

GCL FOR GULL PETROLEUM OCEAN TERMINAL MT MAUNGANUI, NORTH ISLAND

CONTAINMENT SYSTEMS

Product: Elcoseal X1000

Problem

The project involved the moving of four massive fuel tanks from Marsden power station by sea barge over a distance of approximately 300km to Mt. Maunganui, Tauranga. Each 40m diameter tank weighted 400 tonne.

Solution

The design detailed a 2mm textured HDPE liner placed directly under each tank followed by 200m layer of AP20 sandy gravel. A 1m deep x 6m wide zone of GAP65 was placed as a spread footing around the circumference of the tank over the AP20. The balance of the area below the tank was designed with a 1m deep layer of sand.

Elcoseal X1000 was then placed over the HDPE liner from the edge of the footing to the boundary bund walls to complete the secondary containment system

Elcoseal is a composite liner system (GCL) consisting of heavily needled nonwoven fabric and high quality bentonite sandwich. Elcoseal is easy and quick to lay and requires no specialist welding details with edges being lapped to effect a water proof seal.

Elcoseal is regularly used in a wide variety of engineering and architectural landscape applications including secondary containment landfills, landfill caps, ponds and reservoirs and waste containment.

McConnell Smith International, for their innovative approach to this project, were awarded the Caltex Contractors Federation prize.

Client name:

GULL PETROLEUM

Main contractor name:

McCONNELL SMITH INTERNATIONAL LTD

Consultant:

BECA CARTER HOLLINGS & FERNER

Product used:

ELCOSEAL X1000

Construction date:

AUGUST 1998



Placement of Elcoseal over HDPE

Date: August 1998



Fill placement over Elcoseal

Date: August 1998



GCL/HDPE Interface

Date: August 1998

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Quality System AS/NZS ISO 9001:2000

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