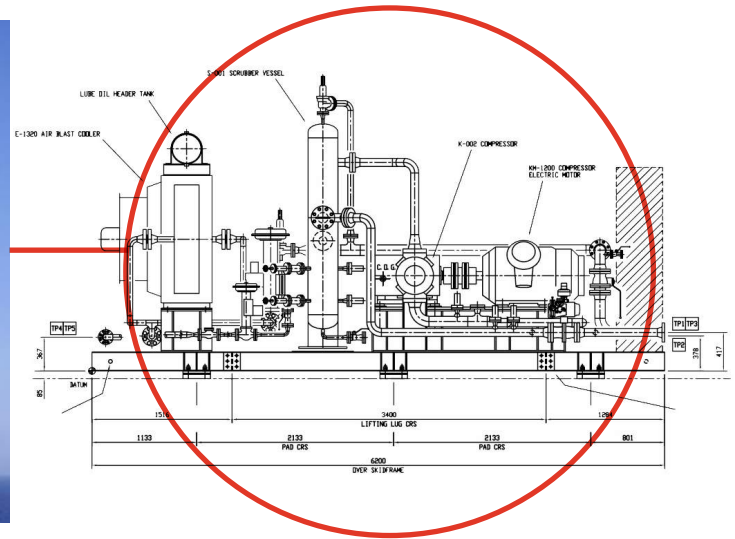


# C153 | Apache | Forties Charlie Project

## Gas Compressor Skid



Project:	Forties Charlie	Contractor:	Caledonian Petroleum	End User:	Apache
Product:	Gas Compressor Skid	Location:	UK, Offshore	Year:	2005

### Application

This contract was placed by Caledonian Petroleum Services for a Gas Lift compressor package for Apache's Forties Charlie asset in the UK North Sea. The skid was fabricated at OGS manufacturing facility in Gorseinon, South Wales.

### Description

The function of the plant was to supply natural gas at the required conditions (Medium Gas Lift) to well 3-1 in order to increase oil production. The plant was designed in a skid module form utilising standard equipment wherever possible to minimise maintenance costs.

The scope of supply included:

- Medium Gas Lift Compressor Skid complete with hazardous area (EEx d) PLC control panel and a separate (EEx d) power distribution/motor starter panel.
- Remote desktop HMI located in a safe area connected via an Ethernet link.

### Challenges

Apache owned an ex-rental Ariel Compressor which had been packaged in the USA. OGS scope was to dismantle all original equipment, inspect and refurbish the Ariel compressor, undertake complete detailed design to meet the required process and mechanical conditions and supply and install new motors, air blast cooler, pumps, vessels, pipework, valves and instruments fully in accordance with ATEX and PED requirements.

This included the necessary modifications to the original compressor to meet the requirements of ATEX and provide the Certificate of Conformity and CE mark both for the compressor and the complete assembly.

Some of the challenges OGS faced and overcame during the execution of the project included:

- The compressor was required to be delivered to the client in 16 weeks, (compared to a more typical schedule of 46 weeks).
- Project included inspection of the existing ex-rental package in the USA to identify what extent of equipment would be acceptable for use in the UK offshore sector.
- Inspection revealed that with the exception of the skid base and basic compressor nothing would meet the UK requirements.
- All items were scrapped, redesigned and replaced with PED/ATEX certified equipment within the 16 week window.
- The compressor itself was upgraded and recertified to ATEX.
- Functional testing was carried out in the OGS workshop including the Hazardous Area control panel and Safe Area HMI controller.

