

# ASX RELEASE



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ASX Code: MDL

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## Quarterly Report for the period ended 31 March 2006

### HIGHLIGHTS

#### □ Sabodala Gold Project

- Preliminary gold Resource of 1.26 million ounces is confined to the Phase 1 drilling programme of 450 metres by 300 metres at Sabodala. Abutting the gold resource, gold mineralisation has been identified to 240 metres north of the zone and tenor of the mineralisation remains open. The significant intersections include:
  - **10 metres grading 7.1g/t from 265 metres downhole( 20690N);**
  - **9.75 metres grading 7.1g/t from 263 metres downhole, and**
  - **13.2 metres grading 4.9g/t from 371.8 metres downhole(20610N);**
  - **14 metres grading 5.6 g/t from 158 metres downhole, and**
  - **4.8 metres grading 10.2 g/t from 280 metres downhole (20530N).**
- On the Sabodala deposit, the most significant intersections reported for the infill drilling within the 450 metre by 300 metre grid during this quarter were:
  - **55 metres grading 12g/t from surface;**
  - **49 metres grading 3.8g/t from surface;**
  - **64 metres grading 4.9g/t from 90 metres downhole; and**
  - **45.7 metres grading 5.9g/t from 55 metres downhole.**
- Since start-up of drilling on 30 June 2005, 38,554 metres were completed through 31 March 2006. During the March quarter, 14,921 metres were completed.
- At the satellite gold deposit of Niakafiri, a preliminary gold resource of 317,000 ounces of gold at a 1g/t cut-off has been estimated.

#### □ Grande Côte Zircon Project

- The Feasibility Study to progress the Application for a Mining Concession was lodged during March.
- Reverse circulation (“RC”) drilling at Diogo of 1,085 holes for 19,596 metres has now completed. To date, the heavy mineral results have confirmed the heavy mineral results reported in previous drilling from 1989-93.

#### □ Corporate

- Placement of 100 million ordinary shares in MDL at \$1.50 per share each, raising \$150 million, was approved by shareholders at a general meeting held on 26 April 2006.
- A shareholder share purchase plan also at \$1.50 per share raised in excess of \$5.0 million.
- Cash at end of quarter, \$25.1 million. No debt.



## **CORPORATE**

### **\$150 Million Placement**

MDL is pleased to record that it has successfully completed a \$150 million share placement which will involve the issue of 100 million shares at an issue price of \$1.50 per share.

The placement was managed by Haywood Securities Inc, Wilson HTM and Euroz Securities.

MDL's Managing Director, Jeff Williams, said "The funds from the placement will provide the equity component of the development costs of the company's two projects in Senegal, being the Grande Côte Zircon Project and the Sabodala Gold Project. The balance of the funding requirements of the two projects will be sourced from debt."

Nic Limb, MDL's Chairman, said "We are delighted with the response to the placement by both international and local institutions, underscoring the support for and the quality of the company's projects."

Shares under the placement were issued in two tranches. The first tranche (25 million shares) was settled on 31 March 2006 and commenced trading on ASX on 3 April 2006. The issue of the second tranche (75 million shares) received unanimous approval at a general meeting of shareholders on 26 April 2006. The second tranche of shares is being settled on 28 April 2006 and they will commence trading on ASX on 1 May 2006.

### **Shareholder Share Purchase Plan**

In addition to the placement, the company offered a shareholder share purchase plan ("SSPP"). The record date for the SSPP was Friday, 24 March 2006 and eligible shareholders were entitled to apply for up to \$5,000 worth of MDL shares at \$1.50 per share, being the same issue price as under the placement. On the closing date for subscriptions on 27 April 2006, in excess of a further \$5.0 million had been raised.

### **Cash and Debt Position**

At the end of the quarter, cash at bank was \$25.1 million. MDL has no debt other than minor leases and creditors.

## **GRANDE CÔTE ZIRCON PROJECT**

*100% (through wholly-owned subsidiary MDL Senegal SARL – "MDLS")*

### **Background**

The Grande Côte zircon deposit is located some 100 kilometres north of the capital city Dakar. The project lies within a granted 446 square kilometre Exploration Permit (100 kilometres by 4.5 kilometres). Access to the project area from the excellent deepwater Dakar port is via a good, all-weather, sealed road north to Mboro, then poorly sealed and laterite-surfaced roads to access the dunal system itself.

