



Kinetics Controls & Innovation Ltd

Case History

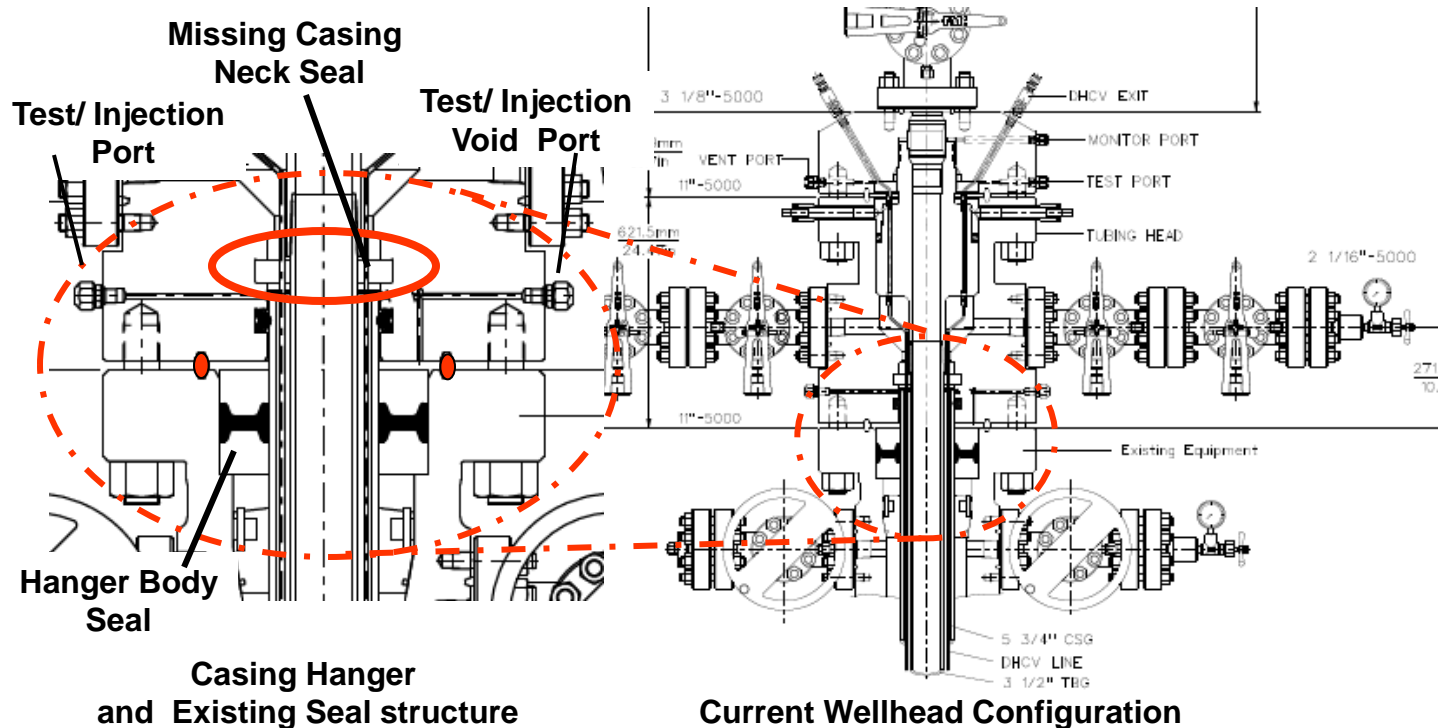
Russia (North West Siberia) Casing Hanger Annulus Isolation Gas well

History:

The job is a workover on an existing wellhead with primary seal similar to the one shown. The hanger body seal above the slip hanger is not holding pressure. The tubing head ports have been reworked. The upper neck seal has been removed.

Overview:

KCI to provide an evaluation / sealant deployment procedure in support of this application





Kinetics Controls & Innovation Ltd

Evaluation: Overview

Vent all annulus pressure.

Sting and vent / bleed all injection ports neck seal & void test / injection port.

Casing Hanger Pack-Off (void):

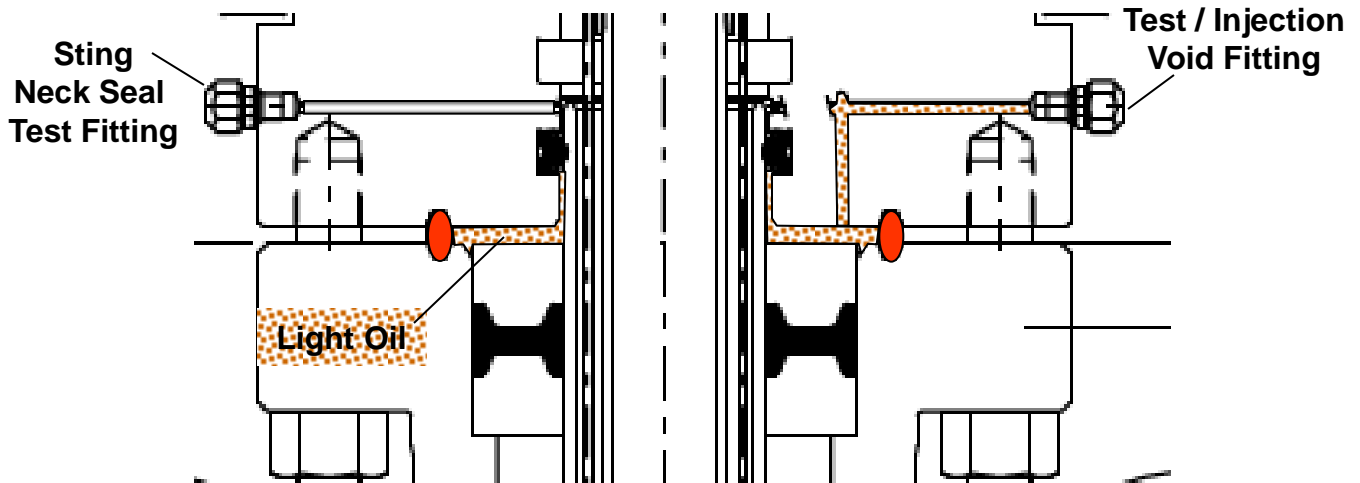
Sting and vent neck seal test / injection port

Inject light oil through injection / test port (void) and hold pressure if possible.

