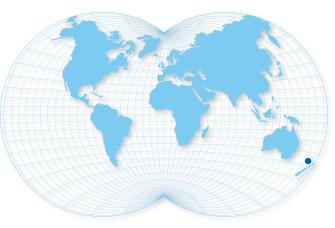


MAUI B FIELD, NEW ZEALAND:

FPSO Whakaaropai External Turret





Scope of Work

SOFEC designed and constructed an external cantilevered bow turret for a MODEC-converted 135,510 dwt FPSO in 110m water depth. The facility is classed by Lloyd's Register of Shipping.

General Description

Client Name: Shell Todd Oil Services Ltd.

Contract Award:

Installation Date:
August 1996

First Oil:
Vessel Size:
135,510 dwt

Storage Capacity:
750,000 bbls

Water Depth:
Turret - Singapore

Vessel – Singapore

Topsides – Singapore

Design Environmental Criteria (100-year storm)

Significant Wave Height: 10.7m (35.1ft)
Wind Velocity: 40.2m/s (74.5 knots)
Current: 1.1m/s (2.2 knots)

Mooring System

10-leg Chain-wire-chain asymmetric catenary:

6-in. ORQ chain

4.375-in. ORQ +20% top chain

5.5-in. 6-Strand wire rope

24mt and 32mt High holding power drag embedment anchors

Turret

External Cantilevered Bow

Fluid Swivel Assembly

Crude Oil: 1 x 12-in. piggable toroids

(680 psi design/1,025 psi test)

Produced Gas: 1x 6-in. piggable in-line

(2,550 psi design/3,850 psi test)

Riser System

1 x 10.5-in. Flexible riser 1 x 4.5-in. Flexible riser