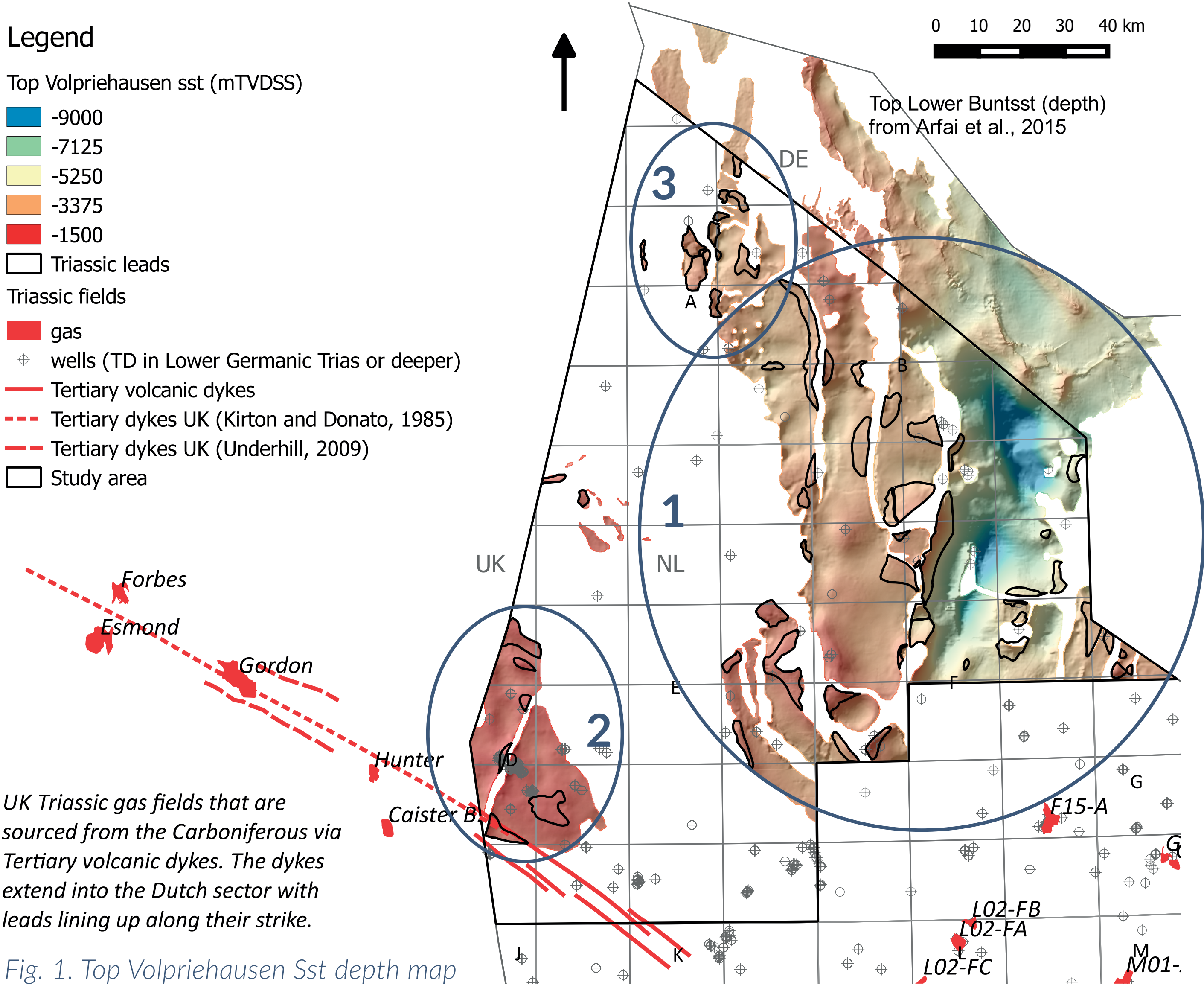


# The Triassic Main Buntsandstein play

## New prospectivity away from the main fairway

- The Triassic Main Buntsandstein (MBU) play is established in the SNS. Only 20 wells have been drilled in the study area (17000 km<sup>2</sup>) with MBU as primary or secondary target. They were dry, however, from well reviews we conclude that 11 of these are invalid tests of the play.
- Three types of leads were identified, located in different parts of the Dutch northern offshore (Fig. 1):
  - “classic” leads with proven types of trap, source, seal and reservoir
  - leads which may be sourced with HC’s via Tertiary volcanic dykes
  - leads with reservoir provenance area to the north
- Up to now, 29 leads have been identified; probabilistic volumetrics result in total P50 GIIP of 80 BCM (unrisked).



