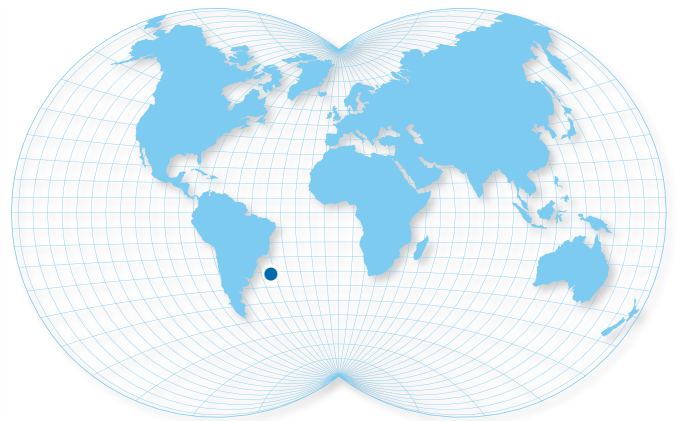


CAMPOS BASIN, BRAZIL:

FPSO Cidade de Caraguatatuba MV27 Spread Mooring



Scope of Work

SOFEC designed and procured a spread mooring system for the FPSO Cidade de Caraguatatuba – MV27 which is deployed in the BM-S-9 (Carioca field, Campos Basin) offshore Brazil.

The FPSO is capable of processing 100,000 barrels of oil per day, 5,00,000 Sm³ per day, 120,000 barrels of water injection and has a storage capacity of 1,600,000 barrels of crude oil.

The FPSO is able to accommodate a total of 55 flexible risers and umbilicals.

The SOFEC spread mooring system is ABS classed.

General Description

Client Name:	Petrobras
Contract Award:	September 2013
Installation Date:	December 2016
First Oil:	December 2016
Vessel Size:	299,150 dwt
Storage Capacity:	1,600,000 bbls
Water Depth:	2,126m [6,973ft]

Design Environmental Criteria (100-year storm)

Sig. Wave Height:	11.6m [38.06ft]
Wind Velocity:	31.61m/s [61.43 kts]
Current:	1.67m/s [3.25 kts]

Mooring System

4 x 6 mooring system consisting of chain and Torpedo piles supplied by Petrobras

Riser System

- 7 production risers
- 7 service risers
- 7 production/ gas injection risers
- 7 water injection/ service risers
- 5 hot water lines
- 1 gas import riser
- 17 well control umbilical
- 2 Direct Electric Heating (DEH) umbilicals
- 1 umbilical monitoring
- 1 optical cable