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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 6-K**

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**Report of Foreign Private Issuer  
Pursuant to Rule 13a-16 or 15d-16  
of the Securities Exchange Act of 1934**

**Date: August 14, 2013**

**Commission File Number 001-31528**

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**IAMGOLD Corporation**

(Translation of registrant's name into English)

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**401 Bay Street Suite 3200, PO Box 153  
Toronto, Ontario, Canada M5H 2Y4  
Tel: (416) 360-4710  
(Address of principal executive offices)**

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Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F       Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

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Description of Exhibit

Exhibit

Description of Exhibit

99.1	NI 43-101 TECHNICAL REPORT and INITIAL MINERAL RESOURCE ESTIMATE FOR THE DAORALA-BOTO PROJECT, KEDOUGOU, SENEGAL
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**Signatures**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**IAMGOLD CORPORATION**

Date: August 14, 2013

By: /s/ Tim Bradburn  
Associate General Counsel and Corporate Secretary



**TECHNICAL REPORT AND INITIAL MINERAL RESOURCE ESTIMATE FOR THE DAORALA-BOTO PROJECT,  
KÉDOUGOU, SENEGAL**

**PREPARED FOR IAMGOLD CORPORATION**

**Report for NI 43-101**

**Qualified Person:**

**Luke Evans, M.Sc., P.Eng.**

**June 30, 2013**



**Report Control Form**

**Document Title**

Technical Report and Initial Mineral Resource Estimate for the Daorala-Boto Project, Kédougou, Senegal

**Client Name & Address**

IAMGOLD Corporation  
401 Bay Street, Suite 3200  
Toronto, Ontario  
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**Document Reference**

Project #2052	<b>Status &amp; Issue No.</b>	Final Version	
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**Project Manager Approval**

Luke Evans	(Signed)
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**Project Director Approval**

Deborah A. McCombe	(Signed)
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**Report Distribution**

Name	No. of Copies
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## 1 SUMMARY

### EXECUTIVE SUMMARY

Roscoe Postle Associates Inc. (RPA) was retained by IAMGOLD Corporation (IAMGOLD) to prepare an initial Mineral Resource estimate and a supporting independent Technical Report on the Daorala-Boto Project, located in the eastern part of Senegal in the Kédougou area. The purpose of this report is to document the initial Mineral Resource Estimate on the Daorala-Boto Project. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects. RPA visited the property and met with IAMGOLD's site geologists from April 15 to 19, 2013.

IAMGOLD is a mid-tier gold producer with six operating gold mines and several exploration projects on three continents. The Daorala-Boto Project, the subject of this report, is at an advanced exploration stage. It is located in southeast Senegal, at the border of Mali and Guinea, and consists of two non-contiguous concession blocks, Daorala to the north and Boto to the south.

The Mineral Resource estimate prepared by RPA for the Boto deposits as of April 19, 2013 is summarized in Table 1-1. No current Mineral Resources are estimated for the Daorala area as of April 19, 2013.

**TABLE 1-1 MINERAL RESOURCE ESTIMATE SUMMARY – APRIL 19, 2013**  
**IAMGOLD Corporation – Daorala-Boto Project**

Classification	Tonnes (000)	Gold Grade	Contained Gold
		(g/t Au)	(000 oz)
Indicated	21,960	1.62	1,142
Inferred	1,861	1.35	81

Notes:

1. CIM definitions were followed for classification of Mineral Resources.
2. Mineral Resources are estimated at a cut-off grade of 0.60 g/t Au.
3. Mineral Resources are estimated using a gold price of US\$1,500 per ounce.
4. High grade capped assay values vary from 15 g/t Au to 30 g/t Au based on geological area.
5. Bulk density varies from 1.61 g/cm<sup>3</sup> to 2.62 g/cm<sup>3</sup> based on weathering code.
6. The resources are constrained by a Whittle pit shell.

## CONCLUSIONS

As of April 19, 2013, the Boto database contained results of 423 diamond and reverse circulation (RC) drill holes for a total of 56,832 m. The most recent drill campaigns (2012-2013), which totalled 16,698 m, included sampling by IAMGOLD geologists and assaying by ALS Chemex in Bamako, Mali. RPA concludes that the data, the data density, and the additional information from the Boto database are adequate to form the basis for a Mineral Resource estimate.

RPA conducted a site visit to the Boto deposit, reviewed property and deposit geology, exploration and drilling methods and results, sampling method and approach, sample and data handling, including chain of custody, and completed independent verification of the data. RPA evaluated the compilation of quality assurance/quality control (QA/QC) data from the Boto deposit and is of the opinion that the sample preparation, security, and analytical procedures used by IAMGOLD and prior companies followed industry-standard procedures and the resulting analytical data are acceptable for use in the resource estimation.

Drilling to date has been completed at an average drill hole spacing of 50 m to 100 m over known mineralized zones, the majority of which has been classified as Indicated Mineral Resources. Drilling has not completely defined the limits of the mineralization at Boto 2-4-6 or Malikoundi, and a number of the mineralized zones remain open along strike and down dip. RPA is of the opinion that additional diamond drilling is required to define the limits of the Boto mineralization zones, specifically the northern extension of Malikoundi.

RPA recommends that IAMGOLD continue to drill diamond core and use oriented core for in-fill drilling programs where Mineral Resources have already been identified. In general, maintaining 100 m spacing along strike and 50 m spacing across strike should be sufficient to achieve an Indicated classification for most step-out drilling. Based on the characteristics of existing zones, areas of greater structural complexity would require drill spacing along and across strike of 50 m x 50 m to achieve an Indicated classification.

## RECOMMENDATIONS

With respect to the geological model, RPA recommends that IAMGOLD:

- Continue to use oriented core at Boto to analyze the relationship between structural measurements and mineralization.
- Take additional density measurements for all mineralized saprolite and transition material types prior to future resource estimate updates or economic studies.

With respect to the drill hole database, RPA recommends that IAMGOLD:

- Continue with the database management practice of using the laboratory batch number as a secondary key-id field along with the sample number.
- Add missing laboratory batch numbers to the database where possible.

IAMGOLD has prepared a three year exploration work program for the Boto deposit that totals US\$11.5 million. RPA concurs with IAMGOLD's upcoming work and believes that it is reasonable and is in line with the exploration potential of the project.

The proposed exploration work program has been designed to support the planned scoping, prefeasibility, and feasibility studies on the Boto project. A total exploration budget of US\$11.5 million is proposed and includes 30,000 m of diamond drilling, 10,000 m of RC drilling, and 9,000 m of aircore drilling. An annual breakdown of the proposed exploration budget and the principal objectives of the work program are summarized below:

***2014 - BUDGET: US\$3.5 MILLION***

The planned drilling program includes: 10,000 m diamond drilling and 9,000 m aircore drilling.

Objectives:

- Commence 50 m x 50 m infill drilling on the Malikoundi Zone.
- Expand resources with step-out drilling north of the Malikoundi Zone and south of Boto 4.
- Complete 9,000 m of aircore drilling to identify additional exploration targets in the area of thick and lateritized alluvial cover between the Malikoundi Zone and the Senegal-Mali international border.
- Conduct Induced Polarization (IP)/Resistivity geophysical surveys over areas of anomalous aircore drilling results to direct follow-up RC drilling programs.
- Construct a new exploration camp to accommodate an increased workforce in support of the accelerated exploration program and planned economic, engineering, and environmental studies.

**2015 - BUDGET: US\$4.5 MILLION**

The planned drilling program includes: 14,500 m diamond drilling and 5,000 m RC drilling.

**Objectives:**

- The 2015 exploration program aims to complete all resource delineation drilling by mid-year, in advance of the planned feasibility study. Exploration activities will then be transitioned to the more regional exploration targets as defined by the 2014 aircore and geophysical surveys.
- Complete 50 m x 50 m infill drilling on the Malikoundi Zone.
- Expand resources with step-out drilling at Boto 2.
- Commence RC drilling over prioritized regional exploration targets.
- Conduct a second phase of IP/Resistivity geophysical surveys over areas of anomalous aircore drilling results to direct follow-up RC drilling programs.

**2016 - BUDGET: US\$3.5 MILLION**

The planned drilling program includes: 10,000 m RC drilling and 5,500 m diamond drilling.

**Objectives:**

- The late 2015-2016 regional exploration program is planned to expand the resource base of the Boto project by identifying additional satellite gold deposits.
- Continue the RC drilling campaign over prioritized regional exploration targets.
- Follow up positive RC drill results with targeted diamond drilling to obtain detailed geological information.

**TECHNICAL SUMMARY****PROPERTY LOCATION AND DESCRIPTION**

The Daorala-Boto property is located in the eastern part of Senegal in the Kédougou area, at the border of Mali and Guinea. Access to the Daorala-Boto is from Dakar on a paved road to Saraya (720 km) followed by an 80 km hard packed gravel road to the Boto camp at Noumoufoukha village. The Boto camp is 12 km from Guemedji village. A bush airport is located five kilometres from the camp.

The property is held by AGEM Senegal Exploration SUARL (AGEM), an IAMGOLD wholly-owned subsidiary, and consists of two non-contiguous concession blocks, Daorala and Boto, covering a total area of 236 km<sup>2</sup>. The blocks are situated respectively to the north and to the

south of the Bambadji permit, which is also controlled by IAMGOLD. IAMGOLD is in joint venture with Randgold Resources Ltd. (Randgold) for the Bambadji permit, and Randgold is currently carrying out exploration on the permit. Under the terms of the agreement, Randgold will earn a 51% stake in the IAMGOLD interest in the project by funding and completing a pre-feasibility study. IAMGOLD can then retain a 49% interest by co-funding a full feasibility study, or dilute to 35% by letting Randgold provide the full funding.

The current Mineral Resources are estimated only for the Boto project.

## **HISTORY**

Historical work was carried out by Anmercosa Exploration (Anmercosa) in 1994-1996 and Ashanti Goldfields Corporation (Ashanti Goldfields) in 1997-1998. Anmercosa, a 100% owned subsidiary of Anglo American, completed regional exploration at the Boto project, focusing primarily on airborne geophysical surveys and regional and local geochemistry.