### Reservoir

- MBU reservoir rocks are present in most of the study area.
- Abundance and thickness of aeolian Volpriehausen Sst. decrease from south to north.
- Fluvial sands with northern provenance may have developed as reservoir in the northwestern area (Fig. 2).

### Seal

- Upper Germanic Triassic is a proven seal.
- Truncation traps depend on sealing capacity of overlying Jurassic, Cretaceous or Paleogene strata.
- Zechstein salt forms side seal of many leads.

### Source & charge

- Source rock presence and maturity are likely in the largest part of the study area. See adjacent poster *Source rock potential*.
- In the western area leads may be charged from Carboniferous coals via volcanic dykes, analogous to UK Triassic gas fields.

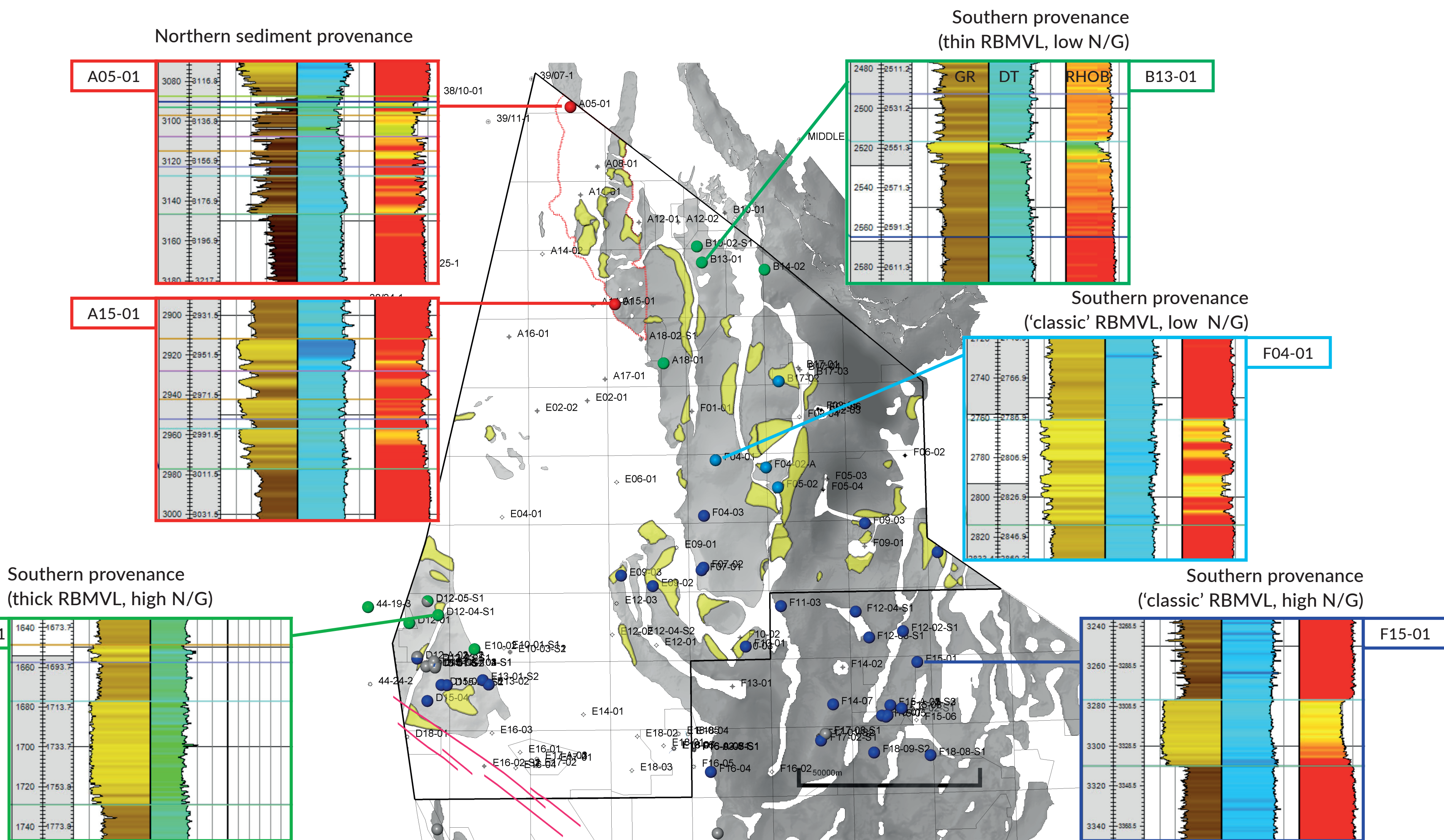


Fig. 2. Regional reservoir architecture - Typical well log response for different types of Volpriehausen Sst (RBMVL)

### Lead portfolio

- Up to now, 29 structures have been identified with P50 GIIP ranging from 1 - 9 BCM, total P50 GIIP 80 BCM (unrisked) (Fig. 3). Two examples are shown in figures 4 and 5.
- The leads will be evaluated in more detail, final prospects could be part of multi-target exploration with prospects at various levels.

