

Gravity Tales

Roche (MT) on the Move with Bemax



Roche Mining (MT) was recently awarded a \$29 million contract from Bemax Resources NL to undertake the design and construction of their new Gingko floating concentrator in New South Wales.

Glen Zille, Roche (MT) General Manager, said the project involves Roche (MT) relocating existing components from Bemax's Jangardup floating concentrator and refurbishing them to be incorporated into a redesigned concentrator to be reassembled in a new pond at the Gingko mine site.

"The Gingko project, 140 km north of Mildura in New South Wales, will be the first mineral sands project in the world to be fitted with Roche (MT)'s newly launched HC1 high capacity spiral technology," said Glen.

"The new technology allows twice the plant capacity for the same plant footprint, and will minimise the number of processing stages resulting in greater plant efficiency - a performance we have guaranteed," he said.

The contract for the design and construction of the Gingko floating concentrator follows Roche (MT)'s five-year involvement with Bemax on the project through various preliminary stages including pre feasibility and feasibility studies, and most recently completing the Definitive Engineering Design Phase (DEDP) in conjunction with Roche Mining (JR).

"Roche (MT) staff have completed the dismantling work in preparation for the transcontinental journey from the Marron site in Western Australia to the new Gingko site," said Glen.

"The 112 new HC1 high capacity spirals are being manufactured at Roche (MT)'s Carrara facility on the Gold Coast, ready for dispatch in August this year," he said.

"Bemax has also commenced work on site including construction of the mine pit, tailings and water storage dam and overburden storage areas," he said.

Site assembly of the wet concentrator plant is scheduled to commence in July 2005 with commissioning in December.

Following the completion of the design and construct project, Roche (MT)'s technical staff will conduct training with the local Bemax operators to ensure a smooth transition following the commissioning of the plant.

Pictured: Equipment from Bemax's Jangardup facility will be relocated and refurbished before being incorporated in the new wet concentrator.

Eneabba Spirals Stand the Test of Time

Roche (MT) is currently engaged in the continual order program for one of Iluka's Eneabba mineral sands concentrators, 150km south of Geraldton in Western Australia.

Marc Wellsted, Area Sales Manager - WA, said the work involves the replacement of the existing *MD* spiral technology at the 03 Concentrator plant.

"Iluka has been satisfied with the performance of *MD* gravity separation technology at Eneabba for many years, and has embarked on a replacement program to incorporate approximately 250 new MG4CF and HG10S triple start *MD* Spirals," said Marc.

"Essentially this demonstrates Roche (MT)'s longevity of both technology performance and reputation in mineral sands separation, and further strengthens its working relationship with Iluka," he said.

Production of the first order of the new equipment began in November 2004 at the Carrara facility on the Gold Coast, and will be supplied over the next 18 months as required by Iluka's installation program.

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Brazilian Office Beats Competition

Roche (MT)'s Brazilian team recently won a technology supply contract from an iron ore junior against fierce local competition.

Múcio Lima, Product & Marketing Manager Brazil, said despite a significantly competitive pricing strategy employed by the local competition, Roche (MT)'s technology and ability to address the client's individual needs secured the team a win.

The order is for 16 HG11 triples and 16 WW6E twin spirals for Minerita, a mine in Brazil.

"The client was particularly impressed with Roche (MT)'s technical expertise and the ability of our patented technology to provide high ore recovery and additional operational efficiencies," said Mr Lima.

This win demonstrates growing industry recognition of Roche (MT)'s value added technical and service capabilities the world over.

Pictured: (L-R) *Múcio Lima, Dilson Fonseca (GM), Kassio Fonseca (Process Engineer) and Edson Ferreira (Consultant) of the Minerita Mine.*



Roche (MT) on Show

Roche (MT) has been on the road promoting its patented technology and world-class metallurgical services in the USA.

Peter Barker, Roche (MT)'s Area Sales Manager, said the USA trade shows, MinExpo and the Society for Mining, Metallurgy and Exploration (SME)'s show, are an important vehicle for Roche (MT) to promote the company's range of patented technologies and metallurgical services.

