

APACHE ENERGY LTD VICTORIA FIELD DEVELOPMENT

Jacket and Topsides Installation, Western Australia

ICON Engineering was commissioned by Apache Energy Limited to install the Victoria jacket and topsides. The field is located close to Varanus Island off the northwest of Australia. The water depth is 6 metres at low tide.

Apache drilled the exploration wells using ICON designed "minnowpod" conductors which are able to free stand in the extreme environmental conditions found at this location. These conductors are designed to support a minimal topsides and act as single well platform, allowing very low cost development of marginal reserves.

In this location, additional exploration targets were drilled resulting in 3 successful wells. The wells were immediately completed and left for future development.

The final development proposal for the fields accessed from this location required up to 3 additional wells. It was therefore decided to install a tripod jacket between the existing conductors, utilising the new wells as the piles for the jacket. The topsides was then installed onto the jacket.



Jacket Lift. Existing completed wells in foreground

The jacket was fabricated in Perth and road transported to Dampier in the northwest for loadout.

The jacket was transported offshore vertically and lifted using the jackup rig Ensco 56. It was then lowered between the 3 existing completed well conductors and hung off. Three new drilled and grouted conductors were then installed as the piles for the jacket. The topsides was also transported by road to Dampier and installed using the Ensco 56 after additional wells were drilled. A feature of the installation was the use of diverter sheaves under the drill floor to allow the topsides to be picked up beyond the jacket. This effectively gave the rig an additional 4 metres of reach with the cantilever.



Preparing to lift the topsides



Completed platform

Platform Data

Waterdepth Jacket Lift Weight Topsides Weight Well Slots Legs Piles 6 m Lat 80 t 85 t 6 (incl.3 existing wells) 3 vertical 3 x 762 mm diam. vertical