

# Qualification of gas lift valve

According to WR1622 “Technology qualification” in StatoilHydro

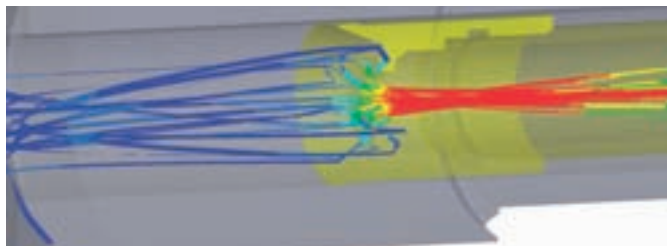
Petroleum Technology Company AS (PTC) and StatoilHydro has by a firm focus on plan, progress and project management in accordance with WR1622 completed the task of designing and develop a barrier qualified gas lift valve according to relevant requirements for down hole equipment within 10 months from project start. The PTC gas lift valve is now certificate as proven “New technology” in StatoilHydro.

In 2005 established providers of gas lift valves were invited to validate their solutions according to StatoilHydro requirements for gas lift valves. The StatoilHydro requirements was, among others, based on ISO 17078-2 “Flow control devices for side pocket mandrels” and ISO 14310 “Packers and bridge plugs”.

In January 2006 PTC, located in Stavanger, was inquired to undertake the task of design, manufacture, test and qualify a new type of gas lift valve to the requirements set by StatoilHydro. The new gas lift valve should also meet the requirements from the Statfjord Late Life (SFL) project.

The focus on the SFL project required an ambitious project plan and schedule in order to meet project needs and the plan was to deliver a barrier qualified gas lift valve during Q3 2006.

StatoilHydro and PTC introduced the project steering committee which was to be comprised of management- and technical resources from both organizations – both end-user and developing organization.



Qualification of Jørn Andre Carlsen”  
Simulation of the Safe Lift Valve

The steering committee quickly identified the need for a tool for controlling the progress and R&D process. The WR1622 Technology Qualification was chosen as a basis for the project.

The R&D, engineering and prototyping was given a high priority to follow the comments or notes identified during the project, this in order to remove any discrepancies between the development and the regulatory requirements.

A verification test and qualifying program was performed at International Research Institute of Stavanger AS (IRIS). In addition a full scale flow test at K-lab at Kårstø for simulation of 15 years operation lifetime was performed.

The expected outcome of this project is equipment that fulfills relevant requirements, with higher reliability and longer life time.

### Project main activities and progress:

- Project start up January 2006
- Design and development April 2006
- FMECA closed June 2006
- Manufacturing June/July 2006
- Validation testing complete October 2006
- Marked available December 2006 and Field installed February 2007



Safe Lift gas lift Valve



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Flow test at IRIS



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