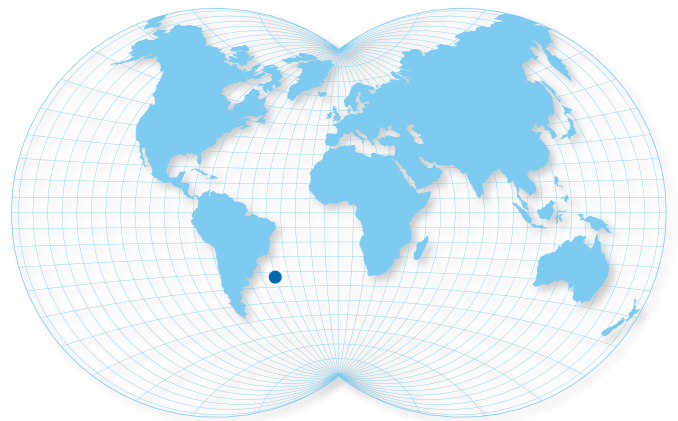


# URUGUA / TAMBAU FIELDS, BRAZIL:

## FPSO Cidade de Santos MV20

### Spread Mooring



### Scope of Work

SOFEC designed and procured a spread mooring system for the FPSO Cidade de Santos MV20 and is deployed in the Urugua field. It will also gather production from the Tambau field. Both fields are in the Santos Basin and are being developed together. The FPSO is moored approximately 160 kilometers from Rio de Janeiro city.

The fields 12 wells that began operation in January, 2010. The natural gas processed in the FPSO is delivered through an 18-inch gas pipeline to the Mexilhão field 170 kilometers from Urugua.

The FPSO is capable of processing 350 million cubic feet per day of gas, 35,000 barrels of oil per day, and has a storage capacity of approximately 700,000 barrels.

This SOFEC spread mooring system is ABS classed.

### General Description

Client Name:	Petroleo Brasileiro S.A. (Petrobras)
Contract Award:	February 2008
Installation Date:	March 2010
First Oil:	July 2010

Vessel Size:	250,000 dwt
Storage Capacity:	700,000 bbls
Water Depth:	1,300m (4,264ft)

### Design Environmental Criteria (100-year storm)

Significant Wave Height:	4.5m (15ft)
Wind Velocity:	18.0m/s (35 knots)
Surface Current:	1.8m/s (3.5 knots)

### Mooring System

20-leg polyester/chain system  
Piles supplied by owner

### Riser Systems

47 Risers – 28 Production, Water Injection, Gas, and Services  
19 Umbilicals for electrical, hydraulic, and controls.

### Comments

This is the seventh mooring system SOFEC has delivered in Brazil. It is the first FPSO that will process more gas than oil.