



Quarterly Report

for the period ended 30 September 2003

HIGHLIGHTS

- India – A commercial cooperation agreement was concluded between the company and Beach Minerals (Sands) Company (“BMC”) on 11 July 2003. BMC is a private Indian company that owns a world-class deposit and operates an established mineral sands mine – as distinct from a long-term development project – in the southern State of Tamil Nadu. The agreement provides for broadening and expanding this operation utilising the MDL group’s fixed asset base, experienced workforce and the long-established strength of the “MDL” brand name for marketing purposes.
- Senegal – Negotiations on the terms and conditions of a Mining Research Convention to exploit a major heavy mineral sands deposit on the coast of Senegal, north of the country’s capital and major port Dakar, between the company, private Senegalese interests and the Government of Senegal were further progressed during the quarter (culminating in Ministerial signature of the Convention in Q2 announced to the market on 28 October 2003).
- Australia – The dredging operation at Fullerton effectively ceased in early August, brought forward by an adverse movement in the exchange rate of the Australian dollar versus the US dollar and lower average ore grades being achieved. Most site plant and equipment is to be redeployed to south India to provide low-cost entry into BMC’s existing operations.
- The company had domestic cash reserves of \$1.79 million at 30 September 2003 and remains debt free other than as regards some motor vehicle and office equipment hire purchase/lease agreements progressively being paid out as operations wind back in New South Wales.
- Finished stock and concentrate (at cost) were valued at \$2.15 million with receivables of \$0.81 million at quarter-end.
- Appointment of Mr Martin Ackland as an additional non-executive director.



HAWKS NEST OPERATION

INTRODUCTION

The New South Wales mineral sands operation remains 100%-owned by MDL. The dry separation processing plant and administration offices are located at Hawks Nest on the coast, about 80 kilometres north of Newcastle.

The operation continued to involve the production of rutile, zircon and ilmenite concentrate at the Fullerton mine site where activities ceased during the quarter. The Hawks Nest dry mill, where the final stage occurs, continued processing stockpiled concentrate for some months and has been placed on care and maintenance pending arrival of the first shipments of rutile and zircon concentrate from Kuttam, India in 2004/05.

Final rutile and zircon products are trucked from Hawks Nest to Newcastle for storage and bulk shipment to overseas customers. Ilmenite continued to be sold in small quantities to local buyers at the mill site.

MARKETING

Rutile and zircon products are sold entirely into export markets. Shipments are generally made through Newcastle.

The company produces a high quality rutile sold into niche sections of the pigment and titanium metal markets. Zircon is a high quality product which is sold mostly in bagged or container form into market sectors based on technical need.

Remaining metal stocks as at 30 June 2003 and most anticipated output during the quarter just concluded are covered by contracts with established customers through 2003/04.

MINING

	Quarter to 30 September 2003 (tonnes)
FULLERTON MINE SITE*	
Sand treated	364,848
Rutile	217
Zircon	107
HAWKS NEST DRY MILL PRODUCTION	
Mill feed	3,293
Rutile	1,133
Zircon	723
Ilmenite	647

* Mining operations ceased 16 July 2003.



INDIA

OVERVIEW

On 10 July 2003, MDL announced it had entered into an agreement with a private Indian company, BMC, to expand its existing operations in India, exploit untapped by-products containing rutile and zircon and provide marketing expertise.

The project is located in the State of Tamil Nadu on the southeastern tip of India. It is world-class in terms of size and high grade (up to 20% heavy mineral) and offers a long mine life.

BMC's existing operation, known as Kuttam, lies some 90 kilometres east of the southern tip of India or 70 kilometres southwest from the major seaport of Tuticorin.

The above agreement will see the transfer of the group's nine million tonne per annum Fullerton dredge to BMC over the coming months where it will be reconfigured and is expected to be commissioned by the end of the first quarter in 2004. The company is already providing technical expertise in respect of a technical upgrade to BMC's existing separation plant and a planned dredge mining programme at Kuttam. The determined resources available on BMC's mining lease at Kuttam are expected to sustain such dredging operation for several decades. BMC will fund the costs associated with shipping the dredge from Australia and its reconfiguration and assembly on-site in India.

At present, BMC operates a modern garnet and ilmenite separation plant. This plant is currently being enlarged by BMC to further enhance product quality to meet known customer specifications and to handle the substantially expanded production which would come from installation of the Fullerton plant. MDL is also providing technical assistance to BMC in respect of this plant upgrade.

In addition to the magnetic fraction that will be treated in the expanding plant at Kuttam, MDL is providing expertise and equipment for the separation of the valuable 'non-magnetic' minerals to enable the production of a concentrate of rutile and zircon. MDL will purchase the rutile and zircon concentrate to be produced by BMC at an agreed price. It is currently proposed to ship this non-magnetic concentrate to Newcastle in Australia for further treatment in MDL's existing 80,000 tonne per annum Hawks Nest dry mill. This additional processing will produce good quality rutile and zircon products for on-sale to MDL's existing customer base.

