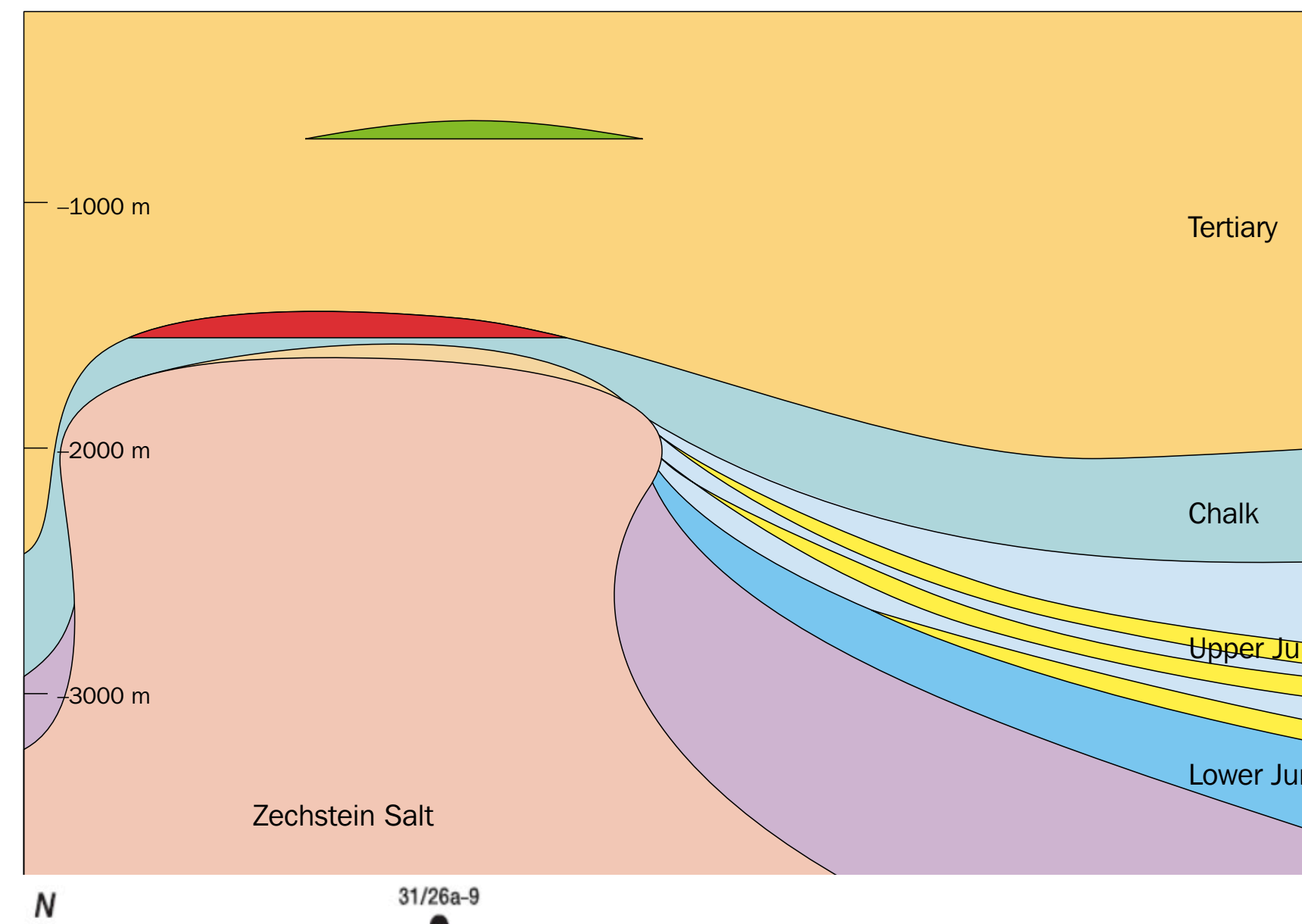


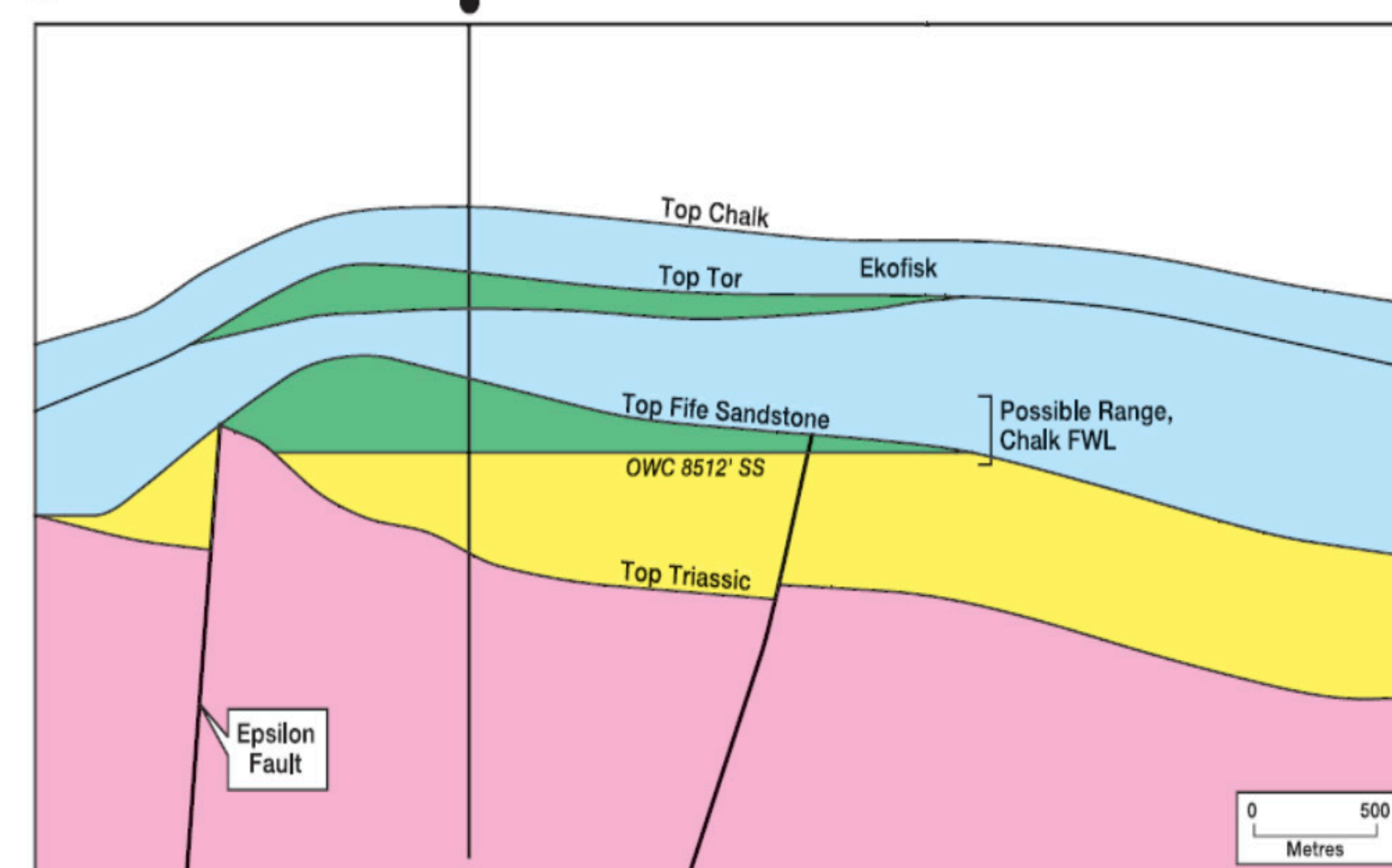
The Chalk Play in the DEFAB area: more pearls yet to be found?