After the withdrawal of Anglo American, Ashanti Goldfields continued to focus on the acquisition of geochemical data and conducted preliminary trenching in 1997 and 1998.

Since 1999, exploration has been carried out by AGEM.

## **GEOLOGY AND MINERALIZATION**

The Boto project is located within the West African Craton (WAC), in the southeastern part of the Early Proterozoic Kédougou-Kéniéba inlier, which covers eastern Senegal and western Mali.

In the southern part of the WAC, the Early Proterozoic greenstone terranes are referred to as Birimian (from the Birim River valley in Ghana). These terranes are exposed all over the Kédougou-Kéniéba inlier and consist of alternating northeast-trending linear volcanic belts and sedimentary basins that are separated by granitic and/or gneissic terranes.

The near-surface material at Boto comprises a regolith layer of variable thickness which includes lateritic plateaus. Little rock outcrop is seen throughout the property, with creek and river banks serving as the primary source of geological observations. This leaves drilling as the only source for detailed knowledge of the subsurface geology. Drilling data has been used in conjunction with geophysical interpretation to create a district scale representation of the geology at Boto.

The Boto project includes five deposits, Boto 2-4-6, Malikoundi, and Boto 5, all of the late orogenic type. The late orogenic gold mineralization is typically associated with brittle-ductile deformation and is characterized by the association of Au, B, W, As, Sb, Se, Te, Bi, Mo, with traces of Cu, Pb, Zn. Gold commonly occurs as native gold or as fine inclusions within the base-metal sulphides or the gangue that consists of quartz, albite, carbonate, muscovite, pyrite, and tourmaline.

### **EXPLORATION AND DRILLING**

AGEM has carried out exploration on the Boto Project since 1999, with most work done during the period 2007 to 2013. Between 1999 and 2007, AGEM compiled results of the work performed by Anmercosa and Ashanti Goldfields and completed gradient, induced polarization (IP), magnetic, radiometric, and very low frequency geophysical surveys. Early drilling centred upon the discovery and delineation of Boto 5 as well as initial drill fences at the Boto 2-4-6 anomalies. After 2007, the Boto 2-4-6 targets were the focus of infill drilling as well as high-resolution IP and gradient surveys. The 2012 program culminated with the Malikoundi discovery northwest of Boto 2.

The 2013 program will mostly consist of drilling, with approximately 7,100 m of diamond drilling already completed by the end of April. Geophysical surveys are planned to be conducted to advance geological understanding and to help identify additional exploration targets.

### **EXPLORATION POTENTIAL**

There is good exploration potential at the Boto project.

The project is underlain by prospective Birimian aged rocks within the southern part of the Paleoproterozoic Kédougou-Kéniéba window. The host rocks and observed structural setting demonstrated at the Boto project are also observed at many of the economic gold deposits located elsewhere in the Kédougou-Kéniéba window.

The Guemedji geochemical trend, which hosts the Malikoundi Zone, is approximately 8 km in length and has only been tested on its southern part where the Boto 2-4-6 deposits are located. The Malikoundi Zone has not been closed off by drilling and future drilling is planned to determine the extents of the mineralization. The Lelou trend, which hosts the Boto 5 deposit, is considered by IAMGOLD geologists to be underexplored in the north. Another structural trend, which hosts the Boto 1 and Boto 3 targets, is considered by IAMGOLD to be relatively underexplored. Boto 3 has only been tested with pit sampling, while Boto 1 has been tested with drill holes.

#### **MINERAL RESOURCE ESTIMATE**

RPA carried out an initial Mineral Resource estimate for the Boto deposit using a block model constrained with 3D wireframes of the principal mineralized domains. Values for gold were interpolated into blocks using inverse distance cubed ( $ID^{-3}$ ). The weathering surfaces were constructed based on lithological and weathering logs, while mineralization wireframes were constructed based on logged pyrite percentage, alteration intensity, and a nominal cut-off grade of 0.15 g/t Au. RPA completed the interpretation of the mineralized domains and weathering surfaces, based on previous interpretations and data provided by IAMGOLD site geologists. Twenty-nine mineralized domains were created for the estimate.

The Mineral Resource estimate with the effective date of April 19, 2013, is summarized in Table 1-1.

## 2 INTRODUCTION

Roscoe Postle Associates Inc. (RPA) was retained by IAMGOLD Corporation (IAMGOLD) to prepare an initial Mineral Resource estimate and a supporting independent Technical Report on the Daorala-Boto Project, located in the eastern part of Senegal in the Kédougou area. The purpose of this report is to document the initial Mineral Resource Estimate on the Daorala-Boto Project. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects.

IAMGOLD is a mid-tier gold producer with six operating gold mines and several exploration projects on three continents. The Daorala-Boto Project, the subject of this report, is at an advanced exploration stage. It is located in southeast Senegal, at the border of Mali and Guinea, and consists of two non-contiguous concession blocks, Daorala to the north and Boto to the south.

## SOURCES OF INFORMATION

Site visits were carried out by Luke Evans, M.Sc., P.Eng., RPA Director, Resource Estimation and Principal Geologist, from April 15 to 19, 2013.

Discussions were held with personnel from IAMGOLD:

- Craig McDougall, Senior Vice-President, Exploration
- Lise Chénard, Director, Mining Geology
- Benoit Michel, Project Manager Senegal
- Christian Bantsimba, Senior Geologist
- Nicolas Coussaert, Consultant Geologist
- Geoffrey Chinn, Manager, Resource Geology
- Raphael Dutaut, Resource Geologist

Mr. Evans is responsible for all sections of the report.

The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27 References.

## LIST OF ABBREVIATIONS

Units of measurement used in this report conform to the SI (metric) system. All currency in this report is US dollars (US\$) unless otherwise noted.

a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	M	mega (million); molar
cal	calorie	m <sup>2</sup>	square metre
cfm	cubic feet per minute	m <sup>3</sup>	cubic metre
cm	centimetre	μ	micron
cm <sup>2</sup>	square centimetre	MASL	metres above sea level
d	day	μg	microgram
dia	diameter	m <sup>3</sup> /h	cubic metres per hour
dmt	dry metric tonne	mi	mile
dwt	dead-weight ton	min	minute
°F	degree Fahrenheit	μm	micrometre
ft	foot	mm	millimetre
ft <sup>2</sup>	square foot	mph	miles per hour
ft <sup>3</sup>	cubic foot	MVA	megavolt-amperes
ft/s	foot per second	MW	megawatt
g	gram	MWh	megawatt-hour
G	giga (billion)	oz	Troy ounce (31.1035g)
Gal	Imperial gallon	oz/st, opt	ounce per short ton
g/L	gram per litre	ppb	part per billion
Gpm	Imperial gallons per minute	ppm	part per million
g/t	gram per tonne	psia	pound per square inch absolute
gr/ft <sup>3</sup>	grain per cubic foot	psig	pound per square inch gauge
gr/m <sup>3</sup>	grain per cubic metre	RL	relative elevation
ha	hectare	s	second
hp	horsepower	st	short ton
hr	hour	stpa	short ton per year
Hz	hertz	stpd	short ton per day
in.	inch	t	metric tonne
in <sup>2</sup>	square inch	tpa	metric tonne per year
J	joule	tpd	metric tonne per day
k	kilo (thousand)	US\$	United States dollar
kcal	kilocalorie	USg	United States gallon
kg	kilogram	USgpm	US gallon per minute
km	kilometre	V	volt
km <sup>2</sup>	square kilometre	W	watt
km/h	kilometre per hour	wmt	wet metric tonne
kPa	kilopascal	wt%	weight percent
kVA	kilovolt-amperes	yd <sup>3</sup>	cubic yard
kW	kilowatt	yr	year

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### 3 RELIANCE ON OTHER EXPERTS

This report has been prepared by Roscoe Postle Associates Inc. (RPA) for IAMGOLD Corporation (IAMGOLD). The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RPA at the time of preparation of this report,
- Assumptions, conditions, and qualifications as set forth in this report, and
- Data, reports, and other information supplied by IAMGOLD and other third party sources.

For the purpose of this report, RPA has relied on ownership information provided by IAMGOLD. A legal opinion dated June 7, 2013 from SCP KANJO, KOITA & HOUDA regarding the Daorala-Boto exploration permit states that the exploration permit is held by an IAMGOLD subsidiary and confirms the permit's existence, legality, and validity. RPA has relied on this opinion in the Summary and Section 4 Property Location and Description of this report. RPA has not researched property title or mineral rights for Daorala-Boto and expresses no opinion as to the ownership status of the property.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.

#### 4 PROPERTY DESCRIPTION AND LOCATION

The Daorala-Boto permit is located in the eastern part of Senegal in the Kédougou area, at the border of Mali and Guinea (Figure 4-1). The permit comprises two non-adjacent blocks, Daorala and Boto, situated respectively to the north and to the south of the Bambadji permit, which is also controlled by IAMGOLD. IAMGOLD is in joint venture with Randgold Resources Ltd. (Randgold), which is currently carrying out exploration in the Bambadji concession (Figure 4-2). Both Daorala and Boto are limited to the east by the Falémé and Balinko rivers, which also represent the border between Senegal and Mali.

#### SUMMARY OF THE DAORALA-BOTO PROPERTY

As shown in Figures 4-3 and 4-4, the Daorala-Boto property covers a total area of 236 km<sup>2</sup> and consists of two non-contiguous concession blocks:

- The 88 km<sup>2</sup> Daorala concession located north of the Bambadji concession and its area is defined by the coordinates provided in Table 4-1.
- The 148 km<sup>2</sup> Boto concession situated south of the Bambadji concession and its area is defined by the coordinates provided in Table 4-2.

