

# Oil and Gas Powerprofile

**Customer:** Technip

**Location:** SD Alpha Platform, BP Shah Deniz Project,  
Caspian Sea

**Customer requirement:** Well control contingency  
generator

**Equipment:** Caterpillar 3512B TA Engine @ 1500 RPM,  
1500 Kva

**Services:** Specification, design, and engineering to ATEX  
requirements, delivery, testing, and setup.



## POWER NEED

Technip is a service provider in the petroleum and petrochemical industry. It manages major projects for oil and gas companies by offering engineering and construction services, as well as implementing its own proprietary offshore equipment.

BP awarded Technip the contract for engineering and procurement on the SD Alpha Platform in the Shah Deniz gas and condensate field off the coast of Azerbaijan, approximately 70km southeast of Baku at a water depth of 50m in the northwest to 600m in the southeast. The Shah Deniz field has an approximate contract area of 860km<sup>2</sup>. BP estimates recoverable field reserves to be 22.1 trillion cubic feet of gas and 750 million barrels of condensate. There is also further potential at deeper horizons. 2005 production was estimated at 7 billion cubic meters of gas.

To comply with safety regulations, BP needed equipment to kill well production in the instance of a power disruption. Technip approached Finning Cat for a "well control contingency generator," which supplies prime power to the platform on an emergency basis if such a stoppage occurs.

## SOLUTIONS

The challenge for Finning was to design, build, and test a customised power package solution before shipment and installation in just 28 weeks.

This solution needed to meet ATEX requirements for operating in a Zone II, T3 hazardous environment.

During installation, Finning enclosed the electronic engine in a pressurised container and transported it from a safe area. Other special considerations for the generator included the need to cool the exhaust gas to below 200°C before it was expelled from the unit.



## RESULTS

The solution has been fully operational since delivery in December 2005 and provides 1500Kva of power.

The installation proved highly successful and Technip has since used this project as an example of best practice on how to deliver a solution punctually on a tight deadline.

Technip chose Finning for the project primarily because of the company's project-led experience in designing equipment to meet the petroleum industry's needs. The popularity and success of Caterpillar power solutions in the Caspian region supports this.

Says Dave Perry, manager of oil and gas industry solutions for Finning:

"This project underlines our ability to fulfil the needs of the petroleum industry. We worked closely with Technip and BP to ensure that this package met their specific project requirements."

*Finning is the sole supplier of Caterpillar in the UK, backing product sales with a high level of service through their 25 branches and 1500 engineers. As UK market leaders in Electrical Power Generation, Finning offers the full range of Caterpillar diesel and gaseous fuelled generator sets. In addition, they supply the Olympian range of 'ready to install' generators.*