

Project: **Gladstone Ports – Tug Base and Channel Dredging**

Principal:
Gladstone Ports Corporation

Location:
Gladstone, Qld

Contract Value:
\$5,500,000

Completion Date:
November 2012



Scope of Work

Neumann Contractors scope included the dredging of approximately 300,000 m³ from the Gladstone Harbour to clear material for a new tug berth area. The dredging of material of very hard clays, cobbles, gravel and a very coarse river sands from the tug berth area. The material was pumped 1200 meters through a 400mm pipe and a booster pump to a stockpile area.

The operation was completed on a 24 hour, 7 day week basis.

Innovations

Neumann Contractors experimented with various diameter bucket wheels, positioning of cutter teeth for better performance from the dredge and pumps because of the indifference of material types on the project. Reduced discharge pipe to deposit material further away in the fill area. Different techniques in batter cutting due to the material types.

Challenges

- Weather and sea state conditions.
- Dredging unpredictable material. Very stiff clays, gravel, cobbles and coarse river sands.
- Wear and tear on machinery and equipment.
- Strict dredging tolerances and programme.
- Dealing with other marine vessels.



Dredge **Nu-Endeavour – Cutter Suction Dredge**
 Length **34.5 m** Gross Weight **201 tonne**
 Pipe Dia. **450 mm** Digging Depth **2.5 – 15.0m**

