



Petrobras: Steel Catenary Riser, Marlim Field

The P-XVIII platform is located in the Marlim field in the Campos Basin Offshore Brazil, in a water depth of 910m.

Due to concerns regarding the technical and economic flexibility of using large diameter flexible pipe risers in deep waters, Petrobras decided to install a prototype steel catenary riser (SCR) off this platform.

Oil States Industries (OSI) was contracted for the supply of a flex point for the SCR. Their scope also included detailed engineering of the SCR, which they subcontracted to MCS Kenny.

Scope of Delivery

- MCS Kenny performed the detailed design of the SCR for this application
- This included pipe specification, extreme response, VIV, fatigue and interference analysis
- Subsequently MCS Kenny also provided engineering support for the installation, and performed installation analyses during the actual installation using.

Benefits

- The P-XIII SCR was the first to be installed off a semi-sub production platform and represented a major break-through in SCR technology
- A comprehensive monitoring programme was implemented in the first year of operation and verified the MCS Kenny design for the SCR
- The riser was installed in 1996 and continues to operate successfully
- Based on the successful completion of this project, MCS Kenny was contracted by Petrobras to perform the detailed design of two 12 inch SCR's, for the P-36 platform (Roncador) and is currently performing the detailed design of 48 SCR's for the Roncador Phase 1A development