

Expro Excellence

FA-1 achieves a casing drilling record in Australia

Well Construction | TRS





Objectives and background

• The Apache STAG-44H is a development well which is to be drilled by Apache Energy using the ENSCO-104 Jack-Up as part of the drilling campaign. The STAG -44H surface location is Slot D on the STAG platform that is located in the WA-15L in commonwealth waters. A mixed casing string was run on STAG-44H. The bottom portion of the string was 9 5/8" SL APEX, 47ppf L80 and the 9 5/8" VAM TOP 53.5ppf were run on the top. The SL APEX connection is a coupled premium connection specially designed to provide internal and external pressure under extreme loads. Expected TQ while drilling at 1,800 is 30,000ft-lbs +plus and this is the reason that the top of the string was completed with VAM TOP. The well was planned to drill with 9 5/8' casing and to build from 27° to +/- 90°. The 9 5/8" Casing Drilling was planned to TD at +/-1800m but based on the experience from STAG-43H, the TD was pushed as deep as possible minimizing associated risks on the upcoming 8 1/2' interval

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- Directional Casing Drill and Log, in one run starting 40-45m below the 13 3/8' drilled out shoe (335mMD, 27° INC) to TD at 1,800m or deeper if possible (maximum 100M above the top of the reservoir -@2,200m+-), with 9 5/8" casing and then retrieve the directional RSS BHA
- Enhance the safety and efficiency of drilling operations by eliminating conventional casing and running operations & wiper trips etc. which potentially could cause NPT events due wellbore instability problems
- Implement a number of improvements opportunities that were identified to enhance the performance obtained on previous Casing Drilling experience on STAG-43H
- Successfully cement the 9 5/8' casing as per Apache's program with the Schlumberger's PDDP (Pump Down Displacement Plug)

Value to the client

- A TOTAL \$3,800,000 AUD was saved from previous conventional performances
- Zero HSE incidents during the complete operation and campaign
- 2,167 metres is the new offshore world record for the longest interval drilled with casing
- Longest 9 5/8" horizontal well drilled with a rotary steerable BHA with a record throw of 3.04
- MD/TVD (2197m 723m)
- Longest 9 5/8" directional interval drilled with a single BHA; total section length of 1,808 metres to a depth of 2,197 metres
- Longest 9 5/8" horizontal section of 1,054 metres at a true vertical depth of 273 metres