Proven trap types in the North Sea Chalk



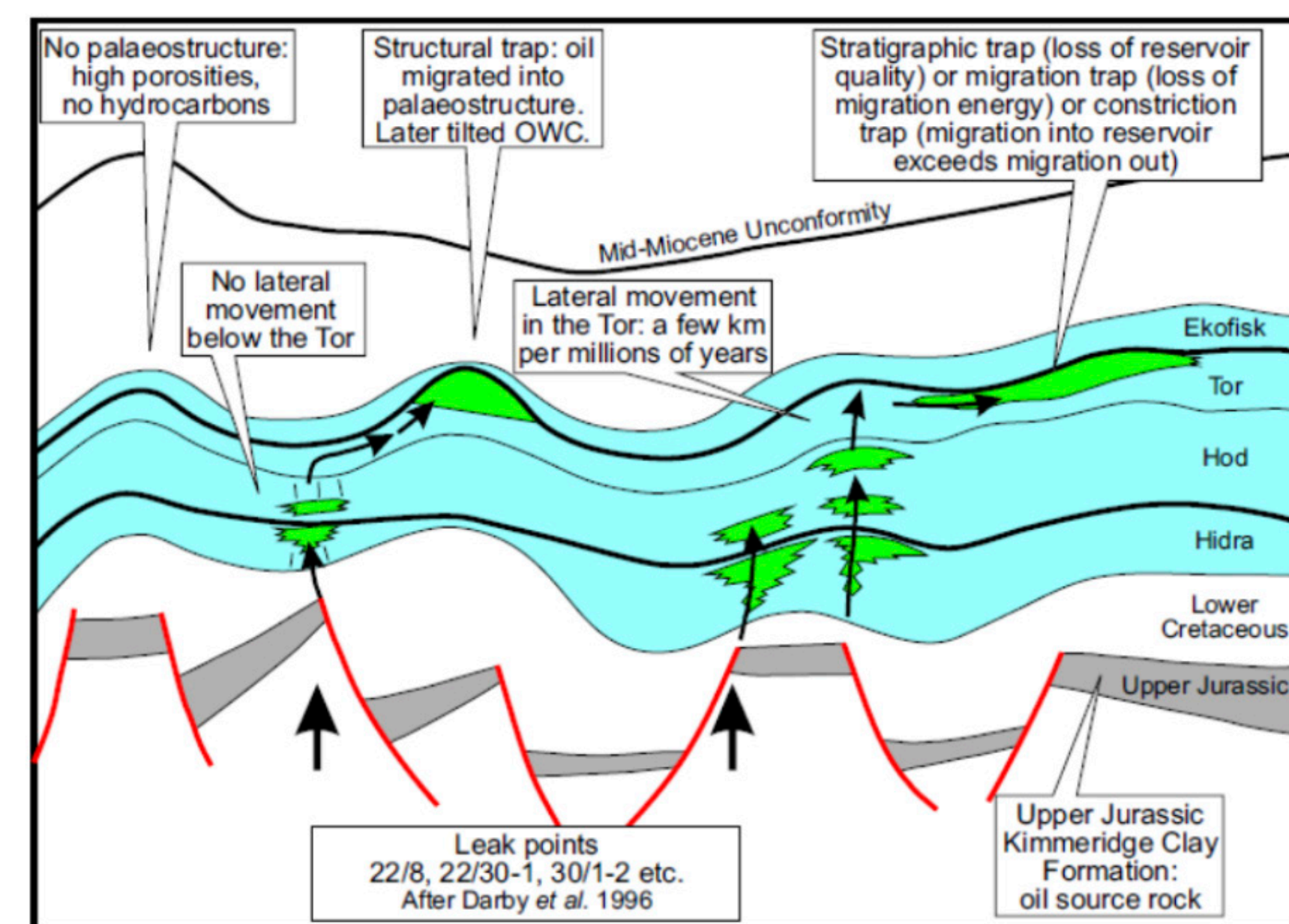
type I - salt diapir trap Hanze field (NL)

Fields F2-A-Hanze, F17-10, many fields in UK / DK
Reservoir Danian and/or Maastrichtian Chalk
Seal Tertiary shales
Source Jurassic Posidonia Shale



