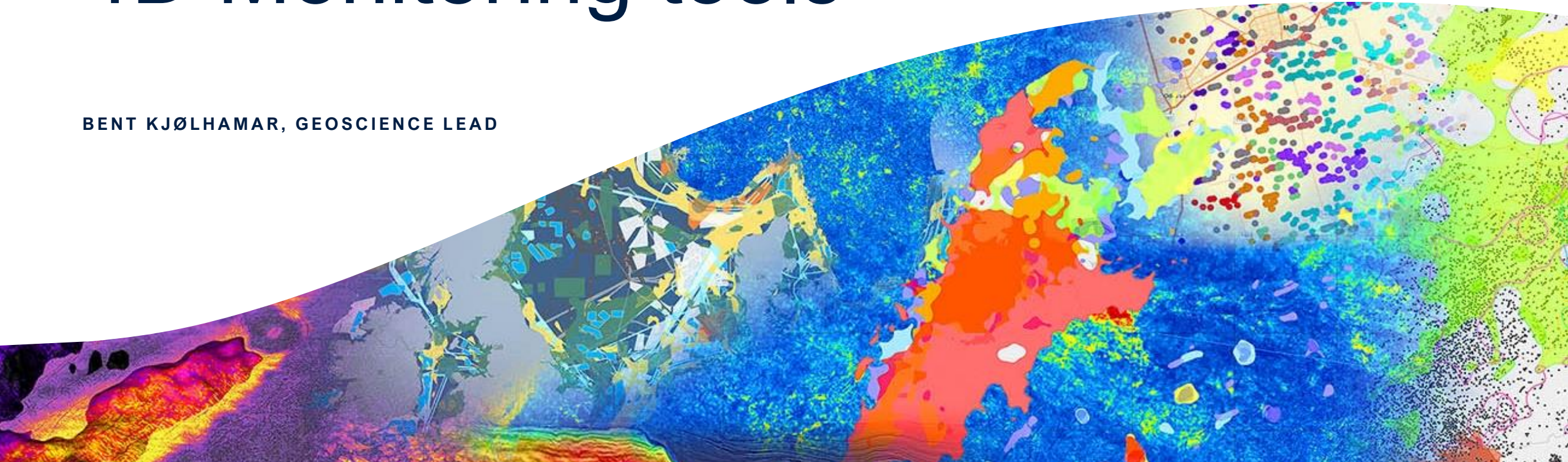




TGS CCS Baseline and 4D Monitoring tools

BENT KJØLHAMAR, GEOSCIENCE LEAD





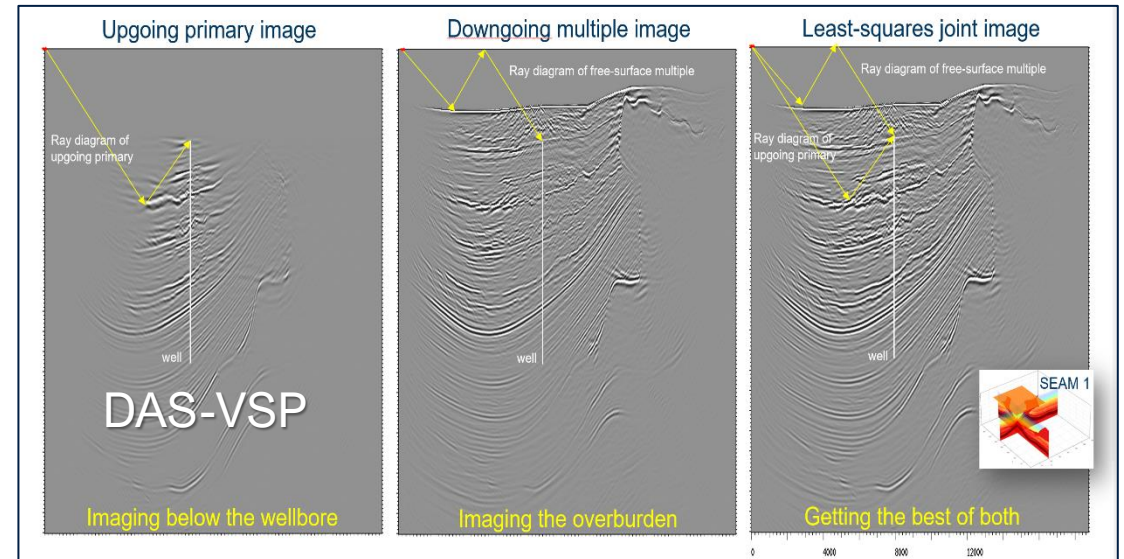