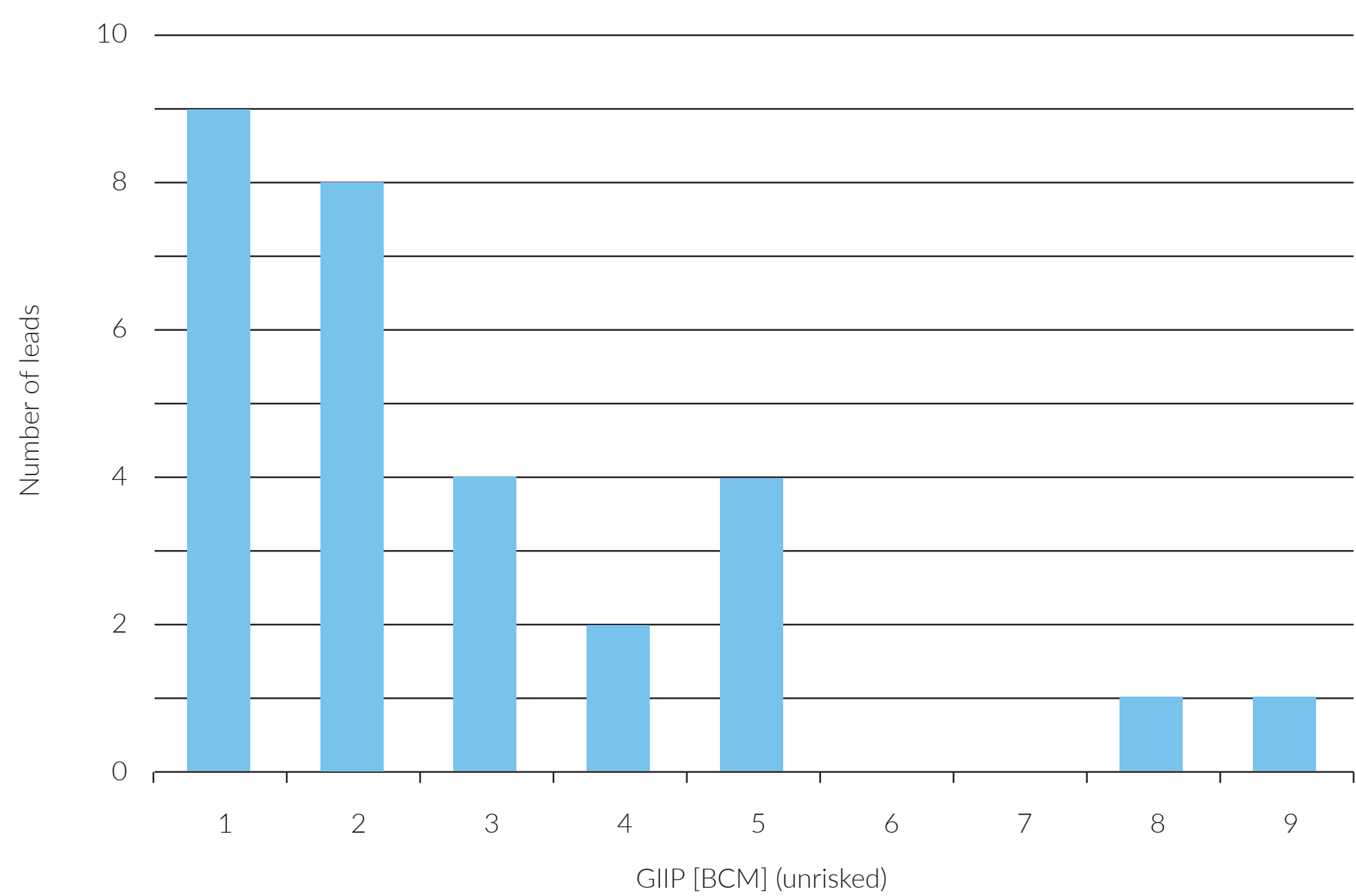
