

# Gravity Tales

## Tiomin Mineral Sands Project goes ahead in Kenya



**The Pilot Plant Team**

Since the mid 1990s Roche (MT) has been assisting Canadian resource company Tiomin in the development of its titanium mineral sands deposits in Kenya, Africa, the first of Tiomin's deposit to be mined is the Kwale deposit, located south of the coastal city of Mombasa.

Development of the Kwale mineral sands project has received all necessary approvals, with work commencing in August 2006 and due for completion by June 2008.

GM Glen Zille said "We are pleased to see this project proceeding after the many unexpected delays. Extensive evaluation and test work has been done to ensure the optimum process design will be achieved. We are pleased that Tiomin has expressed its confidence in our ability by awarding the engineering design of Kwale's wet plant concentrator, and the rutile and zircon dry separation plants to us.

In 1997 Roche (MT) built and supplied Tiomin with a pilot plant for its Kenyan site. Local staff operated this for a number of months to generate data for feasibility studies and to produce mineral samples.

For over 10 ten years Roche (MT) has assisted Tiomin with input to these feasibility studies. During this period, through its ongoing R&D programmes, Roche (MT) developed new technology in both wet and dry separation techniques.

The HC1 and HC1 RS high capacity spiral separators and Mark 7 HTR high tension roll separators, were then incorporated into the Roche (MT) flow sheet. This has provided significant improvements through a reduction in the number of separation stages required and a much smaller plant footprint, simplifying the separation process and lowering the project capital cost.

Glen Zille said: "The approval for the Kwale project is the culmination of 10 years of engineering and metallurgical work conducted by Roche (MT) for Tiomin. We are proud to have been associated with activities which assisted in the development of the deposit, and that will benefit the investors and the wider community of coastal Kenya."

## New agent for MT in Western Canada

Roche Mining (MT) have recently appointed agent Thurston Machine Inc. of Canada to assist with work in a country that is similar in size to the geographic vastness of Australia.

Working as Roche (MT)'s agent, Thurston Machine Inc. will be responsible for generating business in Western Canada which includes the five provinces of, British Columbia, Alberta, Saskatchewan & Manitoba and Northern Territories.

Roche (MT) Area Sales Manager (Americas) Peter Barker said; "The Western Canadian territory has an expanding export coal market with sales potential for spirals and it was becoming increasingly difficult to effectively capitalise on all these opportunities from the Company's America's office in Florida USA.

"Travelling from Florida to one of the Western Canadian provinces is similar in distance to crossing the Australian continent where it will take one full day. By having Thurston Machine Inc. close to the action, Roche (MT) is much better positioned to provide the high quality service that we have become well known for."

"With many mines operating in the Western Canadian territory and the tar sand business emerging as a viable source of heavy minerals through the treatment of tailings, it is a timely move for Roche (MT) to appoint an agent in the area" he said.

Vancouver is once again becoming a hub for engineering companies taking advantage of the global resources boom. Thurston Machine Inc. already has a key presence in this British Columbian city, as well as in Calgary for Alberta, and Saskatoon for Saskatchewan and Manitoba provinces.

"Thurston Machine Inc.'s strong coverage in the Western Canadian territory was a significant feature in engaging them as Roche (MT) agents," said Peter. The Company was established in 1988 as a specialised Western Canada distributor and manufacturers representative. Separation technologies, pumping and slurry valve applications are Thurston Machine Inc.'s areas of expertise.

## State - of the - Art Technology Acquired



In July 2006 Roche (MT) commissioned a replacement polyurethane casting machine at their Carrara production facility and saw the retirement of long-term comrade "The MAX Machine".

This casting machine had been the backbone of Roche (MT)'s capability for the last two decades but had recently become difficult to maintain and unreliable.

The state of the art unit incorporates many new technical features, which will decrease downtime and dramatically improve consistency in quality, while increasing productivity and providing a safer working environment.

The replacement machine is a new state of the art Polytec Emc DG200. Era Polymer's agent Hugh Fraser spent three days commissioning and coaching the polyurethane staff at Roche (MT) to an acceptable level of competency so that the unit can be ushered into production to meet our growing demands.

With the introduction of the DG200 come considerable benefits especially in the area of quality. This unit has a number of "fail safe" features that will eliminate the chances of substandard product being produced and reaching customers.

One of the most costly and time consuming aspects of the production process existed when pigment was added to enable colour selections to be met. Previously Roche (MT) have limited the colour selection choice to the standard range of two colours.

The new DG200 now provides four colours on tap and can be upgraded to more. This will enable Roche to offer more alternatives to meet client needs.

Operators and maintenance personnel at Roche are excited with their new "baby", and the improved operating and maintenance environment being experienced.

## Future Metallurgists to be found at Sheepvention 2006 in Victoria, Australia



Approximately 26,000 people attended the annual Sheepvention event that was held recently in the Victorian town of Hamilton.

The increase in this year's attendance which exceeded all expectations was perhaps due to the nearby and recently constructed mineral sands processing plants,

that were designed by Roche (MT) for Iluka on its new Douglas project.

Iluka is a regular supporter of Sheepvention and provided a display which illustrated various aspects of the Douglas Project, Iluka operations and mineral sands in general.

The Iluka display area created considerable interest again this year and the operating Walkabout Spiral which demonstrated the principles of gravity separation was a definite talking point. Judging from the interest shown by young and old, the show may produce a few more metallurgists and miners in the years to come.



## Sven Gade joins as Manufacturing & Materials Manager

We welcome German-educated Sven Gade who joins us in the position of Manufacturing & Materials Manager.

Sven who has a degree in Timber Engineering (similar to Mechanical Engineering) has a wealth of experience in production engineering and management, that has seen him work for CSR, Carter Holt Harvey and most recently Boral.

During his working career Sven has had particular success in driving business improvement initiatives, whether it be commissioning multi million dollar plants from design stage to full operation or significantly upgrading existing operations.