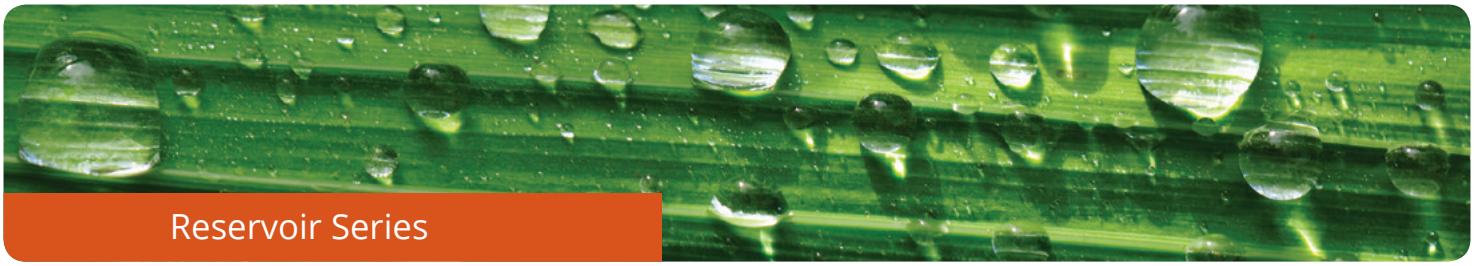


Reservoir Series

Introduction to Geophysics

Designed for:
The course is aimed at geoscientists early in their industry careers and engineers without an academic background in geology but who work with geoscientists on a regular basis. The course is also well suited to technical support staff who wish to broaden their understanding.

Duration
(days)

1 2 3 4 5
flexible

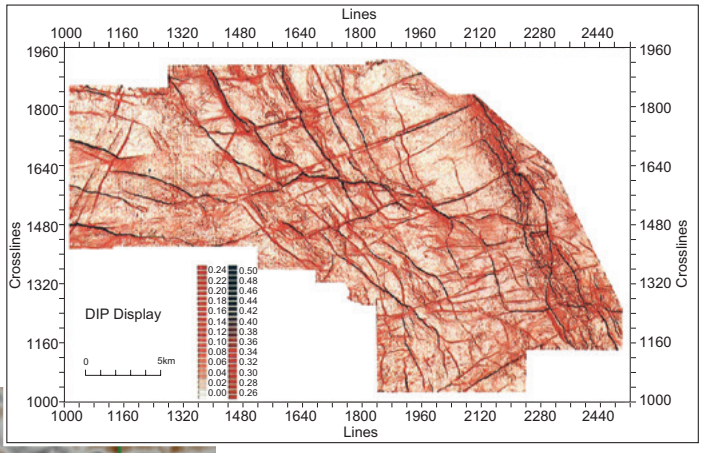
Learning Level:

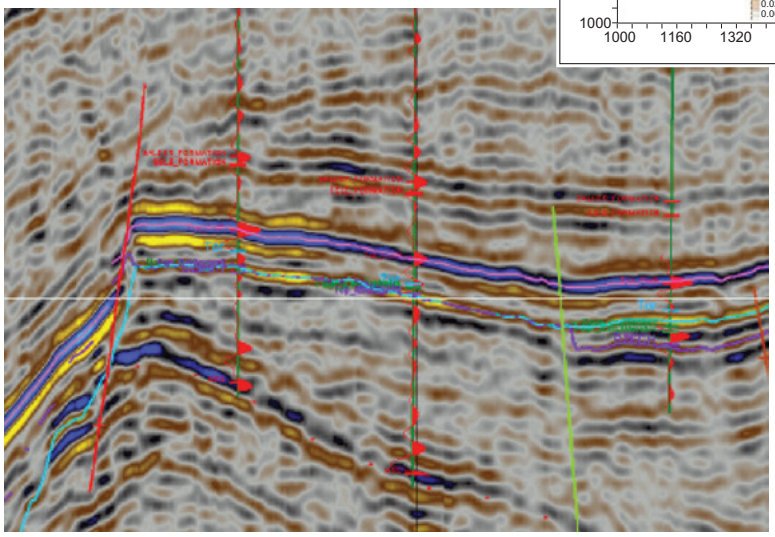
Skills
Knowledge
Awareness

The course covers the basics of theory, acquisition, processing, interpretation and application of geophysical data.

