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Quarterly Report for the period ended 30 September 2004

HIGHLIGHTS

- ❑ **Corporate** – The company lodged a full complying bid for the Sabodala Gold Project in Senegal in early June 2004 and has been notified by the Senegalese authorities that it has been selected by the Government of Senegal to develop the project. MDL is currently negotiating the terms and conditions of a Mining Convention and Exploitation Concession over the lease as outlined in the tender terms, which is a prerequisite for the exploitation of this valuable resource estimated to contain a mineral inventory of approximately one million ounces of gold.
- ❑ **Senegal** – Work on the development of the Grande Côte Zircon Project continued to gather pace during the quarter.
 - A JORC compliant resource of
801 MT @ 2.57% HM (>1.5% HM cut off), or
217 MT @ 3.31% HM (>2.5% HM cut off)
was estimated from the data compiled from previous drilling.
 - The metallurgical pilot work on the 45 tonne bulk sample was completed; results confirm a high quality zircon product.
 - Drilling and other support equipment have arrived on site ex Australia and the drilling programme is scheduled to commence in the December 2004 quarter.
- ❑ **India** – The re-erection of certain components from the floating concentrator relocated from the Fullerton mine has commenced in the new facility under construction in India. Once MDL/Beach Minerals 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 continue to be maintained under a comprehensive care and maintenance programme prior to their planned relocation to Senegal in 2005.



SENEGAL

SABODALA GOLD PROJECT

On 25 October 2004, the Government of Senegal, following an international open tender, selected Mineral Deposits Limited to develop the Sabodala Gold Project (“Sabodala”).

The MDL bid was as a joint venture between MDL (70%) and private Senegalese interests (30%). The board of MDL and the private Senegalese interests, subject to finalising title over Sabodala and following completion of the Mining Convention, intend to merge their interests in the project with MDL to manage.

MDL has started negotiations to conclude a Mining Convention and to secure an Exploitation Concession over the lease as outlined in the tender terms. Further details of the commercial arrangements, which will include the Government per centage interest in the project, will be advised when the Mining Convention has been completed with the Senegal Ministry of Energy and Mines. The company anticipates being able to swiftly progress development once the mining title formalities are concluded.

MDL will move rapidly to optimise and validate the existing gold reserve/resource. Work will include a drill programme, commencement of an ongoing social responsibility plan and initiation of an environmental impact study. MDL plans to expedite start-up of a gold mining operation.

The area involved is a 20.3 square kilometre rectangular lease centred on the main defined ore zone and oriented so as to encompass the strike extensions both north and south of the major shear zone hosting the deposit. The deposit, as known to date, has been partially drilled and has a previously announced resource of approximately one million ounces. MDL believes that drilling below the current drilling limit of 120 metres and along strike has the potential to substantially expand the resource. The shallow nature of the deposit, the good grade and the low waste to ore ratio, all point to an outstanding development opportunity. Further details of the project are given below.

Sabodala

The Sabodala deposit was drilled in the early 1980s by the French government’s resources arm, Bureau de Recherches Geologique et Miniere (“BRGM”). An Australian company, Paget Mining Limited, optioned the project from BRGM in 1993 and conducted a limited drilling programme. Following a dispute with BRGM, the option expired in 1994 with drilling incomplete. No work was done on the project until a Senegalese company mined a small quantity of soft, shallow oxide ore in 1999.

Access to the Sabodala project area is very good with all-weather roads leading to and throughout the project area and a large private, paved airstrip within 10 kilometres.

Based on the limited and incomplete work of Paget combined with the earlier BRGM drilling, consultants commissioned by Paget calculated a resource of 8.79 million tonnes at 3.15 grams per tonne. MDL will not quote its own resource estimates until it has completed its proposed detailed 20,000 metre development-drilling programme.



Sabodala is hosted by Birimian greenstones and sediments and is linked structurally to a number of large gold deposits in adjacent Mali by the broad Mali-Senegal Shear Zone. These include the Sadiola Gold Deposit of IAMGold and AngloGold. The 9.8 million ounce Sadiola Gold Deposit has annual production of approximately 600,000 ounces of gold. Additional world-class gold deposits in adjacent Mali hosted by the same structural/geological environment include Morila (5.6 million ounces), Syama (5.2 million ounces), Loulo (4.0 million ounces) and Yatela (2.6 million ounces).

MDL's geological consultants have prepared a resource-drilling programme for both Sabodala and the nearby South Sabodala deposit located some 3 kilometres to the south.

