



Case study: The first Cflex® application in deepwater West Africa

Archer performs a successful cementing operation with the first Cflex® application in deepwater West Africa.

Challenge

A major international operator had experienced difficulties in cementing the annulus of a 10 3/4in production string due to the section being long (> 1500m), sub-horizontal (>80°) and throughout unconsolidated formation. The consequence was that intermediate reservoirs were not efficiently cemented leading to several days of remedial operations and therefore requiring the client to look for a contingency solution.

An additional challenge was that operator would accept only a metal to metal seal for the secondary cementing device.

Solution

After several technical clarifications, the operator agreed that VO certification was the highest applicable standard for their application and decided to carry out a field trial using the Archer Cflex® on a water injector well. The Cflex® was run with the 10 3/4in casing string to 1750m measured depth (MD), 142m inside the 14in casing. The primary cement job was performed to isolate the lower reservoir; afterwards the Cflex® was operated to isolate 200m of annulus above the device.



Region: West Africa

Customer: Major Operator

Field: Angola Luanda

Well type: Water injector wells

Case benefits

- Controlled and selective access at desired depth and position
- Multistage cementing to secure cement operations
- Save on potential high-cost remedial work.

Key capabilities

- VO rated
- Field proven
- Easy to operate
- Can be ran in combination with Tag-in collar in the same run
- Slim design minimises ECD effects
- Large flow area ports maximise possible flow rate

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Result

The Cflex® worked as planned, but the cement bond logging showed a poor quality secondary cement. The operator suspected that this had been caused by cement contamination and decided to perform another trial on a second well. The cementing sequence was improved and by using this new procedure, the second trial was a complete success as confirmed by the cement bond log. Based on these results, the operator has decided to include a secondary stage device in the string of challenging producing wells.

Typical applications

- Controlled, secure and selective access to casing annulus
- Multistage cementing
- Annulus cleanout
- Fracturing

