



Technology in Action



Customised 7" Activation Tool

International Oil Operator, Offshore Russia

Technical Objective:

Design a new tool that ensures the successful release of Tubing Conveyed Perforating (TCP) Guns from the suspension system in highly deviated wells, thus ensuring no wire breaks.

Well Type:

Highly deviated, high rate gas well

Peak Solution:

Custom designed 7" Activation Tool

The Challenge:

TCP Guns deployed in a highly deviated well fail to release from the suspension system after detonation.

The gun suspension system incorporates a contingent release mechanism, however the shifting tool used to activate the suspension system became stuck in the shifting profile whilst releasing the guns, thus resulting in the full weight of the suspended guns being taken-up by the wire. This led to an inevitable wire breakage and resulted in a difficult and expensive fishing operation for the customer with significant NPT.

Considerations:

The following key requirements and concerns were highlighted:

- Should be simple and easy to re-dress
- Must work in a sand environment at high angle
- Solution must be quick and easy to deploy so maximum production can be reinstated in the shortest possible time

For more information please contact: info@peakwellsystems.com

- Must apply sufficient force to activate the gun suspension system release after the wire and toolstring have disconnected

Summary:

Peak designed, manufactured, and tested a custom designed Activation Tool that could be run on slickline or braided line together with the required shifting tool.

Upon landing on the gun suspension system, downward jarring was applied to the Peak Activation Tool in order to release the Activation Tool from the wire on which it was run.

Further downward jarring enabled the Peak Activation Tool to manipulate the shifting tool in order to release the gun suspension system.

As the wire used to transport the tools downhole was no longer physically attached to the tools, the Activation Tool, shifting tool and gun suspension system could all move down the wellbore without the fear of breaking the intervention wire/cable that would otherwise result in a difficult fishing job and prolonged non production time (NPT).

Value to Customer:

All operations were carried out safely and efficiently:

- Production on the well commenced immediately after the operation was carried out
- The Peak Activation Tool can be deployed on slickline minimising cost and rig time
- Peak mobilised at short notice as the client had anticipated this scenario and ordered the tool in advance
- The Peak Activation Tool successfully integrated with existing tractor system