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Quarterly Report for period ended 30 June 2004

HIGHLIGHTS

- ❑ **Senegal** – Work on the development of the Grande Côte Zircon Project continued to gain momentum during the quarter. The metallurgical testing on the 45 tonne bulk sample is largely complete and the preliminary results are encouraging. Drilling and other support equipment have started to arrive on site and other ancillaries, including buildings, necessary to support the feasibility study investigations are being established.
- ❑ **India** – MDL dismantled the floating concentrator at the Fullerton mine in the March quarter and the equipment is now on site in India awaiting installation in the new facility, which is close to being completed. Once MDL/Beach Mining Company have reassembled the relocated plant and equipment, the objective will be to enhance the quality and maximise the output of ilmenite as quickly as possible.
- ❑ **Australia** – Restoration and rehabilitation work continued on the Fullerton dredge site and the Viney Creek dredges and dry mill continued to be maintained under a comprehensive care and maintenance programme prior to their planned relocation to Senegal early in 2005.
- ❑ **Corporate** – The company lodged a full complying bid for the Sabodala Gold Project in Senegal in early June 2004. Results of this tender were expected by the end of June but, as yet, have not been released by the Senegalese Government. In order to clarify and promote the reception of the tender documents, visits were made by MDL's executive management to Senegal during the quarter. The company will release the outcome of the tender as soon as it is known.

SENEGAL

MINERAL SANDS PROJECT

Work on the Senegal Grande Côte Zircon Project (“SGCZP”) gathered pace during the quarter:

- The feasibility study gained impetus and is progressing well.
- The MDL-owned track mounted drill rig has been despatched from India and is currently being serviced on site in Senegal prior to the commencement of the drilling programme designed to assist in mine planning and design. A second drill rig is being prepared for despatch from Viney Creek in order to accelerate the drilling necessary to better define the resource below the watertable and to allow more complete design of the dredge paths.
- Metallurgical testing of the initial 45 tonne bulk sample is largely complete with preliminary results providing encouragement on the quality aspects of the zircon, rutile and leucoxene.
- Detailed geological and data compilation work was carried out resulting in an improved understanding of the geology and mineralogy of the SGCZP heavy mineral deposits. Work was progressed on the preparation of a dredgeable resource estimate and the most likely site for commencement of mining identified. Preparations for drilling to enable mine planning to commence were largely completed.
- The terms of reference of the environmental impact study have been approved by the Senegalese Department of Environment. A highly rated local consultant firm (Tropica) has been selected to start the study soon.
- A field office has been established at Tivaouane, a town close to the centre of gravity of the four main deposits.
- A new compressor has been purchased with a booster capacity enabling the collection of samples at depth below the watertable.

Grande Côte Geology and Mineralogy

The SGCZP heavy mineral deposits are focused in the areas of Mboro, Fas Boye, Diogo and Lompoul, over a distance of some 50 kilometres. Past reconnaissance drilling has outlined further deposits, both to the southwest and northeast, for a total strike length of 70 kilometres. There is potential for additional deposits both within and beyond the limits of present drilling. The heavy minerals are concentrated in a series of high mobile dunes which extend inland for up to 4.5 kilometres from the beach. The heavy mineral suite is principally ilmenite with associated zircon and rutile.

Previous work by BRGM (the French state owned geological exploration and minerals organisation) and DuPont, in particular, has outlined potential for a very large heavy mineral resource. The associated zircon alone, approximately 10% of the heavy minerals (HM) suite, is considered by MDL to be sufficiently valuable to justify the investigation of recovering this mineral by bulk mining using a dredge.

Preparation of composite samples for mineralogical assessment for the southern and northern halves of the principal Diogo resource is in progress. These samples are being prepared from samples obtained from the previous drilling and the bulk composites will be shipped to Australia for analysis and metallurgical testwork.

