

PROJECT FILE

JUMBO OFFSHORE PROJECT KIKEH PILE INSTALLATION



1300 M WATER DEPTH
14 PILES - 140 TONS



THE KIKEH PILE INSTALLATION PROJECT

Early in 2008 Technip Malaysia awarded a contract to Jumbo Offshore for the combined transport, installation and piling of 14 mooring piles for the Kikeh Spar and Tender Assist Drill Rig vessel in the Kikeh field. The Kikeh field is located 65 miles Northwest of Labuan, offshore of Sabah (Borneo) in Eastern Malaysia in a water depth of some 1300 meters.

The 14 piles of various lengths and weights are used to moor the 16,400-ton Kikeh SPAR and Tender Assist Drill Rig vessel. The largest piles are 55 meters long, have a diameter of 2,13 meters and weigh 140 tons. Due to soft seabed soils at 5 pile locations, pile stabbing mudmats were required to ensure that the piles did not topple over during the installation process.

TRANSPORT, INSTALLATION AND PILING WITH ONE VESSEL

After mobilization in Singapore, where the “Jumbo Javelin” took onboard additional accommodation units, 2 work-class ROV’s, a deepwater winch and a Menck underwater hammer, the vessel transited to Port Klang, Malaysia, where the 14 mooring piles were loaded onto the pre-installed grillage. Within 30 hours the 1500 tons of mooring piles were loaded, seafastened and the Jumbo Javelin was ready to depart to the field to begin installation operations.

THE JOB

The installation was performed in 3 phases:

1. Mud mat installation

With the mud mat barge moored on the starboard side of the Jumbo Javelin, each of the 5 mud mats was lifted from the barge by the forward crane,

moved over the deck and then lowered into the water on the port side. At 100 meters water depth, the mud mats were transferred to the deep water winch and lowered to 1300 meters water depth.

2. Pile Installation

Using its two cranes, the Jumbo Javelin lifted the piles from the deck and overboarded and upended them to a vertical position for lowering to a transfer depth of 100 meters. At this water depth the piles were transferred to the deep water winch and subsequently lowered to the final installation depth of 1300 meters where it was stabbed into the pre-installed mud-mat / seabed.

3. Pile Hammering

Once the piles were stabbed into the seabed the 145 tons underwater pile hammer was lowered to depth and the piling operations commenced. The vessel moved on DP between the pile locations with the hammer remaining subsea until all 14 piles had been driven to depth.

CLOSE

The successful completion of this project showed that the Jumbo Javelin is an excellent working platform for deepwater offshore installation works. The ability to load and transport large volumes of project cargo to site makes the Jumbo Javelin a versatile installation vessel for the installation of mooring spreads and large and heavy subsea structures.

With the Jumbo Javelin’s DP2 sister ship the Fairplayer now also in operation, Jumbo Offshore is well placed to provide a unique service to the offshore oil and gas installation market.