**TABLE 4-1 DAORALA PERMIT EXTENTS  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Location</u>	<u>Longitude (W)</u>	<u>Latitude (N)</u>
AE	11°29'39''	13°00'00''
AD	Senegal-Mali border	13°07'07''
Y	Senegal-Mali border	13°00'00''

**TABLE 4-2 BOTO PERMIT EXTENTS  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Points</u>	<u>Longitude (W)</u>	<u>Latitude (N)</u>
AF	11°28'11''	12°35'00''
Z	Senegal-Mali border	12°35'00''
AD	Triple Point Senegal-Mali-Guinea	Triple Point Senegal-Mali-Guinea
AE	11°28'11''	Senegal - Guinea border



FIGURE 4-2 BAMBADJI PERMIT

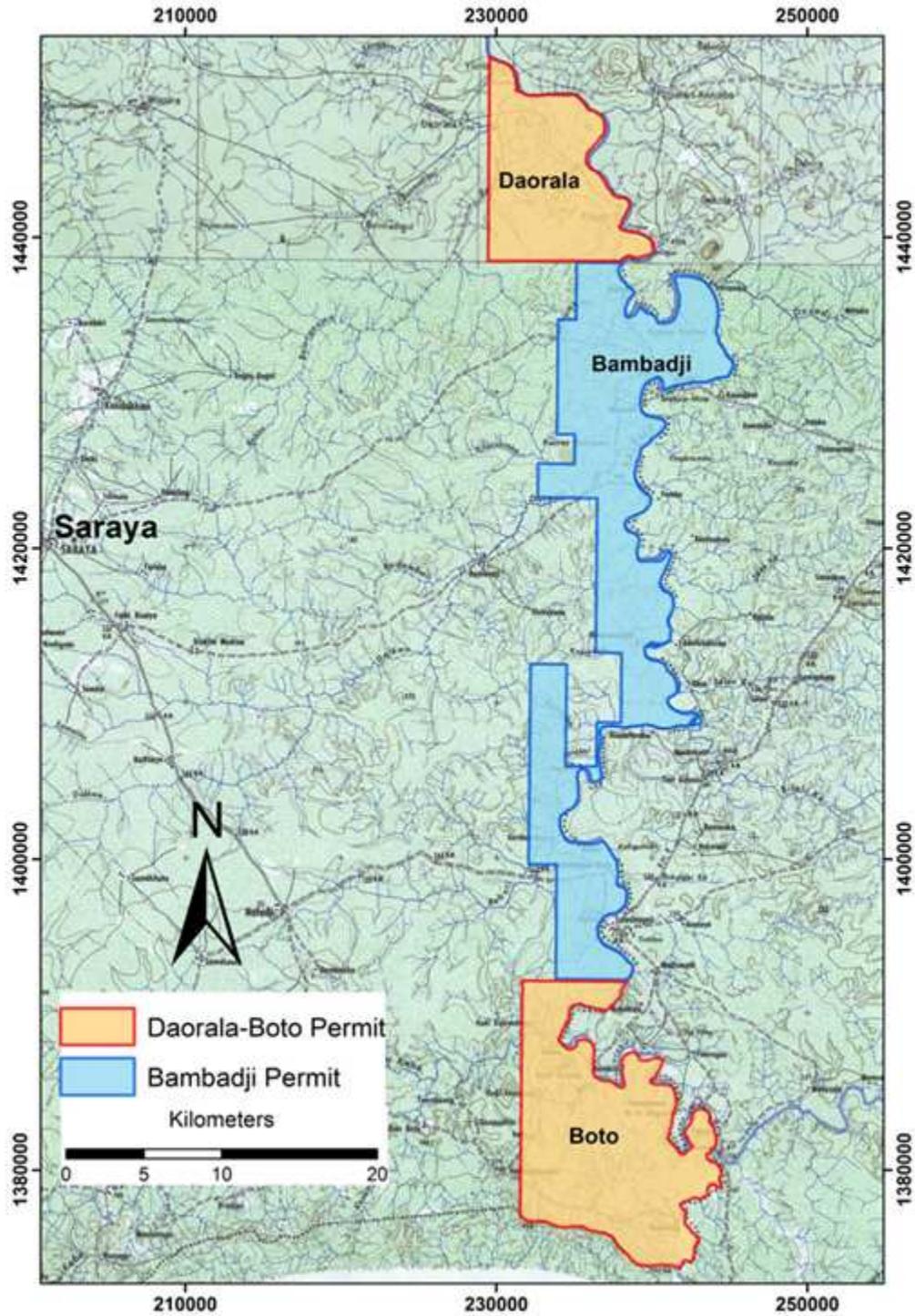


FIGURE 4-3 DAORALA SECTOR LOCATION

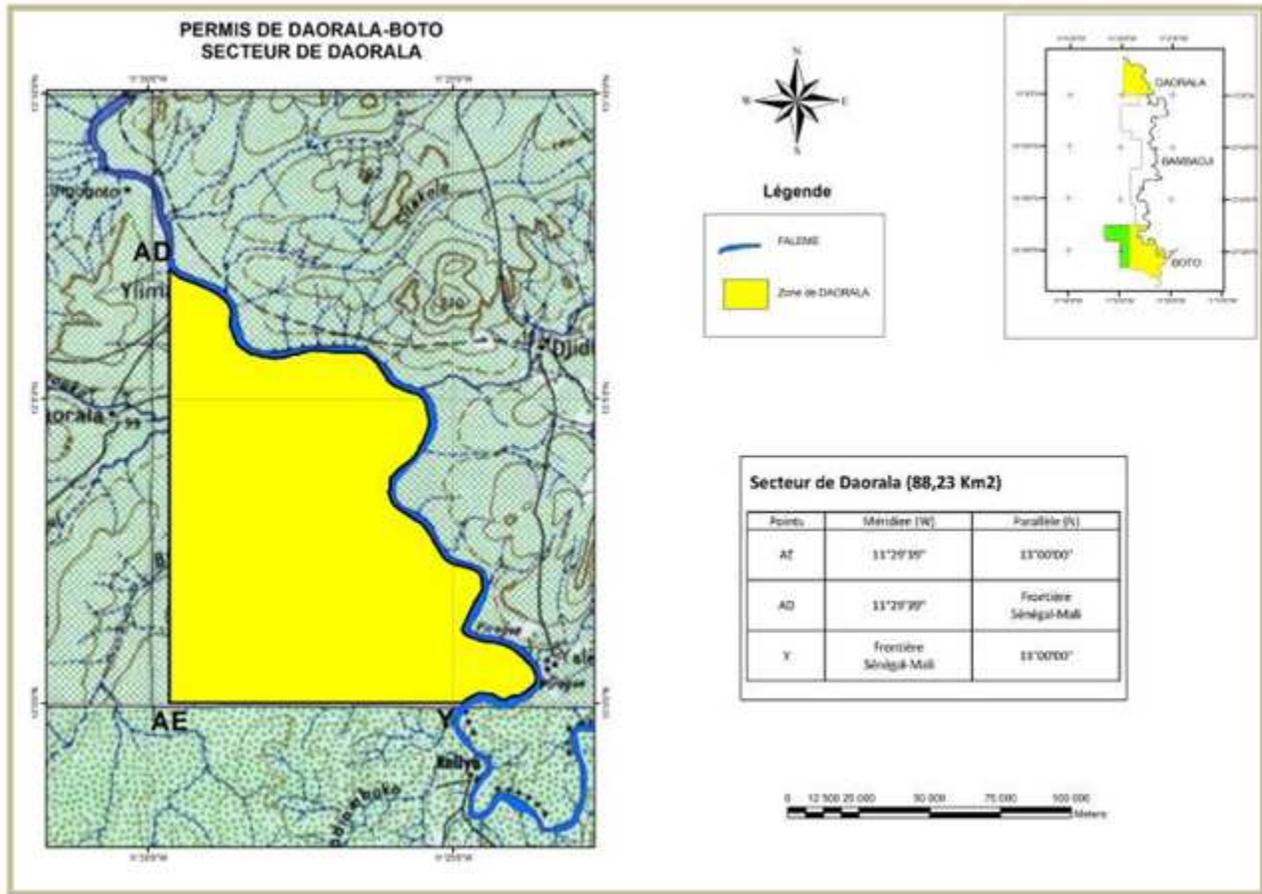
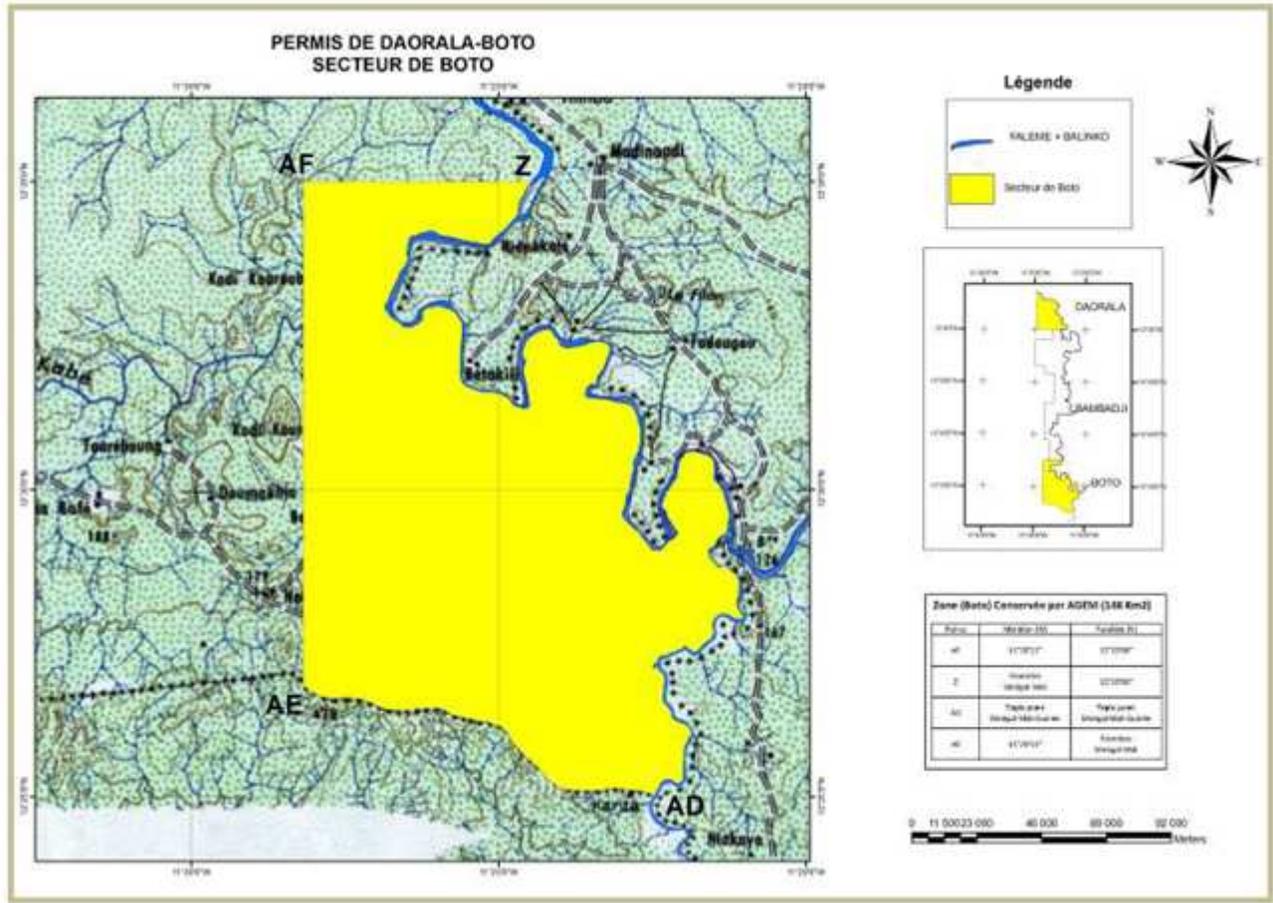


