# The hunt for forgotten barrels: the "thin" oil column in produced gas fields – Frigg Fields

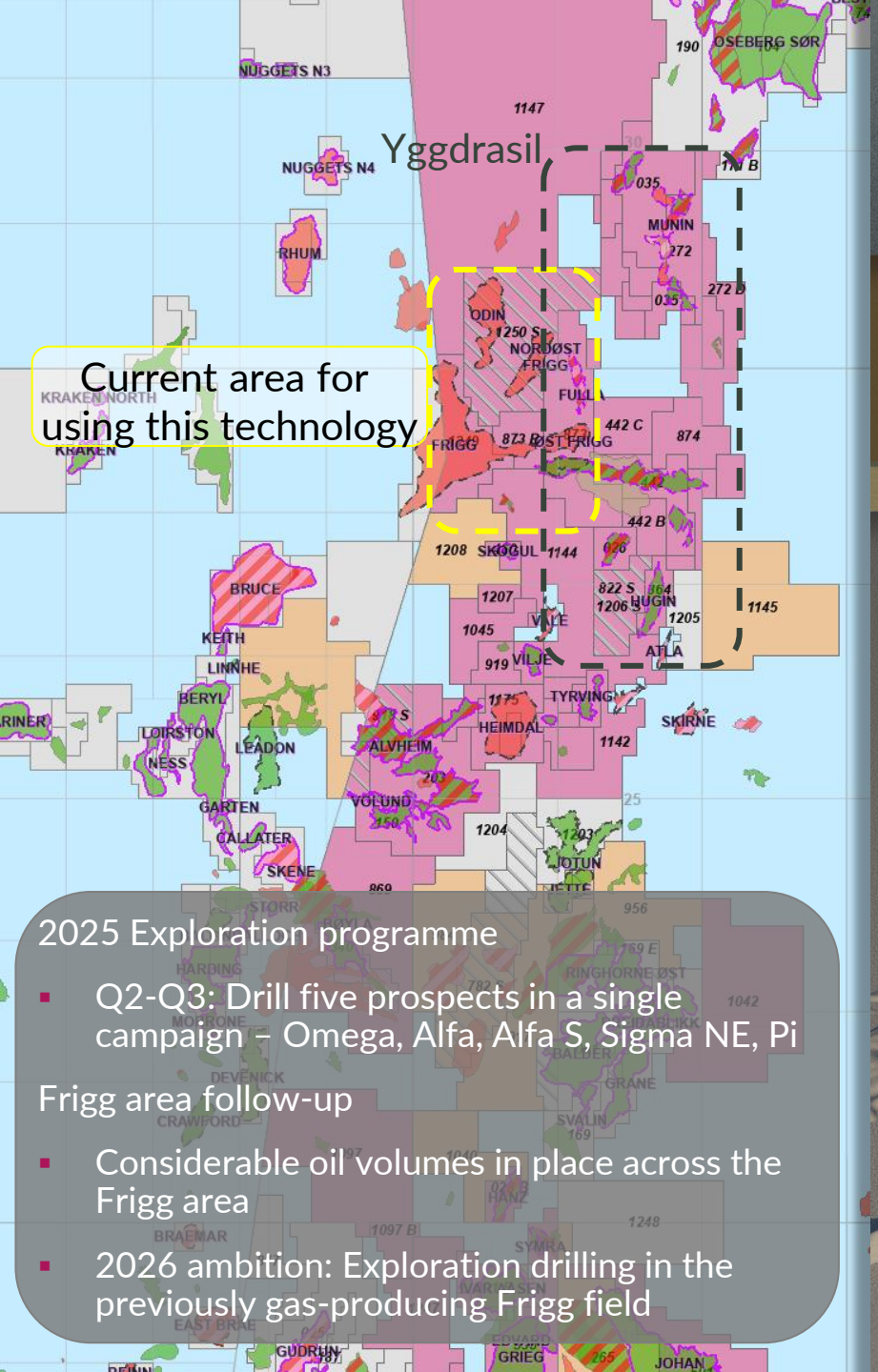
## Using UDAR (Ultra Deep Azimuthal Resistivity) real-time data in Exploration to map re-migrated oil accumulations