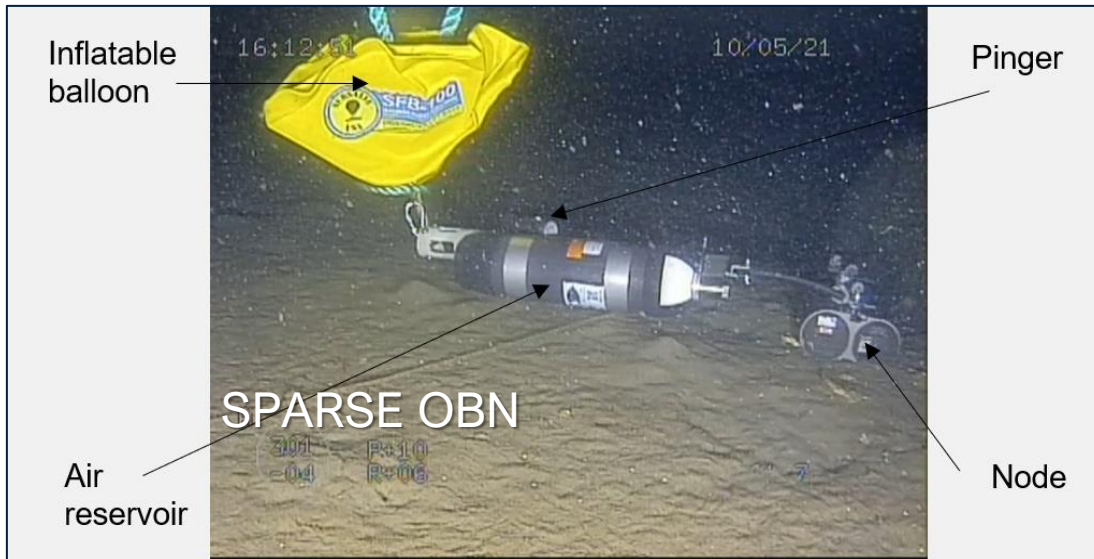
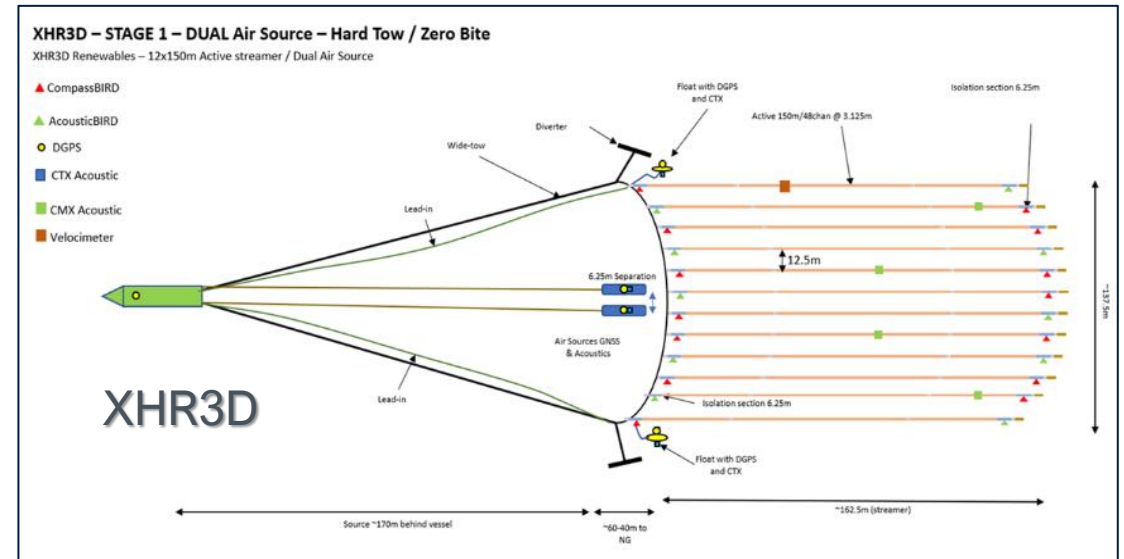
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TGS CCS Baseline and 4D Monitoring tools



