


## Project Info

 08 / 11 / 17


 CCH5™ Bulk Rolls

 7,800m<sup>2</sup>

 Transverse layers

 Rig Site (Saudi Aramco),  
Dhahran, Saudi Arabia

 FOQSCO

 CCH5™ was used to  
protect and provide  
erosion control for a  
bund and rain channel  
at a rig site owned by  
Saudi Aramco



*Section of the completed installation at the Saudi Aramco-owned Rig Site in Saudi Arabia*

In November 2017, CC Hydro™ was used to provide erosion protection to a series of bunds and adjoining rain channels on the DMMM-DS-A Rig Site owned by Saudi Aramco in Dhahran, Saudi Arabia. The first bund was approximately 320m in length, and an average of 11.5m wide, and the second was approximately 172m in length and an average of 24m wide.

CC Hydro was primarily chosen for the project due to its speed of installation. Time was critical in this installation as the rainy season was approaching and it was essential that this newly created bund was protected before the rain approached and could potentially damage it. The purpose of the bund itself was to prevent runoff rain water from damaging on-site drill locations.

There were no alternatives considered as the contractors had previously worked with CC products and were familiar with its properties and advantages over traditional methods for applications such as this one. The works were carried out by FOQSCO for Saudi Aramco.

In preparation for the works, the bunds and rain channels were constructed specifically for the purpose of being covered using the CC Hydro material. They were well compacted and created a pre-dug anchor trench on one side to allow for quick installation; however, on the other side of the bund, an asphalt covering was present, preventing the contractors from creating a second anchor trench.





*Bund prior to installation*



*Anchor trenches were dug using a JCB*



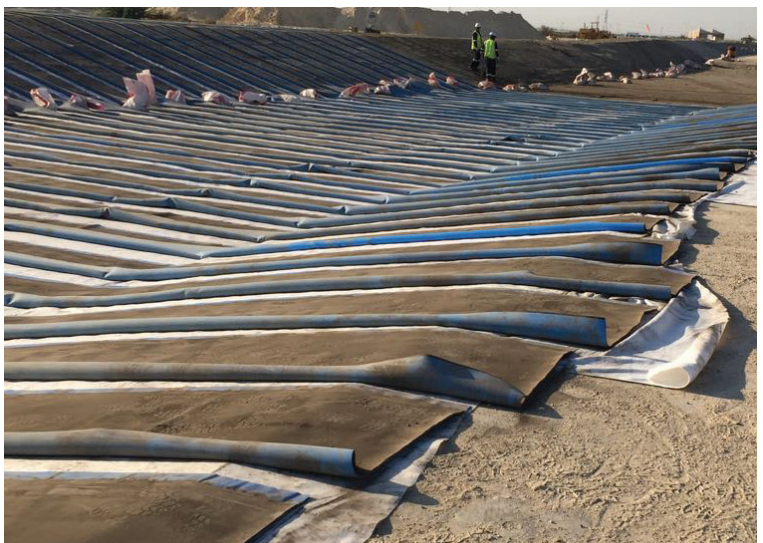
*Anchor trenches ready for installation*



*A geotextile was laid over the bund providing a smooth surface for the CCH*



*The CCH bulk rolls were mounted onto a spreader beam*



*The CCH edges were folded back and the PVC wiped clean before welding*





*Hot air blower and roller welding method*



*The drilling and bolting of the CCH into the asphalt*



*Hydration was given via hose and bowser*



*Concrete was poured into the anchor trenches for greater impermeability*



*The completed bund before the CCH set*



*The completed installation*





*A section of the completed bund and rain channel installation*

The CC Hydro was delivered to site in bulk rolls of CCH5 which were then hung from a spreader beam using a boom truck. Pieces of CCH were cut to specific lengths and laid transversely in position. After laying a section of CCH, the PVC backing of the pieces were wiped clean and welded using a triple track wedge welder. For some sections, a hot air blower and roller were used to carry out the welding instead. This method was repeated along the length of each bund, and down into the rain channels. The edges of the CCH were then captured in the pre-dug anchor trenches, which were backfilled for a neat termination. Once installation was complete, the CCH was hydrated every 2 hours. When set, the anchor trenches were filled with poured concrete, and the CCH edges on the other side of the bunds were bolted into the asphalt.

A total of 7,800m<sup>2</sup> of CCH5™ were installed in 12 eight-hour days by a team of 16 people, against tight time constrictions. The project was a complete success, having being completed before the rainy season hit the area. Had the same project been carried out using conventional concrete, it could have taken around 80 days to complete. However, with the use of CC Hydro, the project was completed with an 85% time saving. The client was very happy with the outcome and has closely monitored its progress.