FIGURE 4-4 BOTO SECTOR LOCATION



The exploration permit was granted to AGEM Senegal Exploration SUARL (AGEM), an IAMGOLD wholly-owned subsidiary, on June 9, 2010, by the State of Senegal (Arrêté 05081 MMITPME/DMG). As of the date of this Technical Report, the permit was in good standing, with an expiry date of March 4, 2014 (Kanjo, Koita & Houda, 2013).

RPA is not aware of any environmental liabilities on the property. IAMGOLD has all required permits to conduct the proposed work on the property. RPA is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

#### ***IAMGOLD/RANDGOLD BAMBADJI JV***

In May 2007, IAMGOLD and Randgold entered into a joint venture agreement on IAMGOLD's Bambadji gold project in eastern Senegal. The 343 km<sup>2</sup> Bambadji permit is adjacent to Randgold's Loulo mining complex across the border in Mali. Under the terms of the agreement, Randgold will earn a 51% stake in the IAMGOLD interest in the project by funding and completing a pre-feasibility study. IAMGOLD can then retain a 49% interest by co-funding a full feasibility study, or dilute to 35% by letting Randgold provide the full funding.

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## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **ACCESSIBILITY**

Access to Daorala-Boto is from Dakar on a paved road to Saraya (720 km) followed by a hard packed gravel road to the Boto camp at Noumoufoukha village (two hours of driving for 80 km). The Boto camp is 12 km (one hour of driving) from Guemedji village. A bush airport is located five kilometres from the camp. Airports also exist at Kédougou and Tambacounda, but there are no regular flights.

### **CLIMATE**

The Daorala-Boto permit is located in the Soudan-Sahel climatic region that is covered by a continental subtropical climate, characterized by two distinct seasons: a rainy season from June to October and a dry season from October to May. It is generally hot and dry from February to June (35°C to 45°C), humid and hot from June to November (30°C to 40°C), and relatively mild and dry from December to February (20°C to 25°C). The annual Harmattan is a dry wind that blows from the north during the dry season. In the rainy season, the Kolia Kabe River cuts the access to the camp and halts exploration activities.

### **INFRASTRUCTURE AND LOCAL RESOURCES**

The Boto camp consists of sleeping huts, lavatories, a kitchen, an office, and a core logging enclosure.

Power is provided by on-site generators. No infrastructure exists in the area.

All supplies are flown or trucked in from surrounding communities. Most of the supplies are shipped in from Dakar due to the greater selection and availability of items. The village of Guemedji is a good resource for labourers and some fresh food.

### **PHYSIOGRAPHY**

The Kédougou district lies amid the Pays Bassari hills and Fouta Djallon foothills. The terrain is a tropical wooded savannah setting with numerous trees, elephant grass, and bamboo.

Trees are more frequent where lateritic plateaus have been dismantled by erosion and along rivers. The Boto property lies between 100 MASL and 300 MASL and consists primarily of a landscape marked by large lateritic plateaus that have been at places eroded to form erosional peneplains. The Falémé and Balinko rivers have incised plateaus and peneplains creating important landmarks on the east side of the permit. Other landmarks near the Boto property are the Falemé iron deposits that can be seen as prominent hills across the plains of this district.

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**6 HISTORY**

Historical work was carried out by Anmercosa Exploration (Anmercosa) in 1994-1996 and Ashanti Goldfields Corporation (Ashanti Goldfields) in 1997-1998. Since 1999, exploration has been carried out by AGEM and is described in more detail under Section 9 Exploration.

**ANMERCOSA EXPLORATION - 1994-1996**

Anmercosa, a 100% owned subsidiary of Anglo American, completed regional exploration at the Boto project in 1994 to 1996, focusing primarily on airborne geophysical surveys and regional and local geochemistry. Table 6-1 summarizes the work performed by Anmercosa.

**TABLE 6-1 ANMERCOSA EXPLORATION HISTORY  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Period and Company</u>	<u>Work Type</u>	<u>Details</u>
<b>Anmercosa Exploration 1994-1996</b>	Airborne Geophysics (Magnetic, Radiometric, VLF)	N/A
	Regional Geochemistry	7,591 soil samples 22,740 termite mount samples 406 stream sediment samples
	Detailed Geochemistry	7,469 soil samples 3 rock samples

**ASHANTI GOLDFIELDS CORPORATION - 1997-1998**

After acquiring the property from Anglo American, Ashanti Goldfields continued to focus on the acquisition of geochemical data and conducted some preliminary trenching in 1997 and 1998. Table 6-2 summarizes the work performed by Ashanti Goldfields.

**TABLE 6-2 ASHANTI GOLDFIELDS EXPLORATION HISTORY  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Period and Company</u>	<u>Work Type</u>	<u>Details</u>
<b>Ashanti Goldfields 1997-1998</b>	Detailed Geochemistry	1,941 soil samples 998 termite samples 8 stream sediment samples 79 rock samples
	Trenching	2 trenches

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There have been no known previous Mineral Resource estimates or production on the property.

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## 7 GEOLOGICAL SETTING AND MINERALIZATION

### REGIONAL GEOLOGY

The Boto project is located within the West African Craton (WAC), in the southeastern part of the Early Proterozoic Kédougou-Kéniéba inlier, which covers eastern Senegal and western Mali.

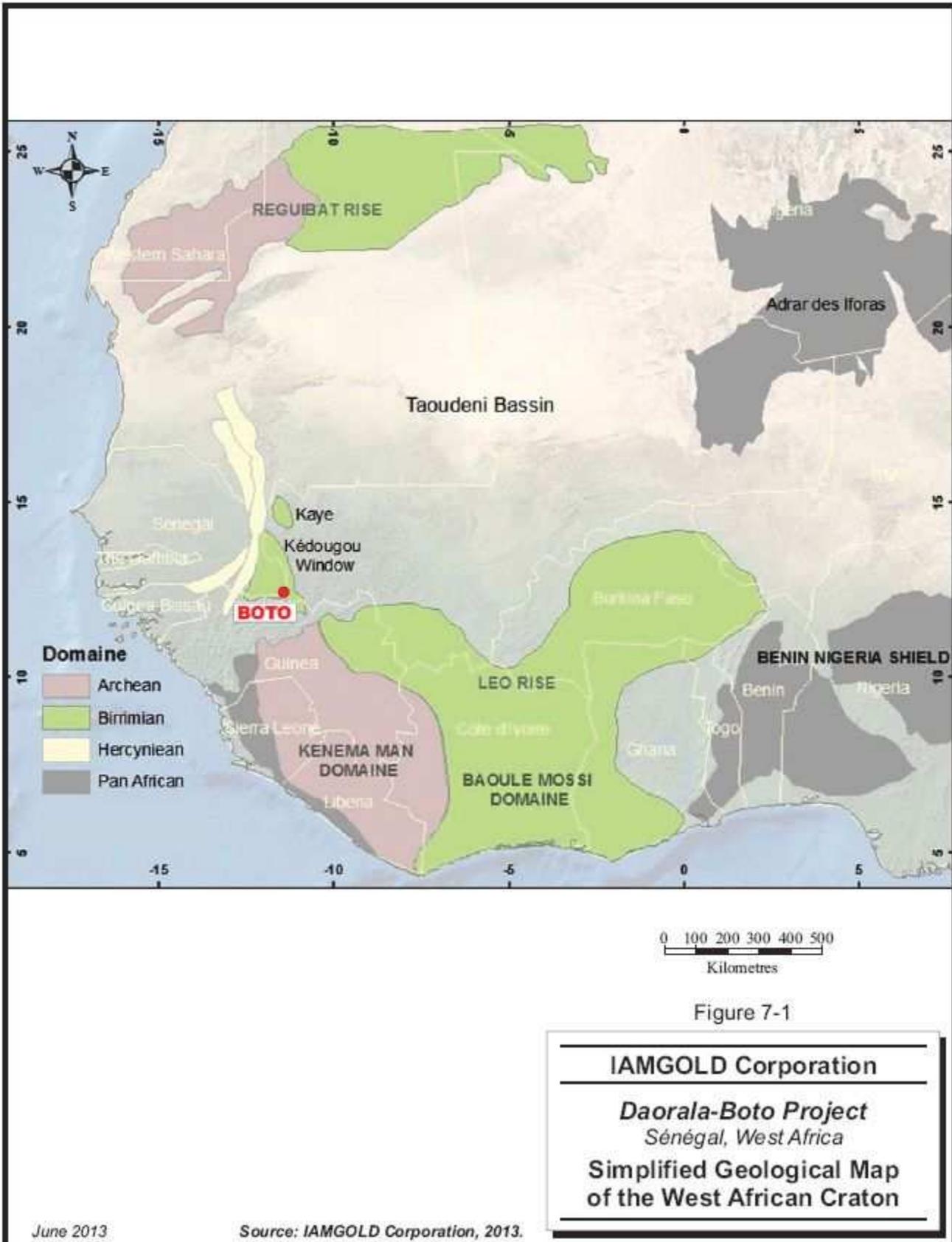
Basement rocks of the WAC are exposed within the Man shield, the Reguibat shield, and the Kédougou-Kéniéba and Kaye inliers. It consists of an Archean nuclei (3.0-2.7 Ga, Camil et al., 1983) that is overlain by Early Proterozoic rocks (2.1 Ga, Abouchami et al., 1990; Hirdes et al., 1996) (Figure 7-1).

