DST Objectives Achieved On Time Without Failure or Incident in HP/HT Conditions with More Than 2,300 Successful Operating Hours

MULTI-PRODUCT SERVICE LINE PROJECT RECEIVES REGIONAL RECOGNITION FOR EXCELLENT SERVICE PROVIDED

MEXICO

CHALLENGE

- » Long project duration with tool and seal exposure to HP/HT conditions
- » Achieve single-phase sampling in harsh environment

SOLUTION

- » Provide a comprehensive well test solution using a full-package drill stem test (DST) string
- » Design of Service (DOS) with reduced sampler configuration to allow single-phase downhole sampling in HP/HT environment
- » Expert crew to safely flow the well to surface and measure necessary parameters without incident

RESULT

- » Operator objectives achieved on time without failure or incident despite long project duration and extreme conditions
- » More than 2,300 successful operating hours with project extended by operator
- » Crew received regional recognition for superior service

OVERVIEW

A Halliburton Testing and Subsea crew received regional praise after performing more than 2,300 successful operating hours in high-pressure/high-temperature (HP/HT) conditions (exceeding 15K psi and 150°C) with zero non-productive time (NPT), HSE incidents, or cost of poor quality (COPQ).

Beginning in March 2022, multiple Halliburton product service lines collaborated for a project to provide a full drill stem test (DST) package designed for a 6,572 m deep exploration well. The operator desired to obtain measured data and collect samples in extreme conditions to improve reservoir understanding. These objectives were achieved on time and extensive logistical data and samples were delivered with zero failures or incidents. For



such exceptional results in harsh conditions, the crew received regional acknowledgement, increasing Halliburton's overall service quality position, and the operator extended the project, which is currently ongoing.

SUCCESS METHODS

Halliburton took into consideration the extensive duration for which seals and equipment would be exposed to HP/HT conditions, providing an efficient, full surface well testing (SWT) package to deliver on time logistics (i.e., Flow Head, Coflexip Flexible Pipe, Choke Manifold, Separator, Surge Tank, Gas Dryer, Pumps, Diverters, Storage Tanks, and Piping). Additionally, a full-package DST string was deployed, which included a Select Tester® Valve, Rupture Disk Circulating Valve, Armada® Sampling Tool, Drain Valve, Tubing String Tester, Lubricator Valve, DynaString® and SG-15 Gauge Carriers.

Because of the harsh downhole conditions, the configuration of the sampling system had to be adapted to accommodate single-phase sampling. To address this challenge, Halliburton engineers collaborated with the global team to deliver a Design of Service (DOS) with reduced samplers, which was reduced from the standard nine to six, to allow the tool to meet the operational challenges and collect single-phase downhole sampling.

Using this comprehensive well test solution, the crew safely flowed the well to surface and acquired the necessary data. All customer objectives were met and the operator extended its partnership with Halliburton by continuing operations.

CASE STUDY

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