



# Weatherford®

## REAL RESULTS

### World's First Rigless Abandonment of Five Subsea Wells Offers Safe Alternative to Mobile Drilling Unit

#### Objectives

- Abandon five subsea wells while meeting all regulatory standards without the use of explosive severance devices and problematic downhole procedures.
- Avoid damage to pipelines and other nearby installations.
- Minimize costs.

#### Results

- Weatherford's R100 marine drill, fitted atop a moonpool, M23 and M24 series marine casing cutters, and mechanical outside-latch single-trip (MOST™) tool were used to successfully carry out the five subsea abandonment operations.
- A combination of Weatherford technologies was used to execute the world's first surface recovery and safe storage of oil-based drilling fluids. Bridge plugs, inflatable packers, and 150-ft (46-m) cement plugs were set in the wells.
- Seal assemblies were backed off and recovered using a left-hand work string or were milled out when problematic. To facilitate the placing of T-plugs, 9 5/8-in. (244-mm) and 13 3/8-in. (340-mm) casing strings were removed.
- Weatherford crews were able to cut, pull, and recover 18 3/4-in. (508-mm) subsea wellheads, 30-in. (762-mm) conductor, 20-in. (508-mm) casing, and the retrievable guide base from the seabed in a single trip.
- The entire campaign was completed in 40 days, incurring no accidents or lost-time issues.

#### Value to Client

- The safe abandonment of the five subsea wells provided the operator—and the industry—a viable alternative to conventional, high-cost abandonment practices, such as the use of mobile offshore drilling units (MODUs) or severance technologies (explosives) that can harm the environment and cause operational problems.



The ram rig lowered Weatherford's M24 cutting tool through the moonpool down to the seabed and cut the casing. The MOST tool pulled the cut casing and wellheads to the surface.

**Location**  
North Sea

**Well Type**  
Subsea

**Sea Depth**  
±460 ft (±140 m)

**Products/Services**

- Abandonment and fishing services
- MillSmart<sup>SM</sup> technology
- MOST tool
- M23 and M24 casing cutters

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