## Resource Drilling

Previous RC and hand auger drilling has identified a JORC Inferred Mineral Resource of 801 million tonnes grading 2.6% heavy mineral (1.5% cut-off).

There are currently two MDL-owned RC rigs deployed for drilling on the Grande Côte Zircon Project. The RC drilling at Diogo, some 25 kilometres north of Mboro, has completed 1,085 holes at 19,596 metres. Based on the earlier drilling on a 400 metre by 100 metre spacing over some 70 kilometres, the Diogo area contains the highest valuable heavy mineral. The current round of drilling will test at least six metres below the water table and on 200 metre line spacing and 40 metre hole spacing across each line. The company intends to identify a JORC Reserve for the proposed dredge path within the Diogo and Fas Boye region of some 10 kilometres for a period of up to seven years. Bulk density and Pizeometer programmes are in progress.

MDLS has established a laboratory facility at Tivaouane some 40 kilometres from the Diogo area. In spite of the accelerated drill programme, the backlog of samples at the Tivouane Laboratory has now been cleared. The laboratory performed 6,113 determinations for the month (and 3,686 in February).

MDL has retained Australian Mining Consultants to validate the resource estimates and conduct optimisation studies on the dredge path when the Diogo and Fas Boye heavy mineral results are available.

## Safety, Health and Environment

No significant safety or health issues reported from either the Grande Côte or Sabodala projects.

MDL is preparing to commence a malaria control spraying programme at both Sabodala and Grande Côte project areas, in accordance with the recommendations of entomologist Dr Richard Hunt. Dr Hunt visited the sites last year and prepared a detailed report to be implemented in advance of this year's wet season.

No environmental issues reported from either project.

## Feasibility Study

The documents required to progress the application for a Mining Concession for the Grande Côte project are being prepared for submission to the Director of Mines and Geology ("DMG"). These include the Constitution and Shareholders Agreement between MDL and the Government of the Republic of Senegal in relation to the new operating company being set up, and the Addendum to the existing Mining Convention. The Feasibility Study document itself was lodged during the month of March.

Negotiations continue for land acquisition for the Main Separation Plant ("MSP") site at Darou Fall near the proposed sand treatment area adjacent to Diogo. The Rural Council met in late April to decide the land allocation and the company awaits the outcome.

Approval has been received to upgrade the access track between Diogo village and the dredge construction site into a road. Compensation evaluation for disadvantaged farmers is in progress.



Regular monthly communication meetings have been established between MDL and both the local administration and representatives of the local population. The MDL community programme for the Grand Côte project has commenced with emphasis on constructing a windmill and tank for water supply to the Diogo village, provision of an ambulance, and establishment of a kindergarten.

Geotechnical SPT drilling through the proposed dredge path was commenced. It has been extended to include a hole at the dredge construction site and two holes where the MSP is proposed to be located.

A small dredge believed to be suitable to prepare the main dredge and floating concentrator construction site has been located in France and Ausenco is arranging an inspection.

Sentel has commissioned the mobile phone tower at Diogo which greatly facilitates intra-Senegal communications.

### **Environmental Impact Statement (“EIS”)**

The company is pleased to announce that the Environmental Impact Study completed by the Senegalese company Tropica, covering the entire Exploration Permit of 446 square kilometres, was approved by the Senegalese authorities on 21 January 2006. An arrete to be signed by the Minister of Environment will be issued and published soon.

### **Bulk Sand Sample**

MDLS has collected a further bulk sand sample of 120 tonnes from the Diogo area. At this stage, Diogo has the higher proportion of valuable heavy mineral according to previous drilling and will be the site for the commencement of sand treatment. The sample is now undergoing testwork at Roche Mining facility near Brisbane. Roche Mining will firstly validate the final circuit design and test the high capacity spirals. Zircon and rutile samples will be sent to customers for in-house testwork. MDL has previously submitted three bulk test samples and the zircon recovered and tested by European customers demonstrated the products to be of high quality.

Roche testwork is slightly delayed as further check analysis is undertaken. MDL now expects final results in this connection in late May 2006.

### **Dismantling of Equipment at Hawks Nest Concluded**

The Hawks Nest dry separation processing plant, workshop and administration offices had been located some 80 kilometres north of Newcastle, New South Wales.

The nearby Viney Creek dredge/concentrator was dismantled on site and placed near the pond. Backfilling of the six metre deep pond was since completed.

Contractors completed dismantling of the Hawks Nest dry processing plant in late September 2005.



