

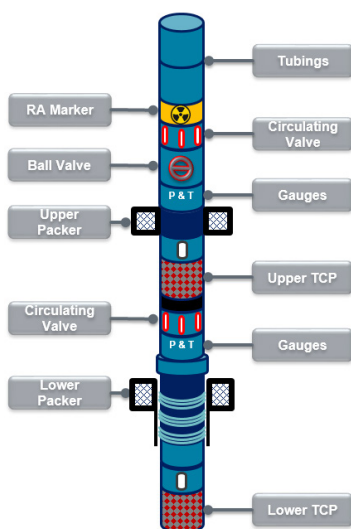
Expro Excellence First Dual Zone DST in India

DST/TCP



Objectives and background

- DST has been a compulsory requirement to establish reservoir characterisation and production capabilities. The industry has evolved from open hole DST to cased hole wireless DST over decades, seeking efficient and cost effective ways to test a reservoir
- Wireless enabled, dual zone DST allows testing of different reservoirs independently in a single run. This saves significant rig time by eliminating one complete DST run. It also allows isolation of the first zone from the second for discrete testing and then allows commingling of the zones if desired
- The client identified two zones to test using dual zone DST, with 40 m separation in 9-5/8" casing. The lower zone was perforated underbalanced with TCP guns with a wireless firing head, then tested independently. Once the flow studies were performed, the lower zone was isolated for final build-up using an acoustically operated sliding sleeve. Within 4 hours the upper zone was perforated underbalanced in the same manner. Acid stimulation was also performed on the upper zone through the dual zone string to improve the zone's productivity



Expro Excellence

- Pre-job planning was key to the successful execution of this first dual zone DST in India. This included TWOP (Test Well On Paper) meetings to ensure all steps were properly orchestrated. It also included SIT (System Integration Test) where form-fit-function of all downhole components were confirmed for compatibility
- Expro executed the operation flawlessly, with zero NPT and zero HSE scores. This is especially important given the complex makeup of the BHA, which included wireless transmitters and receivers, conventional DST tools, two packers (each require separate manipulation to position two sets of perforating guns on depth) and acoustically operated valves in between for isolating the two zones
- During the job real-time downhole pressure and temperature data was transmitted via satellite to the client's office to enable dynamic decision making, thus validating data to optimise the well test program and saving costly rig time
- Although the main objective of DST remained the same, the use of dual zone DST helped the client to improve operational efficiency (time/cost savings) and maintain the highest level of operational standards with safety and the environment being paramount

Value to the client

- Six days of rig time was saved using dual zone DST compared to separate conventional single zone DSTs
- Operational and environmental risks were significantly reduced by eliminating a DST run
- Dual zone DST also eliminated the need for additional wireline intervention, for TCP gun correlation on the upper zone
- No requirement to set a bridge and/or cement plug to isolate the lower zone, between DSTs
- Pressure and temperature data from the lower zone captured/monitored while testing the upper zone



I would like to congratulate Expro for successful execution of the industry's first dual zone DST-TCP in India to test two separate zones at underbalanced condition in a single trip of DST string. Best wishes to Expro for continued success ahead and we are looking forward to collaborate more in the future to introduce new technologies to our company"

Client

Reduction of rig time



Contact

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