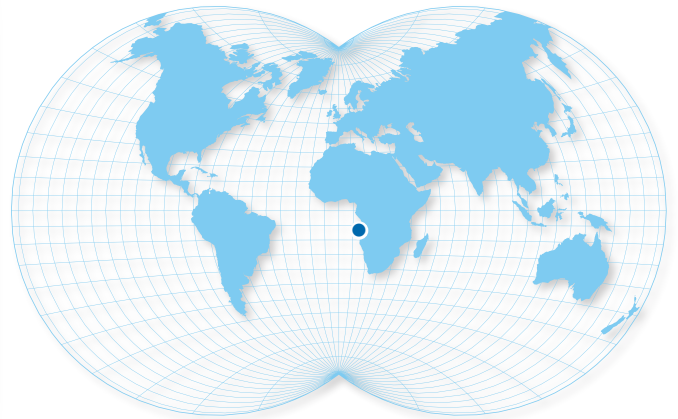


TCHATAMBA MARINE-1 FIELD, GABON:

FSO Madiela Spread Mooring



Scope of Work

SOFEC designed and supplied the 12-leg anchoring system and deck-mounted equipment including chain supports and jacking system for a permanent spread mooring system for installation on a MODEC converted 139,000 dwt FSO vessel. The FSO is located at Marathon's Tchatamba Field offshore Gabon in 55m water depth.

This SOFEC spread mooring system is ABS classed.

General Description

Client Name:	Marathon Petroleum Gabon
Contract Award:	March 1997
Installation Date:	January 1998
First Oil:	August 1998
Vessel Size:	139,000 dwt
Storage Capacity:	760,000 bbls
Water Depth:	55m (179ft)

Design Environmental Criteria (100-year storm)

Significant Wave Height:	4m (13ft)
Wind Velocity:	12m/s (23.3 knots)
Current (surface):	1m/s (1.9 knots)

Mooring System

- Spread Mooring:
- 4 groups of 3 legs each:
- 3.5-in. ORQ studlink chain
- 3.75-in. 6-strand wire
- 18mt Drag anchors