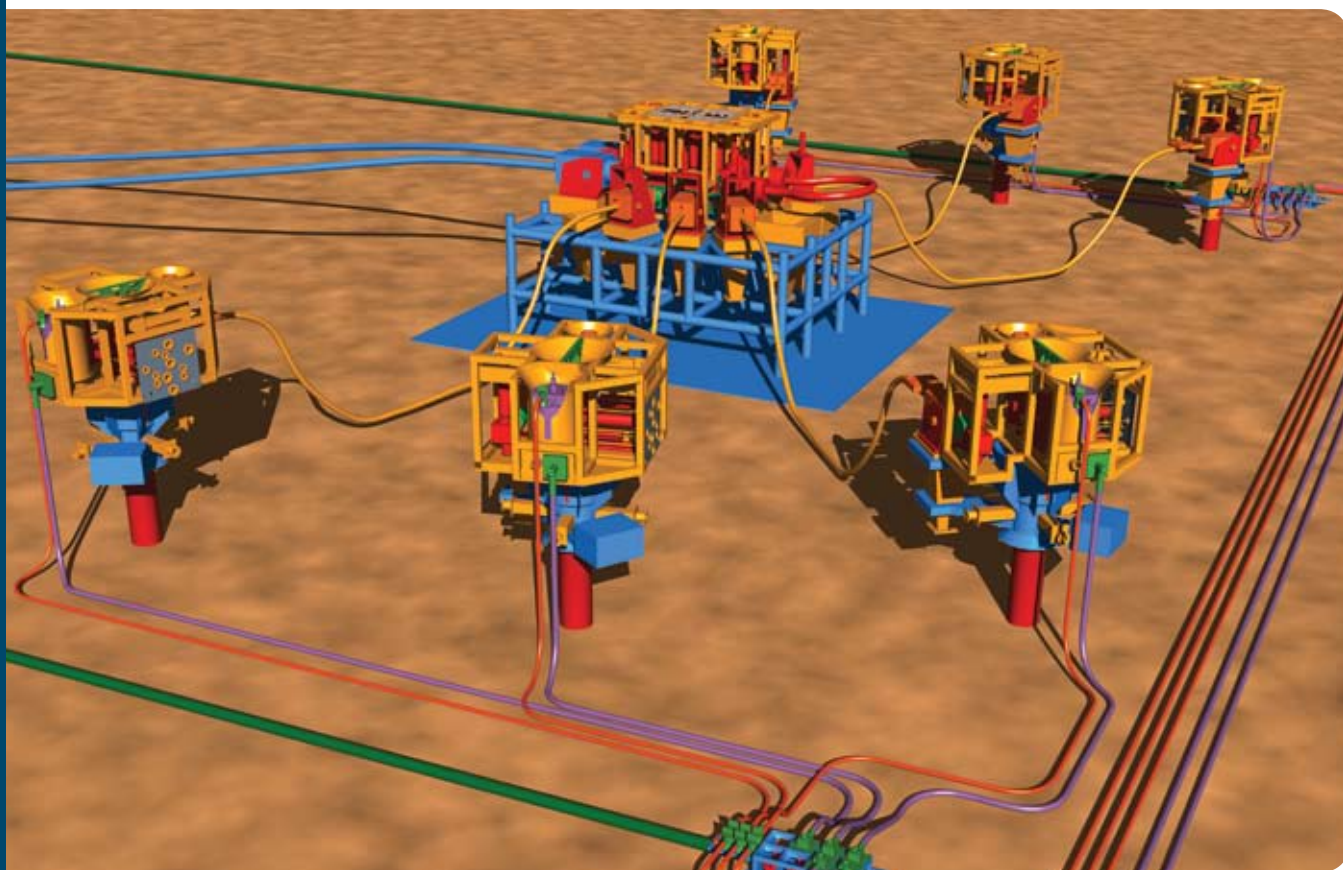


Shell Europa

Gulf of Mexico Blocks MC 934 & 935



Landmark: Shell's First Standard System from FMC Technologies Alliance

Project Overview

Contract Award: 1998
Sales: Houston, Texas
Fabrication: Houston, Texas
Service Base: Houston, Texas
Host Type: TLP
Contract Type: Alliance

Project Characteristics

No. Trees: 4
Water Depth: 1,190 m (3,900 ft)
Tree Type: EVXT
Tree Pressure: 10,000 psi
Tree Bore Size: 4"x2"
Hydrocarbon: Oil and Gas

Project Ownership

Shell	34%
BP	33%
ENI	32%
ConocoPhillips	1%

Scope of Work

- ▶ Four (4) vertical 4"x2" 10,000 psi subsea trees with tubing heads
- ▶ PSL-3 FF trim (410 ss with selective CRA cladding)
- ▶ Tree-mounted controls
- ▶ 24-function diverless GLL electro-hydraulic subsea control module
- ▶ 13-function diverless multiple quick connects
- ▶ Sand-erosion detector
- ▶ Allows well jumper installation before or after tree installation
- ▶ Flowpath fully insulated
- ▶ Piggable manifold with eight (8) well hubs
- ▶ Flowline sleds with tie-in hubs
- ▶ 4" 10,000 psi well jumper system
- ▶ FMC 5" and 8" 10,000 psi Torus III hydraulic connectors with integral soft-landing capability
- ▶ 8" 10,000 psi flowline jumper connectors
- ▶ System integration, testing, installation assistance, service and maintenance

Comments

The Europa subsea development is located 225 km (140 miles) southeast of New Orleans in the Mississippi Canyon at a water depth of 1,190 m (3,900 ft). The discovery well was drilled in 1994. Two (2) sidetracks and one (1) appraisal well were subsequently drilled. Total estimated recovery is up to 160 mmbbl.

The project was a good example of the application of standardization for "fast track" subsea tieback projects, achieving first oil less than sixteen (16) months after sanction and cost performance substantially favorable to original budget.



Worldwide Headquarters:
 FMC Technologies
 1803 Gears Road
 Houston, TX 77067, USA
 Phone: +1 (281) 591 4000
 Fax: +1 (281) 591 4291

Regional Sales Office:
 FMC Technologies
 1777 Gears Road
 Houston, TX 77067, USA
 Phone: +1 (281) 591 4000
 Fax: +1 (281) 591 4291

www.fmctechnologies.com

