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## Sacrificial CP System of Bulk Jetty, Oman

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<b>Client:</b>	Saipem
<b>Consultant:</b>	Royal Haskoning
<b>Start:</b>	2010
<b>Completion:</b>	2011
<b>CP Cost of Project:</b>	\$ 850,000
	Sacrificial Anode Cathodic protection System of Bulk Jetty at Port of Sohar in Oman

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### **Introduction**

CTS were commissioned by Saipem to undertake the design of a sacrificial anode cathodic protection system for a new Bulk Jetty to be constructed at the Port of Sohar in Oman. The 600m working jetty which includes a 700m trestle was commissioned for the Brazilian Mining Conglomerate Vale and will be used for the import of ore from Brazil and export of steel pellets to the Middle East, India and Africa. The contract was awarded to a consortium of Saipem and AFCONS in 2010.



### **System Description**

Cathodic Protection was required for the 520 nos. steel piles to be installed as part of the project. The piles are coated in the sea water and atmospheric zones and bare below the sea bed. The consultant, Royal Haskoning, was particularly concerned about possible Accelerated Low Water Line Corrosion (ALWC) which is a major problem in some parts of the world and is caused by bacterial slimes in the tidal zones. The result can be rapid perforation of piles and sheet piling. This problem can be mitigated by careful cathodic protection design. Other challenges were caused by the deep water location causing restrictions on dive time for the installation crews. CTS were able to design and supply a cost-effective sacrificial anode cathodic protection system including the supply of 1600 nos. aluminium-zinc-indium anodes with a total weight of 200 Tonnes.

### **Commissioning**

CTS were retained to supervise the initial installation works and commission the cathodic protection. Final commissioning was carried out in 2011. Results showed an excellent distribution of protection both between piles and along the pile lengths from the seabed to the

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surface. Protection levels were adequate to mitigate the onset of ALWC.

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