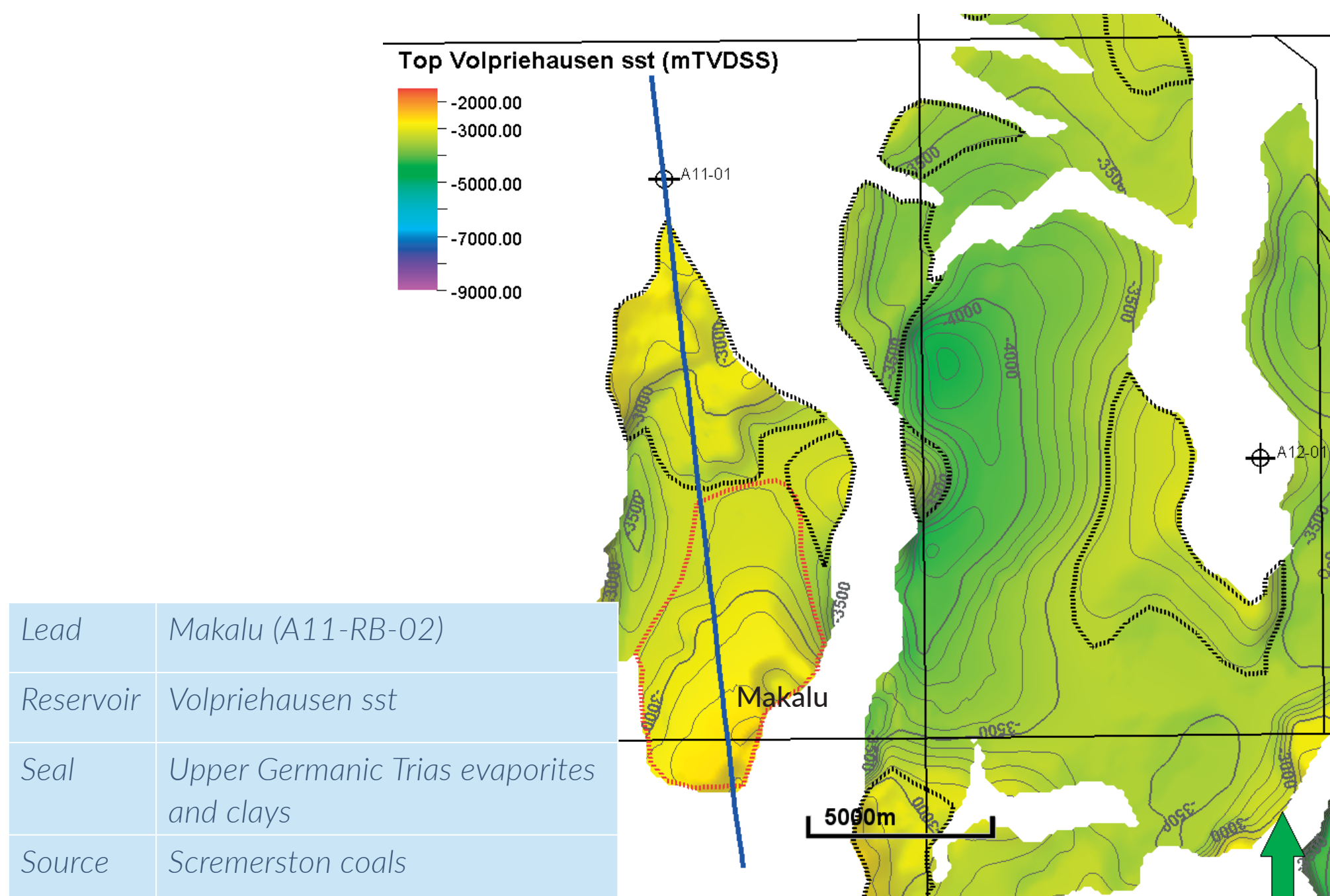
