

## Woodside Otway Gas Project

The Otway Gas Plant was owned and operated by Woodside Energy Limited (WEL) and represented a A\$1.1bn investment producing 150TJ/day of natural gas and 500bl/day of stabilised condensate from the offshore Thylacine production platform. LNG and LPG is also produced, stored and loaded from the site.

Although originally planned to start production in early 2007 numerous delays and problems delayed the handover to Operations until late in 2007.

The handover was initially accomplished with many outstanding issues and problems still to be resolved.

In early 2008 K2 was requested to provide Engineering and Operations assistance to complete the plant commissioning and start up. In response to this request K2 provided a small team consisting of rotating machinery specialist and Instrument and Control specialist to complement the integrated completions team.

### Services

The services provided for Rotating Machinery included the management of vendor attendance through pre-commissioning, testing and start-up of the following equipment:

- Flash Gas reciprocating compressors
- Gas turbine driven export compressors
- Turbo expander package
- Vapour recovery package
- Waste Heat Recovery Units
- Cryogenic pumps

The services provided for Instrument and Control systems included the following:

- Improve package and plant stability by tuning of existing control systems loops to deliver stable 'automatic' control.
- Load the DCS with base tuning constants prior to commission and start-up of packages and units.
- Provide ongoing loop 'tuning' to provide stable automatic control of units and plant
- Liaise with instrument commissioning teams to identify faults and loop control issues.
- Complete commissioning test procedures to obtain end users acceptance for two Flash Gas control systems, HP and LP production and emergency flare systems, vapour recovery package and cryogenic (LNG and LPG) units

### Support

- Provide a constant and seamless flow of information between Commissioning and Operations teams
- Supply (initial) constant support to Control room operations during commissioning and start up procedures.
- Suggest and implement improvements to HMI package
- Work closely with DCS vendor (Honeywell)
- Work with Solar Turbines Vendor representative to optimise export compressor performance
- Manage Inlec and mechanical teams during pre-commissioning testing to enable quick, safe first time line-up for package starts.
- Problem solve by generating Technical Queries and proposed solutions for support office approval.

In January 2008 only 15% of commissioned control loops were capable of stable Auto control – by April 2008 this had risen to 97%. Between January and April 2008 all outstanding packages were successfully commissioned, and handed over to Operations. K2 continued to supply ongoing technical and engineering support to the Otway project until the sale of the project in 2010.