In the southern part of the WAC, the Early Proterozoic greenstone terranes are referred to as Birimian after the work of Kitson (1928) in the Birim River valley in Ghana. These terranes have been affected by the Eburnean Orogeny (a major thermo-tectonic event around 2.1 Ga) and are exposed all over the Kédougou-Kéniéba inlier and the Leo-Man shield except in its westernmost part, where Archean terranes outcrop.

The Birimian terranes comprise alternating northeast-trending linear volcanic belts and sedimentary basins that are separated by granitic and/or gneissic terranes (Hirdes et al., 1996). Rocks are generally metamorphosed to greenschist facies, although amphibolite grade occurs locally within metamorphic aureoles related to granitic intrusions (Boher et al., 1992).

The Kédougou-Kéniéba inlier, where the Boto project is located, is the westernmost zone of exposure of the Birimian. The Kédougou-Kéniéba inlier is bounded, on its western side, by the Hercynian Mauritanide belt; on all other sides, it is unconformably overlain by undeformed Late Proterozoic and Early Phanerozoic rocks of the Taoudeni, Tindouf, and Volta basins (Boher et al., 1992; Villeneuve and Cornée, 1994).

FIGURE 7-1 SIMPLIFIED GEOLOGICAL MAP OF THE WEST AFRICAN CRATON



## LITHOSTRATIGRAPHIC SUBDIVISIONS

Birimian terranes of the Kédougou-Kéniéba inlier were first divided into three north to north-northeast trending groups, from west to east: Mako, Dialé, and Daléma. Based on their similar lithology, the Dialé, and Daléma groups have later been combined into Dialé-Daléma group (Bassot, 1966, 1987).

### **MAKO GROUP**

Mako group is a volcano-plutonic belt composed mainly of volcanic rocks, with some sub-volcanic intrusions and granitoids, and minor sedimentary rocks. It consists predominantly of tholeiitic and calc-alkaline volcanic rocks with interbedded volcanoclastic sedimentary rocks and intercalations of fluvio-deltaic sedimentary rocks (Kéniébandi Formation) equivalent of the Tarkwaian described in Ghana (Davis et al., 1994). Typical lithologies include: pillowed basalts with minor intercalated volcanoclastic rocks, high-Mg basalts, pyroxenites, sub-volcanic intrusions, and granitoids. The volcanic assemblage is dated between 2,160 Ma and 2,197 Ma. In the eastern part, calc-alkaline series and detrital sediments are associated with volcano-sedimentary rocks (Boher, 1991; Dia et al., 1997, Bassot, 1987; Dia et al., 1997; Dioh et al., 2006). To the east of Mako lies the dominantly sedimentary Dialé-Daléma Group that is separated from Mako by a regional scale lineament termed Main Transcurrent Zone (MTZ).

### **DIALÉ-DALÉMA GROUP**

Dialé-Daléma group is composed mainly of sedimentary rocks with subordinate volcanic rocks. Typical lithologies are: folded sandstones and siltstones, interbedded with calc-alkaline ash-and-lapilli tuffs (Bassot, 1987; Hirdes and Davis, 2002). This group is subdivided into two series that are distinguished by their relative proportion of chemical and detrital sedimentary rocks.

Dialé series has a higher proportion of chemical sedimentary rocks; typical lithologies are, from base to top: crystalline limestone and dolomitic marbles, greywacke, arenite sandstone, and schist (Milési et al., 1989). According to Schwartz and Melcher (2004), the Dialé series has the most extensive occurrences of carbonate in the Birimian. Dialé-Daléma is intruded by coalescent biotite-bearing granitic plutons (i.e., Saraya granite; Pons et al., 1992)

This sequence is overlain by distal turbidites, partially tourmalinized in the upper part, and carbonate-bearing fine grained sedimentary rocks.

The Senegalese and Malian sides of the inlier have alternative terminologies for the same geological formations; as both sides of the inlier are referred to in this section, Table 7-1 has been provided for simplicity.

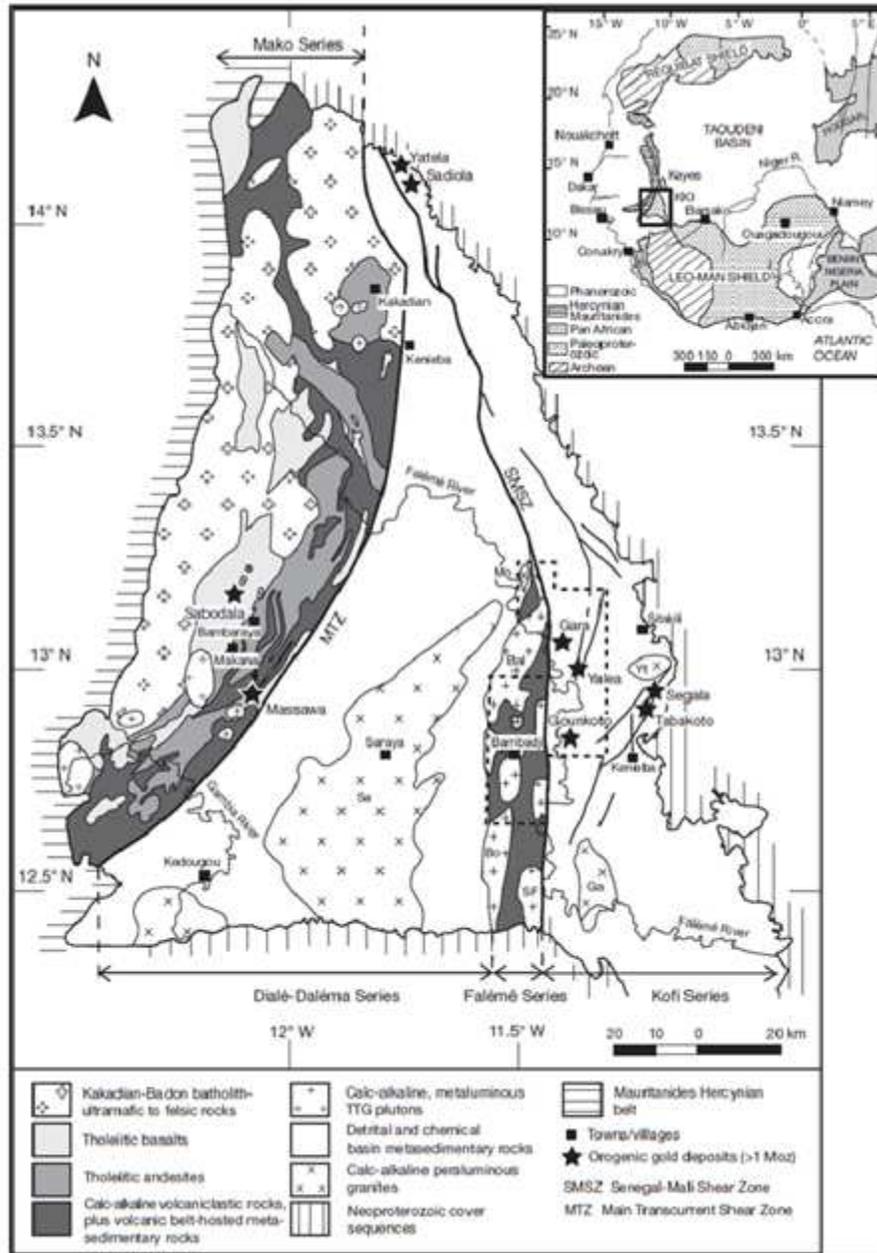
**TABLE 7-1 SENEGALESE AND MALIAN TERMINOLOGY FOR BIRIMIAN FORMATION  
IAMGOLD Corporation – Daorala-Boto Project**

	<u>Bassot (1966)</u>	<u>Mali West (1989)</u>	<u>Lithologies</u>
Mako Group		Saboussiré Formation	Mafic volcanic rocks , volcano-sedimentary and sedimentary rocks
Dialé Group		Kéniebandi Formation	Dominantly sedimentary rocks, some volcanic rocks Possibly a late basin in Mali
Daléma Group		Kofi Formation	Dominantly sediments, minor volcanic rocks Falémé calc-alkaline complex

One of the important features in the Dialé-Daléma is the regional north-south lineament, termed the Senegal-Mali Shear Zone (SMSZ), which occurs in the eastern part of the inlier (Figure 7-2). Early geological interpretations extended the Dialé-Daléma group over this regional lineament toward the east to the Malian part of the inlier. However, based on new observations, a new volcano-plutonic belt has been outlined in the southeastern part of the inlier. It is termed the Falémé series and separates the Dialé-Daléma series in the west from the Kofi series to the east. The Kofi series is restricted to the east of the SMSZ and consists of sandstones, argillites, and platform carbonates intruded by syntectonic, S-type, peraluminous biotite-bearing granites. Detrital sedimentary rocks at the Loulo deposit that occurs within the Kofi have been dated between  $2.093 \pm 7$  and  $2.125 \pm 27$  Ma (Boher et al., 1992).

To summarize, the inlier can be structurally described as consisting of two north to north-northeast trending volcano-plutonic belts, the Mako Series and the Falémé series, and two intervening sedimentary basins, referred to as the Dialé-Daléma series and Kofi series (Figure 7-2).