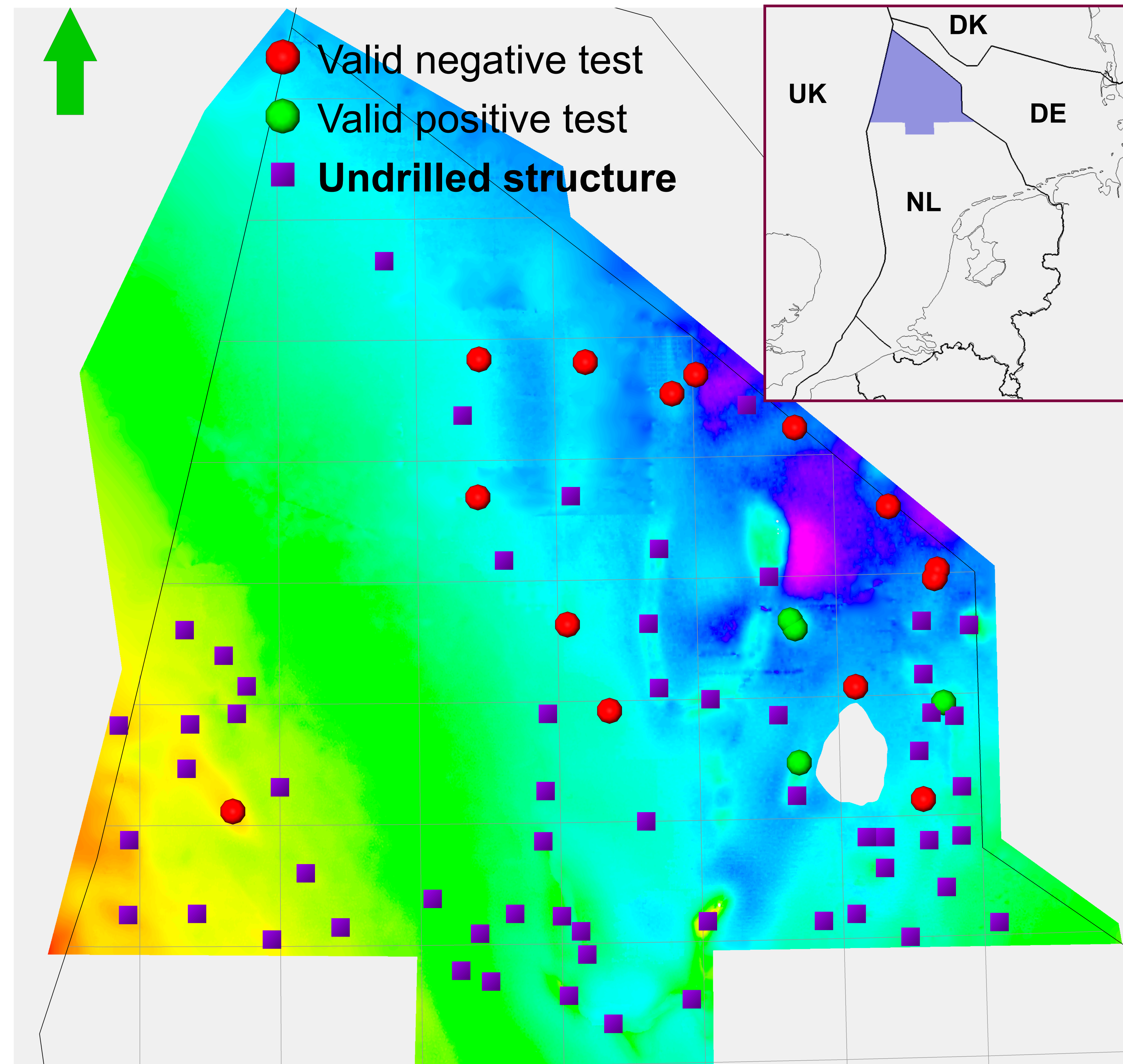
type II - structural trap Fife field (UK)

Fields Fife, Flora (UK)
Reservoir Maastrichtian Chalk
Seal Danian Chalk
Source Jurassic source rocks
figure from Megson and Hardman, 2001

