



FUN TIME: At the close of project function (left to right) Martin Daniels (Kvaerner Oil & Gas), Mike Morley (ABB), Chris Harrison and Alan Moulton, SNS, with line dancing tutors.

Smooth start-up for Cleeton compression

Ernie Wight

START-UP of the Cleeton compression platform in the Southern North Sea was successfully completed on November 17 – ahead of the operational date and 15 per cent below budget at £35 million. When originally conceived in 1988, the estimated cost was in excess of £100 million.

The 2,000-tonne facility, bridge-linked to the existing Cleeton platform, will enhance recovery from the Cleeton and Ravenspurn South reservoir and provide opportunities for future business in the area.

Sanctioned in October 1994, the project was devel-

oped by an alliance of BP, Trafalgar John Brown, Barmac, Seaway and Dresser-Rand.

It was the first alliance to include a major equipment supplier (Dresser-Rand) and the first to extend the gain-share agreement into two years of operations.

These two factors had a significant influence on the outcome, says project manager Chris Harrison.

"This may have been a small project compared to some but in alliancing terms, the approach we adopted made it very important," he added.

The project had been completed to a high technical standard with an excellent safety and environmental record.

The jacket and topsides were built by Barmac and installed in June this year. Before leaving the Nigg yard, the compression package was tested and proved, giving the engineers and technicians useful expertise in the lead up to a smooth start-up.

"Tie-in of the facilities was particularly challenging, operating in a 'brown field' environment," he added. "However, relationships between the project and operations teams were exceptional and a major factor in the project success."

A close of project function had a Country and Western theme, with a charity casino, line dancing and traditional chuck wagon fare of beans, ribs and sausage.

Testing the feasibility of 4D seismic

Mike Martin

A PROJECT at Foinaven could help answer the question as to whether 'four dimensional seismic' offers a way of continuously monitoring reservoirs. The prize – increased oil recovery – could be significant.

Sunbury-based Sue Raikes, technology leader, well and reservoir seismic, is looking into the question of whether time-lapse reservoir monitoring – often referred to as 4D seismic – offers advantages over traditional methods.

In some reservoirs, where the seismic response is sensitive to changes in fluid or pressure, seismic data acquired at different times during field life can be used to image changes in the reservoir.

Thanks to improvements in 3D seismic data quality and reductions in survey, processing and interpretation costs, 4D seismic may be an effective tool for mapping the effects of production.

Dimension

Says Raikes: "It could add an extra dimension to reservoir management in modern developments where there are few wells, and help optimise the location of infill wells or identify unswept pools of hydrocarbons in mature fields."

The Foinaven project – FARM (Foinaven active reservoir monitoring) – was launched to test the concept in

an area where the seismic response is a good indicator of fluid content.

One of the advantages of repeating 3D surveys is that the installation of cables and other forms and other make it impossible to install the initial (baseline) geometry precisely.

A solution being tested at Foinaven is to install cables in a seabed before production.

FARM cables were installed on the baseline data in 1995. The first results are expected in six to 12 months.

Scheduled to run for four years, the project will test the feasibility of 4D seismic, influencing the location of any new producer wells, and identifying unswept areas.

The project is funded by BP, as well as Shell and seismic technology company Geco, a subsidiary of Schlumberger.

There have been other projects including some at Magnus, which have shown changes in pressure movements can be detected seismically. "But nobody has been able to demonstrate clear business," says Raikes.

She adds that at Foinaven there is a 90 per cent chance that changes in reservoir will be seen in seismic data; and a 50 per cent chance that it will be able to identify changes.



Technicians win gold awards for outstanding performance

TWO BP designate technicians have received gold awards from the Tallow Chandlers Company in recognition of outstanding performance during their four-year apprenticeships.

The annual scheme rewards young members of staff for their achievements in the application of technology.

Lee Wright (mechanical) and Robert Strachan (electrical) are currently employed on the Forties Alpha platform. During their apprenticeships they obtained National Vocational Qualification and Scotvec national certificates. They also underwent training at Roxby Engineering, at sites in the UK and

on BP North Sea.

Pictured on the left is Robert Strachan (electrical) and on the right is Lee Wright after the award ceremony in London. (left to right) BP director Rodney Clifton, Lady Corinne Clifton and Master of the Tallow Chandlers' Christopher Holbo