

Successful Cased Hole Fishing Operation in Mexico Recovers 4000m of 3½ inch Drill Pipe and Bottom Hole Assembly (BHA)

The Wellbore Integrity Solutions (WIS) operations team successfully collaborated to fish out the 5½ inch OD drilling BHA that fell due to a twist-off failure in the 3½ inch drill pipe.

Carefully Planned Fishing Operation Reduces Cost and Saves Time

The WIS Red Baron team in Mexico supported a major oil and gas operator in achieving a key milestone: the successful retrieval of 4,000 meters of drill pipe and the drilling BHA left in the well.

The operation was carefully planned based on evidence of a twisted-off drill pipe joint, which showed deformation at its lower end—indicating a challenging top of fish. To address this, a backup junk mill run was prepared in case the top of fish was too damaged to enter the overshot.

The objective was to complete the recovery with minimal runs and within a short time frame. This was achieved in just two days with a single run of the fishing BHA.

The fishing BHA was designed with:

- 8½ inch Oversize Guide
- 5¾ inch Overshot dressed with a 3¾ inch Basket Grapple
- 5¾ inch Overshot Extension

The drill string was located in a 5½ inch open hole section, with the 3½ inch drill pipe inside 7 inch casing up to the 9⅞ inch casing. This configuration posed a challenge due to the smaller OD of the fish versus the larger casing ID, along

with limited jarring capability caused by the long distance between the overshot and total fish depth.

Successful recovery was confirmed by detecting a 125-ton increase in weight while pulling out of hole, resulting in 100% of the fish being brought to surface—without the need to activate the jars.

Well Information:

Location: Mexico

Casing Size: 7 inch x 9⅞ inch

Fish Total Depth: 6594 m

Top of Fish Depth: 2630 m

CHALLENGE

Retrieve the drilling BHA and drill pipe left in hole. The total length of the fish is 4000 m, thus a meticulously operation must be carried out to recover all the fish in a single overshot run. The top of fish (TOF) was deformed due to the drill pipe twist-off. The objective was to optimize the number of operational runs and overall time.

SOLUTION

Wellbore Integrity Solutions (WIS) recommended and deployed a 5¾ inch Overshot along with an 8½ inch Oversize Guide integrated with a 3¾ inch Basket Grapple and 3½ inch Mill Control to be able to catch the fish and work the string if necessary.

RESULTS

- Successfully latch on the fish and retrieved the 4000 m of drill pipe and drilling BHA in a single run, exceeding customer expectations.
- 100% of fish retrieved as planned.
- Longest Fish retrieval in Mexico operations.

