Case Study: Velocity String Solution in Holland

Challenge

A client in the Dutch North Sea required a solution that would allow them to hang off 3800m 3 ½" tubing as a velocity string inside the 7" production completion to prevent the well from liquid loading.

The client had experienced water accumulation at the bottom of the well, preventing reservoir fluids entering the wellbore, which was causing the need for costly workovers and some plugging.

Solution

Interwell developed a solution capable of handling the weight parameters, able to be set in the 7" casing and below the existing Subsurface Safety Valve (SSSV), and capable of installation by hydraulic workover without killing the well.

By redesigning an existing Large Bore Packer (LBP) with integrated latch in the fish neck, all the above parameters were achieved. The LBP was set in advance by slickline then the hydraulic workover was used to install the 3 $\frac{1}{2}$ " Velocity String Solution (VSS) under pressure and sting into the LBP.

With the VSS installed and the landing string retrieved, the original SSSV was reinstalled and the well brought back to production.

Value Created

By using the VSS, the client avoided installation of an additional hang-off device for the VSS below or on top of the Xmas tree (at surface), and there was no requirement for killing the well.

The client also benefited from cost savings for the new Safety Valve system, and a simplified operation and reduced operational time on the well.

Date:

August 2015

Region/Field:

Dutch North Sea

Key Capabilities:

- Heavy load capability.
- Retrievable with standard GS in single operation.
- Can be run on CT and Pipe.