## SABODALA GOLD PROJECT

100% (through wholly-owned subsidiary Sabodala Mining Company SARL – “SMC”)

### Background

The Sabodala gold deposit is located in southeastern Senegal, some 650 kilometres from the capital city Dakar. Sabodala lies within a granted 20.3 square kilometre Exploitation Permit. Access to the project area from the regional centre of Tambacounda is via a good, all-weather, sealed road 230 kilometres southeast to Kedougou, then over 96 kilometres of poorly sealed and laterite-surfaced roads. There is a 1,250 metre sealed airstrip at Sabodala already handling light to medium-sized aircraft.

### Gold Resource of 1.26 Million Ounces

On 24 January 2006, the first independent resource estimate for inclusion in the Sabodala Gold Project Feasibility Study was prepared by RSG Global Exploration and Mining Consultancy of Perth. The resource estimate was based only on the company’s Phase 1 drilling programme of 450 metres by 300 metres and previous drilling within these limits.

The tenor of the gold mineralisation and the potential for extensions along strike and at depth are shown in Attachment 1.

The resource estimate was completed using multiple indicator kriging. A summary of the estimates using various cut-off gold grades in grams per tonne (g/t) are shown in the following table. All gold grades are rounded to one decimal place and the final resource tonnage estimates include dilution.

**Table 1 – Sabodala Gold Deposit  
Total Resource Estimate  
Grade Tonnage Report  
(Multiple Indicator Kriging; 5mE x 10mN x 2.5mRL Selective Mining Unit)**

<b>Cut-off Grade (g/t gold)</b>	<b>Tonnes (millions)</b>	<b>Average Grade (g/t gold)</b>	<b>Ounces (Millions)</b>
0.5	18.244	2.2	1.262
0.8	14.472	2.5	1.184
1.0	12.585	2.8	1.129
1.2	11.018	3.0	1.073

The Sabodala resource estimate is based on 238 drillholes completed up to 20 December 2005. The drillhole database includes drilling by MDL, Paget Mining (1994) and previously BRGM. An upper cut-off gold grade of 30g/t was applied.

Four main areas of potential exist immediately abutting the existing gold resource:

- (i) down plunge gold mineralisation extensions to the northwest;
- (ii) due north and south along the Sabodala shear; and
- (iii) at depth below 130 metres the resource is open in most areas within the limits of the Phase 1 programme.

## Phase 2 Drilling Programme

The phase 2 drilling programme of 27,255 metres represents 112 infill, step-out extension and research drillholes. Three drill rigs are being used to complete the infill drilling within the Phase 1 grid of 450 metres by 300 metres and a fourth rig is primarily used for step-out drilling to the north.

### Step-out Drilling

Step-out drillholes completed to scope the extent of gold mineralisation northwards from the main resource area have now been completed in steps of 80 metres over a distance of 320 metres. Of the 10 drillholes concluded, visual alteration and structure was noted in nine drillholes. Assay results for the drillholes covering the interval to 240 metres have been received and confirm the extension of potentially open-pittable mineralisation (Attachment 2).

Significant intersections to 240 metres along strike include (Attachment 3):

- **10 metres grading 7.1g/t from 265 metres downhole (Section 20690N);**
- **9.75 metres grading 7.1g/t from 263 metres downhole, and 13.2 metres grading 4.9g/t from 371.8 metres downhole (Section 20610N);**
- **14 metres grading 5.6g/t from 158 metres downhole, and 4.8 metres grading 10.2g/t from 280 metres downhole (Section 20530N).**

Hole SBRC03112D situated on Section 20770N and 320 metres north from the main resource area has passed through five metres and 12 metres respectively of alteration and sulphide mineralisation. Assay results are awaited. Further step-out drilling is proposed to define the limits of this major extension of the Sabodala mineralisation.

### Phase 2 Infill Drilling

The Phase 2 infill drilling programme of the main resource area (450 metres by 300 metres) to establish Measured and Indicated resources for mine design and ore reserve estimation is expected to be completed in May. Ore reserve estimation will then be completed to support an early decision to mine. In general, the infill programme is testing mineralisation and identifying geological structure to a vertical depth of about 150 metres.

Recent significant infill intersections include (Attachment 3):

- **11.5 metres grading 5.7g/t Au from 53 metres downhole;**
- **12.7 metres grading 6.5g/t Au from 37 metres downhole;**
- **4 metres grading 15.9g/t Au from 35 metres downhole;**
- **22 metres grading 4.6g/t Au from 60 metres downhole.**

A third phase of infill drilling to expand reserves towards the north and identify mineralisation to the south along the Sabodala Shear will be seamlessly undertaken from the present programme.

