

Project Reference:

Cairns bulk sugar terminal shed 2 pile repairs

Queensland Sugar Limited

Client:
Queensland Sugar Limited

Savcor contact:
Campbell Addison



Images from top to bottom:

- Shed 2 is pictured on the right hand side
- Cracking evident on the pile cap shows the detachment of the pile cap from the shed floor slab and sinking progression
- Pile driving works underway

Savcor addresses sinking pile issues at the bulk sugar terminal in Cairns.

The Cairns bulk sugar terminal shed 2 (storage shed) was constructed in 1972. Built on reclaimed tidal land originally consisting of mangrove muds, the shed's slab is suspended on 2,118 concrete piles. Increased cracking observed between the pile cap/floor slab connection in a number of localised piles were monitored over a number of years. Now some of the piles have been confirmed as sinking and the need for remediation has arisen.

Savcor was awarded the contract to carry out the remediation works to the piles. This involved driving ten new precast concrete piles to a depth of 27 metres through the existing floor slab as well as the construction of five new concrete beams to effect load transfer between the new and existing piles. This will prevent any further sinking of the existing piles.

Savcor completed the works maintaining stringent quality, safety and environmental standards. The works were subject to a stringent testing regime on the installed piles under the works' technical specification from AECOM Pty Ltd.

The project was completed during the off-season with minimal impact on the terminal's export sugar activity or day to day operations.

Special points of interest:

- Works were required to be carried out during the off-peak sugar season to ensure shed load capacity will be restored for the forthcoming sugar season
- Access restrictions under the existing shed slab made it very difficult to gain plant and equipment access, therefore excavation by hand was the only option