Previous drilling at Sabodala by BRGM and Paget Mining achieved outstanding gold intersections including:

Sabodala

BRGM

8m	@	7.9 g/t Au	in S2K
35m	@	5.6 g/t Au	in S4L
18.6m	@	27.6 g/t Au	in S2L

Paget Mining Limited

28m	@	6.8 g/t Au	in SRC11
13m	@	29.8 g/t Au	in SRC6
18m	@	12.1 g/t Au	in SRC28
25m	@	9.2 g/t As	in SRC32

Sabodala South

12.2m	@	5.8 g/t Au	from 15.4m in SV02
69m	@	1.9 g/t Au	from surface in SV05
25m	@	3.6 g/t Au	from 24m in SV07

Further information on the Sabodala project is contained in ASX Announcement "MDL Awarded Sabodala Project" dated 25 October 2004.

MINERAL SANDS PROJECT

Work on the Senegal Grande Côte Zircon Project ("SGCZP") accelerated during the quarter:

- The feasibility study gained impetus and is progressing well, however, the company is waiting for the conclusion of a sequence of government approvals necessary for access to the lease area.
- A JORC compliant Resource of 801 MT @ 2.56% HM (>1.5% cut-off) was estimated and is shown in detail below.



- A 12,000 metre mine development-drilling programme has been designed to establish the dredge path for the initial two years of production. This programme with two drill rigs is scheduled to commence during the December quarter.
- The MDL-owned track mounted drill rig, despatched from India, has been serviced and is on site in Senegal standing in readiness for the commencement of the drilling programme designed to assist in mine planning and design. A second drill rig has been despatched from Hawks Nest. This drill will accelerate the drilling necessary to better define the resource below the water table and to allow more complete design of the dredge paths.
- Metallurgical testing of the initial 45 tonne bulk sample is complete with the results providing encouragement on the quality aspects of the zircon, rutile and leucoxene.
- 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 as soon as site access is gained.
- Interviewing and recruitment of a number of national professional geologists and assayers has commenced. Selection of staff for the proposed in-house drilling programme has started.
- A field office has been established at Tivaouane, some 25km from the project site, close to the centre of gravity of the four main deposits, where an HM laboratory is also being set up.
- MDL has established its principal office in Senegal at Thies, a regional centre 70km from Dakar and some 40km from the Grand Cote project site.
- The company is proposing to establish an analytical facility in joint venture with the Directorate of Mines & Geology at Dakar where check and calibration HM analysis may be undertaken.

Grand 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 50km. Reconnaissance drilling has outlined further deposits, both to the southwest and northeast, for a total strike length of 70km. 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 4.5km from the beach. The heavy mineral suite is principally ilmenite with associated zircon and rutile.

Previous work by BRGM 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 earlier drilling programmes was accessed, with support from the Ministry of Energy and Mines in Dakar, in the first half of 2004. The drilling results were compiled in Melbourne into a new database by a consulting resource specialist geologist. This work and data validation was completed early in 2004/05. A JORC compliant dredgeable resource estimate was prepared and is as follows¹:

>1.5 % Cut-off Summary of Dredgeable Inferred Resource (SGCZP)

	Tonnes (M)	% HM
Hotel – Mboro	117	2.42
Fas Boye	119	2.51
Diogo	224	2.59
Diogo Extended	53	3.07
Lompoul	226	2.63
Lompoul extended	62	2.26
Total >1.5 % Cut-off	800	2.60

>2.5 % Cut-off Summary of Dredgeable Inferred Resource (SGCZP)

	Tonnes (M)	% HM
Hotel – Mboro	32	3.38
Fas Boye	40	3.27
Diogo	64	3.42
Diogo Extended	28	3.77
Lompoul	107	3.11
Total >2.5 % Cut-off	270	3.30

This estimate compares very favourably with that estimated by Du Pont (723 million tonnes grading 2.66 per cent heavy mineral using a 1.5 per cent cut-off).

This resource estimate has been compiled from previous drilling in 1990-1992 and comprises 534 reconnaissance RC drill holes for 11,799 metres and 6,944 grid based (on 100 metre by 400 metre centres) hand shell auger drilling holes for 37,631 metres. The total drilling data used by MDL in estimating the above resource was 7,478 holes for 49,423 metres.

Previous hand drilling did not readily test beneath the watertable and previous resource estimates comprised “geological resources” for heavy minerals only above the watertable.

¹

The summary tables above are based on information compiled by Mr Chris Young, Consulting Geologist and principal of Chris Young Consulting Pty Ltd. Mr Young is a corporate member of the Australasian Institute of Mining and Metallurgy and has the relevant experience as a “competent person” as defined in the Australasian Code for Reporting of Mineral Resources and Ore Reserves in relation to the mineralisation being reported and has consented to the inclusion of material in this Quarterly Report in the form and content in which it appears.



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. This will be assessed when drilling for mine reserve estimation is carried out.

Initial Mining Area

Preliminary dredgeable resource estimation, based on cross sectional interpretation, identified a 6.8km zone within one of the main resource areas as meeting MDL's requirements for commencement of mining. This zone has the potential to provide 60Mt at a grade in excess of 3%HM. The strip ranges in width from 200m to 700m. Pending additional drilling, a nominal 4-metre pond depth is estimated.