Resource Estimation

The data from these earlier drilling programmes was accessed with support of the Ministry of Energy and Mines in Dakar and compiled into a new database in Melbourne by a consulting resource specialist geologist. This work is ongoing and data validation is almost complete. A JORC compliant dredgeable resource estimate is in preparation and should be available during the September quarter.

Drilling of the Grande Côte area by DuPont in 1990-1992 comprised 534 reconnaissance RC drill holes for 11,799 metres and then 6,944 grid based (100m by 400m) hand shell auger drilling holes for 37,631 metres. Total drilling data in MDL's database is 7,478 holes for 49,423 metres.

Previous hand drilling did not readily test beneath the watertable and previous DuPont resource estimates comprised "geological resources" for heavy minerals only above the watertable. The results of the previous reconnaissance RC drilling and the depth of the watertable support MDL's proposal for dredging. This drilling also indicates potential for additional resources beneath the watertable.

Initial Mining Area

Preliminary dredgeable resource estimation, based on cross sectional interpretation, identified a 6.8 kilometre zone within one of the main resource areas as meeting MDL's requirements for commencement of mining. This zone has the potential to provide 60 million tonnes at a grade in excess of 2.5% HM. The strip ranges in width from 200 to 700 metres. A nominal 3 metre pond depth is estimated, pending additional drilling.

Mine Plan Drilling

Mine plan drilling of this initial resource zone will be undertaken using MDL's own specialised RC drill rigs and expertise. These Bombardier track-mounted rigs have an excellent record of mineral sands reserves drilling for both RZM and MDL. One of the rigs is currently being recommissioned in Dakar, having been relocated from MDL's last drilling project at Kuttam in southern India. The other will be shipped from Newcastle in NSW during the current quarter. MDL has also purchased two additional Bombardier Muskeg tracked support vehicles and these are currently in transit to Dakar in containers. These containers will then be used as storage facilities on site.

The initial drilling programme, using the two drill rigs, will comprise 11,400 metres at a drill spacing of 40 metres by 200 metres to enable mine path design and reserve estimates to be completed. Drilling should be completed during the December 2004 quarter.

Drilling support work will include the establishment of an assay laboratory at Tivouane utilising equipment from MDL's Hawks Nest laboratory, preparation of a digital basemap from aerial photographs and employment of professional Senegalese staff to assist the recently appointed Senegalese Country Manager.

Bulk Testing

The testwork conducted at Roche Mining / Mineral Technologies on the 45 tonne bulk sample from SGCZP was completed during the quarter.

The testwork focused mainly on the production of premium grade zircon using, where possible, the existing flow sheets and equipment from the Viney Creek mining plant and the Hawks Nest dry mill. Results from this test programme are commercially satisfactory as far as grades and recovery for planned future operations.

The work demonstrated that a high quality zircon concentrate could be produced together with a secondary zircon which is slightly higher in iron and aluminium. Satisfactory grades of HiTi concentrates and rutile were also produced.

The testwork concluded that most of the existing equipment at the Viney Creek plant and the Hawks Nest dry mill should be suitable for inclusion in the processing plant for the Senegal project. Some additional equipment will be needed to cope with the projected higher production levels of zircon due to the higher grades expected to be mined in Senegal compared to those formerly mined at the Viney Creek operation.

Satisfactory grades of rutile and HiTi products were also produced. The ilmenite fraction of the deposit was separated and further testwork will be carried out to investigate whether a commercially acceptable concentrate can be produced. Current planning has assigned no commercial value to this ilmenite which will be stockpiled for future consideration.

To facilitate the development, the company plans to relocate dredges and other equipment from the Viney Creek and Fullerton mines which have ceased production. It is also now planned to relocate the company's 80,000 tonne per annum Hawks Nest rutile and zircon dry mill to process heavy mineral concentrate. This provides two benefits to the project – much lower capital costs and shorter lead time prior to commissioning the plant in Senegal.