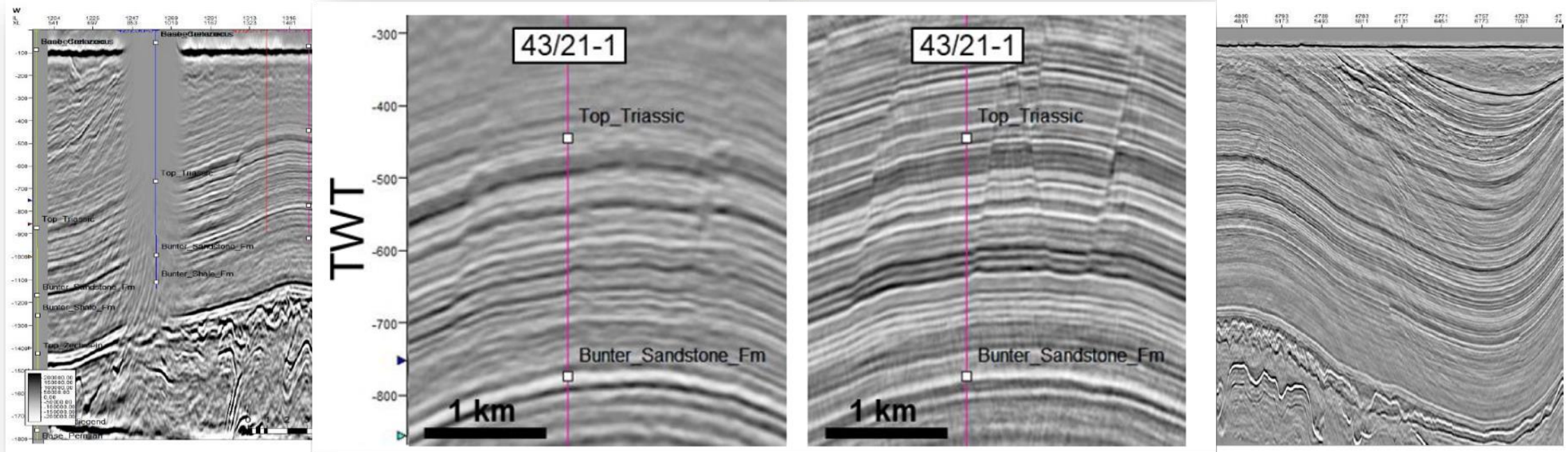
Northern Endurance CCS Development Survey 2022

Northern Endurance Partnership, operated by BP



Legacy

2022 Hi-Res 3D



“Figure 1 Two-way time sections through Endurance comparing 2022 3DHR full-stack reflectivity data (left) compared to the legacy 3D dataset previously used for site characterization (left, reprocessed 2013 TGS Ravenspurn acquisitions, data shown courtesy of TGS).”

