



Technology in Action

eCutter used to free wire at depth and retrieve to surface in high deviation wellbore



Peak eCutter

UK Operator, North Sea

Technical Objective:

To cut 0.125" OD GD31MO wire at rope socket to enable the retrieval of stuck toolstring.

Well Type:

Producer (65 degrees deviation)

Peak Solution:

2.2" Peak eCutter

The Challenge:

During drift run operations to determine the depth of a third party retrievable bridge plug downhole, the drift assembly was unable to retract through the 5 1/2" x 4 1/2" completion crossover rendering it stuck downhole at a depth of 2,349m at 65 degrees deviation.

A cutter was required to free the wire (0.125" OD GD31MO) exactly at depth allowing it to be retrieved back to surface.

Considerations:

The following key requirements and concerns were highlighted:

- A timely and effective intervention was critical to allow the client to complete the well sidetrack once the wire was fished back to surface
- The client was not willing to use a mechanical cutter due to the high deviation of the wellbore and the importance of cutting at an exact depth

Summary:

After careful review of the well design and discussion with the customer, the preferred option for cable release was to deploy the 2.20" Peak eCutter and Pump Down Go-Devil assembly with 3.65" swab cups to ensure the cutter reached the correct depth and cut at the rope socket which was located at 65 degrees of deviation.

An onshore demonstration of the Peak eCutter was carried out at Peak's Technology Centre in Aberdeen to provide the customer with a thorough understanding of how the eCutter functioned. A Peak Engineer was then mobilised offshore with the eCutter via sea to conduct further tests onsite prior to the live operation.

The Peak eCutter was set to delay for a period of six (6) hours before being deployed downhole followed by the Pump Down assembly that pumped slowly at 3bbls/min enabling the eCutter to reach the required cutting depth of 2,349m (93 degrees C; 1,600psi). After six (6) hours, the eCutter was activated and successfully cut the wire at the rope socket whilst at the same time gripping the severed wire.

Both the eCutter and Pump Down assembly were then retrieved to surface along with the wire allowing the customer to continue with their planned sidetrack.

Value to Customer:

All operations were carried out safely and efficiently:

- The wire was cut at required depth and the full length of wire successfully returned to surface with the cutter
- Onshore trials were carried out immediately followed by rapid mobilisation to offshore platform
- Operational support ensured that the customer received the best possible outcome

For more information please contact: info@peakwellsystems.com

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