

Eni UK Efficiently Mills Out Stuck Metal Centralizer with Tractor-Powered Wireline Intervention Service

ReSOLVE service’s milling tool, with custom bit, autonomously mills out stuck centralizers in 12 h after previous ineffective attempt with a standard bit

When more than 2 weeks of milling with a conventional crushed tungsten carbide bit was ineffective at removing a 6-in-long jammed centralizer, Eni UK Ltd. deployed ReSOLVE* instrumented wireline intervention service with a bit optimized for metal removal to finish the job in only 12 h.

Eni UK’s goal

When a 6-in-long slickline fluted centralizer jammed in a nipple profile above the subsea safety valve of an injector well in the Irish Sea, Eni UK needed to have it milled out to access and retrieve the toolstring. Access to the fish was tight, in 4.79-ID tubing with a minimum restriction to 4.26 in.

What was tried first

A conventional bit hardfaced with tungsten carbide was deployed. However, it was highly inefficient, removing only 60% of the centralizer after 400 operating hours.

What Schlumberger recommended

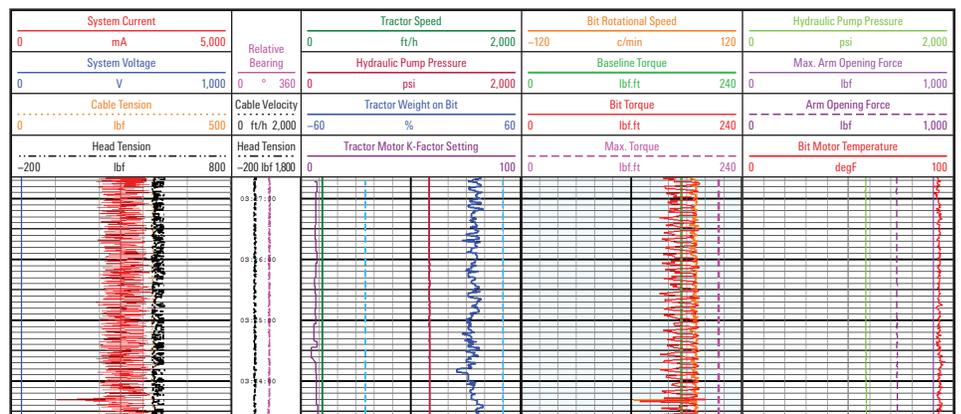
Schlumberger collaborated with a custom bit manufacturer to design an annular bit with nine tips featuring three geometries for optimizing removal of the metal chips. The bit’s performance was tested on a similar centralizer with ReSOLVE instrumented wireline intervention service configured for milling in conjunction with a TuffTRAC* cased hole services tractor. ReSOLVE service brings new efficiencies to milling operations by seamlessly integrating the tractor with the milling tool’s performance by using the MillOptimizer* autonomous milling system.

What Eni UK achieved

The new bit design was efficiently advanced at 0.15 in/h in milling through the remaining centralizer in only 12 h. Eni UK was kept informed in real time of the rapid milling progress through ReSOLVE service’s continuous monitoring and control.



Centralizer (left) and milled centralizer recovered to surface (right).



Smooth milling using MillOptimizer autonomous milling system of ReSOLVE service.

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