"Minexpo is one of the largest global shows held in the USA. Held every four years, it is a convergence of thousands of US mining, minerals

Iluka's Douglas Project Equipment on Schedule



Roche (MT) completed manufacture of its proprietary equipment for the Douglas project in Victoria's Murray Basin in March 2005.

The wet and dry separation technology was manufactured and assembled at the company's Carrara facility on the Gold Coast in Queensland Australia, and will be incorporated into Iluka's new mineral sands processing plants.

The equipment order included 47 *Carrara* High Tension Rolls, 11 *Carrara* Electrostatic Plate Separators, 5 *Reading* Wet High Intensity Magnetic Separators (Whims), 12 *Reading* Induced Roll Magnetic Separators (IRMS), around 400 *MD* Spiral starts and 22 Wet Shaking Tables.

The Carrara High Tension Roll equipment used in this project is the first application of the latest generation of this technology, which we launched in 2004. The equipment package represents the leading technology used in mineral sands separation today.

Roche (MT) has been working with Roche (JR), in the execution of this lump sum contract and has undertaken the process and engineering design and equipment supply. Roche (MT) will also be responsible for process commissioning and guarantees for equipment performance and product quality over the next 12 months.

Roche (MT) staff have begun training the Douglas operations team in the optimum use of equipment and will provide technical assistance in preparation for the first 6 months of operation.

and metallurgical groups to deliver technical papers and promote their technologies and services," said Peter.

Roche (MT) also attended the Society for Mining, Metallurgy and Exploration (SME)'s trade show, an annual show attracting hundreds of industry players, held this year in Denver, Colorado.

"Both trade shows were successful in re-establishing contact with existing clients in the region and introducing potential clients to our product range," he said.



Pictured above: Roche (MT)'s display at MinExpo in September 2004. Dan Shaw (left), Roche (MT)'s coal agent, and Peter Barker.

HC Spirals – A New Generation is Born

Roche (MT)'s newly launched High Capacity (HC) Spiral is able to provide greater operational efficiencies in the separation of low to medium grade mineral sands deposits, delivering a greater throughput in a smaller plant area.

Glen Zille, Roche (MT)'s General Manager, said conventional spiral models, with diameters of approximately 660mm, are limited to capacities of around 6 to 9 tonnes per hour (t/h) for a typical 3 start arrangement.

“Roche (MT)'s 850mm HC spiral can be assembled in a 4-start configuration and treat 4 to 7 or more t/h per start, giving it a capacity of up to 28 t/h per spiral,” said Glen.

“Essentially, a plant employing the new spiral model can deliver a similar efficiency and throughput in an area of half the footprint,” he said.

“This new technology has major implications in new mineral separation plants, where a 1500tph facility can be built on the same footprint as a traditional 800tph plant providing the client a reduction in both capital expenditure and operating costs,” he said.

Bemax Resources NL is the first client to incorporate the new HC Spiral technology in their Gingko floating concentrator project in NSW.

MD spirals have been used in large and small scale processing plants around the world for more than 40 years. The new HC spiral provides twice the throughput in the same plant footprint.

On going commitment to Research & Development by Roche (MT) ensures that *MD* spirals remain the leading gravity separation technology.

For information on how the HC Spiral may be incorporated in your mineral sands project, contact your local Roche Mining (MT) office.

Safety and Productivity Improvements at Roche (MT)'s Carrara Facility



Roche (MT)'s Carrara facility is currently undergoing a major reorganisation to incorporate safer work practices and streamline work processes.

Alistair Harriman, Roche (MT)'s Manufacturing and Materials Manager, said the reorganisation of the factory was necessary to accommodate the unprecedented increase in equipment orders, ensuring the safety of workers at all times.

“The reorganisation will allow work to flow from an inward goods point at one end to a packing and dispatch outward goods section at the other end, whilst providing more working space and a safer layout for all,” said Alistair.

“Our factory staff are intimately involved in the reorganisation, discussing workflow and safety items at daily PSI (Pre Shift Information) meetings, making regular safety improvements and strengthening our culture of continuous improvement,” he said.

