

Offshore Rigless Wireline Intervention Solution Adds 4,000 BOPD with Zero Water Production

COMPLEX WIRELINE JOB EXECUTED SAFELY AND EFFICIENTLY

GULF OF SUEZ, RED SEA, EGYPT

OVERVIEW

An offshore Egypt operator, whose highly deviated well was challenged by a sour environment, high water production, and high bottomhole temperature, required a wireline operator that could perform a rigless intervention to bring the well back on production. Halliburton met the challenge through close customer collaboration, thorough job preplanning, efficient wellsite execution, and attention to safety.



CHALLENGE

A major oil company in the Gulf of Suez needed to isolate a water-producing zone based on surface well test data, which confirmed that the oil-water contact (OWC) had moved up in a rigless offshore well. Additionally, a new formation needed to be put on production with a new set of perforations based on the field data. The highly deviated (+68°) well was located in a mature field with a highly sour environment (+300 PPM H₂S, 1.5% CO₂) and high bottomhole temperature (+320°F). Further complicating the operation was a gas-lift mandrel completion and a high water-production rate (+97%).



Rigless nonexplosive through-tubing bridge plug technology.

CHALLENGES

- » Isolate water-producing zone and put a new formation on production
- » Mature field with high sour environment, gas-lift mandrel completion, and high waterproduction rate
- » High bottomhole temperature (+320°F)
- » Highly deviated well (+68°)

SOLUTION

- » Rigless wireline intervention to isolate the water-producing zones
- Close collaboration with the client and careful job preplanning

RESULTS

- » Successful water shutoff job with zero water-cut production
- » Ten successful perforating runs perforated 11 new intervals
- » 100% compliance with client's safety requirements
- » Added 4,000 BOPD to production—a 5% increase in production
- » Saved USD 100,000 of original work plan by working efficiently

"The whole crew showed very good dedication to the job. Excellent performance."

SOLUTION

Halliburton proposed a rigless wireline intervention to isolate the water-producing zones. The keys to success for the water shutoff and perforating operation was intensive job preplanning and close collaboration with the client.

RESULT

The successful water shutoff job used 4.5-in. sour through-tubing bridge plugs (TTBP) resulting in zero water-cut production. A total of 10 perforating runs successfully perforated 11 new intervals with 100% compliance to the customer's safety policies.



Maximize production through perforating technologies.

The customer added 4,000 barrels of oil per day (BOPD) to their

production from this single rigless intervention work, which equates to an additional 5% of its daily oil production. The executed job was efficiently performed, saving USD 100,000 off the original rigless intervention work plan.

The customer was highly complimentary of Halliburton and its proper planning, execution, and safety performance throughout the entire job, noting, "The whole crew showed very good dedication to the job. Excellent performance."

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