Midlife enhancement, without the crisis

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Pipeline isolation allows for safe installation of accommodation and control modules on Yolla platform.

The age of six might seem a little premature for a Mid-Life Enhancement (MLE). But when the MLE is aimed at increasing the functionality of a natural gas platform – and adding years to the production life of the field where the platform is located – the timing couldn't be better.

Improved performance and longer life were the twin goals when Origin Energy, who operates the BassGas joint venture in the Yolla Gas Field, embarked on an MLE project at its then six-year-old Yolla-A offshore platform. The BassGas Project, which includes 150 km of undersea platform-to-processing facility pipelines, is designed to produce approximately 24 petajoules (PJ) of commercialised gas per year from multiple wells, along with 1 MMB of condensate and 75,000 t of LP gas.

It's no secret that natural gas is increasingly powering Australia: demand and production have both surged over the past decade. As one of Australia's leading integrated energy companies, Origin is working to meet the requirements of natural gas customers across southeast Australia.

However, the company isn't focused solely on current consumption: Origin sees BassGas furnishing 10 per cent of the region's natural gas supply over the next 15 years. Upgrading the Yolla-A platform to handle additional production from existing and future wells coincided with Origin's commitment to meeting its customers' growing needs.

Solving weighty matters

In addition to the installation of export, pumping and compression equipment, Origin's MLE added living quarters to the previously unmanned platform to allow repair and maintenance personnel to stay onboard rather than commuting by helicopter to and from shore. The team also upgraded the platform's safety equipment, a project that included replacing the emergency shutdown valve (ESDV).

To allow for the safe exchange of the ESDV and to protect the platform and people if objects fell during the installation of the 600 t accommodation module, Origin needed to isolate a section of 355.6 mm export pipeline located beneath the work area. They chose global pipeline services provider T.D. Williamson's (TDW) 14-inch SmartPlug® isolation tool for the job.

TDW Australia Country Manager Tony Hawkins says the scope of the work was two-fold: the SmartPlug tool was initially used during the replacement of the ESDV, then it remained in place to provide long-term isolation throughout heavy lifting operations.

"TDW used the SmartPlug tool to isolate the pipeline while the ESDV was removed and a blind flange, including a pressure gauge and bleed port, was installed," Mr Hawkins explains.

"The SmartPlug tool was then launched through the topside launcher, down the riser, and approximately 300 m into the line. Once the tool was set, the platform was successfully isolated and the accommodation module and ESDV could be put in place."

Because adverse weather conditions delayed the MLE project, the isolation period was extended from six to ten months. The SmartPlug tool continued to successfully isolate the pipeline for 299 days.

"The isolation not only allowed Origin to safely install its accommodation module and control equipment, it paved the way for further critical work on the Yolla MLE project," Mr Hawkins said.

And, as importantly, it will pave the way to extend BasGass production well beyond midlife. P

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>
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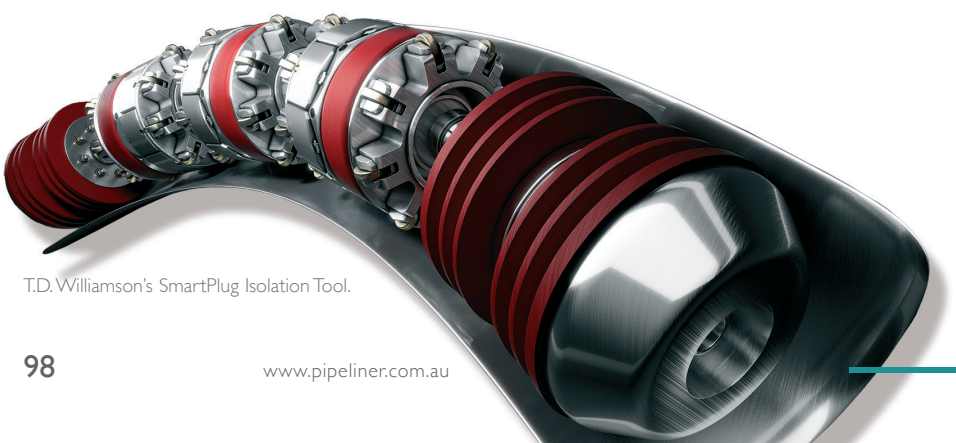
For more information on T. D. Williamson's SmartPlug isolation technology, visit www.tdwilliamson.com



T.D. Williamson's SmartPlug Isolation Tool.