

GEOCEAN REFERENCES

BRIDGE CONSTRUCTION

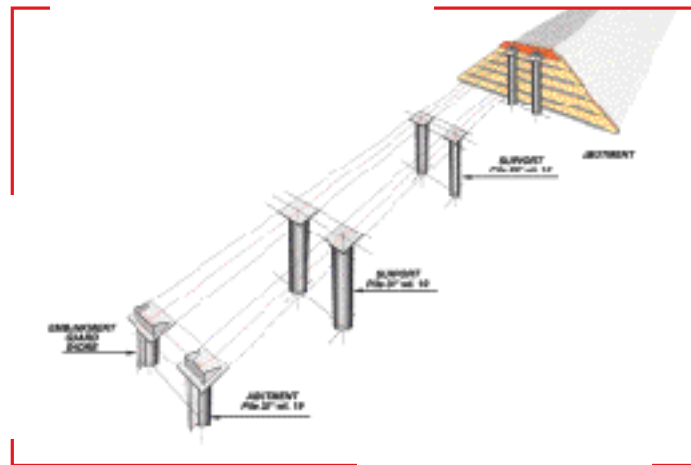


YADANA GAS DEVELOPMENT PROJECT
UNION OF MYANMAR

After achieving the construction of wharf and other facilities in the Heinze river, GEOCEAN was awarded another challenging project for the Yadana gas project. As a subcontractor to SPIE CAPAG, GEOCEAN was in charge of the Engineering, Procurement and Construction of 11 bridges along the 60 km surveillance track of the gas pipeline.

Contract included :

- complete engineering of the abutments and intermediate supports of bridges, including foundations,
- procurement and transport to site of all necessary materials,
- erection of a total of 22 abutments and 11 intermediate bridge supports,
- preparation of as-built documentation.



A SITE DIFFICULT OF ACCESS

AN INNOVATIVE DESIGN CONCEPT WITH

MODULAR ELEMENTS

AN ONSHORE PROJECT

HANDLED WITH

OFFSHORE METHODS

This project was challenging because of the difficulty to provide site work with raw materials necessary to build traditional concrete bridge supports and abutments. Therefore GEOCEAN has once again chosen an innovative design concept, with driven steel pile supported bridges and prefab concrete slab abutment walls. All elements have been

designed in strict compliance with site restriction in terms of transportation and handling means. While piles and steel elements were manufactured in Malaysia and Singapore, all concrete slabs were fabricated in Yangon. All materials and construction equipment then reached Heinze river on cargo barges.

YADANA BRIDGE CONSTRUCTION



Innovative Engineering

GEOCEAN engineered an innovative construction method to significantly reduce costs and completion time. Prefabricated piles and concrete slabs were delivered on site in cargo barges and then trucks, together with all construction equipment, and installed in exactly 2 months.

Quality Assurance / Quality Control

Very strict QA/QC procedures were followed, as required by TOTAL and routinely implemented by GEOCEAN. Pile capacities have been controlled by using the pile monitoring system commonly used in large offshore piling projects.

Very Tight Delivery Schedule

A careful management of project allowed to complete the whole project, including bridge steel spans in 4 1/2 months from contract signature.

MAIN CHARACTERISTICS

BRIDGES FEATURES

Total number of bridges: 11
Total number of abutments: 22
Total number of intermediate supports: 10
Total length of bridges: 522 m
Maximum height of bridges above ground level: 9 m

MATERIAL USED

Total length of 30" steel piles used: 750 m
Total weight of steel elements: 320 tonnes
Number of concrete slabs: 245
Total weight of concrete slabs: 780 tonnes

CONSTRUCTION EQUIPMENT

One IHC S70 hydraulic hammer
One ICE 416 hydraulic vibratory hammer
One 60 tonnes rough terrain crane
One 45 tonnes rough terrain crane
Three welding sets

TIME SCHEDULE

Award: 12/12/96
Start work on site: 20/01/97
Complete work on site: 30/04/97