Monitor neck seal test/ injection port for any oil returns which may indicate a leak path through the lower casing neck seal.

Record evaluation activity.

Prepare sealant and deployment tooling.



Casing Hanger Seal Evaluation



Kinetics Controls & Innovation Ltd

Mac-Seal Sealant Deployment: Overview

Vent all annulus pressure.

Sting and vent bleed / injection port & void injection port.

Casing Hanger Pack-Off (void):

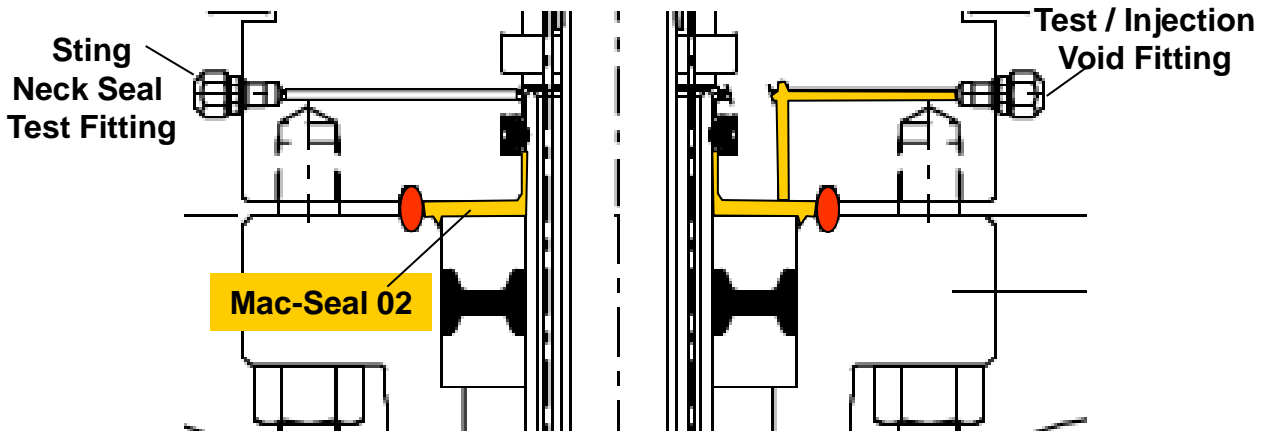
Sting and vent neck seal test / injection port. Only if oil returns had been present during the evaluation. Close neck seal test/ injection port when Mac-Seal 02 is present.

Inject 1.5Litres of Mac-Seal 02 through injection / test port (void) and hold pressure if possible.

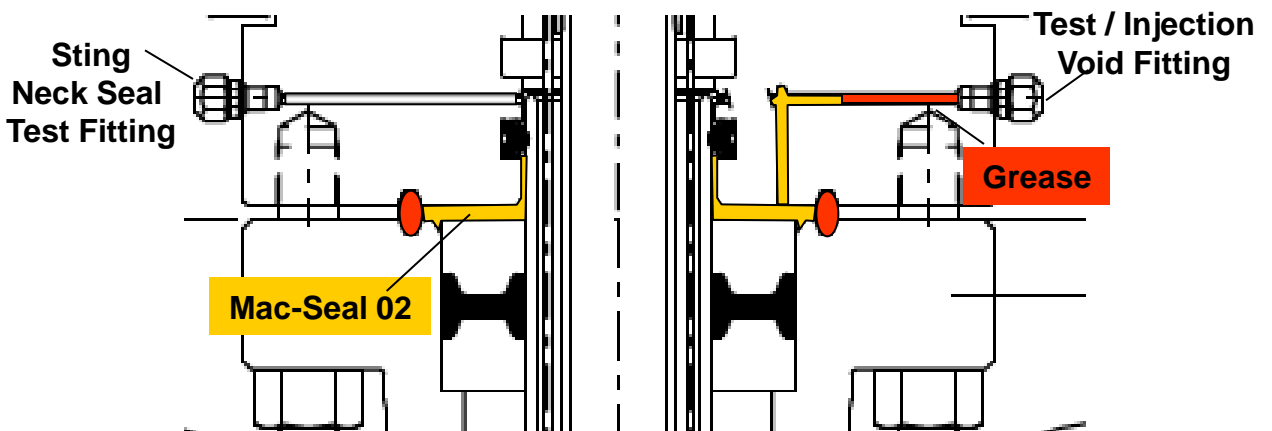
Note do not exceed test pressure. T.B.A.

Remove the deployment tool and inject a small amount of grease to flush the injection fitting

Testing: Inflow testing only or sting to vent. **Do not pressure test through injection ports**



Casing Hanger Mac-Seal 02 Deployment 1.5Litres



Casing Hanger Mac-Seal 02 Deployment 1.5Litres & Grease Injection