



# SIKA AT WORK

## PETRA RESOURCES WLDP-WLP BRIDGE CHORD GROUTING

OFFSHORE & MARINE CONSTRUCTION  
CONVENTIONAL ENERGY

BUILDING TRUST



# PETRA RESOURCES WLDP-WLP BRIDGE CHORD GROUTING



## PROJECT DESCRIPTION

As part of a brownfield upgrade offshore Sarawak, East Malaysia, Sika was engaged by Petra Resources S/B to strengthen the structural integrity of the tubular top chord and adjoining brace sections of the WLDP-WLP connecting bridge. The bridge, a critical access point between two offshore platforms, required reinforcement to ensure long-term serviceability and safe operations.

The work involved the infill grouting of three 10-inch tubular bridge chords across a total span of 28 meters. The project was executed in September 2019 under a compressed schedule, in a high-traffic area that demanded careful planning and coordination.

Project name: WLDP-WLP Bridge Chord Grouting  
Location: Offshore Sarawak, East Malaysia  
Year: 2019  
Application: Repair and maintenance  
Product: SikaGrout®-9110

## PROJECT REQUIREMENTS

The primary objective was to structurally reinforce the top chord and bracing connections using cementitious infill grouting. This would restore integrity to the tubular members and enhance load transfer between the platforms. Given the operational status of the bridge and the distance of over 80 meters from the main platform, the project also required an efficient offshore setup with remote access and minimal disruption.

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 provided end-to-end support, beginning with engineering consultancy services to optimize the placement of grout inlets and develop a strengthening concept suited to offshore conditions. Grouting inlet locations were strategically determined to ensure complete fill and effective bond across the full chord length.

SikaGrout®-9110, a high-performance offshore cementitious grout, was supplied along with a full offshore team to carry out grouting operations. The team mobilized within two weeks and successfully completed the grouting of all three bridge chords despite tight access and logistical challenges.

To address hose sagging over the long span between platform and bridge, buoyancy collars were deployed along the grouting lines. Additional contingency hoses were also pre-positioned to ensure uninterrupted operations.

## CUSTOMER BENEFITS

Sika's integrated approach – combining technical consulting, material supply, and offshore execution – enabled fast mobilization and a smooth delivery. By working closely with the client to coordinate access windows, Sika minimized disruption to platform operations and ensured completion ahead of schedule.

The grouted chords now provide enhanced structural continuity and resilience, extending the service life of the bridge and supporting ongoing operations safely.

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