Training Title
SEISMIC INTERPRETATION TRAINING

Training Duration
5 days

Training Date

DE610	**Seismic Interpretation Training**	**5**	**19-23 February 2024**	**$6,500**	**London, UK**

In the below 5 star hotel as mentioned. The exact venue will be informed once finalized.

1. **Events at Marble Arch**

Central Cluster Meetings, Events and Group Sales - The Cumberland Hotel and Thistle Marble Arch

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T. +44 (0) 207 523 5060
W. clermonthotel.group | **A.** Thistle Marble Arch, Bryanston St, Marylebone, London, W1H 7EH

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

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

Language: English

INTRODUCTION
Seismic interpretation is a critical step in evaluating the subsurface. Interpretation turns the large investments in seismic data acquisition and

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ABU DHABI, U.A.E
T +971 2 6264455
F +971 2 6275344
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processing into tangible value: A plausible geological subsurface model that can be used for making well considered E&P decisions with major investment consequences. Seismic interpretation therefore plays a pivotal role in the E&P workflow and requires dedicated skills development. The aim of this course is to provide the necessary foundation in principles and workflows of seismic interpretation.

The basics of seismology will be covered as well as acquisition, processing, and interpretation. Exercises will be worked in the course to demonstrate different interpretation techniques and pitfalls. The emphasis will be to make the candidates aware of the strengths and limitations of seismic reflection data in exploring for oil and gas. Applied examples will be shown of several case studies as well as the application of AVO (amplitude variation with offset) and seismic attributes in the lowering of risk. The candidates must have basic geophysical knowledge and understanding of exploration and reservoir geology.

The course will be delivered in a way to meet the specific background and needs of the participants. The content can be tuned to the geological setting in which participants operate, and focus on those interpretation techniques that are most likely to be successful there. The course can be extended with extra time for coaching participants on their own seismic interpretation projects. The course uses a mixture of lectures, exercises and case histories. The participants can bring own cases for discussion.

COURSE OBJECTIVE

By the end of this course delegates will learn about:

The course participants will have a solid foundation in Seismic Interpretation principles and workflows. They will be able to plan and execute an interpretation project and be able to avoid the most common pitfalls and will be familiar with interpretation QAQC. Whereas the course does not cover training in the hands-on use of common industry software tools for interpretation, it will provide the necessary foundation required for subsequent use of such tools in a professional manner.

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WHO SHOULD ATTEND

Geologists, Geophysicists, Reservoir Engineers and Petroleum Engineers involved in the evaluation of 2D and 3D seismic data, Technical and business professionals (such as landmen, administrators, executive assistants, and finance and planning professionals) working in the oil and gas industry who would like the basics of the "science" of oil business. Land and royalty owners, as well as recent geology and geophysics graduates who would like an overview of the petroleum geophysics would also benefit from the course.

TRAINING METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- **30% Lectures**
- **30% Workshops and work presentation**
- **20% Case studies & Practical Exercises**
- **10% Role Play**
- **10% Videos, Software or Simulators (as applicable) & General Discussions**

TRAINING OUTLINE

DAY 1

- What we need to success interpretations
- Basic geophysical Background
- Introduction for 2D &3D
- Interpretation fundamentals and introduction of 2D/3D seismic interpretation workflows
- Recapitulation of the fundamentals related to interpretation, reflection coefficients, polarity convention etc.

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WORK SHOP USING SOFTWARE

- Building project Data base
- QC seismic data and well data
- Data loading

DAY 2

Well-to seismic matching exercise

- **Summary of well geophysics**
- Well seismic tie
- Synthetic seismogram theory
- Seismic (volume) attributes for seismic interpretation
- Seismic illustration of structural styles: extension, compression, wrench and halokinesis
- Exercise with examples from the different styles
- Interpretation project QAQC
- Mapping and contouring
- Integration well logs with seismic section

WORK SHOP USING SOFtware

- Well seismic tie
- check shot sonic integration

DAY 3

- Horizons and faults interpretations
- Theory pf Gridding and mapping (contour)
- Marker recognition and transfer
- Seismic (volume) attributes for seismic interpretation
- Seismic illustration of structural styles: extension, compression, wrench and halokinesis
- Exercise with examples from the different styles
- Structural interpretation workflow in detail
- Exercise with round correlation of shallow markers

WORK SHOP USING SOFTWARE

- Practical session OF Horizon picking and Fault picking

DAY 4

- Structural interpretation workflow in detail
- Exercise with round correlation of shallow markers

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- Horizon tracking exercises
- Mechanics of faulting and fault interpretation
- Exercise with hand interpretation of fault segments
- Brief summary of stratigraphic interpretation
- Exercise on stratigraphic interpretation
- Interpretation pitfalls

DAY 5

- Theory of Time depth conversion
- How to generate different workflow for depth conversion
- velocity modeling
- Overview of seismic velocities
- Time-to-depth conversion
- Exercise on seismic velocities, and time-do-depth conversion

WORK SHOP USING SOFTWARE

- Practical session of Depth conversion
- Practical session of mapping and contouring

Case Studies, Group Discussions, Last Day Review, Assessments will be carried out.

MEETING ROOM PICTURES:

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