



Companie(s) : Freyssinet Australia
Owner : DBCT Pty Ltd

Subsidiary(ies) : Freyssinet Australia

Beginning of works : 04/2009
End of works : 04/2010

Description of the work :

Dalrymple Bay Coal Terminal (DBCT) is located 38kms south of Mackay, Queensland and is one of two terminals at Hay point which forms the largest coal export port in the world. DBCT is capable of shipping 85Mtpa through a network of 55km of conveyers moving coal from the land based stockpiles along 3.8km of Jetty to the 1.6km 4 berth wharf. The wharf structure is made up of steel piles and headstocks with prestressed reinforced concrete planks spanning between. Due to the aggressive marine environment the concrete planks were suffering from chloride induced corrosion, of particular concern was the structural integrity of the prestressed cables.



Freyssinet mission :

Freyssinet Australia were contracted by DBCT Pty Ltd initially to assess the damage and perform some trial repairs to a single span. Access was provided via a hanging scaffold arrangement for the trial span where a number of spalls were identified. In order to avoid damage to the prestressed cables a low volume high pressure hydrodemolition technique was used for concrete removal in favour of traditional jackhammers. Exposed reinforcement was then mechanically cleaned and inspected for loss of section, replaced if necessary and coated with a corrosion inhibitor. Repair areas were then reinstated using a high quality polymer modified repair mortar to the original profile and coated with a penetrative silane to control future chloride and moisture ingress. Upon successful completion of the trial works, Freyssinet were then engaged to complete repairs to the remaining 18 spans of Berth 1 (228m).

