

## Case Study

Surface Intervention System Enables Significant Cost and Efficiency Savings for a Shallow Plug Setting and Tree Repair Project.



### The Project

Keen to explore new methodology to improve project efficiencies, a leading international energy operator engaged with Unity to undertake a critical Xmas tree repair on a North Sea well. The project would require a shallow plug barrier to isolate the surface equipment before the in-situ repair work could be undertaken.

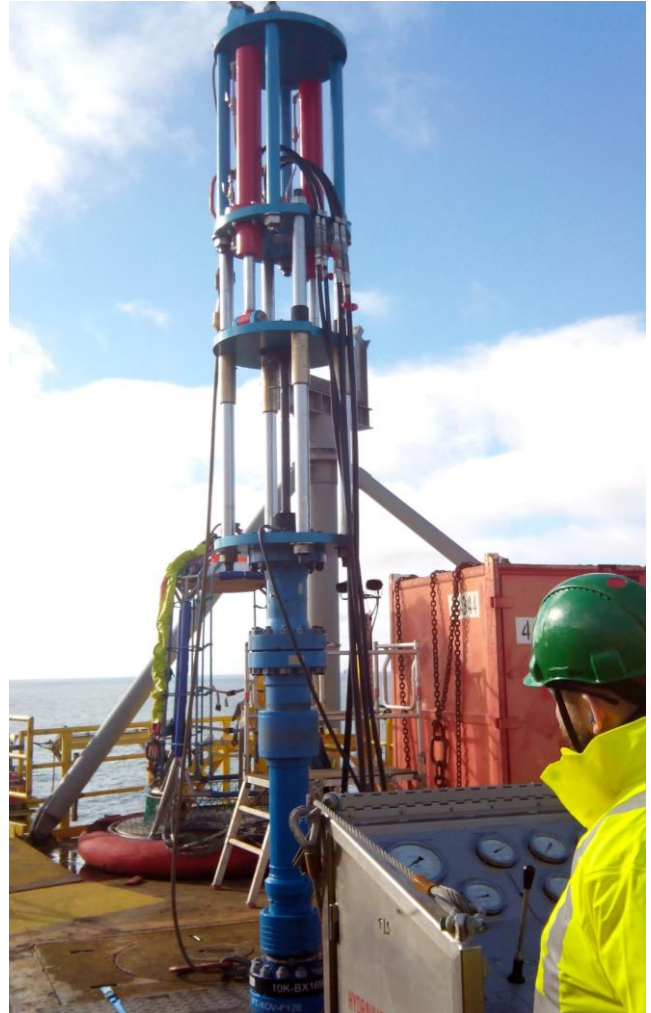
### The Solution

The operator identified Unity's Surface Intervention System (SIS) as their preferred technical solution due to several advantages. The multifunctional SIS simplifies and speeds up rigless intervention operations while materially reducing the wellsite footprint and POB.

A Stack-up Interface Test (SIT) was organised to validate the SIS as a viable technical solution, during which a bridge plug was set and retrieved by the SIS. Following the success of the SIT, the operator commissioned Unity's SIS package to facilitate the repair of a leaking Upper Master Valve.

Two technicians were mobilised to rig up and operate the SIS and Unity's Compact Shear Seal, then run and set the IX Bridge Plug, conduct the Xmas tree repair, then retrieve the bridge plug and finally rig down the SIS. The entire operation took just a day and a half to complete.

Unity worked closely with the operator's Wellhead Maintenance Team on project planning and intervention execution to ensure a smooth and successful outcome.



### Operational Value

- Multi-skilled technicians + Multi-use technology = Rapid intervention and integrity remediation.
- 40% faster operation = Faster production restoration.
- Less equipment mobilised offshore = Less lifting operations, power and transport = lower carbon footprint.
- Less downtime = Less deferred production.
- 60% reduction in personnel = Less bed space and less people exposed to risk.
- Up to 60% cost saving compared to a conventional approach.
- A turnkey solution for wellhead repair.
- SIS works offline allowing separate, simultaneous rig operations.

## The Technology

Unity's SIS is the only multi-functional shallow well intervention system on the market. It combines heavy-weight capability in a compact and lightweight form. Its powerful hydraulic rams exceed traditional wireline capability and rival those of coil tubing.

Simple operation and fast offline deployment is ideally suited to offshore or onshore Xmas tree, wellhead and near-surface integrity and P&A work.

For plug setting operations we combine the SIS with our Compact Shear Seal BOP valve (CSS), our IX Bridge Plug and a compact setting tool, coupled with pressure control equipment.

## Benefits

The conventional approach for this project would have involved a coordinated, cross departmental wireline integrity and intervention programme, with a full spread of equipment and personnel. This would have included a wireline package and crews, third-party plug engineer and separate wellhead integrity engineers.

Utilising the SIS with Unity's multi-skilled offshore technicians, provides a standalone multi-functional capability, eliminating the need to mobilise multiple vendors and resulting in a POB reduction of around 60% and up to a 60% cost reduction.



*A spokesperson for the operator said: "Unity's SIS solution allowed us to successfully conduct tree repair without the need to mobilise a full wireline spread and personnel. This has presented significant cost savings on this type of operation and demonstrated that, with a different mindset and an approach to embracing and utilising alternative solutions, we can, and have, reduced risk and contributed to carbon reduction for our operations."*