

FINSCH MINE TAILINGS DISPOSAL FACILITY

ECMP constructed the new Britz tailings disposal facility at the Finsch Mine in the North Western Cape. The project included the earthworks for the starter embankments, the side cladding to the waste rock dump and the return water dam. The project also included all the tailings pipe distribution systems and pump stations. Upon completion of the construction phase, the project was handed over to the ECMP operations division for the ongoing management of the facility.



Year: 2007/2008
Contractor: ECMP (Pty) Ltd
Client: De Beers

BKM-TAILINGS DAM & THICKENER

ECMP designed and constructed the BKM paste disposal facility. The workscope included the earthworks for the tailings dam, return water dam and thickener terrace, as well as all the civil, mechanical and electrical works for the construction of paste thickener. Upon completion the project was handed over to the ECMP operations division for the ongoing management of the paste thickener and disposal facility.



Year: 2007/2008
Contractor: ECMP (Pty) Ltd
Client: The Associated Manganese Mines of SA Ltd

CONTROL BUOY GRAVITY BASE

In May 1999, Civil & Coastal Construction was awarded the design and construction of a control buoy gravity base structure by Dresser Kellogg South Africa.

The structure was to be deployed in the Moss gas EM Field development, some 85km south-east of Mossel Bay, anchoring a taut-moored control buoy. The gravity base would eventually rest on the sea-bed, some 100m underwater. The structural design was subcontracted to Entech Consultants from Stellenbosch and the foundation design to Advanced Geomechanics from Perth, Australia.

The gravity base was constructed in the Selbourne Dry Dock facility in Simon's Town. The footprint of the base is 15.47m², with a 25 cell 11.5m-high wall structure, capped by a 600mm-thick roof. The walls were slip-formed. An extremely high reinforcing density of 210 kg/m³ was necessary in order to satisfy Marine Warranty and Lloyds Register requirements. Reinforcing detailing and fixing proved highly complex. However, all deadlines set by the client were met.

Although the gravity base was towed to site and installed by an offshore contractor, model testing of the tow and lowering to below 100m was undertaken by the CSIR and Entech as part of the Civil & Coastal contract.



Construction progress in the Selbourne Dry Dock facility.

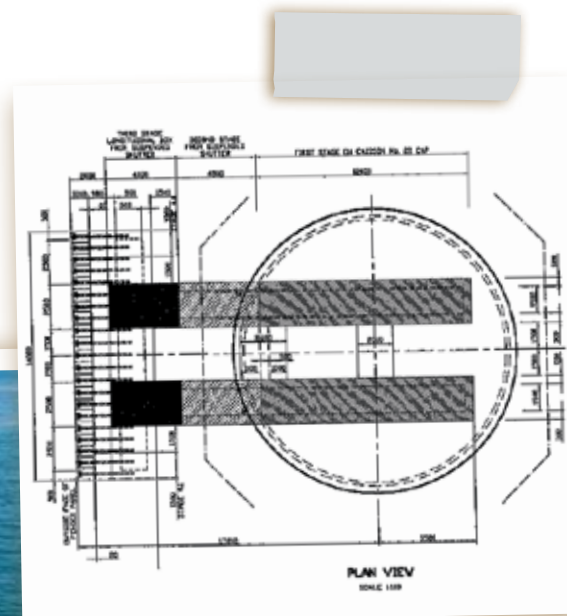
The project won numerous awards, including the SAFCEC President's Award in 2001, the Western Cape Annual Award for Excellence in Civil Engineering for 2000, and it reached third place in the National Annual Award for Excellence in Civil Engineering 2000.

Year: 2000
Contractor: Civil & Coastal Construction
Client: Dresser Kellogg South Africa

SALDANHA OIL JETTY BERTH - FENDER SUPPORT

This contract involved the alternative design and construction of a “launched” cantilever fender support from an existing caisson on the Saldanha oil jetty berth, saving Portnet nearly 50% on the postulated scheme by minimising floating plant, and employing launch-type construction and pre-cast systems.

Plan view of various stages of construction.



