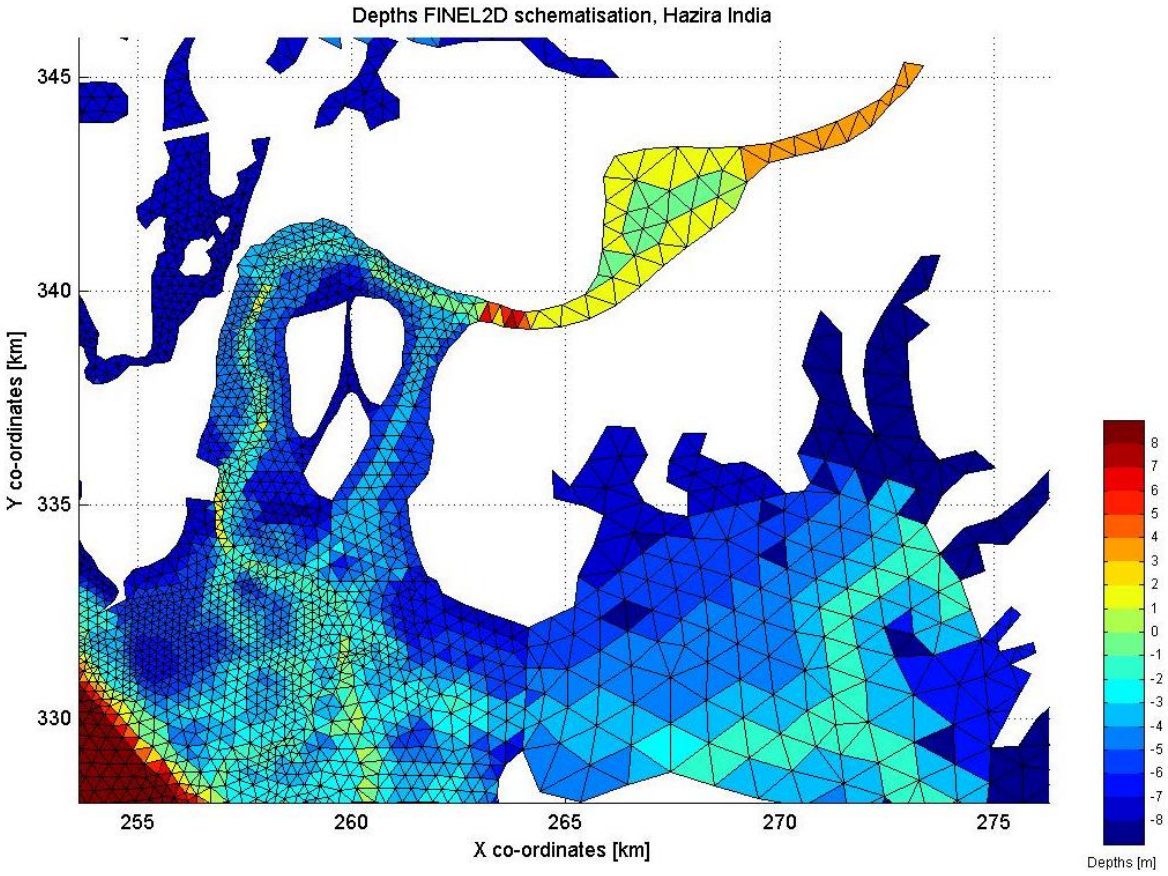

LNG Terminal Hazira, India
FINEL2D and MORFIN calculations

For the LNG/Multipurpose harbour at Hazira in the Gulf of Khambhat (India) a study has been carried out for the current patterns around several port layouts. For this study the 2-dimensional flow model FINEL2D has been applied. FINEL2D is a numeric model based on the finite elements method, which typically has triangular shaped gridcells, see the figure.

The computed current patterns were used as input for a number of related issues:

- Manoeuvrability of entrance channel and turning circle;
- Scour protection near structures;
- Morphological development and maintenance dredging.

On the basis of the results of the flow model, recommendations were made to optimise the port layout.

The morphological development of the area and maintenance dredging was analysed with a sediment transport model called MORFIN. MORFIN is based on FINEL2D with extra modules for sand and silt transportation.

Client
Shell Global Solutions

Location
Hazira, India

Date
2000-2003

Services
Flow (FINEL2D) and sediment computations (MORFIN)

Associated firms
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