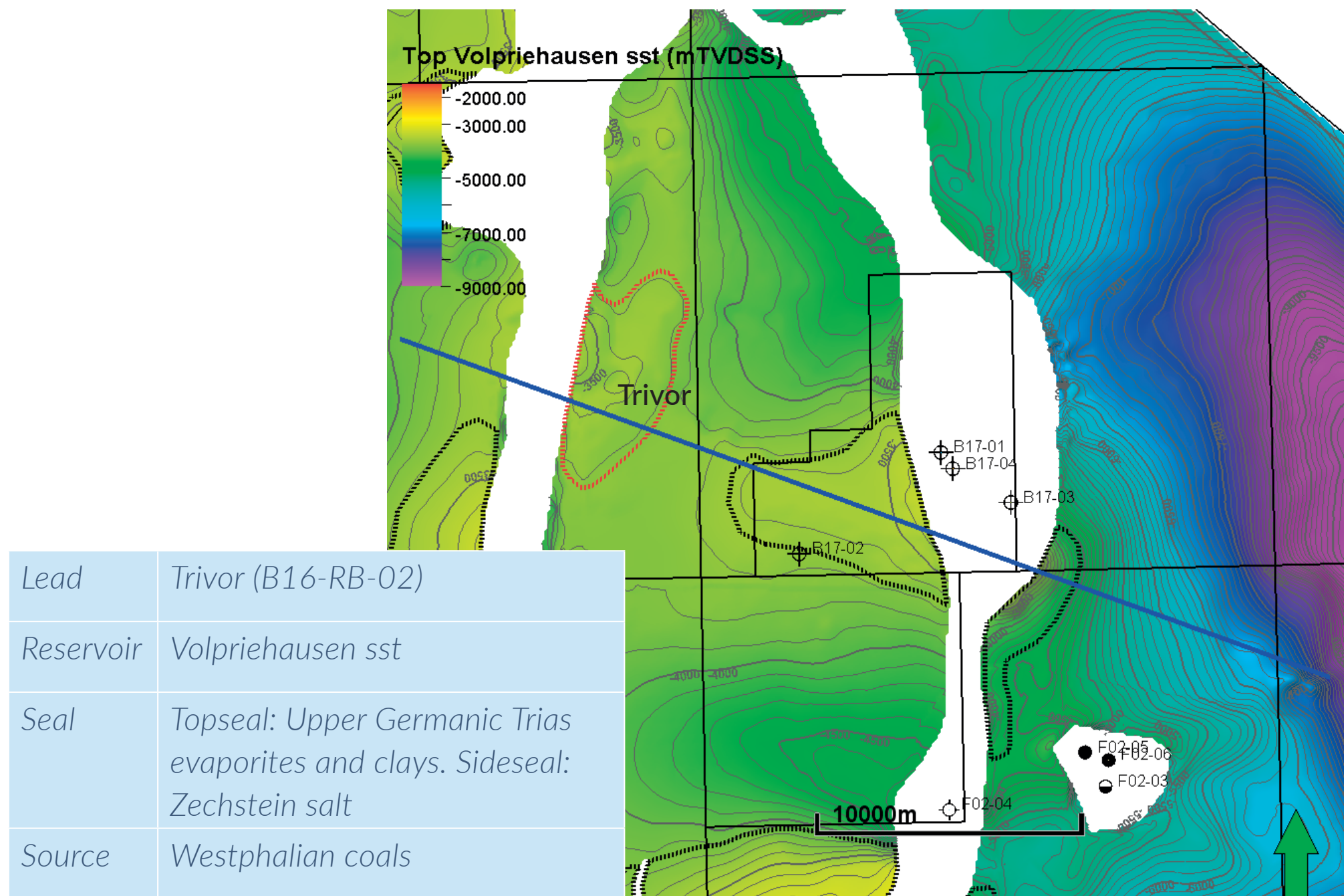


