TRAINING TITLE
SEDIMENTOLOGY & SEQUENCE STRATIGRAPHY

Training Duration
5 days

Training Venue and Dates

PE2023	Sedimentology & Sequence Stratigraphy	5	04-08 Mar. 2024	$6,500	London, U. K

In any of the 5-star hotels. The exact venue will be informed later.

Training Fees
- **$6,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch**

Training Certificate
Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING WORKSHOP DESCRIPTION

1.	SEDIMENTOLOGY - MAIN DEPOSITIONAL ENVIRONMENTS.
2.	Alluvial facies models, Fluvial facies models, Deltaic facies models, Shallow marine facies models, Deep marine facies models (examples from outcrops and field case studies), Facies analysis on core and wireline well log: related petrophysical characteristics, 3D geometry of depositional units and reservoir bodies.
3.	SEISMIC SEQUENCE STRATIGRAPHY AT BASIN SCALE
4.	Depositional sequences and system tracs; Methodology of interpretation; Quantitative prediction of potential source rocks and reservoir's location; Application to seismic interpretation.
	HIGH-RESOLUTION SEQUENCE STRATIGRAPHY AT RESERVOIR SCALE
	Identification of genetic sequences; Correlation by analysis of stacking patterns; Qualitative prediction reservoir bodies extent and quality; Interpretation exercise based on outcrop analogs and field studies
	STRATIGRAPHY MODELING
	2D and 3D deterministic stratigraphic modeling; Quantitative prediction of reservoir distribution and connectivity - case studies; From basin scale to reservoir scale: geostatistical modeling of inter-well heterogeneity; Different methods (object, pixel): educated software package; Integration of seismic and dynamic data Geochemistry, biostrat /lithostrat.

DMCT/OL/9/18(Rev3Dt:23/9/18)

TRAINING OBJECTIVES:

1. To present concepts and methods of sedimentology and sequence stratigraphy analysis.

2. Log analysis and identification of sequence boundaries, MFS, and System tracts; integration with seismic.

3. Analyze seismic sequences and identify sequence boundaries and system tracts.

4. Predict reservoir distribution and geometry.

5. Upon course completion, participants will be able to: identify the main depositional environments,

Note:

70% of the course should be exercise-based.

WHO SHOULD ATTEND?

Designed for geologists, geophysicists, and engineers actively working in the exploration and production of carbonate rocks.

TRAINING METHODOLOGY

This course combines sound engineering, operation and maintenance principles, applicable standards and best industry practices for reliable and cost-effective process plant systems. Delegates will be encouraged to introduce problems of their own for discussion and analysis. Copies of all lecture materials, case studies and workbooks will be provided.

Group discussions will be carried out on problems faced. This training program is lecture-based and customized to the needs of the audience, providing meaningful experience for personnel that work in petroleum plants. Daily sessions include formal presentation, prepared in the Power Point, interspersed with directed discussions and case study. In addition to formal lectures and discussions, the delegates will learn by active participation through the use of problem-solving exercises, group discussions, analysis of real-life case studies etc. Many relevant videos will be shown during the training.

All attendees receive a course manual as a reference.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

Course Program

Module	Topics	Main Objective	Activity
	Introduction to sedimentology	Differentiate between all	
	Processes controlling sedimentology		

1 Module	Continental environments and their facies and modeling in outcrops, logging and seismic. Marine environments and their facies and modeling in outcrops, logging and seismic.	different environments and facies	Tutorials and quizzes
2 Module	Introduction to sequence stratigraphy Identification sequence boundaries and system tracts in logging and seismic Seismic Reservoir Characterization Prediction of source rocks and reservoir location in seismic lines	Identify environments, sequences and system tracts in logs and seismic lines	Tutorials and quizzes
3 Module	Genetic sequence stratigraphy Stacking pattern Qualitative prediction reservoir bodies Regional correlation	High resolution sequence stratigraphy	Tutorials and quizzes
4 Module	Introduction to stratigraphic modeling Detecting the modeling properties 2D sequence stratigraphic modeling 3D sequence Stratigraphic modeling	Modeling	Tutorials
5 Module	Dynamics of Basin wide Sedimentation Patterns and Sea-level Changes From basin scale to reservoir scale Integration of seismic, bio, geochemistry, and lithostratigraphy	Define all sequence stratigraphic elements	Tutorials and quizzes

TRAINING OUTCOME

1	To present concepts and methods of sedimentology and sequence stratigraphy analysis.
2	Log analysis and identification of sequence boundaries, MFS and System tracts;
3	Analyze seismic sequences, identify sequence boundaries and system tracts.
4	Predict reservoir distribution and geometry.
5	Upon course completion, participants will be able to: identify main depositional environments.

NOTE:
Pre & Post Tests will be conducted.
Case Studies, Group Exercises, Group Discussions, Last Day Review and assessments will be carried out.

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