Reference:

J. Tarasewicz et al., 2024, Using 3DHR seismic for site characterisation of the Endurance CO2 store, Southern North Sea, UK.
EAGE 2024 Technical Program CCS - Screening Room 3 (Hall E) Tuesday, 2:30 PM - 3:50 PM

Poseidon CCS Survey North Sea 2023 (Aker BP, OMV)



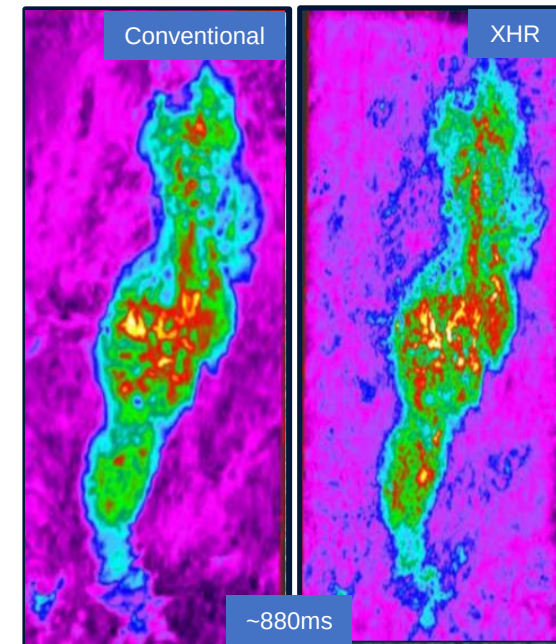
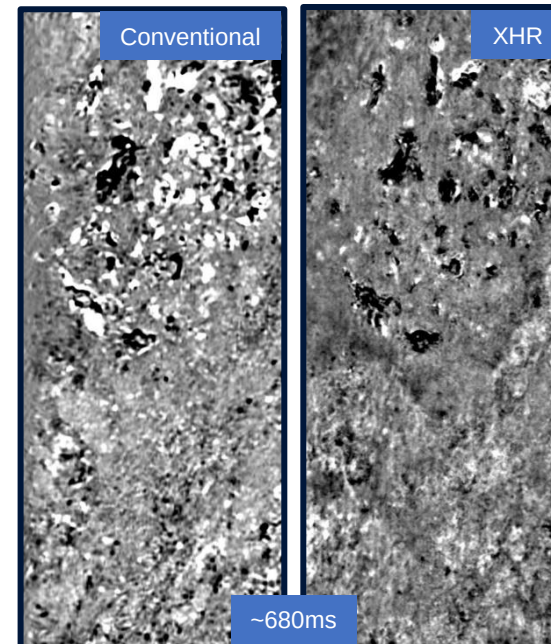
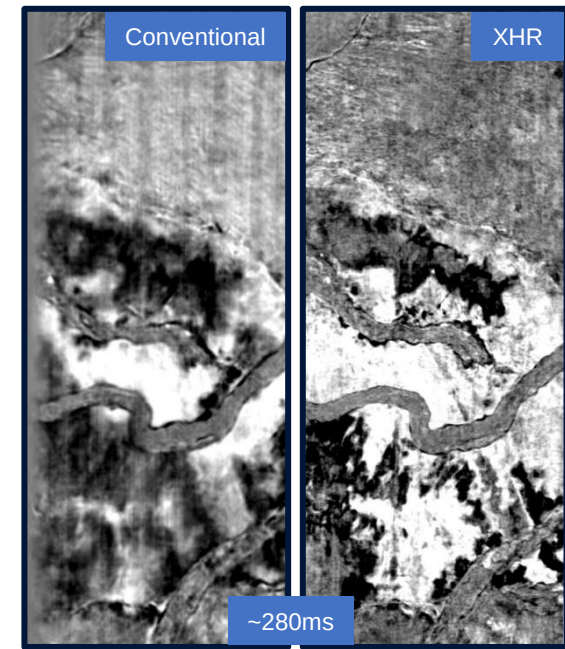
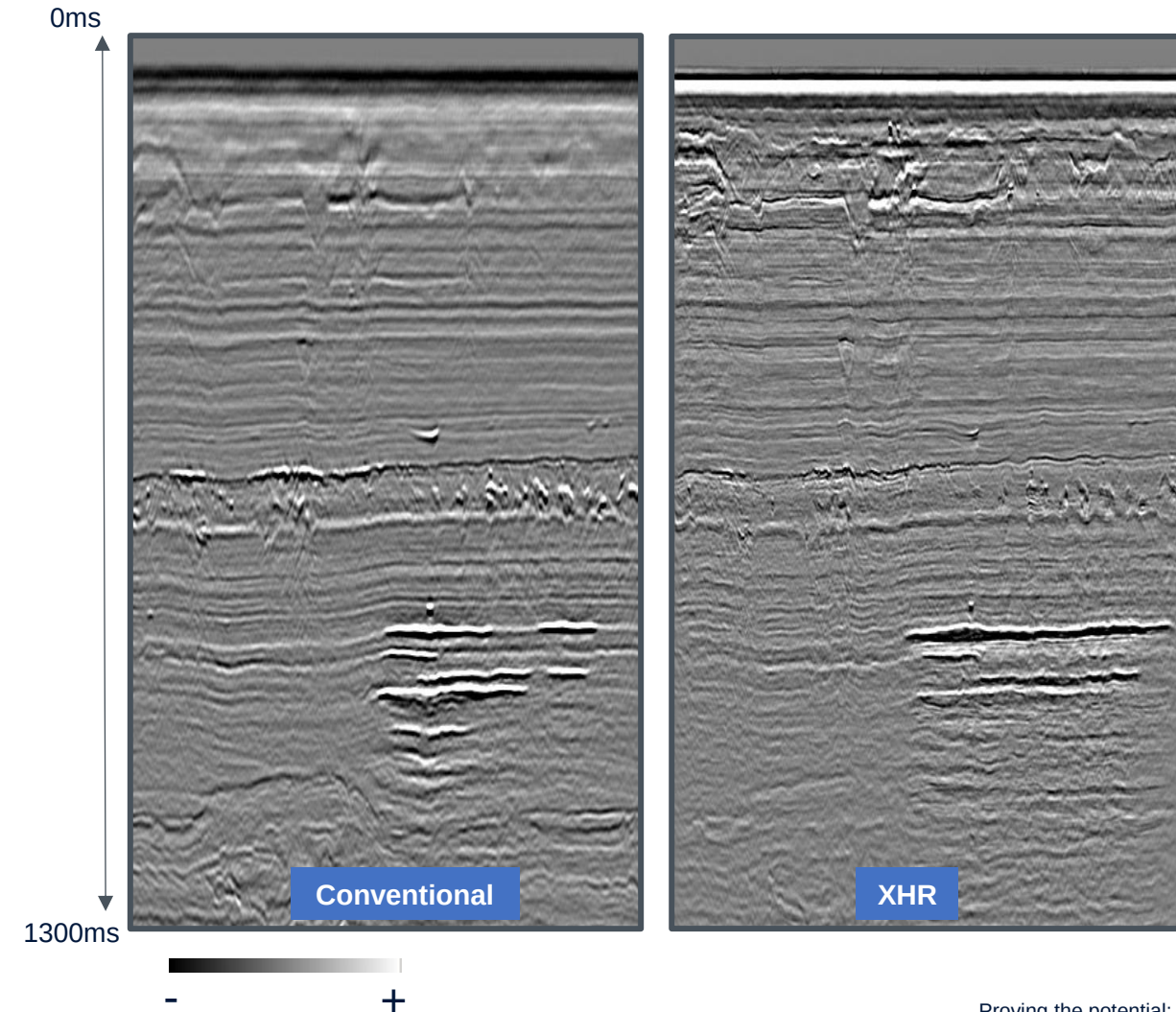
Streamer spread:
14 x 50 m x 6000 m

