



## CLIENT

Bechtel Oil and Gas

## LOCATIONS

Queensland, Australia

## CORE CAPABILITIES

- Multi-disciplined engineering – instrumentation, electrical, process, mechanical and automation engineering
- Metering, control and online measurement systems
- Integrated solution which supported numerous products from numerous manufacturers
- Project and Construction management
- Factory Acceptance Testing
- Site Acceptance Testing and Commissioning
- On-going support and maintenance

## PROJECT SUMMARY

Australia Pacific LNG (APLNG) is the leading producer of Coal Seam Gas (CSG) in Australia and holds the country's largest CSG reserves. Synertec was Bechtel's supplier for the Analyser Systems for the LNG Facility.

## THE CHALLENGE

The project required fully-automated on-line analyser systems, as they provide critical in-process control, quality control and quality billing. Bechtel need a multi-disciplined partner to provide a bespoke system to support the Project's 4 trains, the first two of which had a processing capacity of up to 9 million tonnes per annum.

## SYNERTEC'S SOLUTION

Synertec's solution involved the design, engineering, project management, construction and testing of the following items:

- 6 fully airconditioned analyser houses with a Fire & Gas system designed for installation in Zone 2 Hazardous Area. The analyser houses contained a total of 28 gas chromatographs, 2 analysers, 5 flow computers and one LNG sampler
- 4 Quartz Crystal Microbalance (QCM) analysers to measure low PPM levels of moisture. Each analyser was housed in a three sided shelter including electrical equipment to suit zone 2 hazardous area;
- 13 Tunable Diode Lasers (TDL); to measure PPM levels of moisture and CO<sub>2</sub>;
- 4 water quality analysers to measure pH, chlorine, conductivity, turbidity and oil in water;
- Samples probes including fixed, manual and automatic insertion and LNG probes.

The project met all Australian standards for installation in hazardous Area Zone 2 and cyclone area.