FIGURE 7-2 LITHOSTRUCTURAL MAP OF THE KÉDOUGOU-KÉNIÉBA INLIER



## TECTONIC SETTING

Birimian rocks of the Kédougou-Kéniéba inlier have been affected by a polycyclic deformation and metamorphic history related to the Eburnean orogeny (2.2 Ga to 2.0 Ga). Three major deformation phases have been distinguished: a collisional phase D1 associated with the initial accretion of the Birimian, and two transcurrent phases (D2-D3) associated with the formation of regional-scale north-south shear zones.

At the scale of the Kédougou-Kéniéba inlier, the D2-D3 deformation is clearly associated with the two regional transcurrent ductile structures, i.e., the northeast trending Main Transcurrent Shear Zone (MTZ) that is located between Mako and Dialé-Daléma, and the SMSZ located in the eastern part of the inlier (Ledru et al., 1991; Gueye et al., 2007), as well as with subsidiary structures (Bassot and Dommange et al., 1986; Ledru et al., 1991; Milési et al., 1989, 1992; Dabo and Aïfa, 2010).

D1 features include a penetrative cleavage (S1) that has transposed bedding (S0), a stretching lineation (L1), and an isoclinal syn-foliation folding (F1) with variable trends (north-south, northeast-southwest to east-west, or northwest-southeast).

D2 characteristic features include upright or slightly overturned to the southeast folding (F2), an S2 cleavage, which is parallel to the F2axial plane and usually marked by dissolution planes, a stretching lineation (L2) marked by stretched conglomerate clasts and/or metamorphic mineral lineation. The D2 phase is associated with left-lateral strike-slip faults trending north-south to northwest-southeast and major granite emplacement (Pons et al., 1992).

The S2 fabric, which typically transposes and overprints bedding (S0) and S1 structures is the most conspicuous deformational feature in the region (Ledru et al., 1991; Pons et al., 1992). It is generally steep with statistical trend close to N30E, though it is overturned to become north-south near the SMSZ. D2 is also associated with the emplacement of the Kakadian ( $2,199 \pm 68$  Ma) and Saraya ( $1,973 \pm 33$ Ma) granitic batholiths (Pons et al., 1992; Gueye et al., 2007).

D3 is marked by northeast-southwest strike-slip faults with associated folding (Pons et al., 1992; Feybesse and Milési, 1994).

The tectonic history of the region may be summarized as follows:

- Early Proterozoic:
  - Deposition of clastic, pelitic, greywacke, carbonate, and volcano-sedimentary units.
  - Eburnean orogeny: metamorphism (greenschist facies) of sediments to form quartzites, schists, marbles, etc. (Birimian D1, D2, D3).
- Late Proterozoic:
  - Uplift, erosion, and peneplanation of Birimian rocks.
- Late Proterozoic to Carboniferous:
  - Deposition of clastic sediments (mainly sandstones) of the Taoudeni Basin.

## LOCAL GEOLOGY

The Boto-Daorala and the Bambadji concessions lie mainly within the Falémé series, a volcanic-plutonic belt that is sandwiched between the Dialé-Daléma series and the Kofi formation, and is separated from the latter by the SMSZ. It can be chronologically correlated with the Mako series. The easternmost part of Boto property lies in the Kofi formation.

Typical lithologies of the Falémé “volcanic belt” include carbonate-rich sedimentary rocks, minor basalts and andesite, rare rhyolites, and syn-tectonic granitoids. A series of calc-alkaline dominated granitoids occur within this “granite-volcanite belt” including the Balagouma, Bambadji, Boboti, and south Falémé granitoids. The Boboti and South Falémé granitoids have emplacement ages of  $2,080 \pm 1$  and  $2,082 \pm 1$  Ma, respectively (Ndiaye et al., 1997; Hirdes and Davis, 2002). According to Lawrence et al. (2013), the Kofi formation comprises a sequence of shelf carbonates and calcareous clastic rocks, turbiditic sedimentary rocks, tourmalinized quartzwackes, feldspathic sandstones, and calcareous greywackes with argillite intercalations.

The Balagouma and Boboti granites are spatially associated with the Falémé iron deposits that are thought to be of skarn type. According to Schwartz and Melcher (2004), the iron deposits are genetically linked to the metasomatism related to the emplacement of these granite plutons. They have been described as endoskarns and exoskarns hosted in calcitic and hematite-bearing bodies. Topographic highs formed by these iron hills are the most prominent landmarks within the Falémé volcanic belt.

## PROPERTY GEOLOGY

The near-surface material at Boto comprises a regolith layer of variable thickness which includes lateritic plateaus. Little rock outcrop is seen throughout the property, with creek and river banks serving as the primary source of geological observations. This leaves drilling as the only source for detailed knowledge of the subsurface geology. Drilling data has been used in conjunction with geophysical interpretation to create a district scale representation of the geology at Boto.

Boto can be divided into three north trending (020 °N) litho-structural domains that are well delineated in both induced polarization (IP) and magnetic surveys. From west to east, the three domains are:

- Western flyschoid domain
- Central deformation corridor
- Eastern siliciclastic domain

The western domain is dominated by a sequence of flyschoid turbidites, black shales (or graphitic pelite), carbonate rocks, minor volcanics (mainly basalt with subordinate rhyolite and pyroclastic breccia or agglomerate) and dioritic intrusions. The Boto 5 deposit occurs along the contact between this domain and the central deformation corridor.

The eastern domain dominated by a detrital package composed of greywacke and sandstone (+/- quartzite), known as the Guemedji sandstone. These sandstones/wackes are thought to be part of the Kofi formation that is well represented in the Malian part of the inlier.

Between the western and eastern domains is a highly deformed north-trending (020 °N) domain that is well defined in magnetic geophysical data. It is likely that this highly deformed domain corresponds to a regional-scale structural corridor that branches from the SMSZ. Lithologically, it is composed of fine schistose sediments that are carbonaceous in places, locally referred to as the "Pelite" unit, and fine laminated sediments (+/- carbonates) which subtly grade into an impure marble, locally referred to as the "Cipolin" unit.

In general, geologic units within all three domains strike 020 °N with variable dips. In the western domain, the dip is generally between -70 °W and sub-vertical, whereas in the eastern

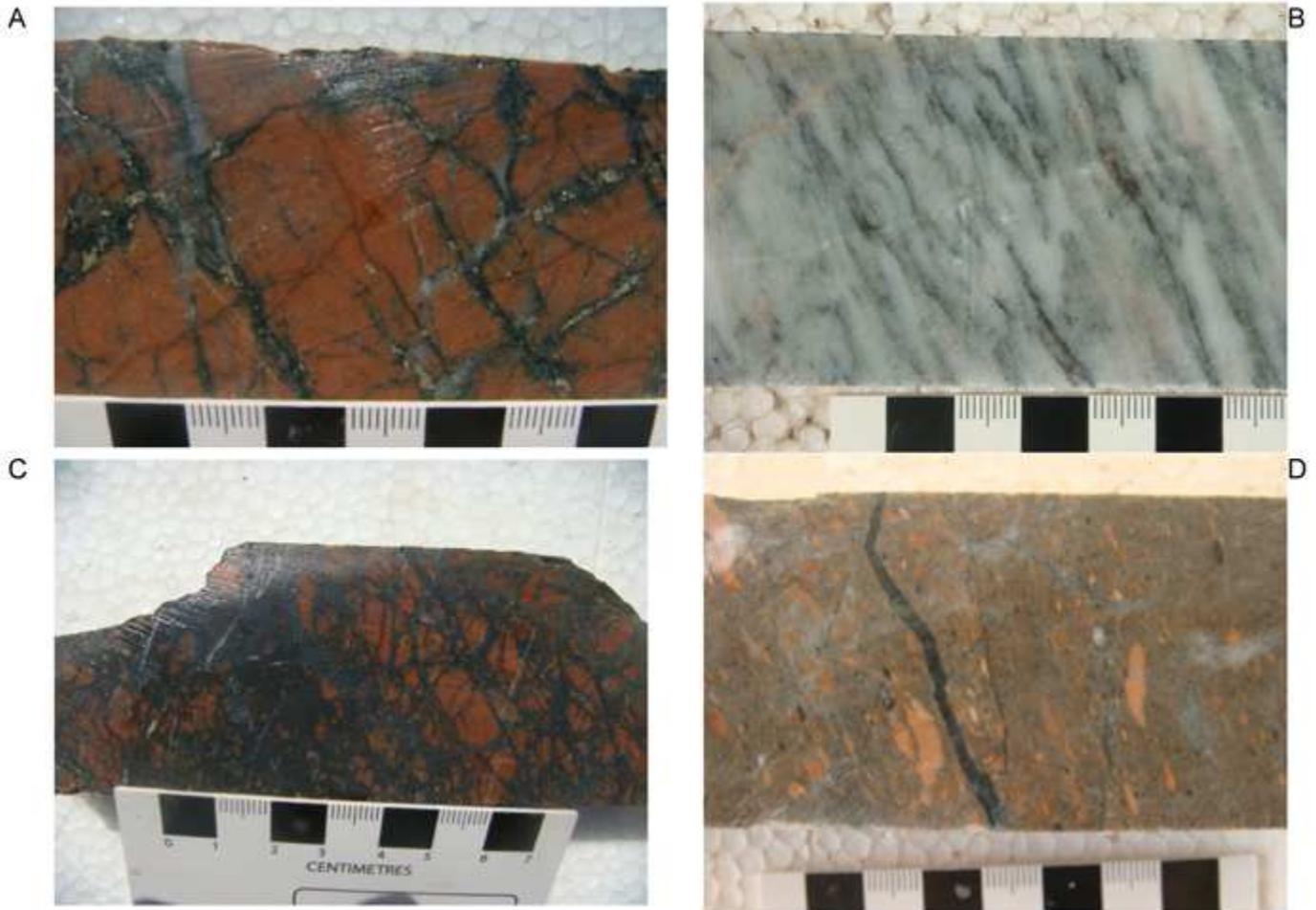
domain, lithological units generally dip less than  $-60^{\circ}$ W. Intrusive rocks occur within all three domains and include diorite, dolerite, granite, and granodiorite. Various volcanic rocks have also been observed in drill core, including an andesitic vesicular lava, basalt, andesite, and rhyolite. Pyroclastic rocks including lapilli tuffs, ash tuffs, and agglomerates have also been documented. It should be noted, however, that the locally termed agglomerate facies, may have a tectonic rather than pyroclastic origin. Figure 7-3 provides examples of some of the characteristic lithologies at Boto.

