



Kinetics Controls
& Innovation Ltd

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MAC-PAC Leak Sealing Solution



UPDATED

“Successful Tree Valve Isolation
UK Offshore with Mac-Pac”



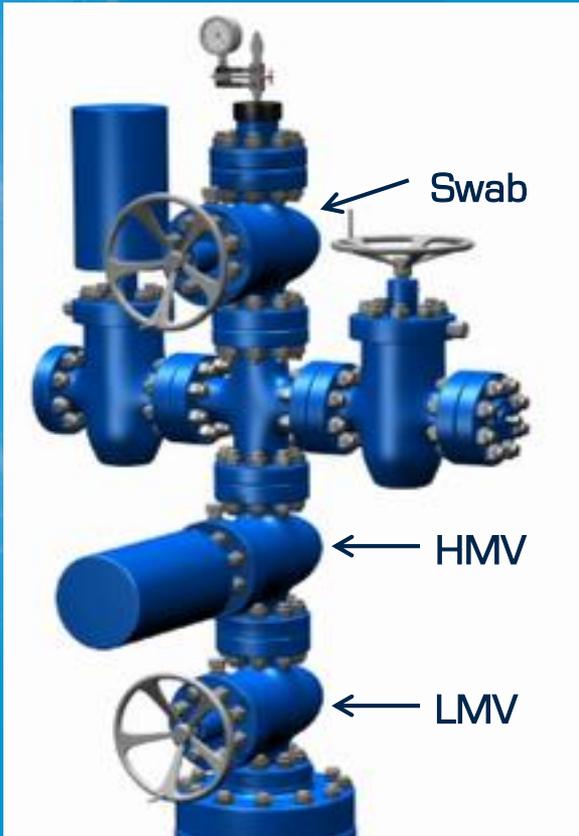
Gate Valve Isolations with Mac-Pac

Background

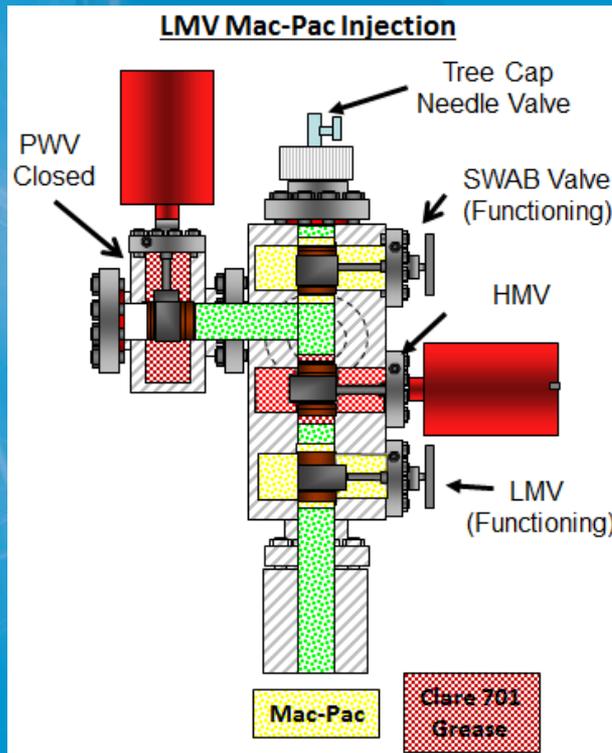
- ❑ KCI were requested by a major Oil and Gas Operator in the UK to provide isolations for Christmas Tree Valves on a Water Injection Well where all three inline Gate Valves have failed.
- ❑ The Isolations are required to break containment to enable the installation of a secondary Swab Valve. This would allow Well Intervention and Well Abandonment operations to continue.
- ❑ With all inline Gate Valves closed they had a recorded leak rate of 10 Litres per minute of fluid & a PBU (Pressure Build Up) of 540psi. The Valves had been greased with Clare 601 & 701 but still leaked at 10 Litres per/min.

Planned Operation

- ❑ Deploy KCI's Mac-Pac Sealant through the standard Grease fitting on the Bonnet. Displace the existing Grease from the Valve cavities and replace it with Mac-Pac to provide an effective and repeatable Valve isolation.
- ❑ Allow the Well to be prepared for future safe Intervention Operations.



Gate Valve Isolations with Mac-Pac



Actual operation

- Connect KCI deployment tooling to the SWAB Valve. Inject 1.5 Litres of Mac-Pac and witnessed a PBU. Functioned Valve and tested. Zero PBU or leak rate above.
- Connect KCI deployment tooling to the LMV. Inject 5.5Ltrs of Mac-Pac and witnessed a PBU. Functioned Valve and tested. Zero PBU above however, a very small fluid leakage was witnessed at the vent point. An extended PBU test was carried out overnight and a good result was confirmed.
- The HMV's Actuator Spring was broken so the Valve could not be functioned.
- The well will remain safely closed in until the planned intervention work begins.

Objective Achieved

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

This Value Adding, Rigless Isolation Operation saved the Well owner from a potentially time consuming and costly Well Kill or Freeze operation.