AkerBP

equinor

ORLEN UPSTREAM NORWAY

petoro

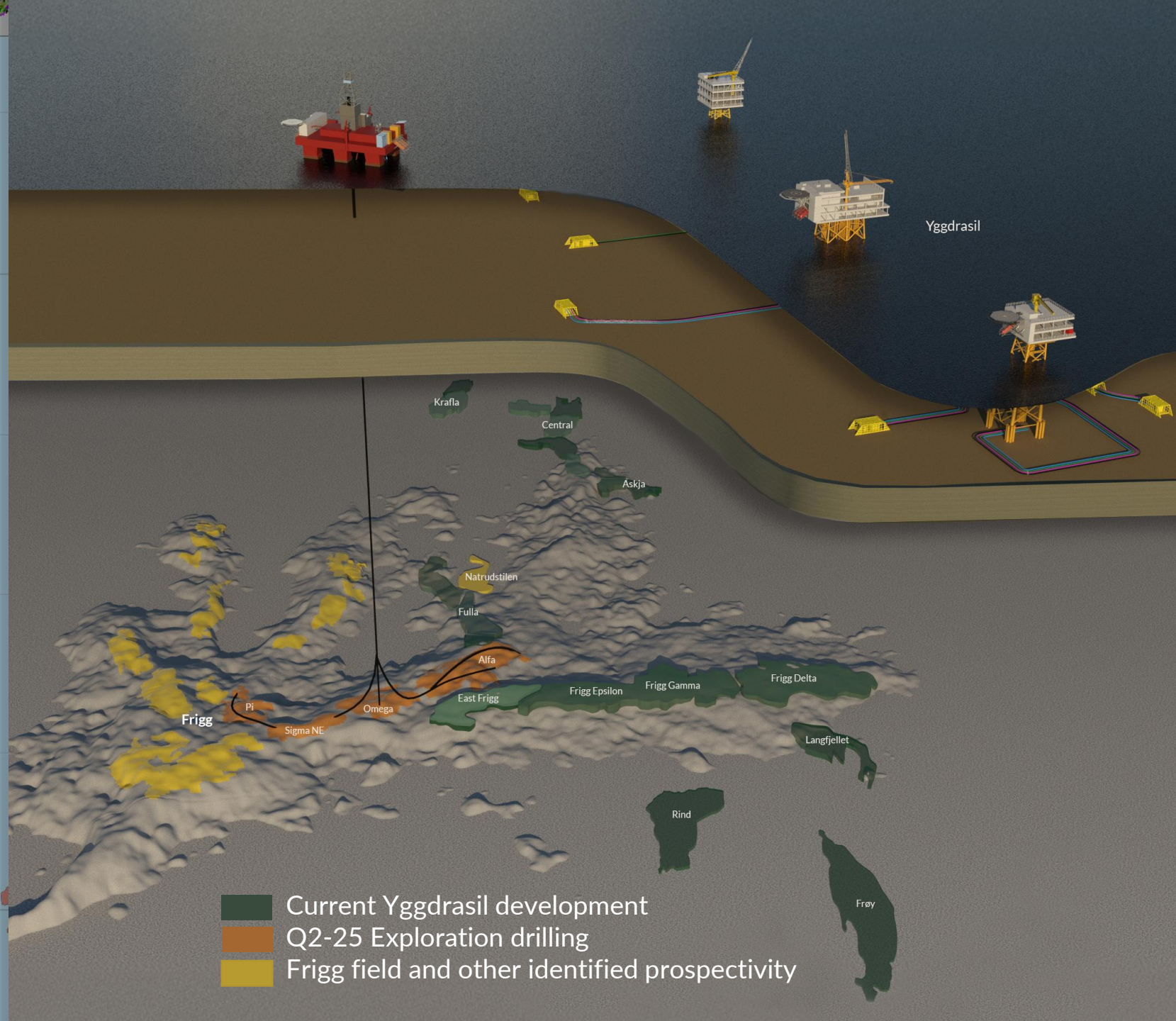



2025 Exploration programme

- Q2-Q3: Drill five prospects in a single campaign – Omega, Alfa, Alfa S, Sigma NE, Pi

Frigg area follow-up

- Considerable oil volumes in place across the Frigg area
- 2026 ambition: Exploration drilling in the previously gas-producing Frigg field



