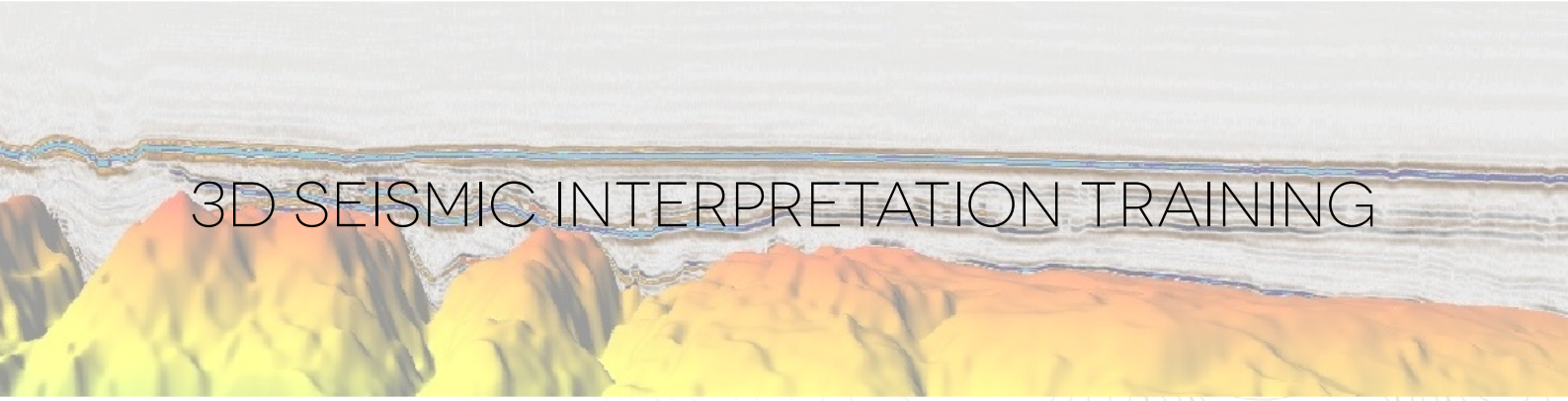

3D SEISMIC INTERPRETATION TRAINING

COMBINING STRUCTURAL & STRATIGRAPHIC ANALYSIS FOR NATURAL RESOURCES EXPLORATION

5 to 10 days with 90% of the training duration devoted to practice on real data, starting with textbook examples of structural and stratigraphic geometries

Audience
E&P professionals with experience in seismic interpretation

Learning objectives
Grasp the workflow of a 3D seismic interpretation
Perform a combined stratigraphic and structural seismic interpretation

COURSE DESCRIPTION
Each topic can be addressed in ½ day or more deeply over 1 day

Topic 1 - Opening session
Surveys presentation of the Barents Sea 3D seismic block and training objectives
Recapitulation of the seismic fundamentals that are of direct relevance for interpretation
Seismic data preparation, display and overview

Topic 2 - Seismic Well-tie
Digital well logs display (maps and plates), QC, and stratigraphic analysis
VClay, GROSS, Net to GROSS, Net Sand computation
Synthetic seismogram computation, seismic well-tie and horizon identification

Topic 3 - Structural interpretation
Introduction to extensional, compressional, strike-slip, inverted, and salt tectonics
Fault picking, correlation and mapping
Interpretation in term of deformational system, stress and strain directions, and fault interplay

Topic 4 - Seismic stratigraphy
Introduction to basic concepts of sequence stratigraphy
Recognition of seismic stratal pattern and stratal termination

Topic 5 - Seismic interpretation
Reminder of picking tips
2D horizon picking along 2 lines and inlines/crosslines
3D propagation with various picking parameters

Topic 6 - Creation of geologically relevant maps
Gridding of structural surfaces
Isochron computation and analysis

Topic 7 - Seismic attributes
Amplitude extraction along key horizons and/or discrete stratigraphic intervals
Signification, computation and usage of various common seismic attributes

Topic 8 - Seismic facies
Seismic facies analysis in cross-sectional view
Recognition of depositional environments with seismic attributes
Introduction to seismic geomorphology

Topic 9 - Depth conversion
Review of the different types of velocity
Time to Depth conversion using Sonic logs or Time/Depth charts from well data

Topic 10 - Leads and prospect
Structural & stratigraphic lead analysis: entrapment, reservoir extension
Volume calculation using petrophysical parameters

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