

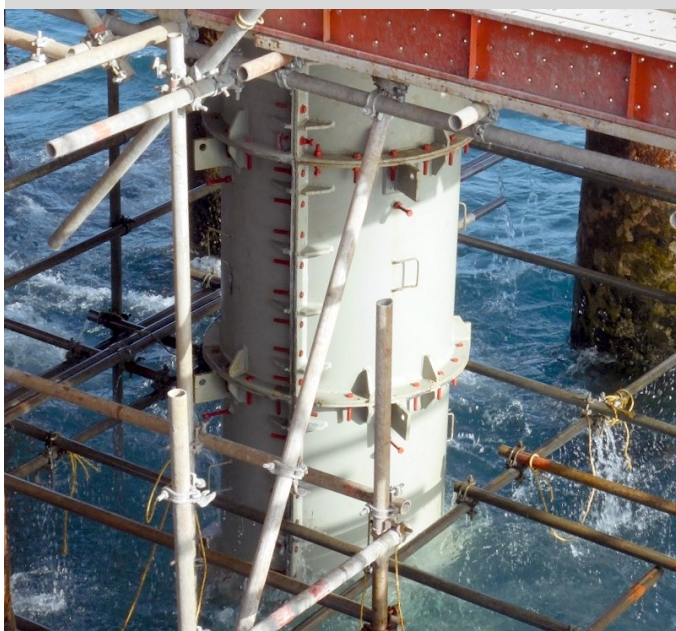


Location:
Panna Mukta Field, PA3 Platform, India
Materials:
Nax® Q140 UHPC Grout
Client:
Shell India
(formerly BG Exploration & Production India Ltd.)
Project date:
March – April 2017 (11 days)

REPAIR OF CONDUCTOR CASINGS USING ENGINEERED GROUTED CLAMPS

DISCIPLINES:

- Pre-Engineering Survey
- Design Engineering & Analysis
- Clamp Fabrication & Installation
- Grouting of External Clamp



It was observed that the PA platform had a parted conductor casing, exposing the internal casings. Nautech was awarded the job to carry out structural integrity analysis; develop a repair methodology to reinstate the damaged section and structural integrity of the conductor.

SCOPE

- Pre-Engineering Survey of the damaged conductor casing
- Carry out Engineering Design & Analysis
- Carry out design of External Grouted Clamp
- Fabrication & Installation of External Grouted clamp
- Alignment of the damaged casing & Installation of clamp offshore
- Grouting of the annulus between the clamp & conductor casing
- Post installation survey & final documentation

SERVICES

- Project Management services including reporting, QA/QC
- Provision of qualified & experienced onshore and offshore personnel
- Provision of equipment i.e. mixers, pumps, downhole camera, HP water jetting etc. for for executing the work scope



UHPC, or Ultra High Performance Concrete and Composites are our business. We develop and produce UHPC products and we offer UHPC based solutions for multiple industries including the Renewable, Civil Construction, Ports, Offshore and Energy Industries.

We have documented the technical performance of our UHPC products through a large test program at MPA (Germany) which included creep and fatigue testing and we have carried out large-scale trials at low (European conditions) and high temperatures (Tropical conditions) to demonstrate the performance of our materials under severe weather conditions.

Our NaX® Premix Grouts are a portfolio of ultra high performance concrete and composites with strength and durability 10 times better than that of ordinary cement products.

- Supply of fabricated clamps, bolts & nuts
- Supply of Ultra-high performance cementitious (UHPC) mix NaX® Q140 along with binder lubricant mix

CHALLENGES

- High tide posed a major challenge during the installation of the clamp due to lower elevation being at -3m i.e. splash zone area. This meant that the cleaning and installation of the clamp was hampered during high tide but by monitoring tide charts and patterns on a regular basis the team managed to carry out the cleaning and installation related activities during low tide.

CLIENT BENEFITS

- The whole process was carried out without the use of divers; an approach which resulted in vast time and cost savings for the client.
- Stage wise inspection of the fabricated clamp in consort with client and third party inspector, ensured the quality of the fabricated clamp.
- Stage wise inspection and preparation of IMIR (Incoming Material Inspection Release Note) ensured the use of correct specification and quality of materials throughout the project.
- Close interaction with the client representative ensured safe and timely completion of the project.

