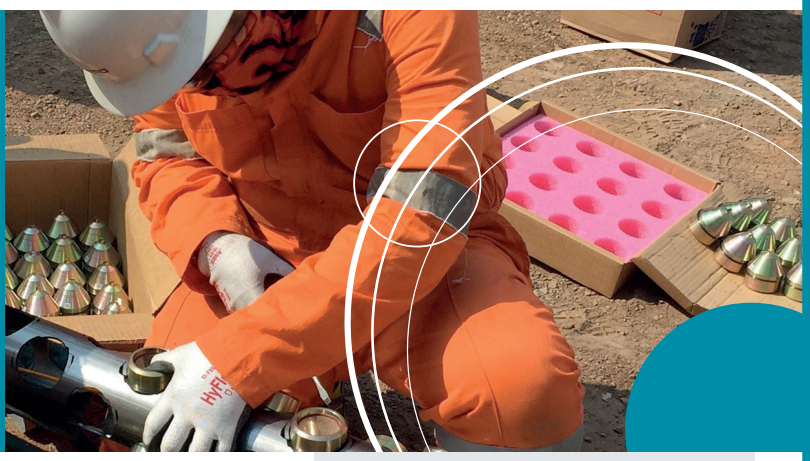
EXPRO

WELL FLOW MANAGEMENT™

/ Expro Excellence DST/TCP

Expro uses a 'shoot and drop' TCP system to complete an offshore production well in India



Objectives/background

- Expro has over two years TCP/DST proven success with a National Oil Company (NOC) client. Under this contract, they wanted to perforate the production zone using TCP instead of conventional wireline perforation, due to uncertainty in formation pressure caused by suspected reservoir compartmentalisation
- Sub-hydrostatic reservoir pressure brings another challenge for well completion because of post perforation losses until well activation starts using Gas Lift Valves (GLV)
- The high angle deviation in the well was thought to limit perforating options

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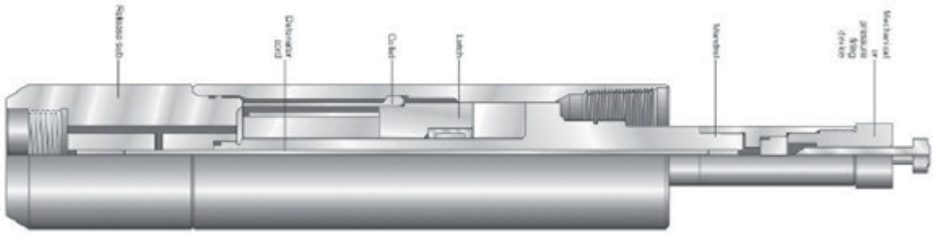
- Unlike conventional completion methods where perforating is done before lowering the completion string; hence exposing the formation to damaging fluids for several days. Expro's 'shoot and drop' method run with the completion using an auto-gun release allowed the well to be produced directly after perforating
- Expro perforated the well using hydraulic delay firing head with a pyrotechnic time delay fuse and immediately the gas was injected in the annulus to activate GLVs resulting in 100% oil within 8 hours of activation, as compared to ~2 days using a 'shoot and pull' method
- The gun slide critical angle was studied and it was observed that the well angle was conducive to deploying a 'shoot and drop' TCP system

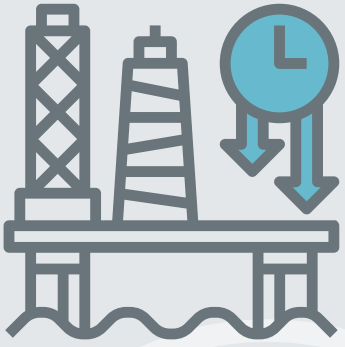
Value to client

- The use of the TCP 'shoot and drop' method saved approximately four days of rig time compared to using a conventional 'shoot and pull' technique
- By using TCP the client gained four days of additional production
- With less exposure time, fluid loss significantly reduced post-perforation; hence associated formation damage was eliminated



Servicing the largest offshore DST/TCP exploration contract globally, since 2016 Expro has successfully completed over 150 consecutive TCP jobs with 0 failures, 0 NPT, and 0 LTI's.

Reduction of rig time



Contact

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