



Kinetics Controls
& Innovation Ltd

www.kcilttd.co.uk

MAC-SEAL Leak Sealing Solution

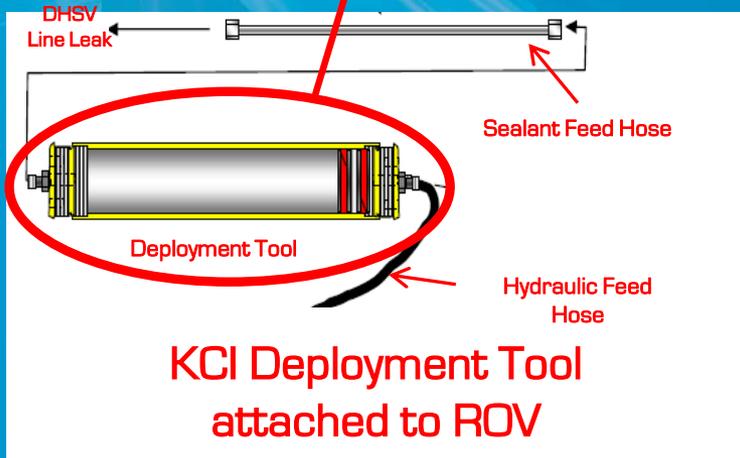
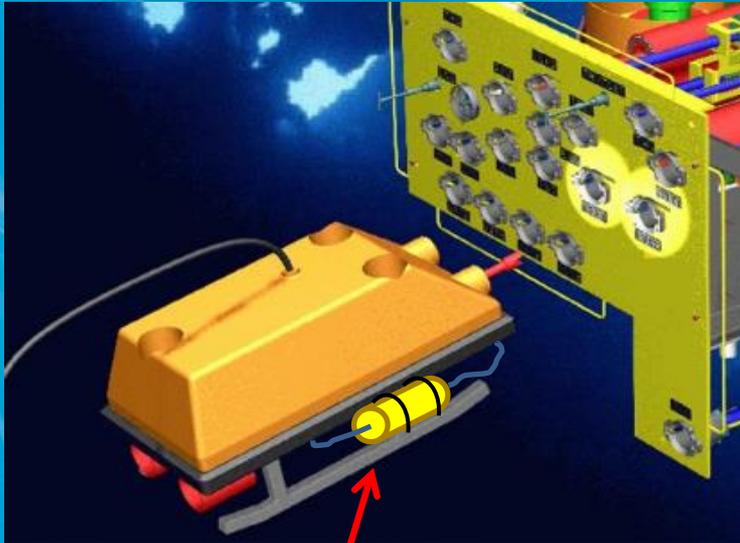


UPDATED

“Successful DHSV Line Isolation on a
UK Subsea Wellhead Using Mac-Seal”



3/8" DHSV Line Isolation using Mac-Seal



Background

- ❑ KCI were approached by a major Oil and Gas producer in the UK to provide an urgent isolation on a leaking DHSV Feed Line on a subsea well sitting in 580ft of water in the North Sea.
- ❑ The WRDHSV had been recovered so the DHSV Control Line Port was open to the tubing bore.
- ❑ The DHSV Feed Line was leaking at a hydraulic coupling which had potentially backed off.
- ❑ The Tubing Head Pressure was vented off but had the potential to rise to 2300psi.
- ❑ The sealant was planned to be deployed remotely by ROV.
- ❑ KCI's objective was to create an isolation at the loose connection to allow the planned Well Abandonment operation to be carried out safely and with no environmental hydrocarbon discharges.
- ❑ The deployment package was prepared and delivered within 15hrs of the customers initial request over a weekend.
- ❑ Our Technician was available and ready to mobilise the same day as the deployment package.



3/8" DHSV Line Isolation using Mac-Seal



KCI's Deployment Tool on ROV



Deployment Tool fitted to Tree



Deployment Detail

- The well was vented to reduce any back pressure and the leak path monitored.
- 1 litre of Mac-Seal was mixed and decanted into Deployment Tool on surface.
- The Deployment Tool was attached to the ROV, connected the Hot Stab and the hydraulic fluid input. The ROV was lowered to the worksite and latched onto the Tree Hot Stab.
- 1 litre of Mac-Seal was injected into the Feed Line in 6 minutes creating a 40ft plug to isolate the Feed Line from the well pressure.
- The Mac-Seal was fully cured in 8 hours.
- Once the Mac-Seal in the DHSV Feed Line had completely cured the isolation was pressure tested in direction of flow by raising the well bore pressure which is in communication with the DHSV Control Line at surface.
 - A low pressure test of 300psi for 5 minutes - A Good test was achieved.
 - Raise the pressure in 300psi increments to 2,100psi.
 - A high pressure test of 2,100psi for 30 minutes - A Good test was achieved.
- Positive pressure test on the isolated DHSV Feed Line confirmed.
 - A Second pressure test was carried out 24hrs later - A Good test was achieved.

Objective Achieved

The Isolation was successful and the Well was secured with no additional environmental discharges.

Our customer was extremely satisfied with our Safe, Effective & Efficient Isolation.

This Value Adding, Subsea Isolation Operation saved the Well owner from an extended Well Control operation.