Weatherford®

REAL RESULTS

Renaissance™ WDCL System Helps Shell NAM Increase Production, Avoid Costly Workover on Offshore North Sea Well

Objectives

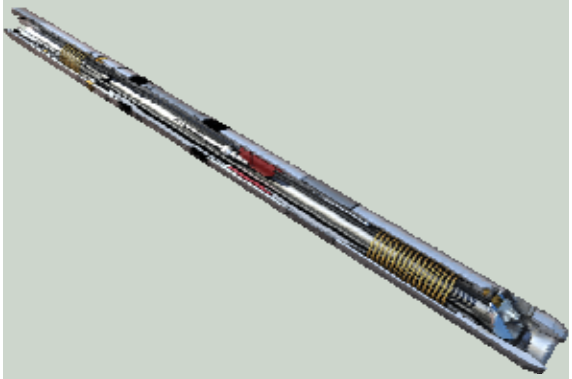
- Restore the full functionality of a surface-controlled, sub-surface safety valve in an offshore well where the safety-valve control line had become blocked, rendering the safety valve inoperable.
- Eliminate the requirement to produce the well through a storm-choke velocity valve where high back pressure had to be maintained to prevent premature closure of the storm-choke, significantly reducing the production rate.

Results

- Weatherford installed a 3.81-in. (96.8 mm) *Renaissance* WDCL damaged control-line replacement system consisting of a new safety valve, a stinger to transport the new control line from the surface, and a control-line hanger used for new wellhead penetration.
- The WDCL valve was set at a depth of 1,854.7 ft (565.3 m).
- Flowing tubing-head pressure was lowered, reducing back pressure, thus enabling NAM to increase production by 100,000 m^3 per day.
- The job was performed on slickline and capillary string without pulling the tubing string.

Value to Client

- The trouble-free installation of the *Renaissance* WDCL system enabled NAM to regain surface control of the well and increase production by 100,000 m^3 of gas per day (3.5 mmscf/day), significantly increasing revenue and avoiding the expense of a rig workover.



Weatherford's *Renaissance* WDCL damaged control-line replacement system was installed without incident, enabling NAM to regain surface control of the well in increase production by 100,000 m^3 of gas per day.

Client
Nederlandse Aardolie Maatschappij BV (NAM), a member of Shell EPE

Location
Offshore North Sea, The Netherlands

Products/Services
- *Renaissance* WDCL system
- Capillary string services

Weatherford International Ltd.
515 Post Oak Blvd.
Houston, Texas 77027 USA
Tel: 713-693-4000
weatherford.com

Shell NAM
Bert Lugtmeier
Senior Production Technologist
Focal Point for Deliquification
bert.lugtmeier@shell.com

Weatherford
Rodger Lacy
Global Champion - Renaissance
rodger.lacy@weatherford.com

6925.00