Known gold deposits on the Boto project occur on the margins of the central deformation corridor (Figure 7-4). Boto 5 lies along the western limit (contact with carbonaceous turbidites), and Boto 2-4-6 and Malikoundi lie along the eastern limit (contact with the Guemedji sandstone).

Geochemical anomalies at Boto have a strong correlation with the structural trends described above. The Lelou and Guemedji geochemical domains correspond with the Western flyschoid domain and the central deformation corridor respectively.

The Lelou trend that encompasses two surface geochemical anomalies, Boto 1 and Boto 3, remains a prospective exploration target and is yet to be tested. The Guemedji trend hosts Boto 2-4-6, Malikoundi, and Boto 5 (Figure 7-5).

FIGURE 7-3 CHARACTERISTIC LITHOLOGIES AT BOTO



A) and C) Crackle Breccia in pink Albite-altered quartzite (Guemedji sandstone) , fractures filled with Quartz-tourmaline-chlorite and pyrite +/- Magnetite. B) stripped impure marble. D) Agglomerate with stretched fragments.

FIGURE 7-4 LITHO-STRUCTURAL MAP OF BOTO

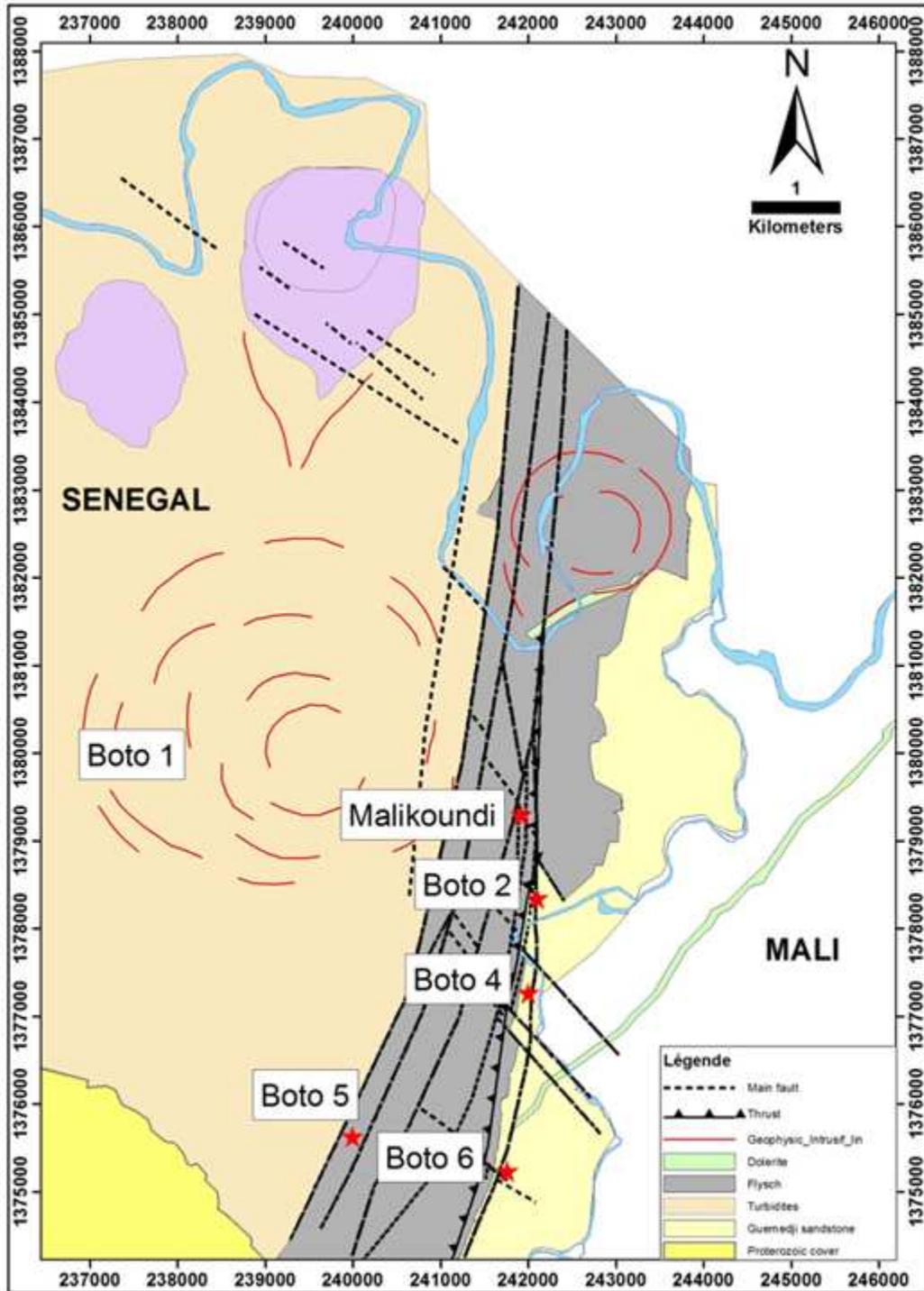
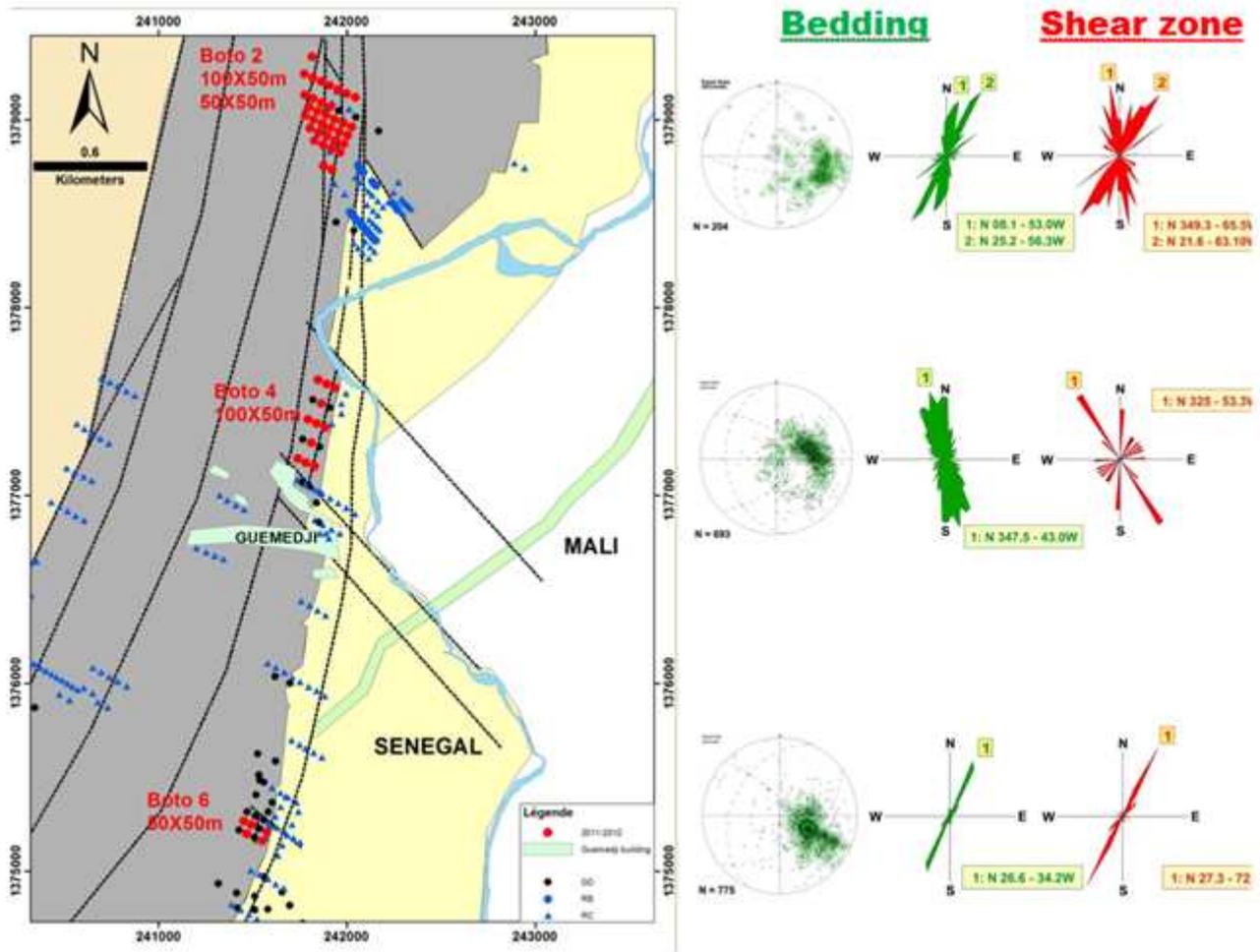


