

# SIKA AT WORK WLDP-A JACKET STRENGTHENING

OFFSHORE & MARINE CONSTRUCTION CONVENTIONAL ENERGY



# WLDP-A JACKET STRENGTHENING



## PROJECT DESCRIPTION

In May 2019, Sika was engaged by Pioneer Pegasus S/B to execute critical structural strengthening on the WLDP-A jacket, located in the West Lutong field, Offshore Sarawak, East Malaysia. The six-legged jacket, situated at a water depth of 39 meters, required retrospective grouting of main piles to jacket sleeves to enhance structural integrity and ensure continued safe operation.

The project formed part of broader brownfield repair and life-extension activities, focused on reinforcing aging offshore infrastructure.

Project name: WLDP-A Jacket Strengthening

Client: Pioneer Pegasus S/B

Location: West Lutong field, Offshore Sarawak, East Malaysia

Year: 2019

Application: Repair and maintenance Product: SikaGrout®-9110

# **PROJECT REQUIREMENTS**

Inspections identified a need for improved load transfer between the jacket sleeves and main piles of the WLDP-A platform. The client required a specialized grouting solution capable of filling extremely narrow annular spaces – just 25 mm wide – between the piles and sleeves.

In addition, the aging jacket structure exhibited dimensional variations that demanded adaptive engineering and precise execution techniques to ensure a successful repair.

Any product name or reference reflects the Sika product name at the time of creation of this document and may differ from the product name or reference during past events.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.









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### SIKA SOLUTIONS

Sika delivered comprehensive engineering consultancy services, designing custom inlet systems specifically tailored for the narrow annulus and complex geometry of the existing jacket. These specially designed small annulus inlet clamps enabled precise grout delivery and ensured complete filling of the confined space.

Sika supplied a specialist underwater hydraulic drilling unit to create access for grout injection, followed by thorough flushing operations to clean and prepare the annulus for grouting. The chosen material, SikaGrout®-9110, provided excellent flow characteristics essential for penetrating the tight annular gap while delivering high strength and long-term durability under offshore conditions.

The grouting process involved carefully pumping grout until returns were visible at outlet points high up on each jacket leg, confirming full encapsulation and load transfer across the interface. Despite the challenges posed by the older jacket's dimensional inconsistencies, Sika's experienced offshore team adapted efficiently to complete the operation successfully.

All grouting services, materials, specialized equipment, and skilled manpower were provided by Sika as part of a turnkey solution.

### **CUSTOMER BENEFITS**

Sika's tailored engineering and grouting approach enabled Pioneer Pegasus to strengthen critical structural components of the WLDP-A platform without extensive retrofitting or platform shutdowns. The high flowability and strength of SikaGrout®-9110 ensured complete filling of the narrow annular space, securing the integrity of the jacket piles and extending the platform's operational lifespan.

Thanks to Sika's rapid mobilization and flexible problem-solving in the face of site-specific challenges, the project was executed smoothly and efficiently, meeting the client's objectives on a tight schedule.