



CASE STUDY:

SLOPE AND DITCH LINING

**WALLUMBILLA, QUEENSLAND
JUNE 2018**

CLIENT: SANTOS

CONCRETE CANVAS

Concrete Canvas is a flexible, concrete impregnated fabric that hardens when hydrated to form a thin, durable, water proof and fire resistant concrete layer. It is the original concrete on a roll.

Concrete Canvas allows concrete construction without the need for plant or mixing equipment. Simply unroll and position Concrete Canvas, and then just add water (any type of water, including sea water).

Concrete Canvas has no impact on the pH of runoff water. Concrete Canvas is widely used as a cheaper alternative to non-structural shotcrete.

Concrete Canvas is used in a variety of civil infrastructure applications, such as ditch lining, slope protection and capping secondary containment bunds.

Between the Surat Basin and Curtis Island in Wallumbilla, Queensland, there are a number of compression stations which aid in the transfer of natural gas via huge pipelines.

While being transported through a gas pipeline, natural gas needs to be constantly pressurised at, which occurs at these stations. These stations are generally remote and unmanned.

The infrastructure and site required long term, maintenance free solutions that were cost effective with excellent erosion and water management characteristics.

On this particular site, erosion control was a significant component of the brief, both on the cut slopes and within the drainage channels. To prevent vegetation growth and to handle the erosive forces of a heavy rainfall event, Concrete Canvas was the specified option to line the slopes and drainage channel.

Due to the remote location of the site and the brief requiring a maintenance free and cost effective solution, traditional alternative solutions such as shotcrete or poured concrete were considered but deemed too expensive.

A local Geofabrics sales engineer attended site to give installation training. The technical team of Concrete Canvas and Geofabrics also helped in anchoring and pegging detailing for the transition between the CC5 on the slopes and the CC8 in the drainage trenches.

> Slope and Ditch Lining



Concrete Canvas was the best option to fill the brief of both channel lining and erosion control.



A total of 5,500 m² Concrete Canvas was installed.



Concrete Canvas was laid transversely after the removal of vegetation on cut batters in drains.

Concrete Canvas was laid transversely after the removal of vegetation on cut batters in drains and adjacent to working platforms. Equipment used was a 20 tonne excavator, dispenser, grinder, collated screw gun and a sledge hammer. Hydration was completed using a watercart via direct spray and soaking methods.

A total of 5,500 m² of Concrete Canvas was installed on this project taking approximately 0.2 man hours per square metre to install.

The overall project is still under construction, but the Concrete Canvas component was successful.

Concrete Canvas provided an all-in-one solution which required no additional deliveries of material. This solution saved money during installation and will provide a maintenance free slope and drainage channel for the life of the project.



Finished project.

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