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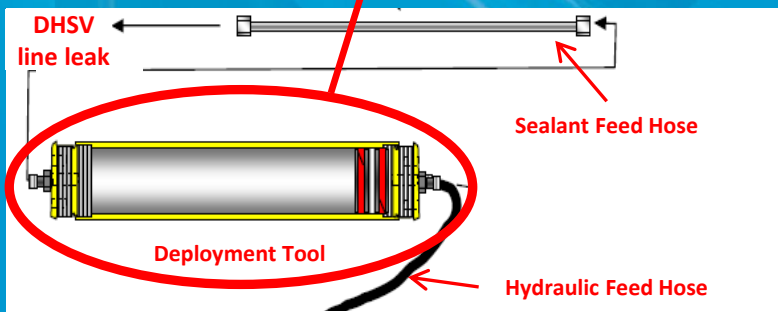
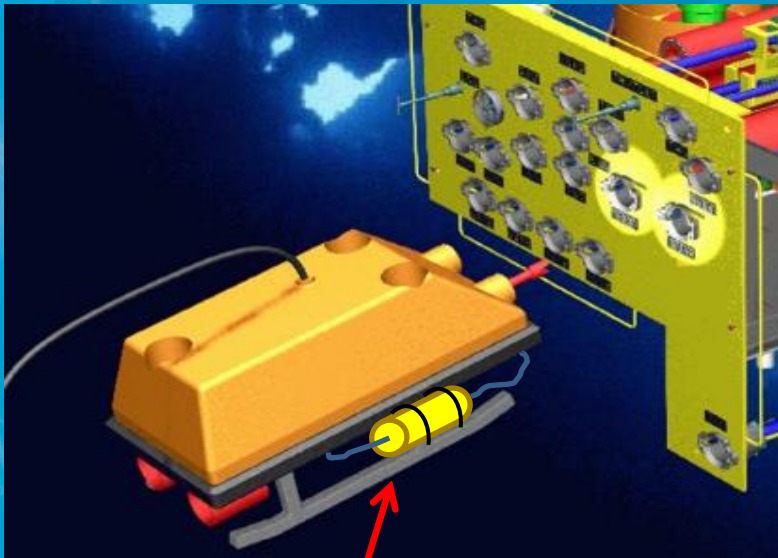


MAC-SEAL Leak Sealing Solution



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

3/8" DHSV Line Isolation using Mac-Seal 02



**KCI Deployment Tool
attached to ROV**

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 DHSV had been recovered so the DHSV Control Line 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 02



Deployment Detail

- ❑ The well was vented to reduce any back pressure and the leak path monitored.
- ❑ 1 litre of Mac-Seal 02 (bespoke formula) was mixed and decanted into a Deployment Tooling on surface.
- ❑ The Deployment Tooling was attached to the ROV structure, 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 02 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 02 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 - Good test.
 - ❑ Raise the pressure in 300psi increments to 2,100psi.
 - ❑ A high pressure test of 2,100psi for 30 minutes – Good test.
- ❑ Positive pressure test on the isolated DHSV Feed Line confirmed - No leaks.
- ❑ Second pressure test carried out 24hours later – Good test.
- ❑ Mac-Seal isolation successful.