

Case study: North Sea, United Kingdom

MASTODON tool freed shallow fish in just minutes with little impact at surface

After a North Sea customer spent five days attempting to retrieve a shallow fish that had become stuck just below the blowout preventer, Baker Hughes was called to get operations safely back on track.

During a recompletion effort, the customer's lock-down sleeve (LDS) upended in the wellbore and became stuck at a depth of only 25 m (82 ft). Retrieving it from such a shallow depth increased the risk of whiplash from the tool string and the potential for damage to the rig or derrick.

At a rig rate of \$500,000 USD a day, the stuck fish was holding up the customer's operation and had already caused approximately \$2.5 million USD in nonproductive time.

The customer needed to remove the fish safely with as little force at the surface as possible to avoid further costs and risks to the equipment.

Baker Hughes recommended using a modified version of its **MASTODON™ hydraulic pulling tool** for the job to ensure a safe and reliable fish retrieval.

The MASTODON tool is able to generate forces downhole using hydraulic pumping pressure to minimize high jarring loads at surface.

Typically, the MASTODON tool is anchored in the casing before exerting a pulling force on the fish, transmitting the force to the casing rather than the surface equipment. For this shallow-fish situation, however, the power section of the tool was placed in the rotary with slips and without the anchor section.

The running tool of the LDS was used in conjunction with the MASTODON tool to retrieve the fish. The MASTODON tool's unique method of hydraulically generating the forces downhole was the safest approach to free the fish.

The risks at the surface were significantly reduced and the fish was freed successfully in just minutes, with no damage to the rig.



A modified version of the Baker Hughes MASTODON hydraulic pulling tool freed this shallow fish in a matter of mere minutes without any impact on surface equipment.

Challenges

- Fish was stuck at shallow depth of 25 m
- Customer had spent five days attempting to safely retrieve the fish with no luck
- The pulling forces necessary to remove the stuck fish presented significant risk of damage to the rig and derrick

Results

- Freed shallow fish safely and efficiently in just minutes
- Minimized impacts at surface
- Performed all operations without damaging the rig or derrick