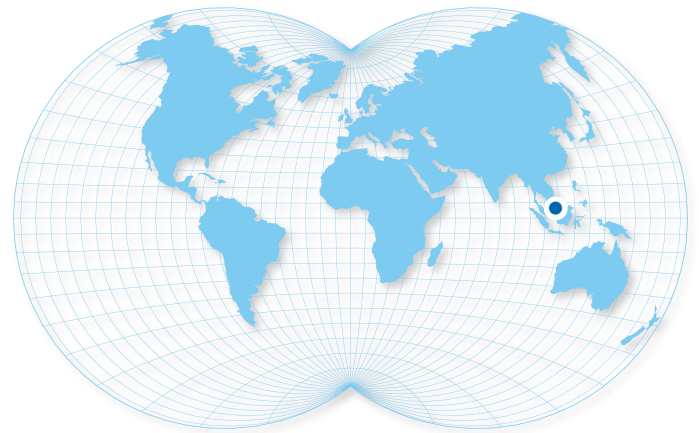


KANGEAN ISLANDS, WEST MALAYSIA:

Pagerungan CALM



Scope of Work

SOFEC designed, constructed and delivered a CALM system for condensate loading for the 350 MMscfd Pagerungan Besar Island Gas Field Development Project offshore Pagerungan in the Kangean Islands, Indonesia.

General Description

Client Name:	ARCO Bali North Inc.
Contract Award:	June 1992
Installation Date:	May 1993
Application:	Gas Condensate Export

Project Specifications

Water Depth	64m (209ft)
Tanker Size:	125,000 dwt
Dimension:	11mØ x 4.5m
Floating Hose:	1 x 12-in.
Underbuoy Hose:	1 x 12-in. Lazy S
Hawser System:	9-in. Dual hawser
Anchor Leg System:	6 x 3-in. ABS grade U3
Anchor System:	16mt Stevshark anchors

Design Environmental Criteria

Operational	
Significant Wave Height:	1.7m (5.4ft)
Wind Velocity:	20.6m/s (40 knots)
Surface Current:	1m/s (2 knots)

Survival	
Significant Wave Height:	4.6m (15ft)
Wind Velocity:	32.9m/s (64 knots)
Surface Current:	1.3m/s (2.6 knots)

Comments

This CALM is installed offshore Pagerungan Besar in the Kangean Islands, Indonesia in a water depth of 65m. The single product terminal is designed to export gas condensate and accommodates tankers up to 120,000 dwt. The 11m diameter CALM is anchored to the seafloor by six 3-in. chain legs and 16mt "Stevshark" high capacity drag anchors. The system is equipped with single 12-in. floating and underbuoy hoses rated at 285 psig. The underbuoy hose is arranged in a Lazy S configuration.