## **Sterilisation Drilling**

Given four drill rigs are now on site, SMC is able to maintain infill and development programmes as well as undertake the necessary sterilisation drilling for mine infrastructure. Earthworks have already commenced to complete make-up water dams so as to be in place for the 2006 wet season between June and October. Vertical RC drillholes from sterilisation will be completed to 80 metre depths on a hole spacing of 40 metres.

## **Exploration and Additional Resource Definition Drilling**

A number of priority exploration targets identified at Sabodala include Sutuba situated some 500 metres south of the main Sabodala resource, Soukhato located a further 600 metres southwards and Dinkokono situated some 400 metres northwards of Niakafiri (see Attachment 4).

At Sutuba, previous work by BRGM included three short drill holes which all intersected gold mineralisation. A best intersection of 3.5g/t Au over 7.65 metres was achieved. In the same area, an exploration trench is reported to assay 2.5g/t Au over an interval of 50 metres. Features include a strongly silicified, brecciated and locally pyrite rich “mylonite” ridge that is apparently terminated by a west-north-west trending structure that crosses the prospect. The west-north-west structure is now worked by local artisanal workers. Gold mineralisation is sourced from quartz veined saprolite beneath about two metres of alluvium. Previous BRGM soil sampling across this area achieved a best result of 1,700ppb gold. Soukhato is mainly covered by transported laterite and exploration by RC drilling is proposed for both Sutuba and Soukhato.

At Niakafiri, a satellite gold resource of 317,000 ounces was estimated based on 40 metre spaced drilling of an area of some 400 metres strike length. The zone remains open at depth and both to the north and south towards SMC's Exploitation Permit boundary. As noted, some 400 metres to the north lies the Dinkokono prospect identified from geochemical sampling by BRGM. Extension of Resource Definition drilling north from Niakafiri is likely to test this prospect.

A number of other targets were identified on the basis of detailed (25 metre spaced line helicopter survey) aeromagnetic data. SMC has commenced a detailed soil geochemical sampling programme on lines at 200 metre spacing to help prioritise the geophysical targets.

## **Feasibility Study Preparation**

In consultation with the Minister of Mines and Dr Sylla of the DMG, MDL will lodge the Environmental Impact Statement (EIS), the Constitution and Shareholders Agreement between MDL and the Government of the Republic of Senegal in relation to the new operating company being established, the Addendum to the Mining Convention and the Feasibility Study by 6 May. Amendments have already been made to the Sabodala EIS and the document was lodged with the Environment Department in late April. The Technical Committee meeting to consider the recommendations of the EIS should follow within two weeks of lodgement.

As part of the Feasibility Study, the MDL community development programme for Sabodala has also commenced with the emphasis (as requested by the government) being on the provision of an ambulance, establishment of a kindergarten, road improvement between Kayan and Tambacounda and improvement to local security through boosting assistance to the Gendarmerie (police).



The civil engineering equipment purchased by MDL has all been shipped from Namibia and the major items arrived in Senegal in April. The equipment will be used for earthworks at both Sabodala and the Grand Cote.

The mining contractors site visit that was arranged by RSG Global (as part of the bankable feasibility study) took place as planned on 21 and 22 of March. Representatives of a number of contractors now operating in west Africa all participated. All of the contractors showed keen interest in the eventual award of the project. A dam construction crew from Ausenco has mobilised and is in the process of site clearance for the northern Make Up Water Dam. The required approvals have been received from the Local Administration (Hydraulic, and Forestry Departments) as well as the Sous Prefect and the DMG.

The nearby Sentel mobile phone installation has now had its software improved and updated and all in the area are awaiting a date for commissioning.

The exploration camp numbers for persons accommodated is increasing from 70 to about 150, with the influx of the crew for the dam construction. In order to facilitate the new personnel, a large increase in sleeping quarters as well as infrastructure such as dining facilities and a new kitchen have been initiated. The contract catering team has scaled up its personnel to match the extra demand. MDL has hired an experienced Camp Manager for a three month contract in order to overcome the many issues in managing the expanding Sabodala Camp.

