

Coil Tubing Services Helps Operator Retrieve Difficult-to-Reach Check Valve in 46 Hours, Saving USD 72,000

Operator fishes trapped two-way check valve 3 days faster than planned, avoiding a major workover

CHALLENGE

Recover a stuck two-way check valve after a failed burnover attempt.

SOLUTION

Develop an engineered approach using CoilTOOLS® CT intervention tools and solutions to maximize the efficiency of the fishing operations while minimizing the cost to the customer.

RESULTS

- Performed the entire fishing operation in 46 hours.
- Avoided costly, time-consuming cementing and milling operation.



Stuck two-way check valve halts Marcellus well coiled tubing milling operations

After a two-way check valve got stuck in the casing hanger profile of a well in the Marcellus Shale, an operator decided to mill the wellhead to retrieve it. However, instead of attaching to the magnet system, the valve fell downhole—landing on a drillable bridge and frac plug. This meant there was a well with several stimulated zones below a two-way check valve that would need to be fished to finish the completion procedure. With no way to fish the valve internally and a damaged external fishing profile, the valve was extremely difficult to reach. Due to the minimal length of the two-way check valve, there was a high probability that a burnover run could engage the fish and frac plug with its slips still engaged, leading to additional complications.

CoilTOOLS tools and solutions with tapered box tap fishes valve, eliminates complex workover

Due to the OD size of the stuck valve, a conventional overshot was impossible. Because of this, the operator sought to cement the fish in place and burn over the fish to pull it from the wellbore. This could take anywhere from 3 to 5 days.

Coil Tubing Services, a Schlumberger company, proposed using CoilTOOLS CT intervention tools and solutions with a faster, simpler solution—running a box tap with a tapered OD to engage the valve. After a few runs, it was determined that debris had settled above the two-way check valve and was interfering with the operation. A magnet run followed by a lead impression block run revealed the threads from the valve had fallen downhole on top of the fish. Coil Tubing Services performed a burnover operation to remove the threads, allowing the valve to be fished with the box tap as planned.

Operator resumes milling operations in 46 hours

In total, the intervention took only 46 hours to complete. This method left no debris in hole and eliminated the need to cement the two-way check valve in place on top of the frac plug. As a result of the recommendation, the operator removed the lost valve and resumed operations with minimal NPT.



A box tap with a tapered OD was used to successfully fish the valve from the well.