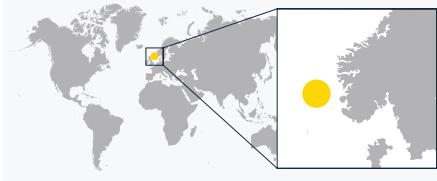


Successful Barricade Job Sets New Benchmark in Perforate, Wash and Cement Efficiency



Region: North Sea
Customer: Major Operator
Field: UK Continental Shelf
Well Type: Oil and Gas

Case benefits

- Eliminates the need for mill casing.
- Ensures controlled direction of cement due to pumping cement out between cups
- No wait on cement (WOC) with squeeze pressure.
- Eliminates need to squeeze cement.

Key capabilities

- Field proven
- High circulation rates
- Dual swab cup design
- High performance swivel

Typical Applications

- Permanent plug and abandonment (P&A)
- Slot recovery
- Perforate wash, cut and pull
- Seal annular pressure

Challenge

A major operator in the UK challenged Archer to create a rock to rock barrier and isolate pressure from the overburden.

The objective was to plug and abandon the well according to government and customer requirements. The customer required a time and cost efficient method of plugging and abandoning the well.

Solution

The solution was the Stronghold Barricade system. The field proven Barricade perforates, washes, and cements the annulus, creating a rock to rock barrier in just one trip.



One of the benefits of washing the perforations with the Barricade system is that the standpipe pressure is a key performance indicator. High pressure indicates a high amount of debris on the back side of the casing; low pressure indicates a low amount of debris on the back side of the casing.

On this job, using a flow rate of 420 gpm, a circulation pressure of only 200 psi was achieved constantly over the entire perforated area, indicating a low amount of debris.

The 168 ft long perforated interval was washed in only 2 hours. When using pressure as a performance indicator, the washing can be optimized and time spent can be minimized. The 550 ft cement plug, with a 168 ft rock to rock lateral barrier, was completed in just 3 hours.

Result

The perforating, washing and cementing to achieve a 550 ft cement plug with a 168 ft solid lateral barrier was completed in only 5 hours. The total time from run in hole (RIH) until the tool was at surface was 15.5 hours from a depth of 2431 ft. The plug was verified by load and pressure test.

A rock-to-rock barrier was achieved in 15.5 hours, which exceeded the customer's expectations and sets a new benchmark in perforate, wash and cement efficiency.