



Weatherford®

REAL RESULTS

Renaissance™ WDCL System Regains Surface Control, Improves Production, Eliminates Need for Workover Rig, Saves Time, Costs

Objectives

- Restore full surface controlled subsurface safety valve (SCSSV) functionally in a 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 valve while maintaining the original production rate.
- Install a new control line and safety valve to regain surface controlled valve operation without creating a significant flow restriction
- Create no surface wellhead-geometry modification, additional spool, or change in flowline height.
- Perform the intervention without a rig or workover unit.

Results

- Weatherford deployed the *Renaissance* damaged-control-line (WDCL) safety valve system consisting of the following: REN-Gate™ wellhead penetration, control line hanger (CLH), capillary string, QXB Lock, and Optimax™ safety valve. This provided a new insert valve and a conduit to restore SCSSV functionality.
- The job was performed successfully with a braided-line unit and the Weatherford capillary unit.

Value to Client

- Weatherford's *Renaissance* WDCL system enabled the operator to regain full surface control of the new *Optimax* subsurface safety valve.
- After the WDCL system was installed and the well opened, the production ramped back to 2.6 MMSCFD, the same as before the installation, demonstrating there was no significant flow restriction.
- The WDCL system eliminated the need for a workover rig, saving rig time and associated costs.



Weatherford's *REN-Gate* is a new wellhead penetration that enters through the lower master valve (LMV) bonnet and lower seat, providing the communication port to the control line hanger and capillary tubing to function the *Optimax* safety valve. The picture above shows the new LMV lower seat and capillary tube mid-installation.

Location

Handil, Mahakam Delta, Indonesia

Well Type

Offshore, oil

Products/Services

- *Renaissance* WDCL system
- 4.625-in. 5,000 psi (34.4 MPa) *Ren-Gate*
- 3.900-in. RQXC CLH
- Stäubli wet connector and stinger assembly
- 3/8-in. Capillary string services
- 3.813-in. *Optimax* safety valve
- 3.813-in. QXB lock

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