Other advantages of the Senegal project include favourable local infrastructure and transport logistics, close proximity to major end-users in Europe and the United States thereby reducing freight and holding costs, low country risk and, most importantly, the full support of the Senegalese authorities.

Previous Testwork

From over 7,000 drill holes, DuPont estimated resources of 19 million tonnes of ilmenite, 1.7 million tonnes of zircon and 950,000 tonnes of HiTi (a mix of rutile and leucosene). 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.

MDL expects the economics of the mining to be underpinned by zircon. Independent testwork on the zircon sample confirmed the product to be of high quality suitable for sale to the company's major global customers. Testwork by a customer itself also reported that the zircon was of good quality.

Project Timeline

MDL currently expects to complete the feasibility study by end October 2004 and at that time make a preliminary commitment to the project. The “pre construction phase” to follow will entail the completion of the EIS and detailed engineering drawings along with the dismantling of the Viney dredges and concentrator and the Hawks Nest dry mill ready for shipment to Senegal. The current timetable envisages this phase being completed by April 2005, with a final decision to commence on-site construction expected to be made shortly afterwards. First production would then be expected during the second quarter 2006.

INDIA

OVERVIEW

On 10 July 2003, MDL announced it had entered into an agreement with a private Indian company, Beach Minerals (Sands) Company Pvt Ltd (“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.

DRILLING PROGRAMME AT KUTTAM

A major drilling programme was conducted on the Kuttam dunal system over the past nine months. The drilling concentrated on a dunal system three kilometres in length by one kilometre wide.

The following table showing total heavy mineral (“THM”) percentages includes mostly garnet, ilmenite, sillimanite and lower quantities of rutile and zircon. The THM results represent a typical sample of a drill hole. The drilling demonstrated THM grades greater than 15% and average slimes below 5%.

Hole Number-KURC0026		
Interval	Slimes	THM
(metres)	(%)	(%)
0-1	1.4	25.5
1-2	2.2	20.3
2-3	2.3	30.8
3-4	1.9	32.2
4-5	4.5	26.8
5-6	2.4	26.5
6-7	1.8	25.2
7-8	1.6	34.6
8-9	1.7	24.0
9-10	1.1	11.1
10-11	2.4	11.1
11-12	1.7	3.9

CURRENT STATUS – RELOCATION OF FULLERTON CONCENTRATOR

Following various technical reviews during the quarter, MDL and BMC have decided that the optimum mining method for the scaled-up mining rate will be a custom designed dry mining process. Accordingly, the Fullerton concentrator will be reconstructed as a static concentrator at the existing plant site with feed transported to the plant from the mining sites as slurry.

Disassembly of the Hawks Nest wet concentrator, which was commenced in the March 2004 quarter, was completed in April 2004. The concentrator was shipped to the southern Indian port of Tuticorin and was transferred to site at Kuttam, arriving in June 2004.

During the quarter, the foundations for the “Fullerton” wet concentrator were prepared and completed. Assembly of the concentrator is expected to commence in the September quarter and commissioning is expected in the first quarter 2005.

Production is expected to increase by at least three times current rate once the concentrator is fully operational.

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. MDL has been active in the marketplace in this capacity for some time. BMC will meet all operating costs associated with production in India and continues to retain all garnet for sale to its customers.

AUSTRALIA

HAWKS NEST OPERATION

The mining operations at the Fullerton mine in New South Wales ceased during July 2003 due to declining grades coupled with a strengthening Australian dollar.

The Fullerton dredge and certain other parts of the plant and equipment are currently being stored at the Hawks Nest site prior to final relocation in Senegal.

Ongoing rehabilitation work is proceeding and no adverse situations have arisen with work continuing to schedule and as expected.

CORPORATE

CASH RESERVES

As at 30 June 2004, liquid cash reserves were \$3.88 million.

EXPLORATION EXPENDITURE

There was no expenditure on all exploration projects abroad 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.

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