

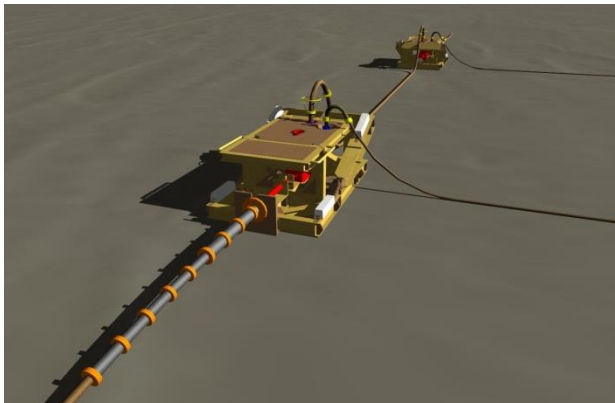
WOODSIDE AUSTRALIA PLUTO LNG FIELD

4" MEG Line Repair PLET, North West Shelf – Western Australia

ICON Engineering was engaged by Woodside Energy Ltd, to design, procure, fabricate and test a pair of Emergency Repair PLETs [Pipe Line End Terminations] for use on the Pluto LNG development.

PLET Design

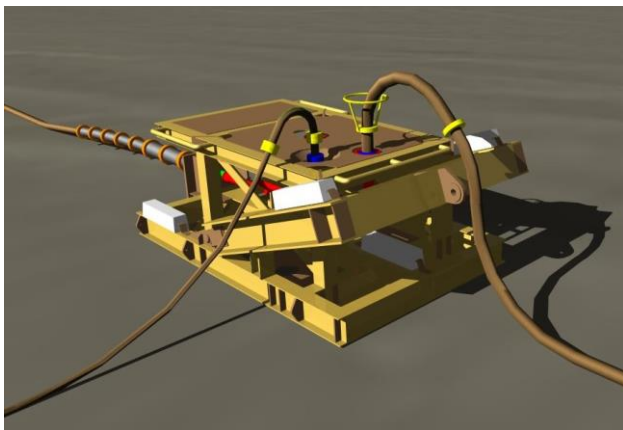
The functional specifications dictated that a pair of PLETs be designed, fabricated, tested and preserved so that they could be ready for rapid deployment. These PLETs are part of the Operator's emergency response inventory. They can be rapidly deployed in the event of any ruptures to the extensive network of subsea MEG distribution pipelines in the Pluto Development.



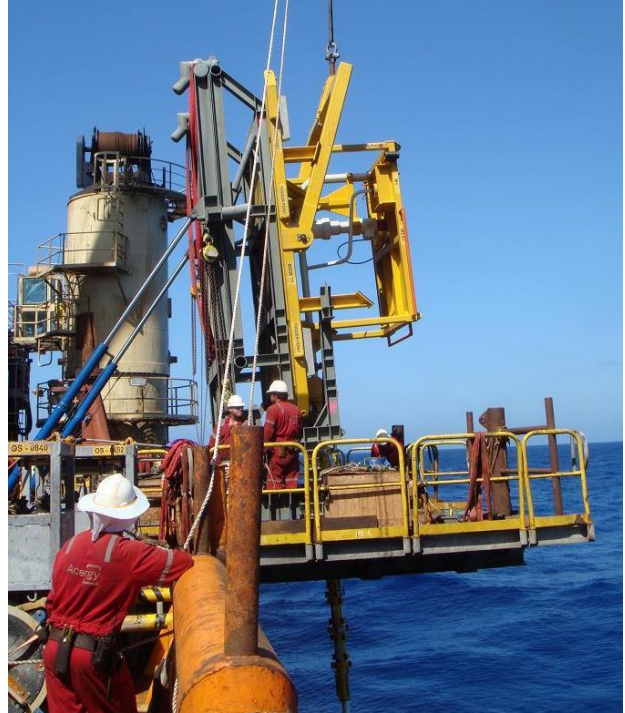
Emergency Repair PLET Concept

Pressure rated to ANSI 2500#, each PLET houses a short section of 4" MEG line which includes;

- a long radius bend to a 4" Asker Stab bucket suitable for mating with a pig launching facility
- an ROV operable subsea isolation valve
- a 2" bypass line complete with KC 4-3 hub connector.



Isometric View of PLET



Typical PLET during Deployment

In the event of a ruptured MEG line, the pipeline ends can each be retrieved to surface, a new connector hub welded into place, the PLET attached and the line redeployed. Once each section of line is fitted with its PLET, the two PLETs can be cross connected via ROV deployed jumper lines.

Key System criteria;

PLET Weight in Air	6 Tonnes
Operating Depth	830 m below sea level
Yoke Load Capacity	45 Tonnes



Completed PLET in Preparation for Storage