

Port Stanvac Refinery

SINGLE POINT MOORING

Planning and Design

PRDW were appointed as Proof Engineers for Transfield, with the brief to scrutinise the designs carried out by the contractor’s various design consultants, and to undertake the installation engineering for the pipeline, the buoy and its anchor piles, together with the production and implementation of the Installation Manual

Cape Town

Adelaide
South Australia
Australia
1991



Aerial View

Transfield Construction were awarded the contract by Mobil Refineries (Australia) to design, fabricate and install a single point mooring at the Port Stanvac refinery, near Adelaide.

The project involved extending the 914 mm diameter submarine oil pipeline by 2000 meters seawards of the of the existing MPM, installing six seabed anchor piles in 22 meter water depth, rigging and tensioning the buoy anchors and connecting the submarine and floating hoses. The entire operation, including the pipe pull, was to be carried out within a two week window during which the port would be closed.

The pipe assembly yard was located 60 meters above sea level, and set back about 600 meters from the shoreline. This necessitated a steep launch track which was cut through the cliffs to achieve an acceptable profile. The concrete coated steel pipes for the submarine line were assembled in the launch way in 300m lengths. The strings were skidded sideways into storage to allow the seven strings to be made up. The pipe launch profile was critical to avoid overstressing the pipe whilst still accommodating the geometric constraints of the site.

The development of fast and reliable installation methodology was paramount if the two week installation window was not to be exceeded. Close cooperation between the contractor, his design team and the client resulted in a successful installation and subsequent commissioning.



Ship in Single Point Mooring



Coastal View