Wide-tow quad source:
87.5 m source separation

Acquisition bin size:
6.25 m x 6.25 m

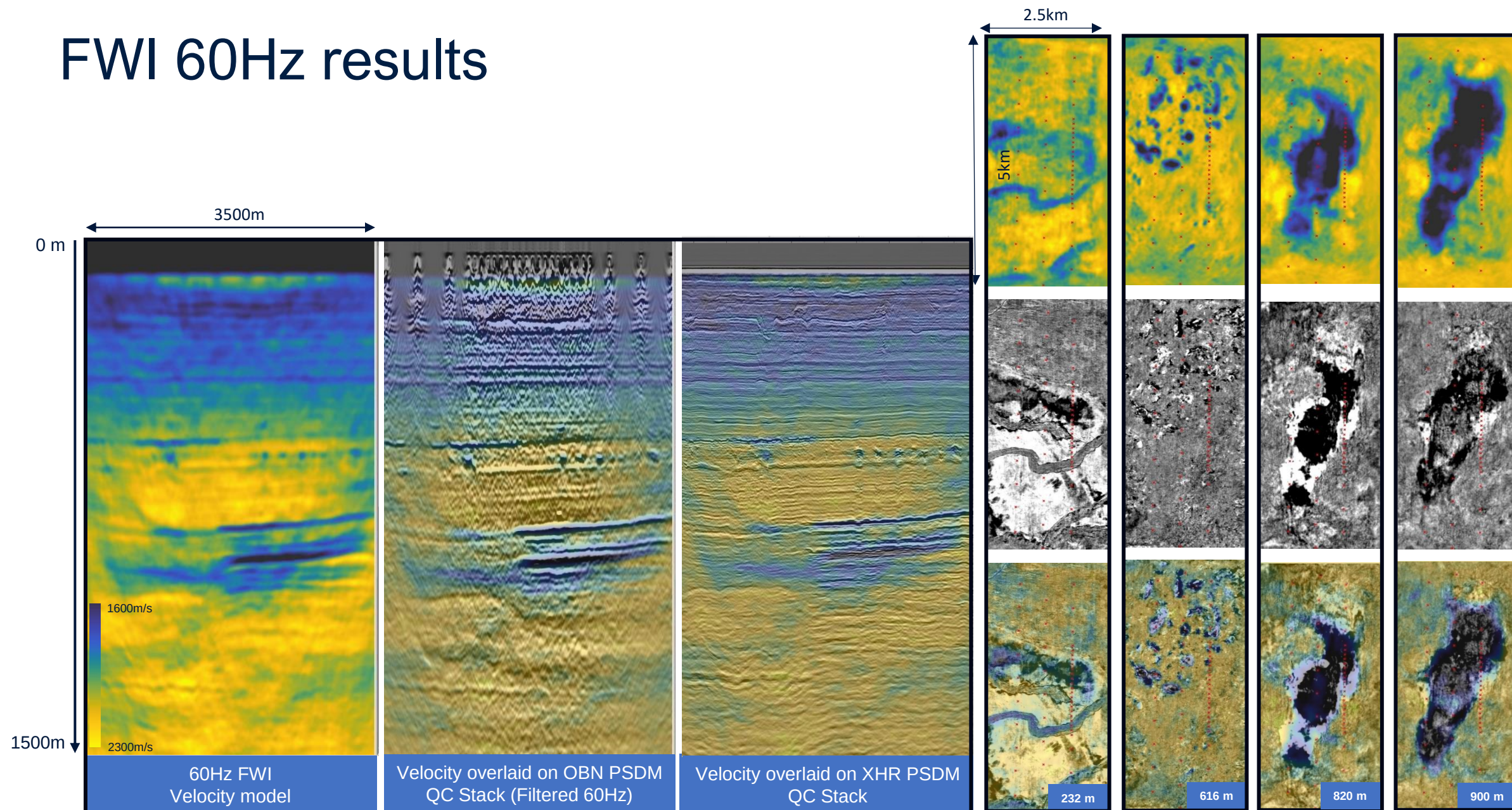
reference: press releases by Aker BP and OMV, October 2023