The course is delivered through a series of discussions and talks with exercises to support various aspects of theory, and aims to cover this complex topic in an easy-to-understand, relatively jargon-and maths-free way. Case study material is used to demonstrate the use and application of different techniques in different settings and participants will interpret datasets for themselves on paper. Software demonstrations or company specific databases are recommended as part of this course and can be arranged upon request.

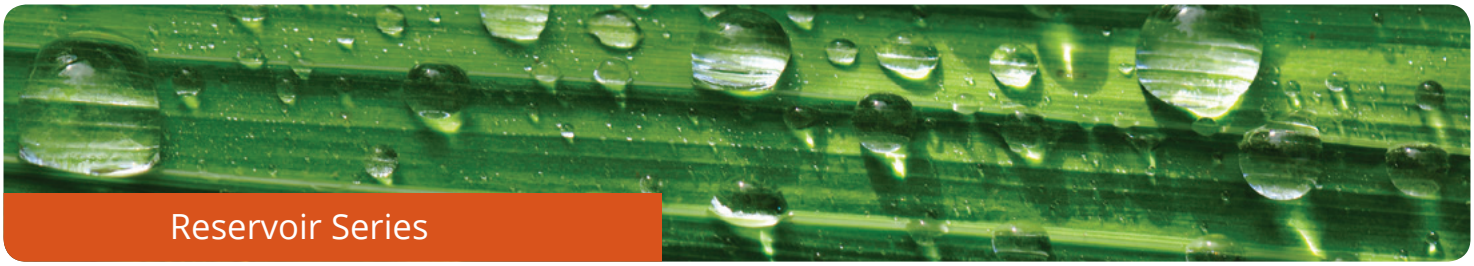
The focus of the course is therefore on principles, techniques and issues around the use of geophysics in the operational hydrocarbon company environment. The course will be given by AGR Tracs staff with significant personal experience of the use of geophysics in multi-disciplined projects.





Early Development
E&P Overview
Reservoir
Wells

Business & Risk
Open Air
Coaching
Master Class



Reservoir Series

Introduction to Geophysics continued

Course Content:

Introduction to Acquisition + Processing

- Seismic reflection theory
- Principles of acquisition
- Basic theory and application of processing
- Time migration

Introduction to Interpretation and Time-Depth conversion

- Basic seismic interpretation
- Data artifacts
- Mapping and interpreting a simple structure
- 2D vs 3D seismic
- Resolution (vertical + horizontal)
- Depth migration
- Depth conversion
- Tying well data to seismic data

Applied Geophysical Techniques

- Attribute analysis
- Impedance inversion and rock property modelling
- Specialised applications and new developments

Geophysics in the asset

- Field development planning
- Reserves determination
- Well planning

One day supplementary modules: Applied Techniques

- 4D seismic Masterclass
- Interpretation Masterclass
- AVO Masterclass

Course Duration:

Duration is a 3 - 5 day course for graduates, engineers, non-geophysicists or technical support roles working in multi-disciplined teams, who regularly work alongside geophysicists and require an entry level introduction.

The basic 3 day course can be supplemented with two 1 day modules in 4D, seismic, interpretation or AVO as required. These can have an exploration or development focus to suit the needs of the team.

Courses available from this series:

Basic Geoscience
Introduction to Geophysics
Geological Application of Well Logs
Openhole Petrophysical Interpretation
Core Description
Production Geology
Applied Production Geology
Reservoir Model Design
Fractured Reservoir Characterisation
Geology for Drilling Engineers
Reservoir Engineering
Applied Reservoir Engineering
Well Test Design & Analysis
Logging While Drilling
Basin Analysis
Geomechanics

Course Tutor

Liz Chellingsworth BSc, MSc
Main Series tutoring: Introduction to Geophysics, Interpretation Masterclass
Industry experience: 12 years, geoscience
Career background: Hydrosearch, Fugro, Foster Findlay Associates, AGR and TRACS
Personal: Technical paper author, presenter at EAGE

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