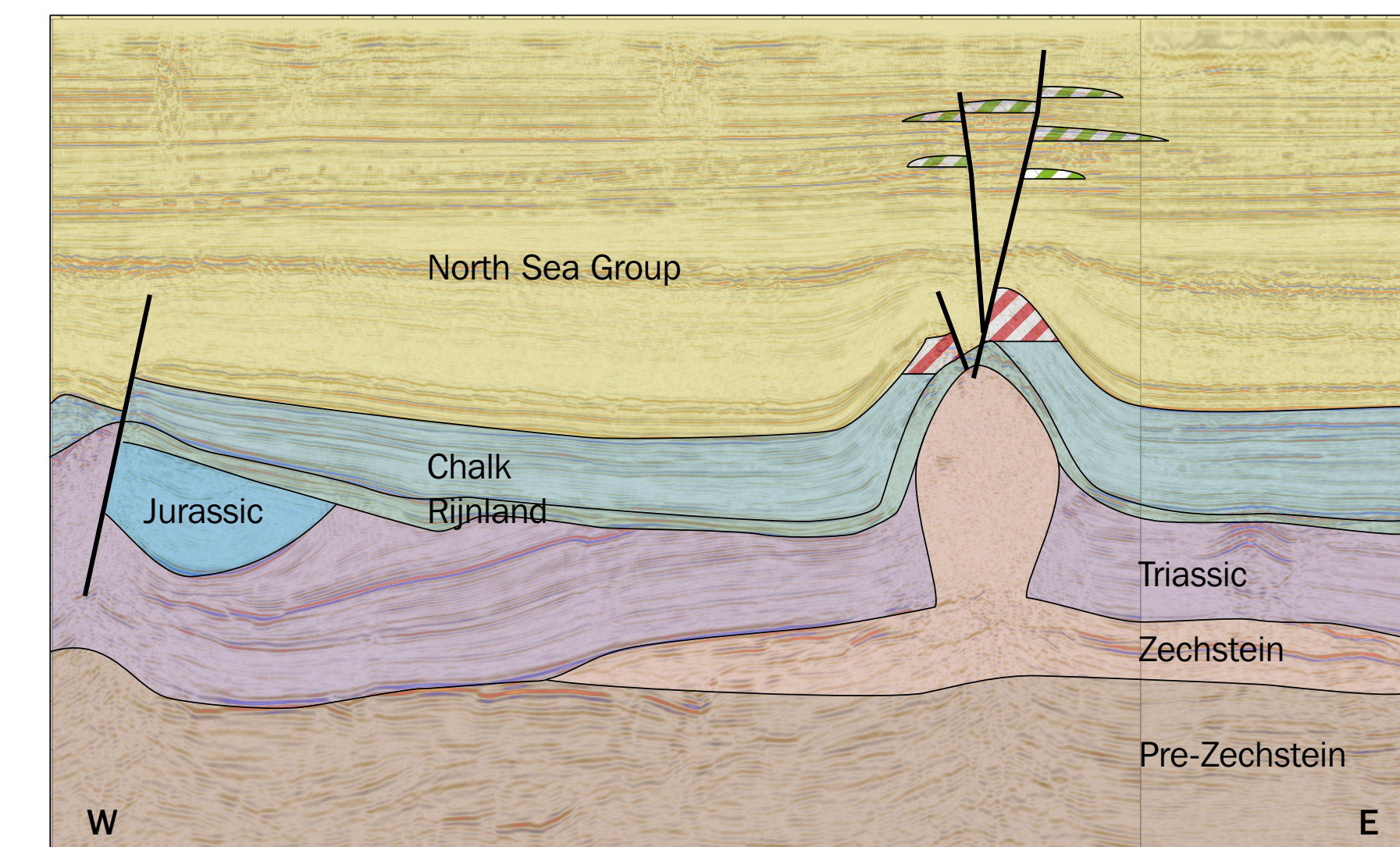


type III - strat trap Halfdan field (DK)

Fields Halfdan (DK)
Reservoir Maastrichtian Chalk
Seal Danian Chalk
Source Jurassic source rocks
figure from Megson and Hardman, 2001

