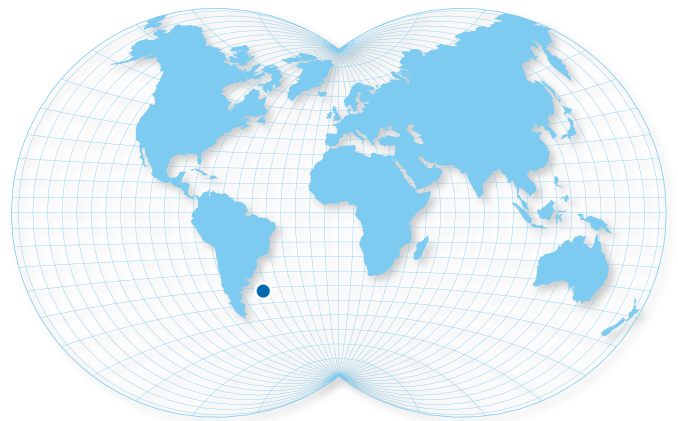


# MERO(LIBRA) FIELD - SANTOS BASIN, BRAZIL:

## FPSO Guanabara MV31 Spread Mooring

Under  
Construction



### Scope of Work

SOFEC is responsible for the design and procurement of a spread mooring system for the FPSO Guanabara – MV31 which will be deployed at the Mero (formerly Libra) Field in Santos Basin, offshore Brazil.

The FPSO will be capable of processing 180,000 barrels of crude oil per day, 424 million standard cubic feet of gas per day, 225,000 barrels of water injection per day and has a storage capacity of 1,400,000 barrels of crude oil.

The FPSO will be able to accommodate a total of 56 flexible risers and umbilicals. The FPSO is also able to accommodate 18 steel risers instead of the 18 flexible pipes serving the production / gas injection wells.

The SOFEC spread mooring system will be ABS classed.

### General Description

Client Name:                      Petróleo Brasileiro S.A. (Petrobras)  
Contract Award:                 December 2017  
Installation Date:                Planned for 2021

First Oil:                            Planned for 2021  
Vessel Size:                        282,000 mt  
Storage Capacity:                 1,400,000 bbls  
Water Depth:                       1,930m (6,322ft)

### Design Environmental Criteria [100-year storm]

Sig. Wave Height:                 11.6m (38ft)  
Wind Velocity:                     34.5m/s (67 kts)  
Current:                             1.84m/s (3.58 kts)

### Mooring System

4 x 6 mooring system consisting of chain and polyester rope.  
Torpedo piles and pile chains are supplied by Petrobras.

### Riser System

- 9 Oil Production Risers
- 9 Gas Lift Risers
- 3 Water/Gas Injection or Oil Production Risers
- 3 Water/Gas Injection or Gas Lift Risers
- 14 Water/Gas Injection Risers
- 17 Control Umbilical
- 1 Fiber Optic Cable