Expro Excellence

Expro's bespoke open water bore selector solution

Subsea Well Access

Objectives and background

- Expro's client required an Open Water Bore Selector (OWBS) as part of their offshore field decommissioning campaign offshore Brazil
- OWBS technology was required to gain mechanical access to both the production and the annulus bores of a dual bore (vertical) Christmas Trees without using a dual bore riser
- They had an additional requirement for a fluid isolation barrier between the production and the annulus bores to allow circulation
- The customer had a requirement to interface to project specific dual bore flanges on both top and bottom of the OWBS so that system would interface with their existing dual bore Lower Riser Package (LRP) and Tree Running Tool (TRT)
- A fluid bypass loop was also required from the dual bore LRP interface to below the fluid isolation barrier to allow annulus fluid access (in addition to mechanical)
- No hydraulic controls were available via the umbilical from surface therefore the primary method of functioning was via ROV controls

Expro Excellence

- Expro designed a bespoke OWBS solution based on the Expro field proven bore selector and ball valve technology to create a new solution to meet our clients specific requirements
- The design allows passage of intervention tool strings through the annulus and production bores via a robust gate selector mechanism
- Fluid isolation of annulus bore from the production bore was provided via an annulus isolation ball valve and bypass loop to permit fluid circulation and flushing of the annulus bore contents to the surface
- Designed such that there is simultaneous control of the annulus ball valve with the selector gate mechanism meaning only two control lines required to control complete OWBS assembly
- Controls were provided by ROV hotstab control via the integrated ROV interface panel
- Delivered on time within an accelerated nine-month delivery window and ahead of offshore operations despite facing significant supply chain and logistics challenges because of COVID-19 pandemic
- Designed, built, and tested to the latest industry standards (API 17G: 2019, API 17H Class A, NACE MR0175: 2015 including full submersion gas testing to API 6A PSL 3G)

Value to the client

- Eliminated the requirement to deploy a dual bore riser, saving time considerable rig time during deployment whilst also reducing rental and maintenance cost of a dual bore riser
- Ability to circulate and flush the annulus bore contents in a simple and cost-effective method
- ROV control removed the requirement for sourcing additional controls, providing savings on rental and rig space
- Expro were able to provide full support locally in Brazil with maintenance and offshore operation (i.e., personnel, spares, consumables, others) of the OWBS through-out the multi-year service contract

Cost effective

Reduction of rig time

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