Umbilical stability assessment
Case study September 2007

The problem
In 2006, as part of a major project in the Middle East, two subsea umbilicals were installed on offshore platforms.

Anchor blocks that were manufactured to limit movement of the unstable sections of the umbilicals on the seabed were not installed. In addition, third party incidents had caused damage to the umbilical.

The solution
Jee had been monitoring the situation since installation and carried out stability assessments, creating Orcaflex models of the umbilicals in high risk areas.

Jee carried out an assessment of stabilisation methods and made recommendations on the most suitable.

In addition, Jee carried out span assessments and calculated mattress spacings to determine the optimum required spacing for stabilisation and protection.

The umbilicals were resurveyed in 2008 and Jee has subsequently updated assessments in light of the new survey data.

The benefits
Experience. Our extensive experience and understanding of stability analysis, installation methods, pipeline and umbilical protection and risk assessment.

Support. Jee's engineers undertook verification of many elements of the pipeline and umbilical design and provided ongoing support to the operator with respect to engineering and installation issues.

Cost-effectiveness. Jee determined the optimum practical stabilisation solution for the umbilicals taking into account performance, cost and schedule to meet the environmental and service conditions and ensure on-bottom stability of the umbilicals.
List of related services

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Adding value at all stages of your project:

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- FEED
- Detailed design
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- Installation verification
- PIMS development and management
- Decommissioning

Industry specialists:

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- Standards and codes
- Intelligent pigging
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Need more help?

Should you want to speak to a member of staff at Jee regarding any information outlined in this document or about how Jee’s services can assist you, please call +44 (0)1732 371 371.