Pursuant to the agreement between the parties, MDL is assisting in the marketing of BMC ilmenite and will receive a share of the revenue resulting from these sales. By prior arrangement, MDL has been active in the marketplace for some time in this capacity. BMC will meet all operating costs associated with production in India and retain all garnet for sale to its customers. Income to MDL from ilmenite sales is expected to commence in the first half of 2004.



BEACH MINERALS (SANDS) COMPANY LIMITED

BMC, one of the pioneers of the garnet industry in India, is now the largest Indian garnet producer and, on expanding the current operation at Kuttam, will become one of the world's major garnet exporters. The garnet produced by BMC is of high quality and is readily accepted by customers in the global market.

The company has mining leases covering a dunal system along the seacoast at Kuttam of approximately 18 kilometres in length and up to one kilometre in width. BMC has 100% freehold title to the current mining leases. Equally significant, BMC holds freehold land covering a portion of the nearby major mineral sands deposits Navaladi and Sattankulam, previously investigated by the company in recent years.

The resources owned by BMC around Kuttam, which are presently 'dry mined', are extensive and high grade. MDL has been working closely with BMC for some time on drilling and sampling followed by comprehensive mineral separation testwork to establish the viability of the proposed expanded operations.

Mineral Sands Deposits

Satellite photography of the region from the tip of India northeast to Tuticorin, some 160 kilometres in length, reveals three major red areas of sand known as "Teri" sands. Each of these features extend up to 20 kilometres in length. As previously reported, the Teri sands deposits of Navaladi, Sattankulam and Kudiraimozhi contain about 21.3, 20.0 and 18.6 million tonnes of heavy mineral respectively.

The lightly coloured coastal system parallels the beach and extends up to one kilometre inland. This region is the initial focus of the company in conjunction with BMC.

All deposits are largely unpopulated and are accessible by road to the regional Tuticorin seaport. All deposits contain visible heavy mineral at surface. The inland Teri sands are high in slime (up to 15%) while the coastal dunes generally contain less than 5% slime.

The Kuttam coastal dunal system of free-running sands, reminiscent of the dune system at Fullerton in NSW, contains heavy mineral grading around 15%. The contained heavy mineral measured in millions of tonnes is unknown but current knowledge indicates that it will sustain a long mine life. This deposit is currently being mined and will be the initial focus of the BMC / MDL collaboration.

Kuttam Exploration and Development Work

The Kuttam mineral sands mining leases, which stretch a distance of about 18 kilometres, comprise three distinct coastal dunal systems known as Kooduthalai (two kilometres), Kuttam (four kilometres) and Periyathalai (12 kilometres). All areas contain a frontal dune adjacent to the beach. The Kooduthalai sand system is generally flat. Kuttam and Periyathalai, however, contain rolling dunes up to 30 metres above the natural surface. Each dunal system is separated by a small township.



With the guidance of MDL, an exploration team comprising BMC employees conducted an initial test drilling campaign over an area of approximately 350 by 450 metres (0.16 square kilometres). The focus of the drilling was immediately adjacent to the main dry separation plant in the northeast corner of the Kuttam dunal system. The mineralised zone at Kuttam covers an area of some 4,000 by 1,000 metres (4 square kilometres).

The aim was to gather enough representative sample to pass through a circuit simulating the Fullerton concentrator before routing the final concentrate to produce rutile and zircon through a process similar to that employed at the Hawks Nest dry mill.

The company has concluded that post-relocation the Fullerton plant will need a number of modifications, namely pumping requirements and spiral circuitry, largely to enable it to handle the very high grades. The Hawks Nest dry mill itself will need only minor modification to produce acceptable quality products suitable for known offshore markets.

Subsequent to this work, MDL and BMC began a systematic resource evaluation. In addition most of the engineering and mineral processing design work for the concentrator was completed and the company expects to begin the substantial process of moving the Fullerton plant late in 2003.

SENEGAL

OVERVIEW

MDL has, for some time, been negotiating with a private Senegalese syndicate and the Government of Senegal to secure mining title to a very large mineral sands resource along the country's coast.

Senegal is located on the western “hump” of Africa. The capital and major port, Dakar, is at the most westerly point along the coastline of Africa. The country is a similar size in area to Victoria, Australia. The heavy mineral sands project area being evaluated is located on the coastal strip commencing about 100 kilometres north of Dakar.

The project has many positive features which attracted the company's interest. Between 1990-93, DuPont Chemicals (USA) confirmed resources of 19 million tonnes of ilmenite, 1.7 million tonnes of zircon and 950,000 tonnes of hiti (a mix of rutile and leucoxene). A high grade core of 150 million tonnes grading 4.9% heavy mineral containing 4.5 million tonnes of ilmenite, 400,000 tonnes of zircon and 225,000 tonnes of hiti was outlined by hand drilling at 400 by 100 metre spacing. The ilmenite within the deposits was shown to contain the following:

TiO ₂	54.8%
FeO	±14%
Fe ₂ O ₃	±22%
Cr ₂ O ₃	0.15%
U/Th	78ppm

Of particular interest is the relatively high grade of high quality zircon.



The minerals are in free running clean white sand dunes, very similar to the Fullerton operations, and would readily support a dredging operation based upon MDL's existing 20 million tonne per annum Viney Creek dredge and concentrator. The open sand dunes are about 130 kilometres in length with an average width of some 1,000 metres. The licence area of the resource covers the entire dunal system.

