

# Inadvertent unlocking of tubing hanger with the BOP annular open and pressure below the tubing hanger

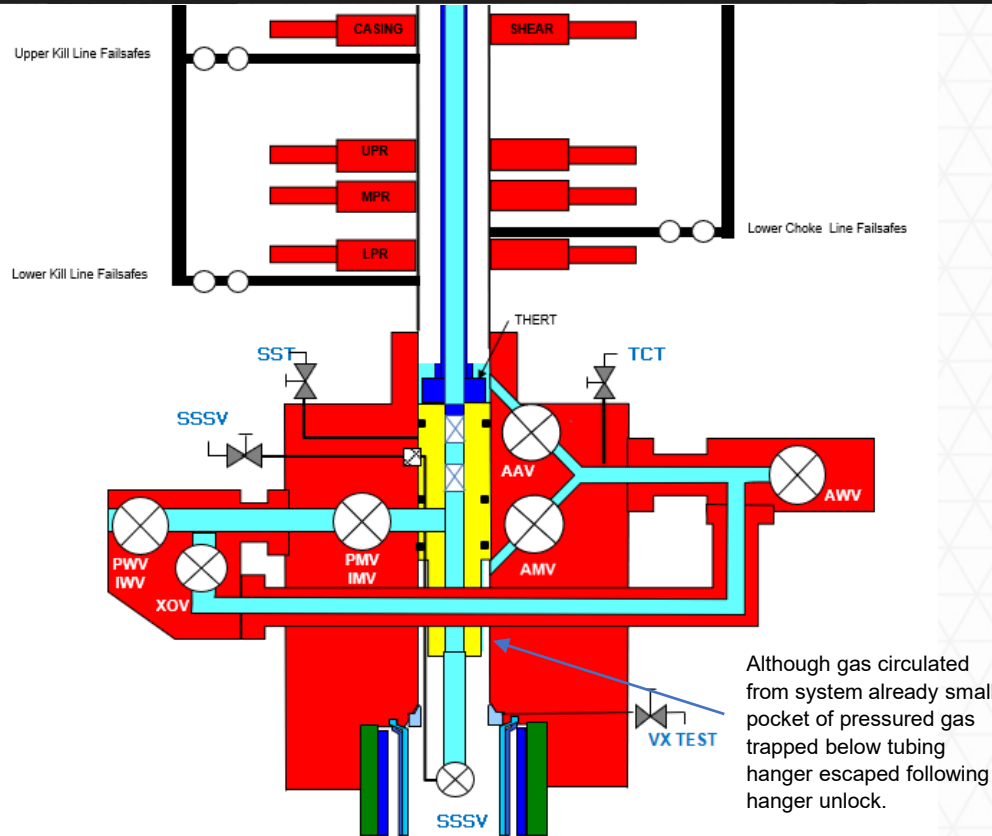
**SAFETY ALERT**

## Description of incident:

During the abandonment of a well, while performing operations to remove hydrocarbons and excess pressure from the annulus, the tubing hanger was inadvertently unlocked from the horizontal xmas tree.

Following the unlocking of the hanger, well pressure lifted the hanger and upper completion, releasing gas from beneath. The gas quickly expanded in the marine riser, partially evacuating the sea water from the riser and expelling gas to the atmosphere.

Multiple H/C gas detectors activated, which triggered general alarm & call to rig muster. All personnel were safe via red zone management and no hydrocarbons were released to sea.



## Key Learning:

Tool & equipment limits and functionality must be understood by relevant personnel prior to commencing operations.

Instructions and handover documents must clearly identify the risks and barriers for all operations.

All relevant well operations team members to be included in any management of change.

## Description of process:

The operation at the time was to run the THERT (Tubing Hanger Emergency Recovery Tool) on the landing string and then latch onto the tubing hanger. The THERT was latched onto the Tubing Hanger and confirmed latched with an overpull. It was then planned to unlock the tubing hanger from the Subsea Xmas Tree, with the annular closed. The well would then be bullheaded to displace hydrocarbons from the annulus into the reservoir and then displace the well to 10.3ppg kill weight brine.

It was shortly after the THERT had latched on to the Tubing Hanger that the pressure release occurred. At this point, although planned as the next operational step, the annular was not closed.

The unlocking of the tubing hanger occurred between the THERT confirmation overpull test and prior to closing the annular. At this time, due to heave several overpulls around 20klbs were experienced. Although below the required 80klbs overpull required to unlock the tubing hanger, this resulted in the tubing hanger releasing.