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 MDL. One of the rigs is currently being recommissioned in Senegal having been relocated from MDL's last drilling project at Kuttam in southern India. The other was shipped from Newcastle in NSW, during the current quarter.

The initial drilling program, using the two drill rigs, will comprise 12,000 metres at a drill spacing of 40m by 200m to enable mine path design and reserve estimates to be completed.

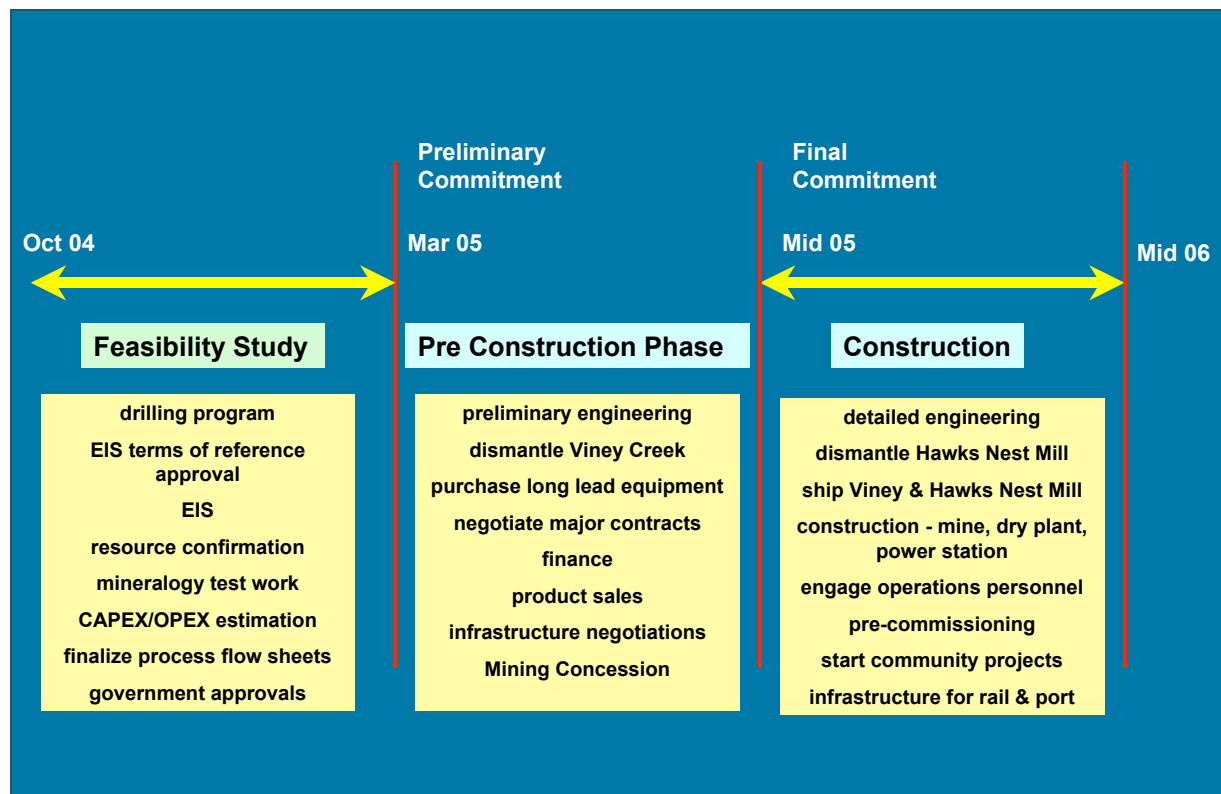
Previous Testwork

From over 7,000 drill holes, 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) were estimated. 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 confirms 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 March 2005 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, to ready them for shipment to Senegal. The current timetable envisages this phase being completed by mid 2005, with a final decision to commence on site construction expected shortly afterwards. First production would then be expected in mid 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.

CURRENT STATUS – RELOCATION OF FULLERTON CONCENTRATOR

During the quarter, the concentrator was erected, gravity cones were installed, bins were constructed and the shaker screen lifted into position. A process water pond is currently being excavated.

Some bin suctions and all delivery pipes are yet to be fabricated prior to installation in the next quarter. Spirals and all of the pipework associated with the cones will be installed once they become available. Sourcing of some capital items such as pumps, motors, spirals and other instruments is in progress.



The Fullerton concentrator is being 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 concentrator, which was commenced in the March quarter 2004, 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.

Commissioning is expected in the first quarter of 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. The first sale of ilmenite under this arrangement was completed in the quarter. 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 disassembled 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 September 2004, liquid cash reserves were \$2.4 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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