

Cable protection solution

Laying a continuous grout-filled mattress to protect a shallow-trenched power cable



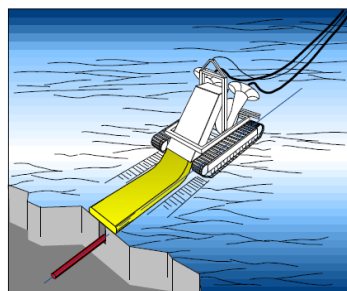
FoundOcean completed a project in Korean-waters to protect a 48-kilometre long power cable, which had trenched at a shallow depth of just 0.5 metres.

Farmers grow aquatic crops in the stretch of water by driving 35-metre long steel poles into the trench and stringing crops between them. The concern was that the power cable could become dislodged and damaged which could lead to potential injuries to the farmers.

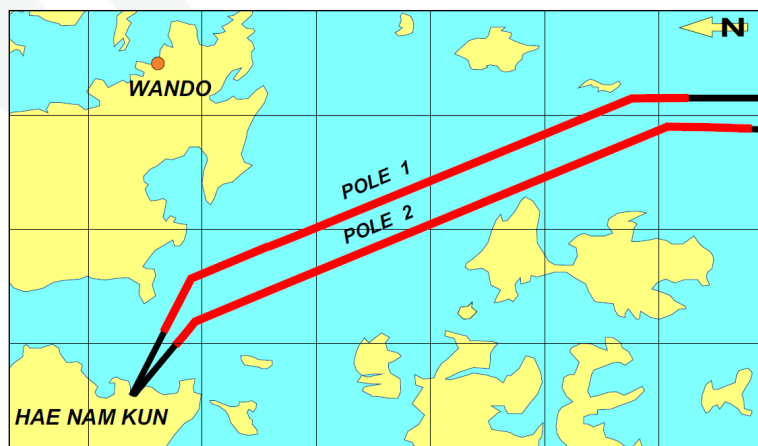
The solution was to cap the trench with a grout-filled formwork mattress to give the cable enough protection to withstand the impact of a 600 kg steel pole being plunged into the water, and in turn protect the farmers.

A 2 m x 0.25 m formwork that could be simultaneously laid and filled with grout was designed. A vehicle which crawled along the sea floor deployed the formwork from a reel as FoundOcean used its Recirculating Jet Mixer to continuously mix and pump the grout mix into the mattress formwork.

The grout consisted of ordinary Portland cement (OPC) and seawater, with steel fibres for additional reinforcement.



ROV fabric mattress deployment vehicle



PROJECT FACTS

Industry	Bespoke Project
Region	Korea
Services	Cable Protection
Project year	1997
Contractor	LD TravOcean
Water depth	Up to 35 m
Cement type	OPC CEM I 52.5 N with reinforcing steel fibres
Total cement	37,000 †
Total fibres	800 †
Mixer type	Recirculating Grout Mixer

TYPICAL RJM DECK PLAN

