



Montrose Deepwater Berth – Dredging and Underwater Clearance

Contract Value: £ 1.28m
Consulting Engineer: Arch Henderson
Engineer's Representative: Craig Saunders (01382 561141)
Client: Farrans (Construction) Ltd
Client's Representative: John McReynolds (028 9055 1300)
Works completed: July 2011

Categories:- Marine Civil Engineering, Dredging.

Works Comprised:

- Dredging and disposal at sea of 32,500m³ to provide a berthing pocket at -8m CD for a new Deepwater Berth – the plan area of dredge being approx. 225m long x 40m wide with trimming of side slopes to existing bed levels.
- Dredging and onshore reclamation of a further 1,350m³ of sands and gravels.
- Underwater clearance including removal and segregation of approx. 250m³ of concrete and 50T of steel fragments.
- Clearance along and removal of 112m of sheet piles and 56No H Piles along a section of quay which had collapsed in 2003 and which had been pre-cleared by Farrans to allow installation of the adjacent new quay wall – this comprised final clearance between the 3m gap between new quay wall and the collapsed sheet and H Piles which had to be burned off and removed from the seabed at -9m CD (i.e. 1m below final dredge level).
- Removal of an additional 58No H Piles along the line of the original quay wall which had not been pre-cleared and where H piles were embedded in clay to a depth of up to 9m – and required the clearance around, water-jetting of clay to expose steelwork and the underwater burning by divers to allow for their removal in circa 3 stages to successfully remove these piles to -9m CD.
- All the above dredging and underwater clearance works were carried out using floating plant and equipment including a spudleg barge, 95T Long Reach excavator and disposal of dredge material at sea using a 450m³ Split-Hopper barge towed by a 34T bollard pull Tug. The main dive team operated from a flat-topped barge due to access constraints from the ongoing pilecap and quay deck constructions works which were being carried out concurrently.



Dredging & Clearance along the new quay wall



Collapsed H Piles removed to shore



Panel of collapsed sheet piles burned off underwater & being lifted off seabed and set onshore