Fig. 3. GIIP estimates P50 cases - 29 leads, 80 BCM



Lead	Makalu (A11-RB-02)
Reservoir	Volpriehausen sst
Seal	Upper Germanic Trias evaporites and clays
Source	Scremerston coals



Lead	Trivor (B16-RB-02)
Reservoir	Volpriehausen sst
Seal	Topseal: Upper Germanic Trias evaporites and clays. Sideseal: Zechstein salt
Source	Westphalian coals

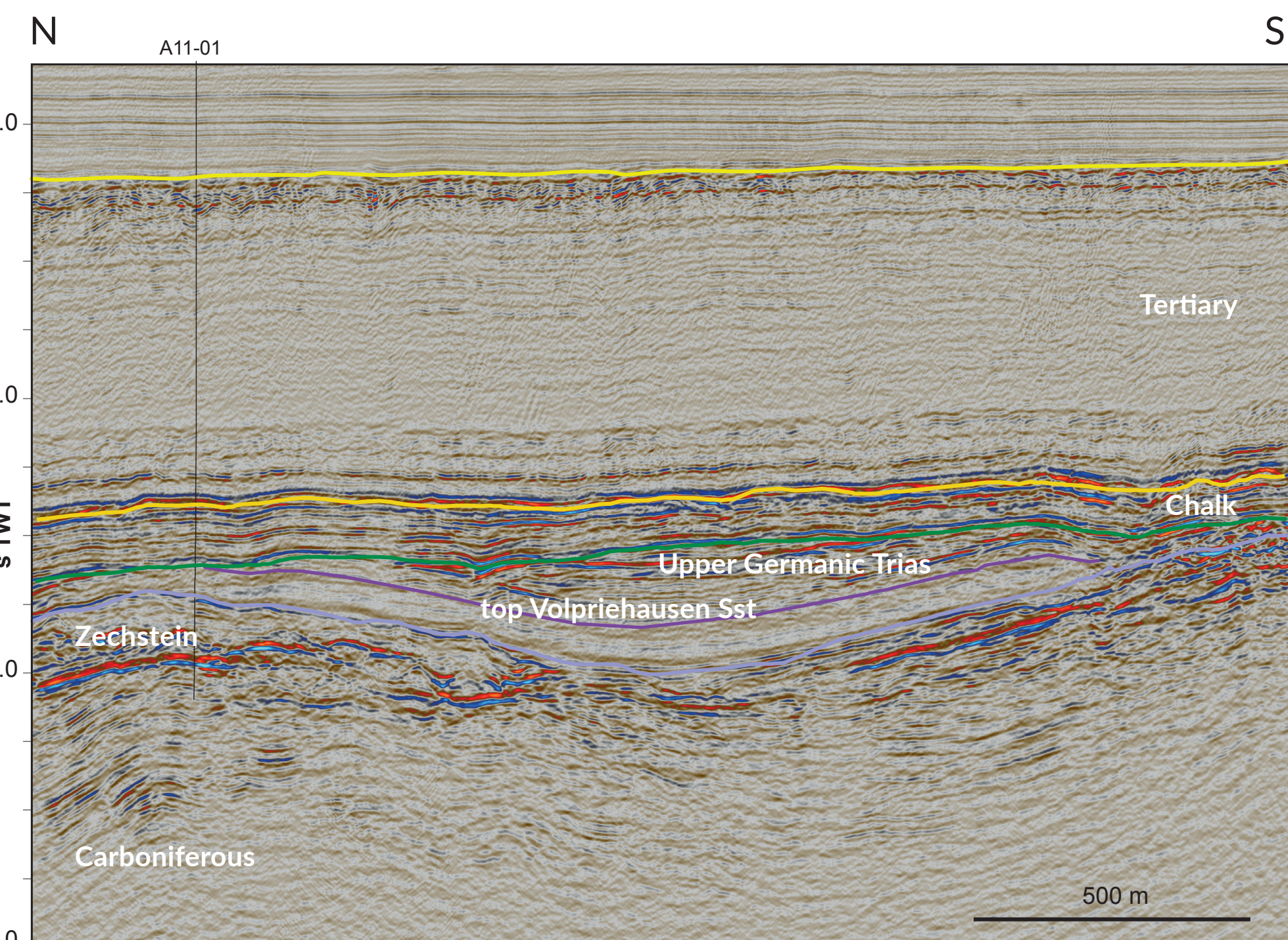


Fig. 4. Seismic section through Makalu lead (D082\_87E302\_mig160001)

