



Weatherford®

REAL RESULTS

Sub-Surface Release™ Plug System Protects Expensive Special Coating, Saves Valuable Rig Time on North Sea Job

Objectives

- Cement through a 9 5/8- × 7 5/8-in. specially GRE-coated casing string in two North Sea wells. Bump the plugs and wipe the casing without introducing the risk of a wet shoe or leaving cement inside the casing. Any remedial operations to correct a wet shoe or drill out cement could result in damage to the GRE coating.

Results

- Weatherford designed and produced a 9 5/8- × 7 5/8-in. *Sub-Surface Release* plug system with extra wiper fins on each plug and a special bore to allow the plugs to safely pass through the coated casing.
- The new *Sub-Surface Release* plug systems were approved and shipped on time to meet the client's tight delivery requirements.
- Both *Sub-Surface Release* plug sets performed textbook jobs, with clear indication of top and bottom dart shears, bottom plug rupture, and top plug bump.
- Weatherford float shoes, collars, and plugs performed equally as well in the other casing sections.

Value to Client

- The new plug design allowed for a conventional cementing procedure. Previously, a more expensive inner-string cement job had been the primary plan.
- Additional savings were realized by not having to drill out, which could have led to damage to the GRE-coated casing.



Weatherford's *Sub-Surface Release* plug system is primarily polyurethane and contains very little aluminum. These properties greatly reduce the amount of time needed to drill up equipment, in some cases reducing it to less than two hours.

Location
North Sea

Hole Size and angle
12-1/4 in., 36°

Casing Size
9-5/8 × 7-5/8 in.

Setting Depths
14,322 and 13,679 ft (4,365 and 4,169 m)

Products/Services
Sub-Surface Release plug system