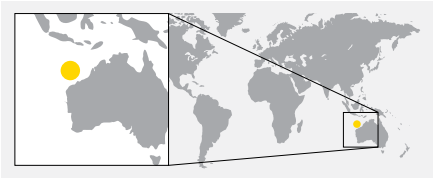
STORMLOCK® Ensures Well Integrity During Cyclone Suspension in Australia



Region: Australia
Customer: Woodside Energy
Field: WA-24-L
Well type: Gas

Case Benefits
- Upper Completion hang-off capability
- Q1, V0 gas tight confidence
- Rapid installation during cyclone suspension
- Drill pipe suspension requirement; operator policy
- Increase in cyclone response plan efficiency
- Increase in available deck space

Key Capabilities
- 300MT hang-off weight ability
- Rapid installation during cyclone
- Compatibility to rig
- Impeccable retrieval record
- 300MT Swivel for anti-rotation

Typical Applications
- Temporary Suspension
- Cyclone suspension
- Leak finding
- Pressure testing

Challenge
The 2017/18 'Cyclone Season' was one of the most challenging in recent history for offshore operators in Western Australia, with four cyclones in the 4 months from November to the end of February. This natural phenomenon can cause significant down time and interruptions to critical operations, potentially creating exposure to reservoir formation and an influx of hydrocarbons.

Additionally, the rig currently contracted to Woodside's well campaign has a strict policy outlining the need to remove all drill-pipes from the derrick during a cyclone or tropical low pressure system.

Solution
To counter for cyclones during the well campaign, Woodside Energy decided to mobilise the STORMLOCK suspension packer as contingency for ensuring well integrity during a tropical low pressure system.

Additionally, the capability of the STORMLOCK to be able to hang-off 300 metric tons of weight below while still ensuring a pressure tested gas tight seal was critical to the operational efficiency of suspending the well before an oncoming cyclone.

Result
STORMLOCK suspension packers were utilised by Woodside to temporarily suspend operations four times over the season, with each suspension demanding different requirements for operational integrity.

Over the four separate suspensions, up to 175k.lbs of drill-pipe was suspended below the STORMLOCK inside the well, saving critical operational time by removing the need to break down connections and lay out the pipe on the deck.

Additionally, suspension was required during running of upper completions with control lines. The STORMLOCK 300MT integral swivel enabled the 150k.lbs of upper completions to be suspended below the packer, without rotating and entagling the control lines already in place while setting the barrier.

Upon the passing of the cyclones, the STORMLOCK retrieval tools were run in hole and all STORMLOCK were successfully retrieved on first attempt. The suspended drill pipe was quickly racked back into the derrick, saving the need to pick up and make up pipe from the deck.

When retrieving the STORMLOCK with upper completions below, it was observed at surface that the completions had only moved ¼ of a turn. Upper completion operations were then continued and successfully completed.

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