

KCI E-News Bulletin:

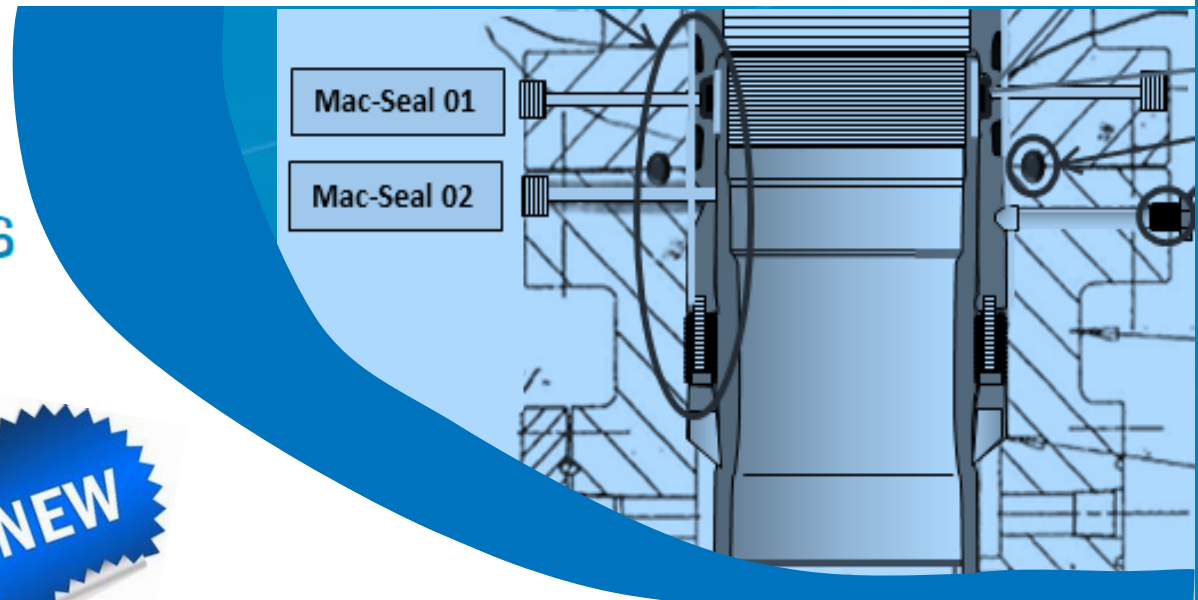


Kinetics Controls
& Innovation Ltd

kciltd.co.uk



MAC-SEAL – Leak Sealing Solution



*“Successful Casing Hanger
Mandrel Isolation with Mac-Seal”*

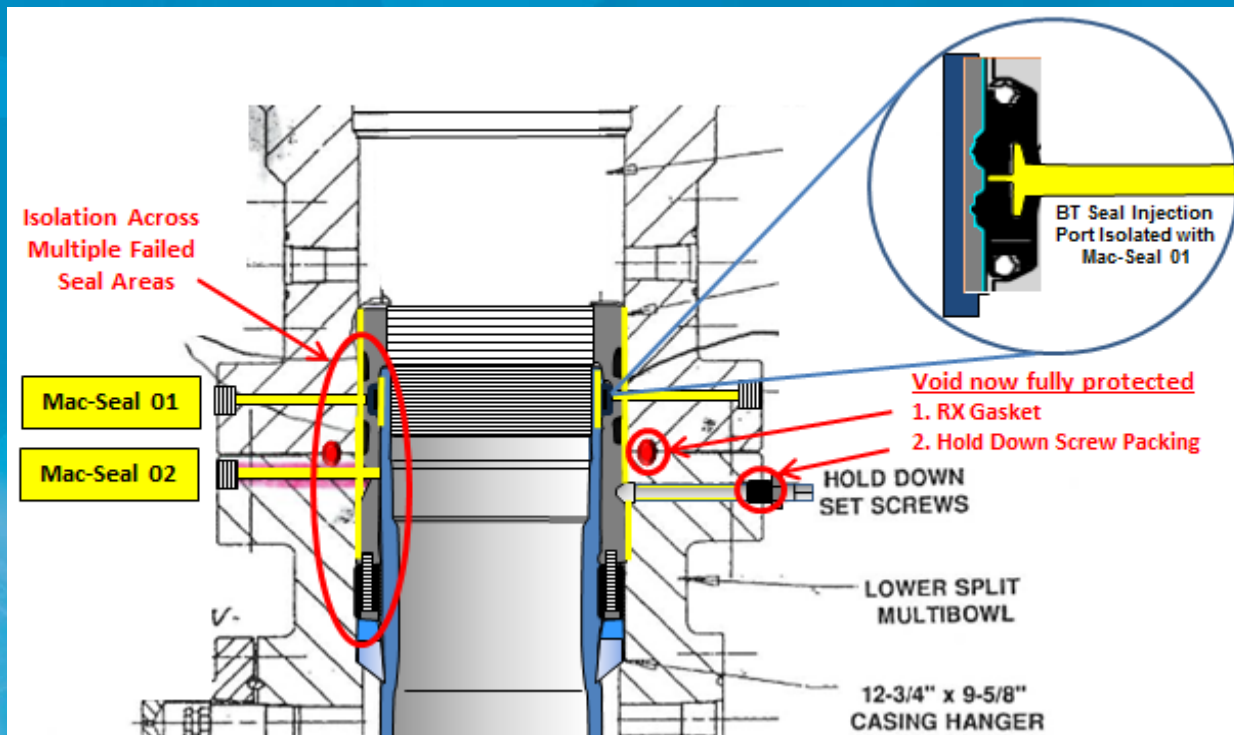


Background

- ❑ KCI were asked by a major Oil and Gas producer to provide an isolation on a Vetco Wellhead due to A to B Annulus communication. The well is a gas lift design and the A Annulus gas pressure was charging the B Annulus.
- ❑ Severe freezing was witnessed at the 9 5/8" Casing Spool when venting down the B-Annulus indicating that there was a significant gas leak path causing the external icing on the wellhead.
- ❑ The Well was Shut-In due to this major Well Integrity issue.



Casing Hanger Mandrel Isolation - Mac-Seal



Deployment Detail

- Test medium fluid was injected into the Casing Hanger assembly to confirm the leak path – leak verified.
- 1.8 Litres of Mac-Seal 02 was deployed into the 9-5/8" Casing Hanger Mandrel Void to establish the isolation.
- 0.5 Litres of Mac-Seal 01 (thinnest viscosity) was deployed to isolate the split or damaged BT Seal assembly.
- Once the Mac-Seal had cured the 9-5/8" Casing Hanger Mandrel Void was tested using A & B Annuli pressures.
- With full Gas Lift pressure on the A Annulus, the B Annulus was successfully vented off with no pressure build up or external freezing witnessed on the external body of the wellhead.
- The isolation was successful. The well was safely brought back online.