



# eMotion®-LV Barrier Valve Saves 29 Hours Rig Time

## INTERVENTIONS ELIMINATED DURING PACKER-SETTING OPERATIONS – SAVING TIME AND REMOVING RISK

NORTH SEA, UK SECTOR

### CHALLENGE

An operator wanted to set a production packer without intervention or control lines to surface to:

- » Prevent reservoir damage when opening the barrier valve
- » Increase efficiency of the operation and reduce HSE challenges

### SOLUTION

The eMotion-LV remotely operated barrier valve allows the completion to be run to depth with the ball open.

- » Once installed, can be commanded to close and open on demand
- » Delayed open feature allows for preprogramming of the ball opening to help avoid pressure surges

### RESULT

- » Use of interventionless technique saved 29 hours rig time
- » Mitigated HSE risks while increasing efficiency of the operation

### OVERVIEW

A global operator in the UK North Sea had a well with completion design limitations and desired to set a production packer hydraulically, without the need for intervention. Halliburton proposed running the eMotion®-LV remotely operated barrier valve, which can be repeatedly opened or closed by computer-controlled remote command, to set the production packer. Use of the eMotion-LV barrier valve to set the packer saved 29 hours rig time over conventional techniques, increasing the efficiency of the operation and helping reduce the associated risks.

### CHALLENGE

An operator in the UK North Sea wanted to hydraulically set a production packer without intervention. The well conditions and completion design had a few limitations which created some challenges.

### SOLUTION

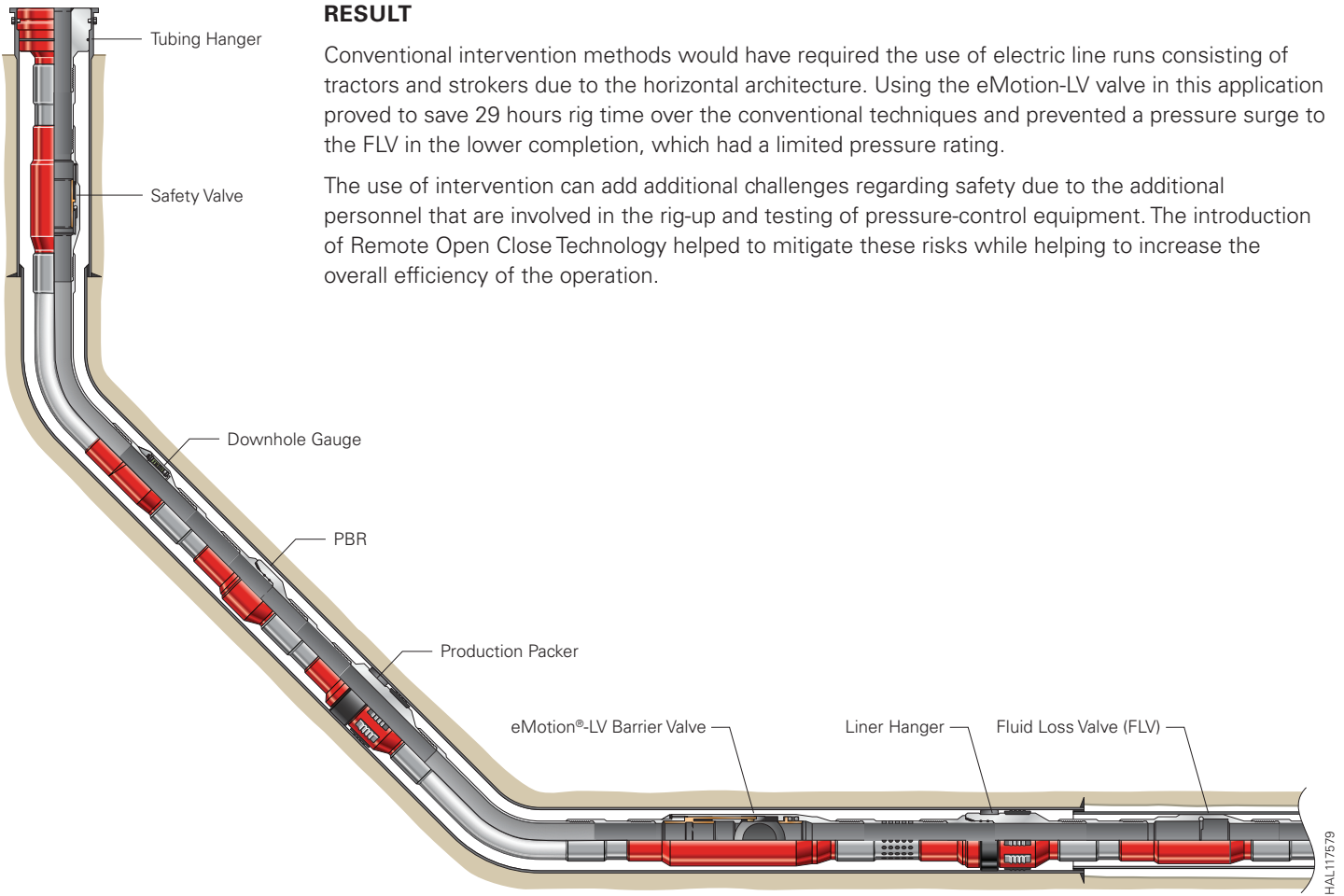
Halliburton recommended using the eMotion®-LV remotely operated barrier valve to set the production packer. The eMotion-LV valve is a computer-controlled, isolation barrier valve that can be repeatedly opened or closed by remote command. It is permanently deployed as part of the tubing where it is used as a full-bore, testable barrier during completion deployment operations.

The eMotion-LV isolation barrier valve was deployed below the production packer as part of the upper completion. It was run-in-hole in the open position (allowing the tubing to self fill) to a depth of 16,000 ft at a 90° deviation. Once at depth, the eMotion-LV valve was commanded to close by applying 750 psi for 15 minutes against the Fluid Loss Valve (FLV). The eMotion-LV valve was then used as a barrier to pressure up against for setting the production packer.

With the production packer successfully set and the tubing tested, the eMotion-LV valve was commanded to re-open by applying 2,250 psi for 15 minutes. This time, a short delay was pre-programmed into the valve, allowing the operator to bleed down the command pressure before it opened. This prevented a pressure surge that could potentially damage the reservoir and other completion equipment. The open eMotion-LV valve now provided full-bore access through the completion allowing the FLV to be sheared-out before handing the well over to production.



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**RESULT**

Conventional intervention methods would have required the use of electric line runs consisting of tractors and stokers due to the horizontal architecture. Using the eMotion-LV valve in this application proved to save 29 hours rig time over the conventional techniques and prevented a pressure surge to the FLV in the lower completion, which had a limited pressure rating.

The use of intervention can add additional challenges regarding safety due to the additional personnel that are involved in the rig-up and testing of pressure-control equipment. The introduction of Remote Open Close Technology helped to mitigate these risks while helping to increase the overall efficiency of the operation.

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