### **Niakafiri Satellite Gold Resource**

At the satellite gold deposit of Niakafiri, a preliminary gold mineral resource of 317,000 ounces at a 1g/t cut-off has been estimated. Niakafiri is 2.5 kilometres south of the main Sabodala orebody (preliminary gold resource of 1.26 million ounces previously announced) (Attachment 4). The Niakafiri deposit remains substantially open in most directions and considerable further drilling will be required to determine the ultimate size thereof. The mineralisation has a significant oxide component.

The Phase 1 drilling programme at the Niakafiri deposit is now complete. The total programme of 46 holes for 5,055.6 metres comprised 3,699 metres of RC and 1,356.6 metres of diamond drilling. The area drilled covers 400 metres by 160 metres with holes on 40 metre spacings. **Niakafiri was identified as separately prospective to Sabodala itself from work on historical data and from interpretation of the recently completed regional airborne magnetic survey flown by the company.**

Based on available data, an independent Mineral Resource estimate was completed by RSG Global of Perth as shown in Table 2 below.

The preliminary Mineral Resource estimate is 5.64 million tonnes @ 1.7g/t gold for 317,000 ounces at a 1.0g/t gold cut-off comprising 1.86 million tonnes at 1.7g/t gold for 104,000 ounces of Indicated Mineral Resource and 3.78 million tonnes at 1.7g/t gold for 213,000 ounces of Inferred Mineral Resource.

The RSG Global resource estimate includes mineralisation within a north-south trending envelope of some 400 metres length by 50 to 100 metres wide and to a depth of 170 metres. This wide zone of mineralisation remains open to the north, south and at depth.



**Table 2 – Niakafiri Deposit  
Preliminary Grade Tonnage Report; Multiple Indicator Kriging  
5mE x 10mN x 5mRL Selective Mining Unit**

Lower Cut-off Grade (g/t Au)	Tonnes (M)	Ave Grade (g/t Au)	Ounces (000)
<b>Indicated</b>			
0.5	3.035	1.4	132
0.8	2.362	1.6	118
1.0	1.860	1.7	104
1.2	1.426	1.9	88
<b>Inferred</b>			
0.5	7.624	1.2	302
0.8	4.992	1.5	248
1.0	3.780	1.7	213
1.2	2.946	1.9	184
<b>Total Resource</b>			
0.5	10.659	1.3	434
0.8	7.354	1.5	366
1.0	5.640	1.7	317
1.2	4.372	1.9	272

Niakafiri is centrally situated within the Sabodala Shear Zone. This shear zone is approximately two kilometres wide and identified by a subtle magnetic trend that extends for some 4.3 kilometres north-south through the Sabodala Mining Company Exploitation Permit area. The underlying rock types comprise structurally modified and sheared mafic and ultramafic volcanics and, in both the oxide and primary zone, fuchsite alteration is common. **The oxide zone at Niakafiri is much deeper than at the Sabodala deposit, ranging from 57 to 60 metres in depth.** In the primary zone, silica, albite, sericite, pyrite alteration associated with a quartz stock work breccia texture is very similar to the main breccia ore style at Sabodala to the north.

*The information in this report that relates to Exploration Results is based on information compiled by Mineral Deposit Limited's Chief Geologist, Chris Young BSc, who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Young has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity undertaken. He is qualified as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Young has consented to the inclusion of this information in the form and context in which it appears in this report.*

