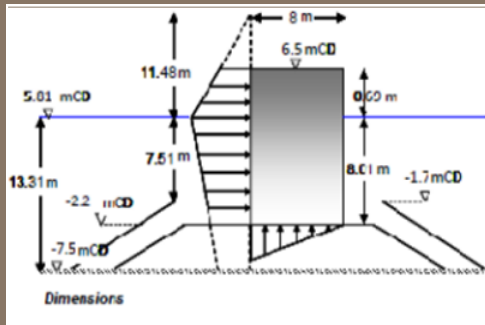


“Where will our knowledge take you?”

Barrow Island Pioneer Material Offloading Facility

BCH Engineering Consultants / Murray & Roberts Australia



“ As leading experts in the field, our involvement in the project encompassed providing a wide range of specialist inputs, from carrying out and supervising numerical and physical modelling through to providing key structural design advice. ”

A Pioneer Materials Offloading Facility is required to support the Gorgon project and Barrow Island LNG plant development, to provide a gateway between the Gorgon gas field and export facilities. The wharf also services the marine requirements of the plant and any further expansion.

The proposed development included a RORO berth, module carrier berth, barge berth and small craft landing, with associated dredging of an entrance channel and berth pockets.

The site is subject to cyclonic conditions with large waves in shallow water. Wharf design conditions were to withstand a 1 in 200 year cyclonic event with minimal damage. BMT JFA were appointed as specialist marine engineering consultants to provide advice to structural engineers involved in the design of the wharf structures. As leading experts in the field, our involvement in the project has encompassed providing a wide range of specialist inputs, from

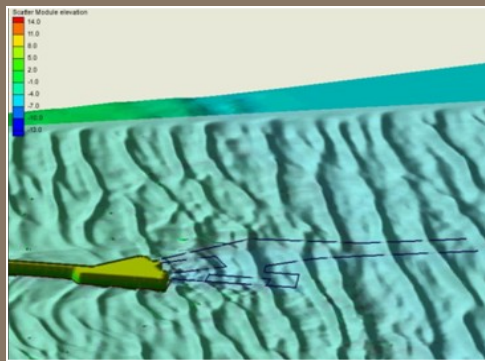
carrying out and supervising numerical and physical modelling through to providing key structural design advice in the early stages of design and structural wave loading throughout the design.

BMT JFA Role

- Preliminary structural advice for berth structures
- Numerical modelling for design conditions in front of structure, wave impact forces on the caissons, dolphins, walkways and navigational aids
- Design of Caisson Berth scour protection against wave action
- Management of physical modelling studies
- Verification of wave impact forces.

Services & Expertise Provided

- Mooring and Berth Operability Studies
- Wharves and Berthing Design
- Numerical Wave Transformation Modelling
- Numerical Harbour Basin Modelling
- Design of Scour Protection
- Physical Modelling
- Wave Force Assessments.



Location

Barrow Island, Western Australia

Date

2009 - Ongoing