- Acquire exploration techniques for transitional marine reservoirs