

# ProMILL Duo\* Breaking Records in the North Sea

A plug and abandonment (P&A) operation utilizing the 7 inch x 9<sup>5</sup>/<sub>8</sub> inch ProMILL Duo System achieved a new record by successfully milling over 200 ft of 9<sup>5</sup>/<sub>8</sub> inch casing.

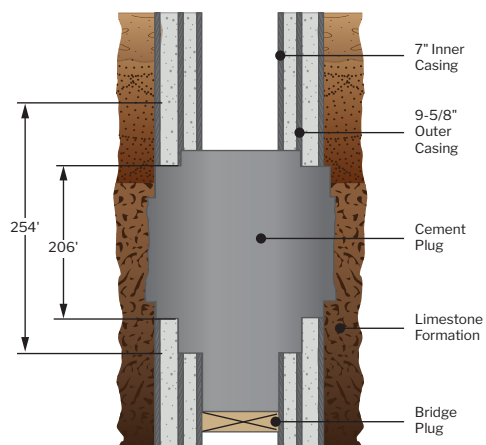
## United Kingdom Continental Shelf (UKCS) Well Abandonment Challenge.

A customer in the UKCS recently completed a challenging P&A operation. The operation included milling an extended length section in both the 7 inch and 9<sup>5</sup>/<sub>8</sub> inch casings, which were both cemented back to the surface, followed by the installation of an abandonment cement plug. Safety, the integrity of the abandonment process, and operational efficiency were key considerations. The ProMILL Duo system was ideally suited to accomplish these requirements.

## TruEDGE\* cutting technology and a customized knife configuration was deployed successfully.

The ProMILL Duo system dressed with TruEDGE inserts and custom-designed mill ahead knives was identified as the optimum solution, enabling maximum milling efficiency and resulting in significant time and cost savings, **reducing overall operations by 48.5 days.**

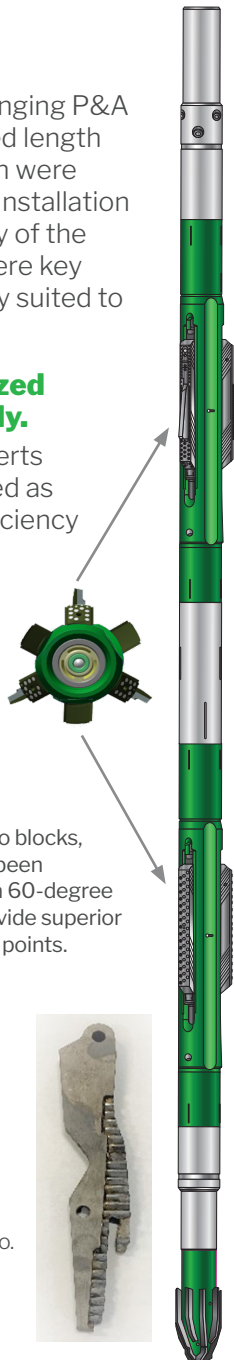
Detailed pre-job engineering and planning between WIS and the customer's representatives, combined with dedicated teamwork at the rig site, resulted in successfully delivering a 206 ft long 9<sup>5</sup>/<sub>8</sub> inch casing window.



▲ Barrier design and operational depths.

▶ ProMILL Duo blocks, which have been oriented at a 60-degree angle to provide superior stabilization points.

▶ TruEDGE insert technology on the custom-designed mill ahead knives for ProMILL Duo.



### OPERATIONAL EFFICIENCY

**Reduced Safety Risk**

Equivalent CO<sub>2</sub> Emissions:

**2,845**

METRIC TONS REDUCTION

**7,293,296**

AVERAGE MILES SAVED

OR

**123,148**

TRASH BAGS RECYCLED

### CHALLENGE

In a complex well abandonment operation, the customer required a 206 ft long milled window interval in the 9<sup>5</sup>/<sub>8</sub> inch casing. This necessitated a 254 ft long window in the 7 inch casing string to access the 9<sup>5</sup>/<sub>8</sub> inch casing. To improve operational efficiency, the goal was to eliminate the requirement of milling these casing strings from the surface.

### SOLUTION

The ProMILL Duo system was used to drift through the 7 inch casing and mill the 9<sup>5</sup>/<sub>8</sub> inch casing. This eliminated rig time and operational cost to mill 6,500 ft of 7 inch casing from the surface. The use of TruEDGE\* insert technology resulted in increased cutting structure durability, rate of penetration (ROP) and generated an ideal swarf shape to enhance overall performance.

### RESULTS

- Successfully deployed ProMILL technology and milled a 254 ft 7 inch casing interval in a one trip.
- Successfully deployed ProMILL Duo through the 7 inch casing and created a 206ft long window in the 9<sup>5</sup>/<sub>8</sub> inch casing.
- Rock-to-rock exposure for abandonment cement plug achieved.
- Eliminated the need to mill over 6,500 ft of the 7 inch casing, **48.5 rig time days saved** vs. conventional methods.
- Significant reduction in emissions produced from the operation (see ESG information above).

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