

WELL TEST SYSTEM UPGRADE

VALARIS MS-1

High Pressure Well Test System Upgrade, Timor Sea

Icon Engineering debottlenecked the procedures and well test systems on an LNG Operator's contracted drilling rig in the Timor Sea. Upgrades were completed safely and without delay to the rig's operations program.

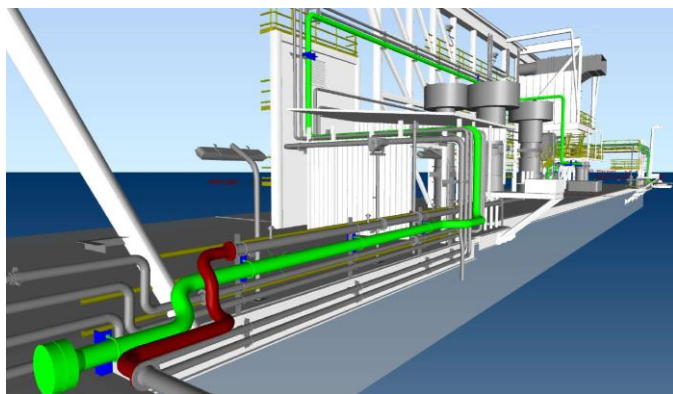
The Operator required modifications to the Well Test System on the Valaris MS-1 in preparation for a gas field drilling and completions campaign in the Timor Sea.



Semi-submersible contracted for drilling and completions campaign.

EPIC by ICON Engineering

Among a large range of structural and mechanical upgrades to the rig, ICON Engineering's scope included engineering, procurement and construction management of upgrades to the high pressure well test system to enable the 22" riser and subsea trees to be run and tested from the drill rig.



Integrated 3D design based on point cloud rig scan.

The detailed design of modifications to the high pressure Well Test System required ICON Engineering to revise the Operator's Piping Specifications and provide a layout in collaboration with rig operations personnel. ICON's QA/QC systems provided all assurance checks to deliver to ASME B31.3, AWS D1.1 plus client requirements and specifications.



Use of task appropriate access solutions.

The work included piping stress analysis and a 3D point cloud survey to confirm a robust, clash-free design which allowed large spools to be prefabricated and installed quickly. PDMS software provided efficient auto generated fabrication drawings from the 3D design model.



ICON Engineering provided:

- Project management;
- Engineering design;
- Fabrication, equipment, hire and logistics;
- Offshore construction labour and supervision;
- Hot Stack installation of the well test system upgrade;
- Pressure testing, mechanical completion and handover; and
- Demolition of the original well test system.