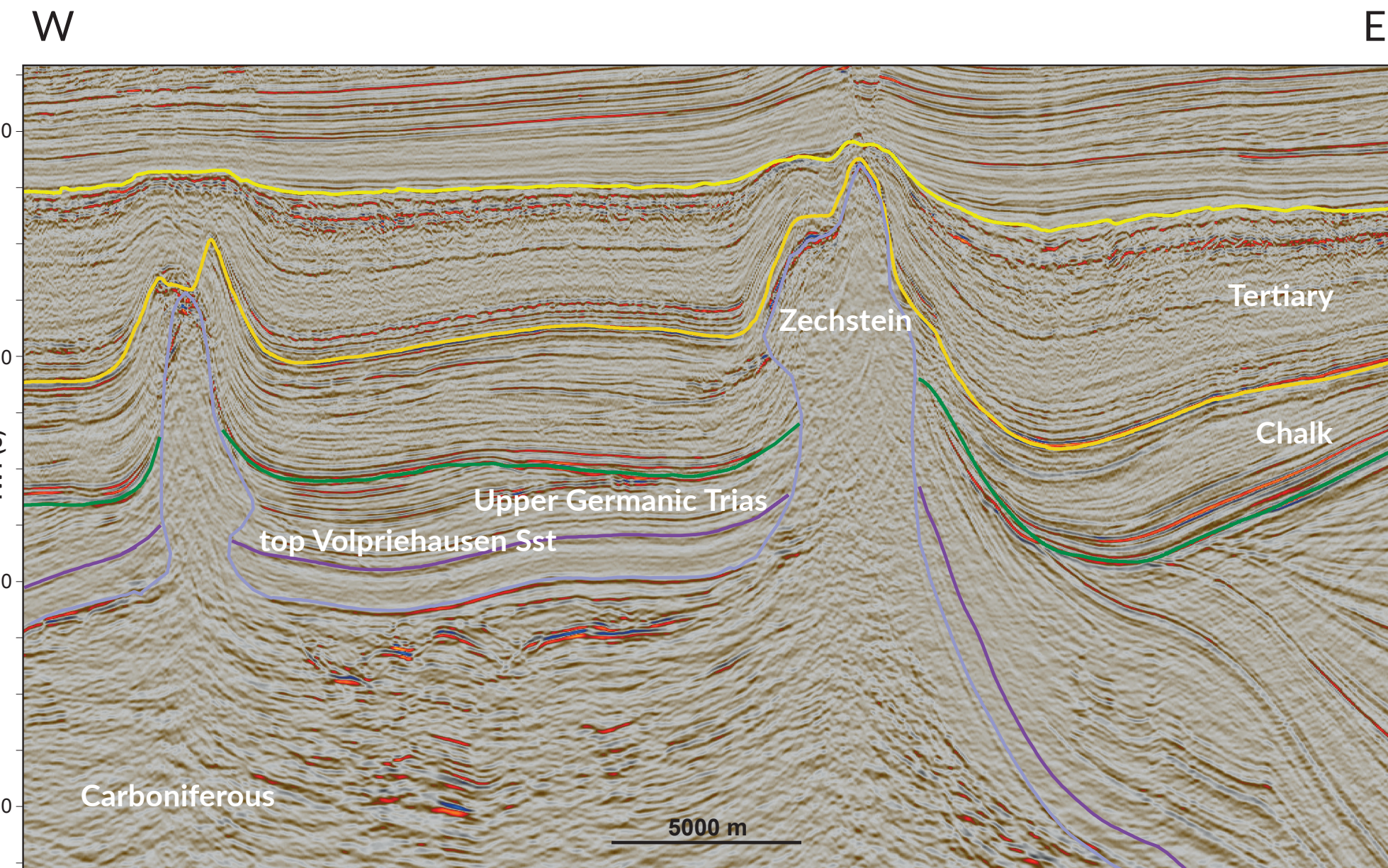


Fig. 5. Seismic section through Trivor lead (NSR-1065-4)