

# CASE STUDY

Geosynthetic Clay Layer

Project: GCL for Gull Petroleum  
Ocean Terminal  
Date: August 1998  
Client: Gull Petroleum  
Location: Mt Maunganui, North Island



## ELCOSEAL

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 weighed 400 tonne.

The design detailed a 2mm textured HDPE liner placed directly under each tank followed by 200mm 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.



Placement of ELCOSEAL over HDPE



Fill placement over ELCOSEAL



GCL/HDPE Interface

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