Comparisons

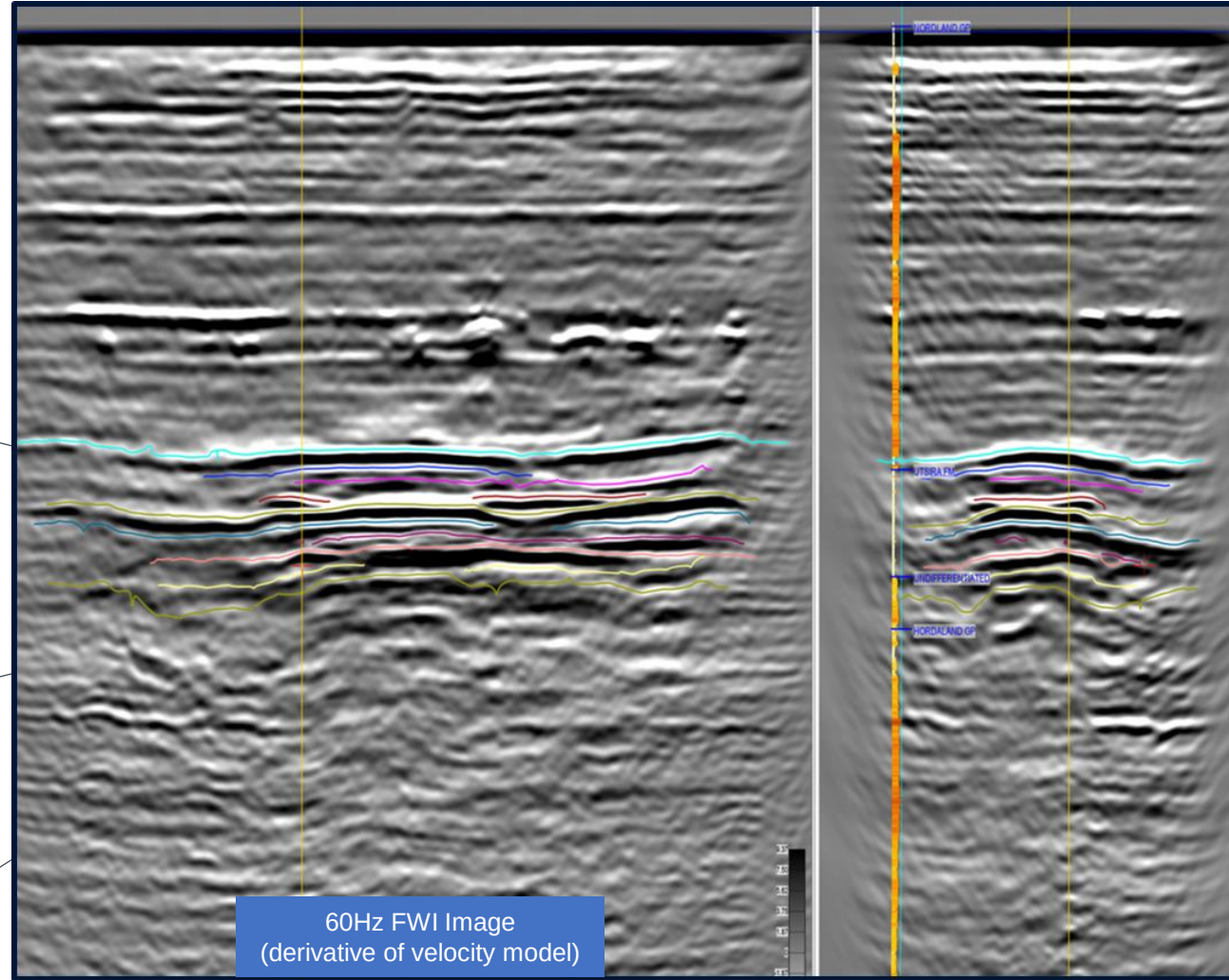
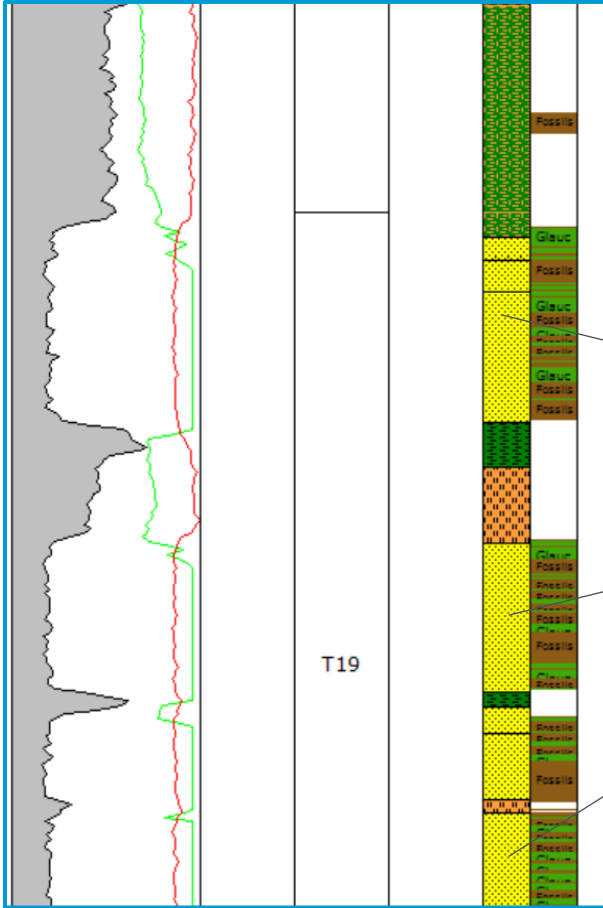
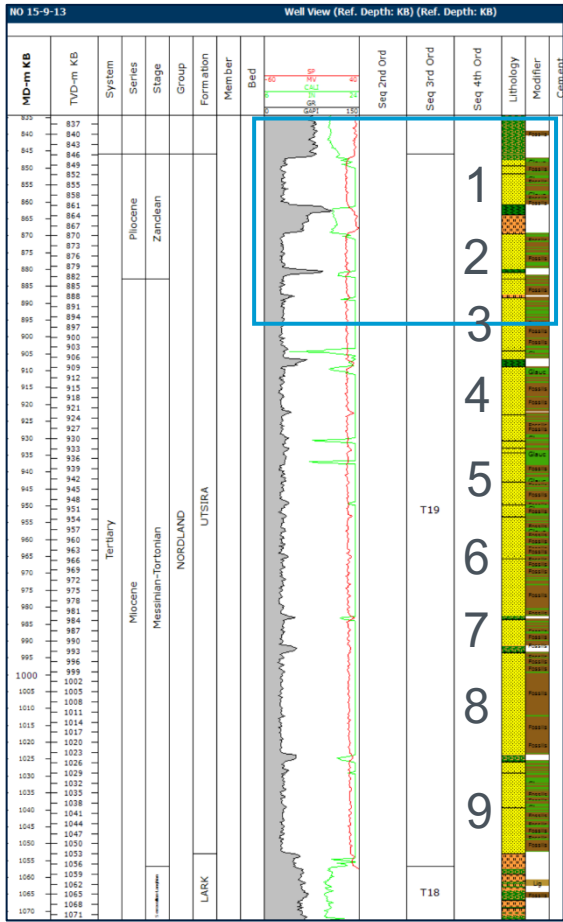


Proving the potential; monitoring Sleipner-CO2 plume with mini-streamers
EAGE conference 2023, Dehghan-Niri et al.

FWI 60Hz results



Picking on INVERTED FWI velocities



CCS Multi Client Contracts versus single Contract 4D programs



PROS: Seamless data quality, time & cost savings & less CO₂ footprint

