

BOSKALIS WESTMINSTER: SKILLS, RESOURCES, EXPERIENCE

Boskalis Westminster brings together the skills, resources and experience of Royal Boskalis Westminster. Our capabilities include seabed rectification works for pipeline/cable and platform installation, construction of pipeline shore approaches and landfalls, offshore mineral mining, offshore supply and support services and decommissioning services. Boskalis provides clients with tailored, project-specific solutions, as illustrated by the following project summary.

PROJECT DESCRIPTION

Capital dredging and backfilling of marine landfall trenches at Ross Bay in Dumfries and Galloway in Scotland and Gormanston, County Meath, Ireland including all associated hydrographic survey works, pre-dredge, interims, post-dredge, pulling wire lay survey, post lay surveys and post backfill surveys.

The Boskalis Westminster scope of work comprised the installation of both Landfalls and included the following:

- Landfall works in Scotland and Ireland – Marine Survey procedure
- Mobilisation of dredging plant
- Dredging of the landfall trenches to lines and levels as specified
- Backfilling pipeline landfall trench following pipe installation
- Demobilisation

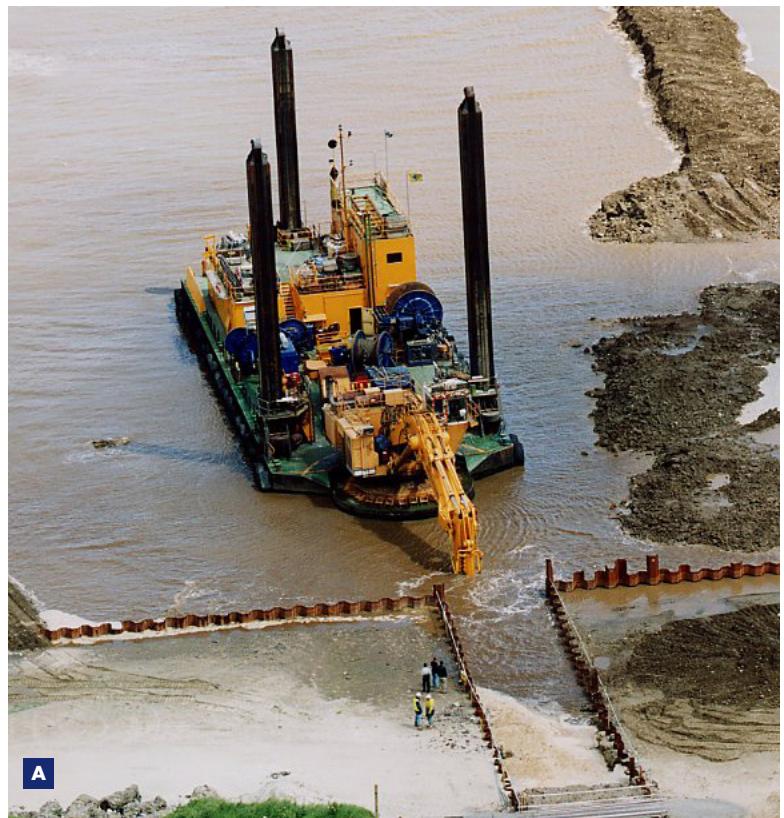
The trenches were dredged using a combination of spud mounted backhoe dredging and trailer dredging. Materials were stored temporarily in the designated spoil storage areas for future re-use. The backhoe generated spoil was side casted when necessary and transported in self-propelled barges; the trailer dredged material was loaded into the vessels integral hopper.

The backhoe dredger removed a substantial quantity of boulder clay during the dredging of the trench. In the case of the Irish landfall, two disposal areas were available – a temporary area (approx 200m to the south east of the trench) and a permanent area (approx 2000m north west of the trench). Most of the boulder clay was deposited in the permanent disposal area since it is not the intention for this material to be used for backfill.

A new second gas pipeline was laid from Scotland to Ireland. On both sides Westminster Dredging Co dredged the trenches for the landfalls. The material dredged was silty fine sand, at 64% of the total

FEATURES

Project Name	Gas Pipeline Project 2nd Interconnector
Client	Bord Gáis Eireann
Contractor	JV with Smit Land & Marine
Location	Landfalls at Ross Bay, Kirkcudbright, Dumfries and Galloway, Scotland and at Gormanston, County Meath, Republic of Ireland
Execution period	Jan - Aug 2002



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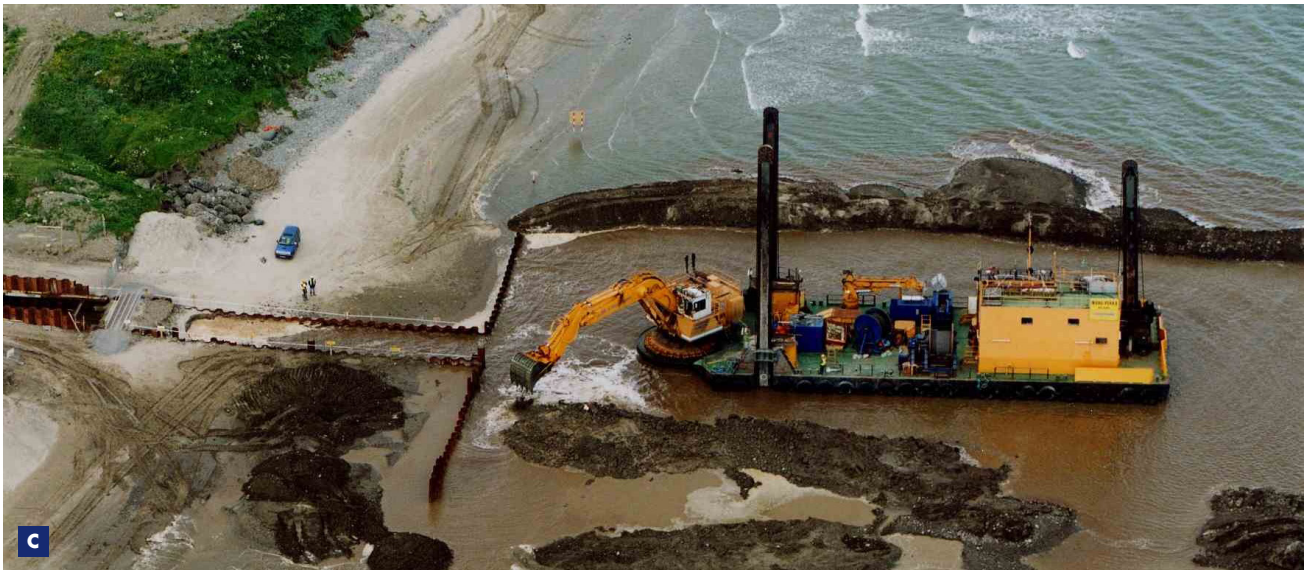
A Backhoe dredger preparing trenching for pipeline
B Landfall showing pulling system



B

volume, 36% of the volume was stiff boulder clay.

The Manu Pekka dredged the two soil types separately because the sand is classified as suitable for backfilling and the boulder clay is not. When not side casted, the material was loaded into barges and transported to either a temporary dump or a permanent dump, both approximately 3.5km.



C Backhoe dredging ahead of landfall trench
D Pipe Stringing in progress

Boskalis Westminster Ltd
Westminster House
4 Crompton Way
Segensworth West
Fareham, Hampshire PO15 5SS
United Kingdom

T +44 1489 885933
F +44 1489 578588

bwl@boskalis.co.uk
www.boskalis.co.uk