Year: 2004
Contractor: Civil & Coastal Construction
Client: National Ports Authority Saldanha

NAMAKWA SANDS

The scope of works included the electrical design, supply of electrical equipment and cabling, supply of all steelwork and pipe-work; and erection and commissioning of a mineral sands pilot plant.

The mineral sands pilot plant was erected and water-commissioned in the Skelton & Plummer yard before being stripped and transported to the Namakwa Sands site and re-erected over a total project duration of seven weeks.



The smelter plants - Skelton & Plummer supplied, fabricated and installed approximately 26 kms of piping, ranging from 10NB to 600NB.

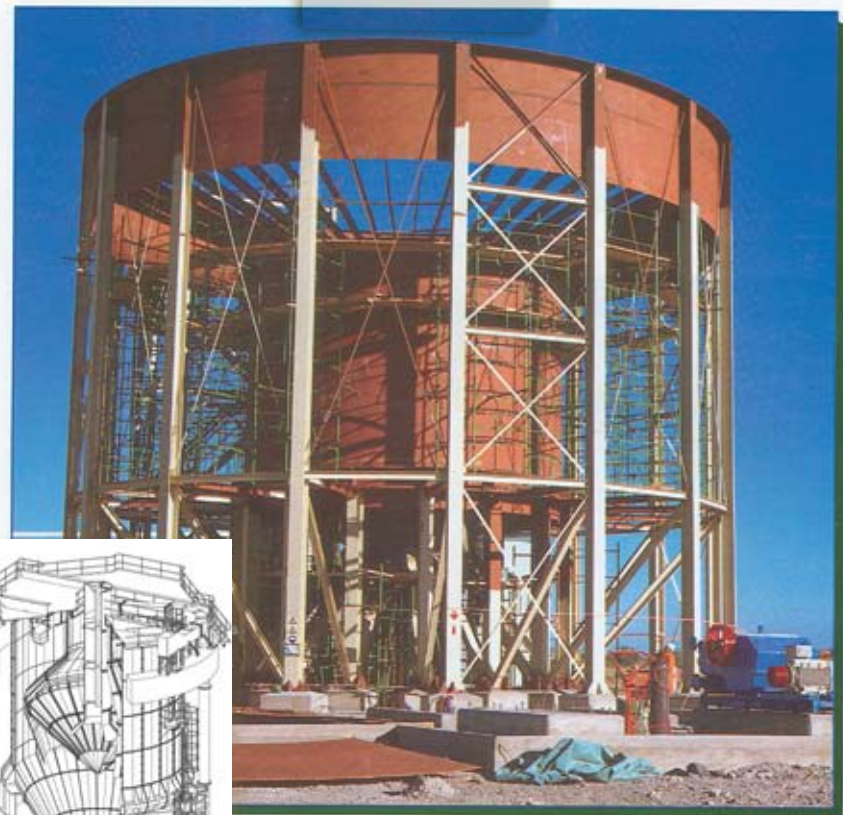
Year:	1994
Contractor:	Skelton & Plummer
Client:	Debswana Diamond Company

ORAPA DIAMOND MINE

In 1994 the Orapa Diamond Mine in Botswana invested in the construction of the Orapa Tasster in a bid to further conserve scarce water resources. At this time, the Tasster, built by Skelton & Plummer under licence for a French company, was the biggest Tasster built in the world.

The Tasster presented marked water saving in comparison with thickeners; the Tasster sludge product was mixed with other plant tailings and discarded to the tailings dump thus eliminating the need for slimes dams and, in the long-term, the Tasster proved more economical than thickeners.

Project management, design, supply and installation of a 16m diameter x 24m-high Tasster high-rate sludge compaction plant and associated equipment.



Above: The tasster plant under construction in the Orapa Mine red area.

The Tasster's advantages over the possible alternatives of thickeners have been:	
WITHOUT TASSTERS	WITH TASSTERS
1. 100,000 m ³ of water	0.25 million m ³ of water
2. 100,000 m ³ of tailings	100,000 m ³ of tailings mixed with 25% of water saving

Year: 1994
 Contractor: Skelton & Plummer
 Client: Debswana Diamond Company