TECH REPORT

NORWEGIAN SEA

Operator Aker BP

Background
Aker BP needed high-definition images while drilling a sidetrack offshore. This well was expected to run through a complex clastic shallow marine and fluvial sequence. Delineation of the expected thin and variable interbeds of sandstones, claystones, and coals in oil-based mud is challenging with conventional LWD tools. Consequently, Aker BP chose to run the TerraSphere service to characterize the formations.

Technology
- TerraSphere* high-definition dual-imaging-while-drilling service

High-Definition Visualization of Complex and Fractured Clastics While Drilling in Oil-Based Mud
Aker BP drills sidetrack using TerraSphere service to acquire high-resolution data in interbedded formation offshore Norway

The TerraSphere service successfully acquired high-resolution resistivity and ultrasonic images in this challenging environment. The interpretation of information gathered by the TerraSphere service’s electromagnetic and ultrasonic technologies highlights faults and fracture orientations, layer bedding details, cross bedding, and irregular surfaces. Data acquisition while drilling enables detailed imaging of the coal layers and early breakout phases.

Complex interbedded clastics and coal with small scale faults.

Thinly interbedded sandstone sequence. Narrow breakouts are clearly visible in the low-amplitude layers.

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