These largely barren dunes have no apparent major environmental issues. There is no human habitation on the dunes and very limited occupation adjacent to them. There is no overburden, minimal slimes, negligible vegetation and a water table some 2 metres below the surface.

The major consumers of zircon, rutile and ilmenite are located in Europe and the United States. The close proximity of Senegal to the major markets will provide significant transport cost advantages and possible better inventory management on their part.

The main highway between Dakar and St Louis runs within 20 kilometres of the deposits. A rail link connects a nearby phosphate mine, (15 kilometres away) and the port of Dakar. Power requirements are well serviced in the region principally as a result of the economically important phosphate mine.

MINING CONVENTION AND JOINT VENTURE ARRANGEMENTS

A Convention Agreement, the terms of which were finalised between the company and the Government of Senegal in the quarter under review (culminating in Ministerial signature of the Convention in Q2 announced to the market on 28 October 2003) provides for:

- (a) the grant of a four year exploration permit to MDL with the terms (royalties, taxes etc.) in place to enable it to engage in mineral exploitation, if viable;
- (b) MDL to spend US\$950,000 over the above four year period;
- (c) the Senegalese Government to enjoy a 10% free carried interest (after return of capital);
- (d) ad valorem royalty of 3% which, under the *existing* Mining Code, would be ex-mine;
- (e) a corporate tax rate of 15% as an export-related undertaking (the usual rate of tax being 35%);
- (f) the free transfer of all funds;
- (g) no necessity for an export licence;
- (h) no withholding, import or export taxes; and
- (i) no requirement for value-addition.

The company has been given to understand that new mining legislation awaiting promulgation is likely to give mining companies either a five or seven year tax-free holiday.



Prior to the finalisation of the conditions of the above Mining Convention, a private Senegalese group known as the Diouf Syndicate and MDL completed a joint venture agreement in anticipation. The terms include that:

- MDL will be the manager and is able to earn a 70% interest in the joint venture by expending US\$950,000 over a four year period; and
- on MDL earning its 70% relevant interest, the Diouf Syndicate would have a 90 day option to decide to either contribute funds to the joint venture on a pro-rata basis or dilute to a 10% free-carried interest.

On Presidential ratification of Cabinet’s recommendation in regard to and signature of the Mining Convention, and should MDL develop a viable heavy mineral sands project, it is therefore likely that the final project equities will be:

MDL:	81%
Government:	10% (free-carried after capital repayment)
Diouf Syndicate:	9% (assumes dilution to free-carried after capital repayment)

TESTWORK

Following an appraisal of the heavy mineral sands deposits on the coast of Senegal in June 2001, MDL, with the permission of the Government, made a decision in early calendar 2002 to further evaluate the deposits.

A bulk sample of heavy mineral sands of some 8 tonnes was gathered from two areas known as Mboro and Fas Boyes, approximately 20 kilometres apart.

The sample sizing and the constituents within the ilmenite and zircon products were nearly identical for both sites, demonstrating that the dunal system is very homogeneous. A similar conclusion was drawn by DuPont at an earlier date. Heavy mineral grades determined were similar to the DuPont data.

Testwork on the zircon sample confirmed the product was of high quality suitable for sale to our major global customers. Testwork by a customer itself also reported that the zircon was of good quality.

A range of the normal testwork has been completed on the ilmenite in the samples to test their acceptability for the various commercial pigment processes. We are developing a suitable beneficiation route and are confident that a suitable marketable product can be readily extracted.

OTHER OPPORTUNITIES

The company continues to seek out and pursue domestic and overseas mineral sands opportunities of possible interest such as the one in India crystallised during the quarter and that in Senegal further progressed by 30 September 2003. Given current circumstances, particularly the strong Australian dollar, potential local projects remain on hold.



CORPORATE

APPOINTMENT OF DIRECTOR

The company was pleased to announce the appointment of Mr Martin Ackland as a non-executive director on 18 July 2003.

Mr Ackland has spent over thirty years in the resources industry in a variety of roles that involved the creation of major resource groups from small capital bases. He brings to MDL a very strong background in project development at a time when the company's overseas projects are entering the crucial development phase.

CASH RESERVES

As at 30 September 2003, cash reserves were \$1.79 million.

FINISHED STOCKS (RUTILE AND ZIRCON)

Finished stocks and concentrates (at cost) were \$2.15 million with receivables of \$0.81 million at quarter-end. All stock is already sold forward under contract.

EXPLORATION EXPENDITURE

Exploration expenditure on all projects abroad totalled \$216,094 during the quarter.

NOTICES

The information contained in this report is based on, and accurately reflects, information compiled by Mr J. Williams who is a Corporate Member of the Australasian Institute of Mining and Metallurgy.

Mr Williams has relevant experience in relation to mineralisation being reported to qualify as a Competent Person as defined in the *Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves* and Chapter 5 of the ASX Listing Rules.

A handwritten signature in black ink that reads 'Jeff W. Williams'.

Jeff W. Williams
Managing Director