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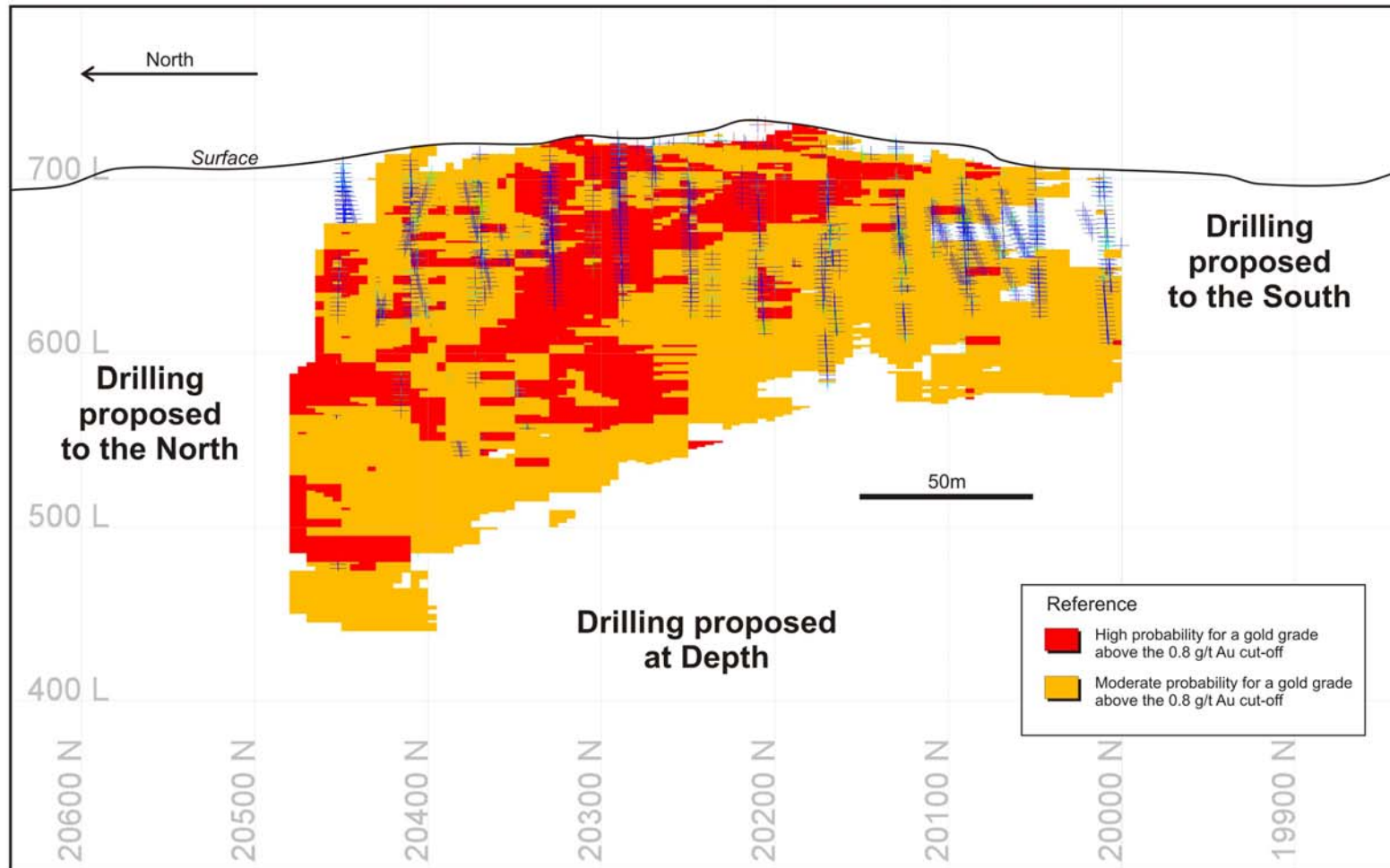
**or visit our Website at: [www.mineraldeposits.com.au](http://www.mineraldeposits.com.au)**