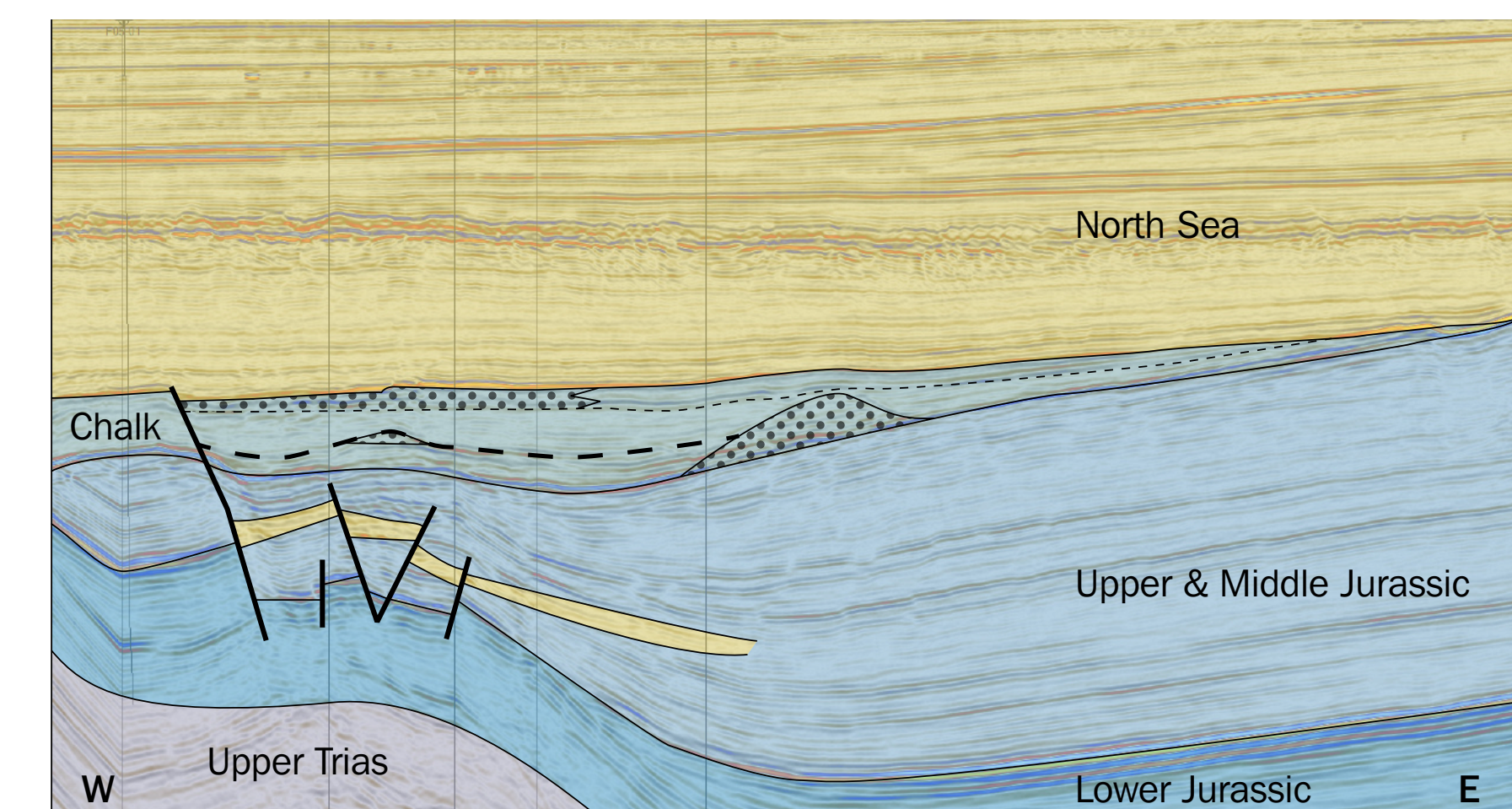


Chalk leads in DEFAB just a few examples



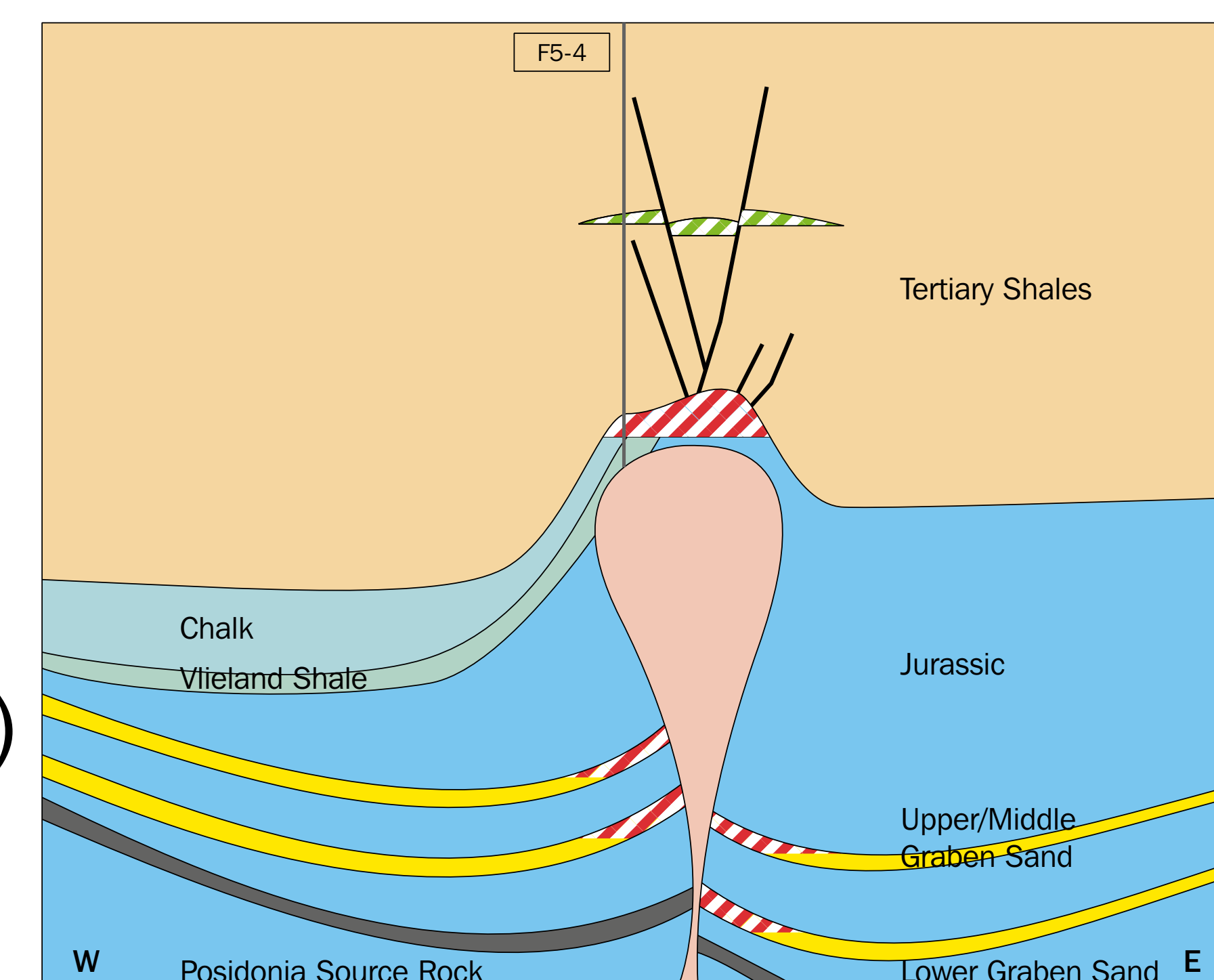
B16-Amethyst

Trap Large faulted / divided salt diapir closure with multiple targets, shallow gas above
Reservoir Danian and/or Maastrichtian Chalk
Seal Tertiary shales
Source Jurassic Kimmeridge Clay, Scremerston coals



F5-1 updip

Trap Structural trap with potential for internal stratigraphic traps in Chalk, multiple targets.
Reservoir Danian and/or Maastrichtian Chalk
Seal Tertiary shales
Source Jurassic Posidonia Shale, Westphalian coals



F5-Kingfisher

Trap Salt diapir closure with multiple targets, shallow gas above
Reservoir Danian and/or Maastrichtian Chalk
Seal Tertiary shales
Source Jurassic Posidonia Shale, Westphalian coals

A proven yet under-explored play

- Oil production since 2001 (Hanze field), recent discovery (F17-10)
- > 55 untested closures, > 30 in open acreage
- STOIIIP from 10 – 300 MMbbls
- Many diapir traps undrilled
- Potential for intra-Chalk structural or stratigraphic traps (Fife or Halfdan analogs)