

**SERICA ENERGY**  
**KAMBUNA FIELD DEVELOPMENT**  
Minimal Wellhead Structure, North Sumatra

ICON Engineering was contracted by Serica Energy (Asia Petroleum Development (Glagah Kambuna Ltd.) to provide conceptual engineering, front end engineering design, multi-discipline detailed design, installation engineering and site management of the installation for the Kambuna wellhead platform. The platform is located in 36m of water offshore North Sumatra, Indonesia. Installation took place in February 2008.

The 3 vertical leg braced jacket was designed for rig installation. This jacket was designed to be installed over the top of an existing drilled and suspended well, which was then re-completed and tied back to the topsides. The jacket acts as a drilling template with 30" conductors driven and grouted into the three (3) 36" legs and doubling as structural piles. In this case the jacket accommodated up to 4 wells, but similar tripod designs readily accommodate up to 6 wells.

The jacket was transported with the lower half suspended out over the end of the transport barge. Once at location, the jacket was upended with the aid of a tailing winch to the vertical position.

(3) 30" conductors were then driven and grouted into the jacket legs.



Jacket ready for lowering to seabed

The 150 tonne topsides were not available in time for a rig installation due to a long lead time, and were installed separately.



Completed well head platform following separate installation of the topsides



Jacket hung off the aft end of barge and being upended at site

Once vertical, stabilizing rigging and lift rigging were attached and the TTS lifted clear of the barge using the Transocean GSF 136 jack-up drilling rig.

Once on the seabed, the lift rigging was removed and the jacket was held in position by the stabilisation rigging. Three

**Platform Data**

Water Depth	36 m
Jacket Weight	175 t
Topsides Weight	150 t
Well Slots	4
Legs	3 no. vertical 36"
Conductor Piles	3 no. 30" x 1"