

Project Info



14 / 12 / 15



CC5™ Bulk Rolls



1000m²



Vertical layers



Mackay, Queensland,
Australia



UGL Operations &
Maintenance Pty Ltd



CC5™ was used to
repair two sections of
a bund where previous
repairs had failed.



Completed installation

In December 2015, Concrete Canvas® GCCM* (CC) was used to repair two sections of bund at a petrochemical storage facility in Mackay, Queensland, Australia. Previous attempts to repair the bund using shotcrete and bitumen had failed, leading to a loss of integrity of the bund. CC was chosen as it would provide a durable, cost effective bund repair that would be easier to install. Installation was carried out as part of a joint venture between UGL and a major Oil and Gas company. The JV team provided Project, Engineering Maintenance and Asset Management services, with material provided by Burdens Australia.

Vegetation, loose rock and sediment were removed from the bund and any voids filled, to ensure intimate contact between the CC and the substrate. An anchor trench was dug around the inside perimeter of the berm. Bulk rolls of CC5™ were delivered to site and mounted onto a spreader beam hung from a crane. The CC was unrolled transversely across the berm, with subsequent layers overlapping the previous by 100mm. The overlaps were sealed with Sikaflex Tank and jointed with collated screws and concrete nails where necessary. Pegs were used to fix the CC into the anchor trench on the inside and to the ground on the outside of the berm. The anchor trench was backfilled to provide a neat termination. Hydration was achieved using a bowser and hose with spray nozzle attached.

1000m² of CC5™ were installed by 3 people in 3 days, compared to 2 weeks required for conventional bund repair methods. The client was very impressed with cost effectiveness of the installation and the contractor appreciated the speed and efficiency using CC.

*Geosynthetic Cementitious Composite Mat





Failed repair



Bund preparation



Unrolling CC



Pegging at toe of slope



Sealant application



Screwing



Screws and concrete nails



Hydration



Backfilled anchor trenches



Completed installation



Finished project