This ongoing process will serve to reduce workplace hazards caused by having non-compatible activities adjacent to each other as well as reducing operational costs by reducing rehandling of work in progress.

Pattern making has been relocated to an area dedicated to R&D activities and our metal cutting equipment is now contained in a newly constructed annex. We've also remodelled the spiral production equipment to provide a suitable area for the Kelsey jig assembly,” he said.

The reorganisation includes establishing a separate stores facility, and new production area for the manufacture of special products.

RocheSAFE standards were applied to the new layout design and major hazard reductions have already been achieved by segregating forklift traffic and increasing general housekeeping practices.

365 Days LTI Free

Roche MT's Carrara facility recently achieved 365 days LTI Free.

Glen Zille, Roche (MT)'s General Manager thanked everyone for their continued commitment to safety and emphasised the role individuals play in creating a workplace free of injury.

“Whilst this is a milestone to be recognised, we must remain diligent and continue to make improvements in order to ensure that everyday is a safe day at Roche (MT),” said Glen.

Russian Expedition

Dale Henderson, Roche (MT)'s Business Development Manager – Eurasia, recently visited Russia, Ukraine and Germany to attend the 5th Mineral Processing Congress in Moscow and to meet with clients and strategic partners to discuss their mineral processing challenges.

"It was an opportunity to strengthen the relationship with our strategic partners, Cetco, AKW and allmineral, who have represented Roche (MT) for many years in the region," said Dale.

"We visited processing plants and reviewed processing requirements and discussing Roche (MT)'s capabilities and the benefit our broad range of technologies could have in their operations," he said.

It was also a chance to learn more about the unique needs of clients in this region, particularly the interesting economics of projects, which provides us with valuable feedback for the research and development of new and existing product lines treating silica sand, mineral sand, iron ore, sand and gravel.

Milton office moves to Gabba

The Roche (MT) Milton office in Brisbane recently relocated across the river, to the Gabba Towers in Woolloongabba.

Roche (MT) was previously sharing office space with the Roche Group's contracting and engineering company, Roche (JR), which required additional space to accommodate its own rapidly expanding eastern operations.

The new Gabba Towers office houses a group of approximately 21 Roche (MT) engineers mostly working on the Iluka Douglas and Bemax projects.

Long Service Awards

In 2004, eight employees celebrated Long Service Achievements with Roche (MT).

Mark Newman	30 years
Bruce Selvey	30 years
Lesley Capron	20 years
Dolf MacHunter	20 years
Lance Hayes	15 years
Noel Nugent	15 years
Scott Broadbent	15 years
Dale Henderson	10 years

The achievement was celebrated by all staff at the 2004 Christmas Party where each person was presented with a certificate and a gift.



***Pictured above** (top) Glen Zille and Scott Broadbent, (middle) Glen Zille and Bruce Selvey, and (bottom) Ian Terrill, Terry Foley and Lesley Capron.*

Jackson Visits Carrara



Roche (MT) Social Club's sponsored guide dog puppy, Jackson, paid a visit to the Carrara office.

As a Puppy Sponsor, Roche (MT)'s social club has raised nearly \$3,500 over the last twelve months for Jackson's puppy training.

It costs nearly \$25,000 to train a guide dog so they can assist a vision impaired person, and the money that employees and the company have raised will go towards the costs of care in Jackson's first twelve months with his Carer.

Jackson will graduate the puppy program in May and then head to the Guide Dog Association training kennels at Bald Hills in Brisbane to undergo six months intensive training.

All going well, Jackson will be paired up with a vision-impaired person soon after his training is complete.

We look forward to our next visit with Jackson, when he has graduated as a fully trained guide dog and meeting his new owner. Until then we wish him the best of luck.

***Pictured** (L-R) Linda Maher – Guide Dogs Association, Robert Logan – CEO Roche Mining, Sue Rowcliffe- Jackson's Carer, Glen Zille – GM Roche (MT) and Jessica Dunning Roche (MT)'s social club committee member.*