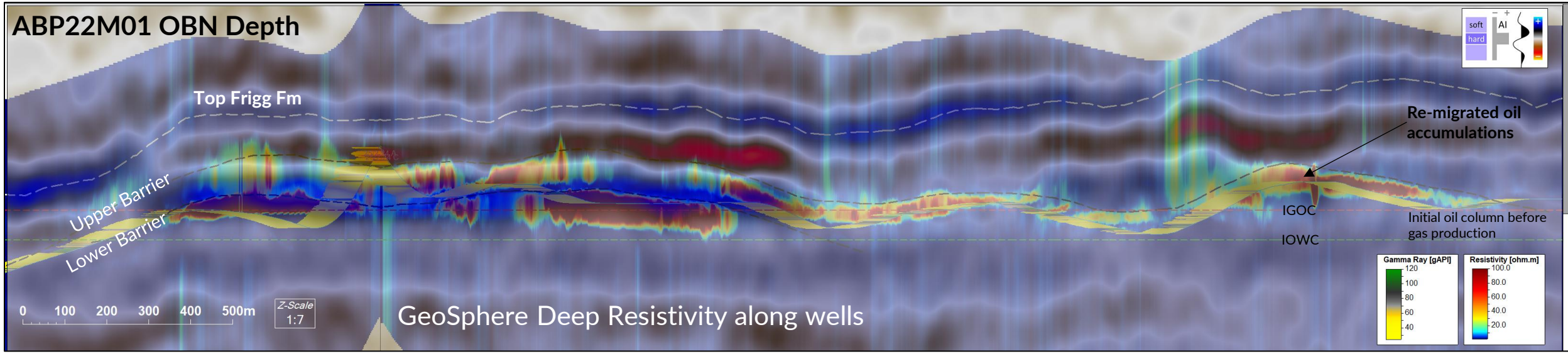
# Seismic data and UDAR

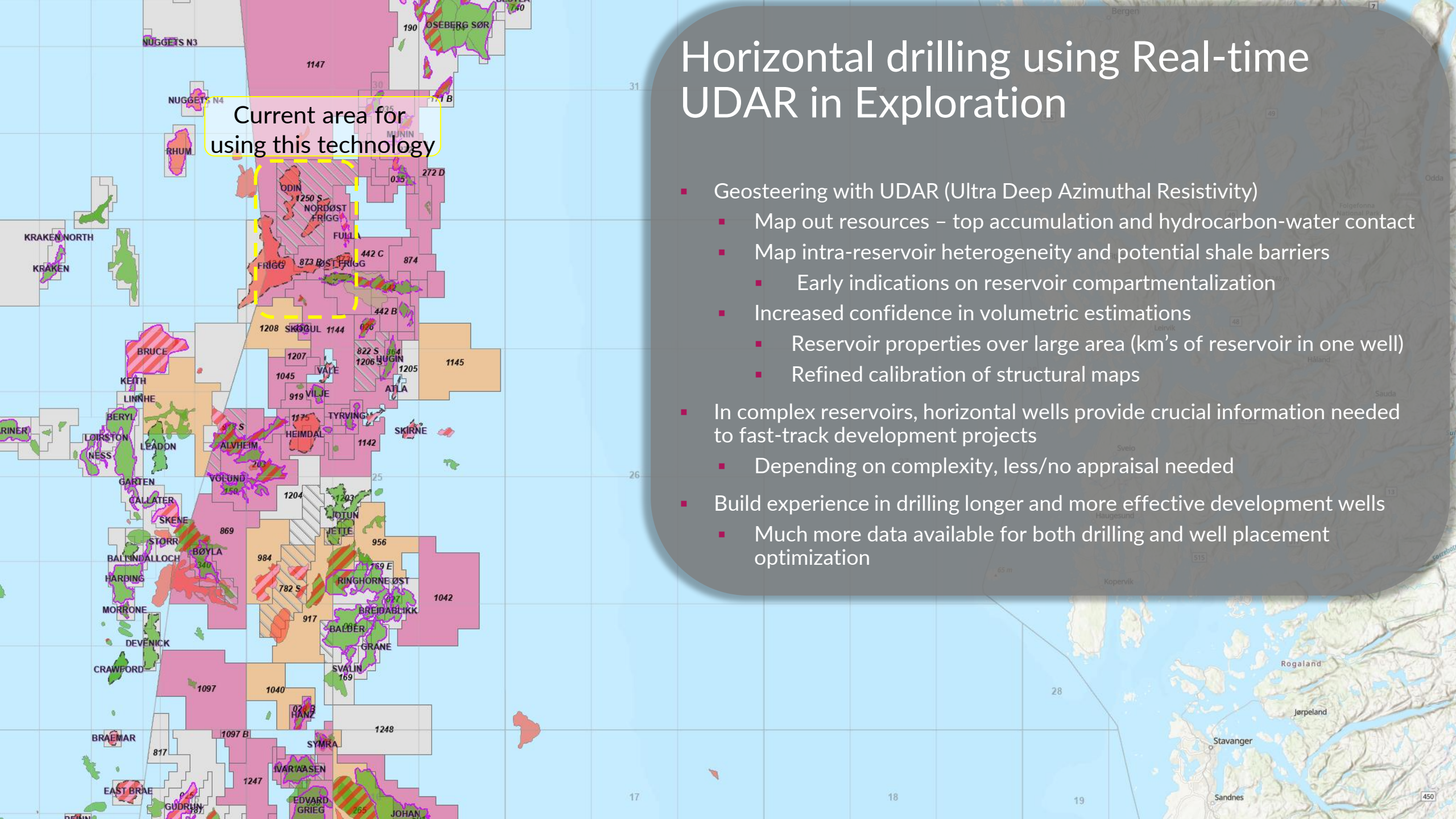
Initial flat spot dominates the seismic signal; barriers identified by wells can't be directly picked on current seismic

UDAR data in long horizontal well needed to map the re-migrated oil accumulation

Seismic data

- Top Frigg Fm easily mappable
- Flat spot (IGOC) dominates the signal
- Target interval contains variable residual hydrocarbons (residual gas +/- residual oil, and high saturation oil intervals)
- Shale barriers below seismic resolution






# Horizontal drilling using Real-time UDAR in Exploration

- Geosteering with UDAR (Ultra Deep Azimuthal Resistivity)
  - Map out resources – top accumulation and hydrocarbon-water contact
  - Map intra-reservoir heterogeneity and potential shale barriers
    - Early indications on reservoir compartmentalization
  - Increased confidence in volumetric estimations
    - Reservoir properties over large area (km's of reservoir in one well)
    - Refined calibration of structural maps
- In complex reservoirs, horizontal wells provide crucial information needed to fast-track development projects
  - Depending on complexity, less/no appraisal needed
- Build experience in drilling longer and more effective development wells
  - Much more data available for both drilling and well placement optimization