Scope

UTEC Geomarine's client was contracted to complete a survey as part of the development of the field. A portion of this scope of work required a geotechnical site investigation.

Vessel space and time were at a premium, with the client wishing to avail of a narrow operating window during a break in geophysical work.

An agile solution was required, removing the need for mobilising conventional heavy-duty site investigation apparatus and lifting equipment, and permitting continuous and accurate CPT testing for rock head identification and flowline placement, over the footprint area of the Wheatstone Platform.

UTEC Geomarine own and operate the geoROV™ system, a comprehensive ROV-deployable seabed Cone Penetration Test (CPT) and seabed sampling system.

Solution

UTEC Geomarine availed of the client supplied WROV and was able to put geoROV™ to work during the narrow operating window.

Continued overleaf...
Solution Continued

The use of geoROV™ had the following benefits:

- Quick and cost effective mobilisation - 5 transit cases for basic system, removing the requirement for a dedicated winch/A frame used with conventional seabed CPT systems
- High productivity rates - up to 4 CPT tests/hour with real-time data acquisition and rapid offshore processing
- Accessibility - ability to operate in close proximity to and beneath existing structures, utilising WROV manoeuvrability and positioning, to conduct CPTs with great accuracy and safety

Result

When the window of opportunity arrived UTEC Geomarine quickly mounted geoROV™ on to the WROV within 1 hr of access to it.

The successful site investigation yielded a total of 176 CPTs which accurately defined the thickness of superficial deposits, with a typical range of thicknesses between 0.01m and 0.18m with an average of 0.05m.

In addition, 18 further CPTs were conducted along the pipeline approach to the platform to facilitate pipeline planning and installation.

About UTEC

Since 2005, UTEC, an Acteon company, has grown to become one of the largest global surveying contractors in the offshore energy sector.

We provide a wide range of survey, positioning and data management services using the most advanced equipment and techniques.

Our highly experienced team have more than 4000 years of combined survey experience and can find solutions for our clients’ most complex challenges.