DECOMMISSIONING - FEASIBILITY STUDY AND CONCEPT DEFINITION SHALLOW WATER WELLHEAD PLATFORM

Offshore Australasia

In 2021, ICON Engineering was engaged by a major energy company to conduct a Feasibility Study for the decommissioning and site restoration of a shallow water platform.

The field is located offshore Australasia, in a water depth of approximately twenty-five (25) metres.

The scope of work included consideration of all feasible options that could be adopted for the decommissioning/ removal of the offshore structure.

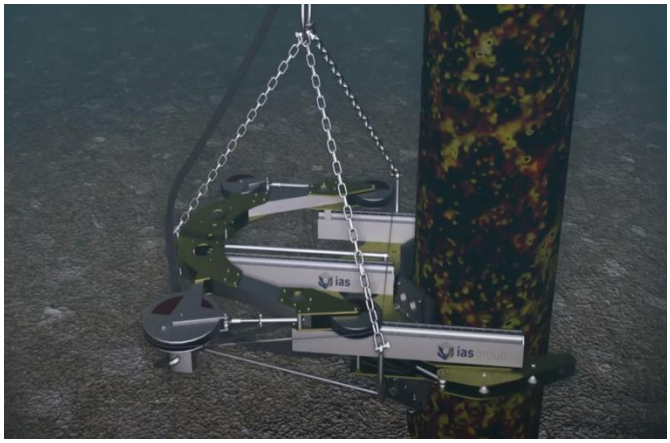
From this feasibility study a preferred option was selected. Thereafter, ICON developed a detailed methodology and cost estimate for this preferred option.

The preferred scheme was based around use of a jack-up drilling rig as the main offshore equipment spread. This saved on duplicated expenses of a heavy lift barge or other floating construction assets. Other key elements of the offshore spread included:

- Diamond cutting equipment;
- ROV (located on rig);
- Support and transport vessels; and
- Purpose-built lifting and rigging spread.

The removal method was very similar to the original installation sequence, however in reverse order to that executed by ICON when originally installing the platform.

Existing Wellhead platform



Diamond Saw Pile Cutting Equipment

Safety and Cost Advantages

Key benefits of the preferred method are:

- Minimal time spent on rig critical path;
- Simplicity and efficient method that uses a fixed leg platform – no dynamics/heave issues;
- Small incremental operational cost;
- Majority of work can be completed offline (off rig critical path);
- Utilises assets already available within the field: Jack-up Rig comes with an onboard ROV, AHT, PSV. No requirement to mobilize a separate construction vessel;
- Field tested and cost-efficient equipment such as winches, rigging, ICON equipment and ROV tooling with limited additional equipment required; and
- Lower HSE risk as the process does not require divers.

The outputs from ICON's work are being used by the client as the basis for the planned decommissioning in the coming period.

Key Data

Water Depth:	25m
Topsides Weight:	100mT
Jacket Weight:	60mT

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