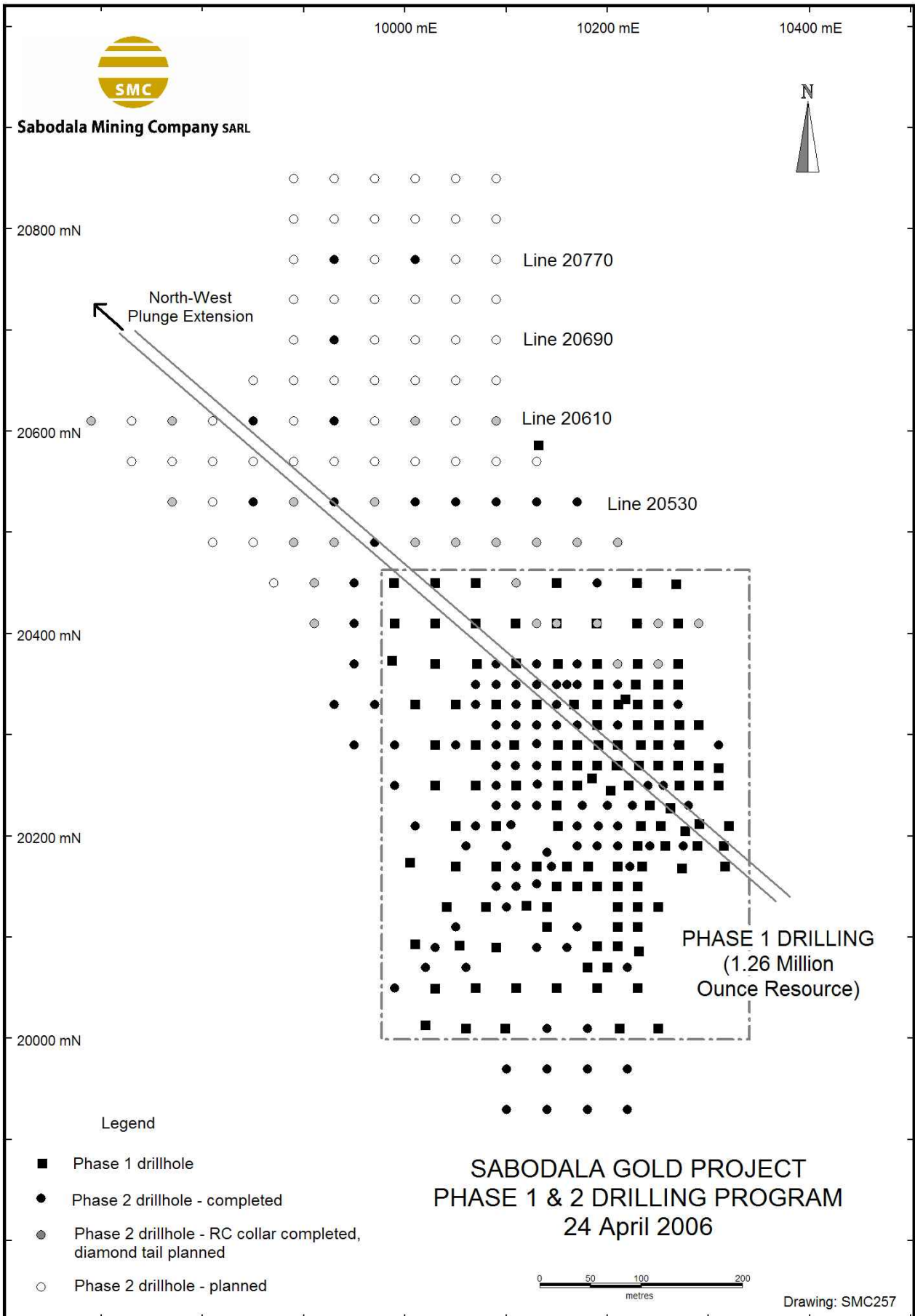


Sabodala Mining Company SARL

# SABODALA GOLD DEPOSIT

## VULCAN BLOCK MODEL PROBABILITY GRADE DISTRIBUTION





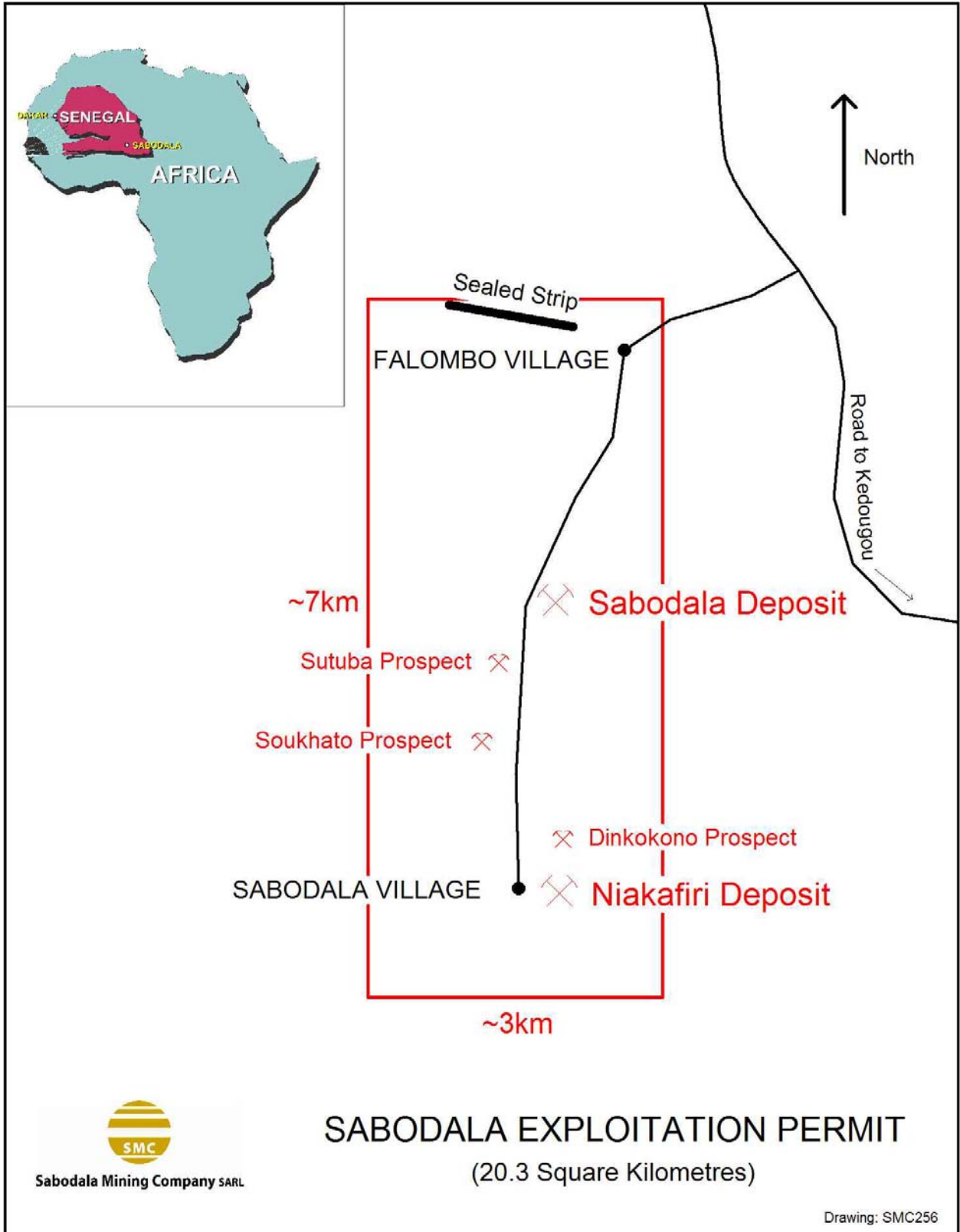
## Attachment 3

## INFILL

Hole ID	Northing	Easting		From (m)	To (m)	Grade (g/t Au)	Interval (m)
SBDD008	20230	10175		5	9	2.3	4
			and	14	20	2.6	6
			and	53	64.5	5.7	11.5
SBDD009	20230	10200		12	18	2.8	6
			and	37	49.7	6.5	12.7
SBRC182	19970	10100		14	21	3.3	7
			and	91	103	4.1	12
SBRC188D	20050	9990		121	127.25	4.4	6.25
SBRC192	20090	10030		1	6	4.3	5
SBRC193	20090	10130		12	15	2.0	3
			and	70	73	6.6	3
SBRC194	20090	10160		15	19	2.8	4
			and	42	49	3.5	7
			and	54	59	2.5	5
SBRC196	20110	10170	and	35	39	15.9	4
SBRC197	20190	10060		44	48	2.9	4
SBRC201D	20290	9950		147	152	2.1	5
SBRC202D	20290	9990		144	158	2.8	14
SBRC208D	20330	9970		124	136	2.0	12
			and	148	161	2.4	13
