

# Offshore HP Separator Leak Stopped with Contour

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WEST AFRICA

### Pipe Details

- 152.4-mm (6-inch) outlets on the main high-pressure (HP) oil/gas separator had multiple severe internal erosion defects.
- 10.97-mm (0.43-inch) original wall thickness.

### Summary

- UT inspection revealed severe internal defects on several 152.4-mm (6-inch) outlets on the main high-pressure (HP) oil/gas separator on an offshore platform
- 2 local Clock Spring trained technicians completed the Contour installation in 1 day
- The line remained in service during repair
- No negative impact on operations

When ultrasonic testing (UT) inspection revealed severe internal defects on the 152.4-mm (6-inch) outlet of the main high-pressure (HP) oil/gas separator on an offshore platform, the operator realized immediate action was needed to avoid a potential unplanned shutdown and environmental incident.

The erosion was growing at such a rate that imminent failure was likely. It was imperative that repairs be made immediately to avoid shutting down the platform, resulting in huge loss of production.

The solution was to apply a Clock Spring Contour repair, an engineered wet-applied system that uses bi-axial or quad-axial stitched fiberglass cloth applied with two-part epoxy and a filler material. A Contour repair could be carried out without taking the line out of service, delivering a temporary reinforcement to allow production to continue safely until the next planned shutdown.



*Two Clock Spring trained installers cleaned the spool sections using power tools to remove all coating, then bristle blasted the surface to achieve a profile equivalent to SA2.5.*



*UT inspection revealed severe internal defects on the 152.4-mm (6-inch) outlet of the main HP oil/gas separator on an offshore platform.*

Two Clock Spring trained installers cleaned the spool sections using power tools to remove all coating, then bristle blasted the surface to achieve a profile equivalent to SA2.5. With the outlets prepared, the team installed the Contour repair, designed in accordance with ISO 24817 guidelines, which provide requirements and recommendations for qualifying, designing, installing, testing

and inspecting the external application of composite repair systems to corroded or damaged pipework, pipelines, tanks, and vessels used in the petroleum and natural gas industries.

The completed repair was carried out in a single day without shutting in production, returning the line to safe service until the next scheduled shutdown.

There are nearly 3,000 trained Clock Spring installers around the world who are qualified to provide repairs with Clock Spring products. Clock Spring regularly offers [training classes](#) for installers and can custom design training for individual company needs.



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