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FUGRO OCEANOR SAVES RESOURCES AT ORMEN LANGE

The Ormen Lange gas field, located off the Norwegian coast, presents many oceanographic challenges for organisations wishing to develop the field. Working for three global energy companies with interests in the field, Fugro Oceanor demonstrated its flexible, cost-saving approach when undertaking a set of oceanographic studies for all three clients concurrently. Research for each client was undertaken during the same cruise off the Norwegian coast, thus minimising vessel and mobilisation costs.

Following the acquisition of Thales Geosolutions (TGS) by Fugro, Fugro Oceanor is continuing a programme of current measurements for Hydro Oil and Energy along pipeline routes in the Ormen Lange field that started in 2001. Eleven moorings, incorporating a combination of RDI Acoustic Doppler Current Profilers (ADCP) and Aanderaa Recording Current Meters (RCM), have been deployed to collect current speed and direction data throughout the water column.

The moorings, in water depths ranging from 80 to 400m, had to be positioned with better than 20m accuracy because of the underwater topography. Slopes in the area can be as great as 1 in 3, making the position critical for the depth. In addition, the moorings had to be located accurately to avoid interfering with any pipeline survey work that may be required while they are in place.

The aim of another part of the survey was data collection for input to temporary phases like drilling and installation. For this a single mooring was deployed in 860m of water with an ADCP profiling the upper water column and four RCMs covering the lower portion. Water level data have also been collected at this site.

Statoil's Langed pipeline route was the subject of another programme of current measurements as part of the Ormen Lange gas field development. This programme featured single RCMs at three locations to collect near-bed current flow and seawater property data.

The third contract is for Norske Shell, on behalf of the Norwegian Deepwater Programme, and is another survey inherited from TGS. This continues a programme of current measurements

on the Ellida field and features a single mooring incorporating an ADCP and four RCMs to collect data throughout the 1250m depth of water.

"The flexibility given to us by our clients enabled us to time the work to best effect, carrying out further offshore components as the weather allowed, while falling back on the more inshore work during more adverse periods," commented Alastair Stagg, Fugro's project manager. He added "data have been collected on a bi-monthly basis, with excellent data return from the instruments. Already the results look very interesting and should hold great oceanographic value for each client."

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Fugro collects processes and interprets data related to the earth's surface and soil composition and provides advice based on the results. As an extension to these activities Fugro provides services such as precise positioning, construction materials testing, reservoir engineering and data management. Fugro's operations have been organised into three divisions: Geotechnical, Survey and Geoscience.

Fugro is listed on Euronext N.V. in Amsterdam and is included in the Amsterdam Midkap index. Fugro has over 250 offices, about 7,000 staff and a permanent presence in almost 60 countries.



Fosnavaag Harbour



Mooring Deployment