			and	164	169.3	5.5	5.3
SBRC211	20330	10230		60	82	4.6	22
SBRC212	20330	10270		74	77	2.2	3
SBRC213	20330	10270		22	27	6.8	5
			and	53	61	2.6	8
			and	64	69	4.2	5
SBRC216D	20350	10210		55	60	2.5	5
SBRC223D	20410	10150		15	23	2.8	8
			and	31	42	2.8	11

## STEP OUT

Hole ID	Northing	Easting		From (m)	To (m)	Grade (g/t Au)	Interval (m)
SBRC249D	20530	9930		182	212	2.4	30
			and	215	222	2.0	7
			and	308.4	311	8.6	2.6
SBRC251D	20530	10010		158	172	5.6	14
			inc.	166	171	14.0	5
			and	280	284.8	10.2	4.8
SBRC253D	20530	10090		140	157	4.6	17
SBRC255D	20530	10170		144	154	4.2	10
SBRC273D	20610	9930		248	255	2.8	7
			and	263	272.75	7.1	9.75
			inc.	270	272.75	21.5	2.75
			and	275.4	279	3.1	3.6
			and	371.8	385	4.9	13.2
SBRC297D	20690	9930		265	275	7.1	10
			inc.	271	273	19.3	2



### SABODALA EXPLOITATION PERMIT (20.3 Square Kilometres)

Drawing: SMC256