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“PIONEERING SPIRIT” SHOWCASES UNIQUE SINGLE-LIFT CAPABILITIES

On 22 August, Swiss-based offshore contractor Allseas entered the North Sea decommissioning market in record-breaking style. Allseas' dynamically positioned single-lift installation/decommissioning and pipelay vessel *Pioneering Spirit* successfully removed the 13,500t Yme platform in a single lift, setting a new record for an offshore lift with the first commercial job for the vessel.

Located in the Yme field in the Norwegian sector of the North Sea, approximately 100km west of Stavanger, the Repsol-operated Yme mobile offshore production unit (MOPU) is a jack-up type platform standing on three, 3.5m diameter steel legs, inserted approximately 10m inside the subsea storage tank columns at 93m water depth. In 2013, the decision was made to remove the platform, and the contract for the removal of the topsides was subsequently awarded to Allseas. This ultimately became the first job for the 382m long and 124m wide heavy lift vessel, *Pioneering Spirit*.



Pioneering Spirit in the Yme field

Following the successful completion of offshore trials, *Pioneering Spirit* arrived in the Yme field on 17 August 2016. After receiving the necessary approvals from Repsol, the vessel moved backwards towards the platform for installation of the cutting tools in the platform legs, a process which took approximately 24 hours. With the tools in place, *Pioneering Spirit* turned, moved into the 500m zone and positioned herself around the platform. Five yokes, purpose-built to support the platform during the lift and mounted on the vessel's topsides lifting system, were moved into position and carefully connected to pre-determined strong points on the underdeck.

Cutting of the three platform legs – from within, using an oxy-fuel-flame technique – commenced on the morning of 22 August, and took several hours to complete. Once the operation was finalised, the platform was lifted from the platform legs in a 'fast lift'. Powerful hydraulic levers at the tip of each of the vessel's lifting beams work in unison to raise the load 2m clear of its severed support legs.

Although the lift was originally expected to take a matter of seconds, in reality it took approximately a minute to raise the platform deck to the necessary 2m clearance. This was due to the air pressure system that accelerates the upwards motion not being fully commissioned at the time of the Yme lift. Once the system is fully tested it will enable *Pioneering Spirit* to lift topsides in a matter of seconds. This will enable Allseas to perform lifts in poor weather conditions. The significant wave height was approx. 2m during the Yme lift, and at times slightly more.

Immediately after the fast lift, *Pioneering Spirit* moved out of the 500m zone, and the platform was sea fastened on board. A day later, reaching a top speed of 14.2 knots, *Pioneering Spirit* arrived at Norway's new Lutelandet dismantling yard, north of Bergen, for inshore transfer of its cargo. The platform was subsequently transferred to Allseas' purpose-built cargo barge *Iron Lady*, and loaded into the quayside for dismantling.

WHAT'S NEXT FOR PIONEERING SPIRIT?

Pioneering Spirit returned to Rotterdam early September, and preparations are now underway for her next job - removal of Shell's 24,200t Brent Delta topsides in the summer of 2017. For this job, she will be fitted with the final four of her 16 topsides lifting beams, and the lifting yokes used for the Yme lift will be replaced with new, purpose-built yokes designed for the Brent Delta platform. After Delta, *Pioneering Spirit* will install three platform topsides for Statoil's Johan Sverdrup project in Norwegian waters, in 2018 and 2019.

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