



W016: North Sea Reservoirs Series - Permian Zechstein Carbonates Overview

Instructor(s): Jo Garland and Peter Gutteridge

1 Day	Competence Level: Skilled
 Virtual Course	
 Computer Usage	

Summary

As the North Sea becomes more mature, and seismic data quality improves, secondary reservoir targets are coming in to focus. This is true for the Upper Permian of the North Sea, which is still being explored long after other plays have been designated as mature.

Fundamental knowledge regarding Zechstein depositional environments of the Southern Permian Basin will be shared by integrating core, well and seismic data with modern analogues and classic outcrops.

Although the workshops are organised through the lens of reservoir geology, other petroleum systems elements will be discussed (seal, trap, source, charge and timing).

Learning Outcomes

The course will focus on:

- Zechstein stratigraphy, sedimentology, depositional environments of the Upper Permian of the North Sea
- The range of facies observed within a basin margin and isolated carbonate platform depositional context.
- Diagenesis, brecciation, fracture systems and secondary porosity.
- The use of virtual outcrops to support subsurface work.
- Key analogue oil fields, in particular from the Southern Permian Basin
- Complexities and approaches to working in mixed carbonate-evaporite successions

Duration and Training Method

This course has been designed to be delivered as a short but impactful learning experience over one day (via 4 webinar sessions). These courses can also be delivered via staggered webinars across a number of days (depending on the clients preferred delivery mode).

Who Should Attend

This course will benefit any subsurface professional working on the Zechstein play in the North Sea. The course is aimed primarily at geologists but geophysicists and reservoir engineers will also benefit from a deeper understanding of this reservoir type.

Course Content

The one day webinar format will be split up into sessions. Likely 4 sessions (9.00-10.30, 11.00-12.00, 1.00-2.30, 3.00-4.00 UK time tbc).

Session 1:

- Introduction to the Zechstein play
- Structural setting, climate, sea level and sedimentation



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Session 2:

- The range of facies observed within a basin margin and isolated carbonate platform depositional context.

Session 3:

- Diagenesis, brecciation, fracture systems and secondary porosity.

Session 4:

- Petroleum systems and into the offshore.
- Discussion session, conclusions, take home messages and a look to the future.