FIGURE 7-5 STRUCTURAL INTERPRETATION OF BOTO 2/MALIKOUNDI, BOTO 4 AND BOTO 6 DEPOSITS



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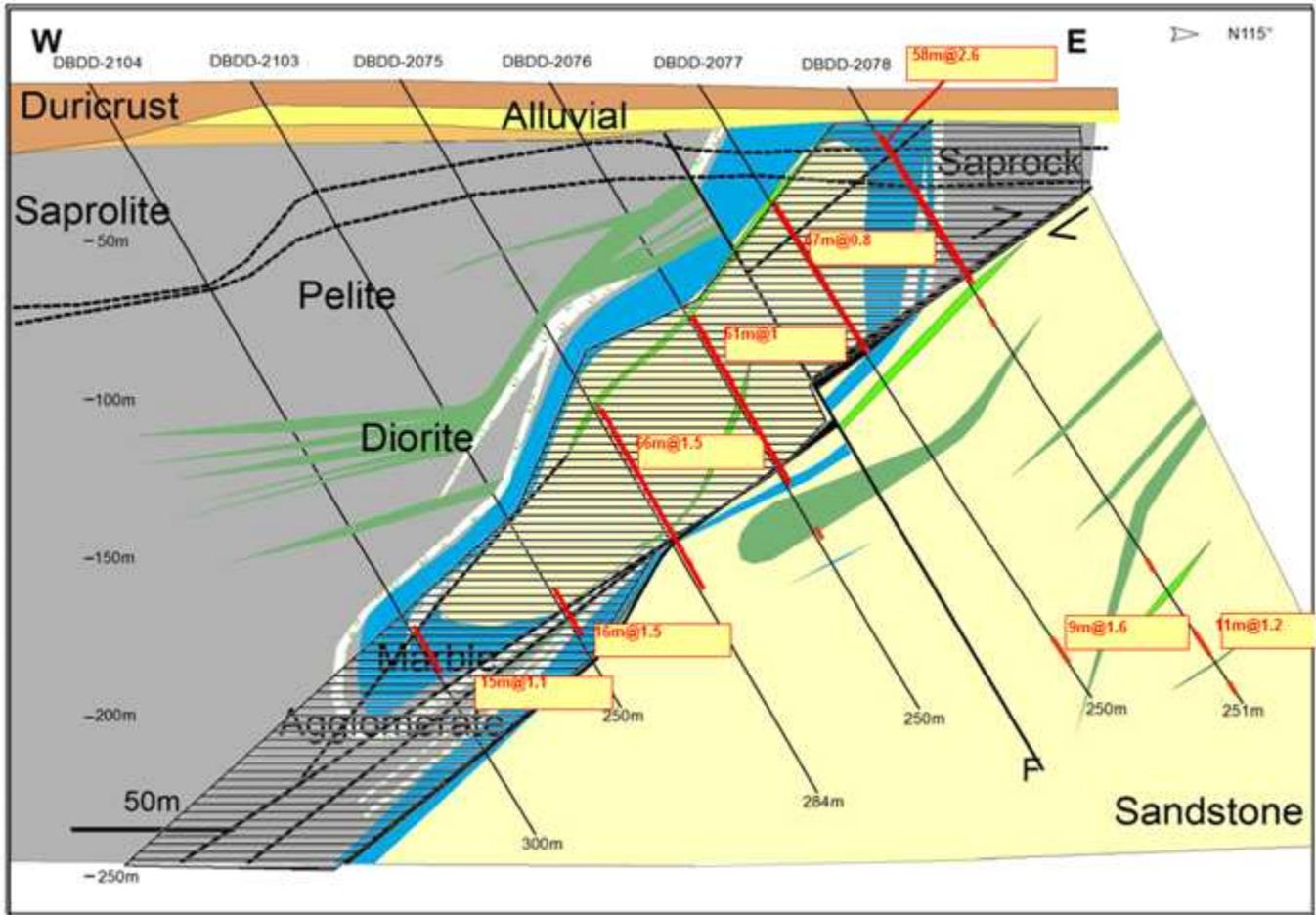
**BOTO 2-4-6 AND MALIKOUNDI**

At Boto 2-4-6 and Malikoundi the regolith comprises pedolith (soil, ferricrete, and laterite) saprolite, and transition (saprock) weathering profiles that average 8 m, 20 m, and 10 m, respectively, in thickness. Detailed logging of the regolith has allowed for the distinction between transported and in-situ regolith. Assay results from up-dip expressions of mineralized zones confirm in-situ mineralized regolith. Mineralization in fresh rock is mainly associated with pervasive albite alteration and pyrite.

Interpretation of structural data collected from oriented drill core has shown differences between Boto 2/Malikoundi, Boto 4, and Boto 6. Boto 6 is characterized by a bedding strike of 025 °N, while Boto 2/Malikoundi appears to have two bedding strike directions of 015 °N and 030 °N. The two bedding strike directions observed at Boto 2/Malikoundi may be due to ductile deformation within the impure marbles and laminated detrital sediments. Contrary to other parts of the structural corridor, a significant rotation of bedding strike to 147 °N is noted in drill core at Boto 4. The relationship between bedding and shear structures at Boto 2-4-6 and Malikoundi relative to the Central deformation corridor is shown in Figure 7-5.

At Boto 2/Malikoundi, a 30° westward-dipping thrust fault has been observed in drill core at the contact between the Guemedji sandstone and the sequence of marble/laminated sediments. Of particular interest is a large lens of the Guemedji sandstone that lies above the fault (Figure 7-6). This over-riding block of sandstone is the main host of mineralization in this prospect. This fault has also been identified further to the south in Boto 4 and Boto 6.

FIGURE 7-6 REPRESENTATIVE CROSS-SECTION BOTO 2/MALIKOUNDI



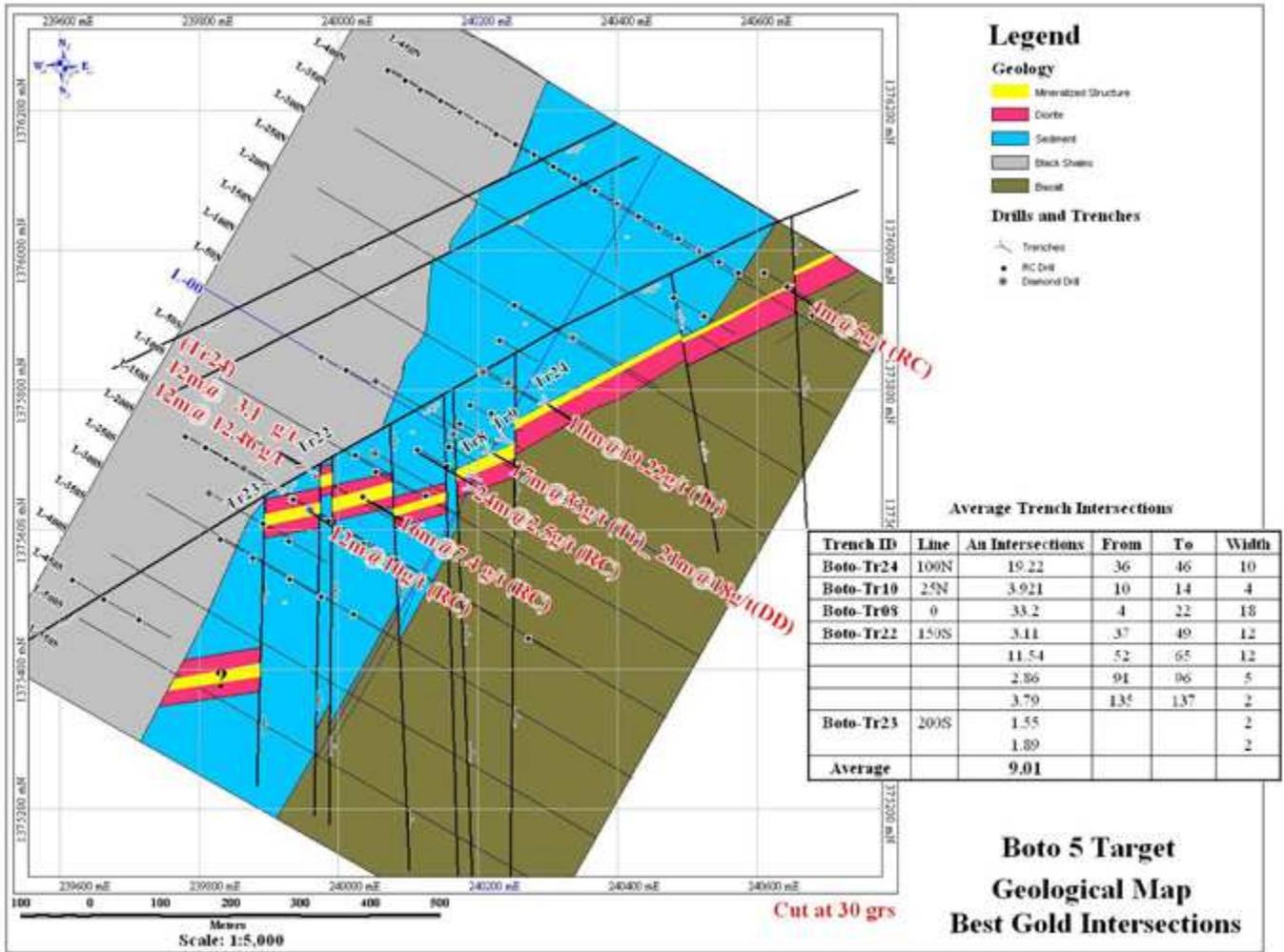
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**BOTO 5**

The weathering profile of Boto 5 is significantly deeper than that at Boto 2-4-6 and Malikoundi. Boto 5 is covered by a pedolith layer 10 m to 40 m thick, below which is a saprolite layer that can be up to 80 m thick. The transition layer that lies below the saprolite is between 10 m and 40 m thick.

Lithological units at Boto 5 strike 015°-020° and include shale, carbonaceous sediment, and basalt. An albite-altered diorite dike that hosts the mineralization at Boto 5 cross-cuts the stratigraphy, striking 045°N and dipping between -45°W and -60°W towards the west. Dieng (2005) described this dike as being discordant, approximately 30 m wide, and bearing fragments of country rocks in places. According to Dieng (2005), four phases of deformation took place at Boto 5. An early brittle-ductile deformation phase resulted in the emplacement of barren tourmaline veins. This was followed by reverse brittle-ductile faulting which overprinted and reactivated the northeast trending structures. Gold bearing quartz-tourmaline veins formed during this phase. D2 structures were subsequently overprinted by a third (ductile) deformation phase. The latest deformation event is characterized by north-northwest and northeast trending brittle faults that offset the mineralization into blocks (Figure 7-7).

FIGURE 7-7 BOTO 5 GEOLOGY PLAN VIEW



## ALTERATION

Based on core and thin section observations, it is believed that the rocks that host the Boto deposits have been subject to four alteration phases, which are closely linked to coeval structural and lithological hydrothermal events. The four main observed alteration phases are (Figure 7-8):

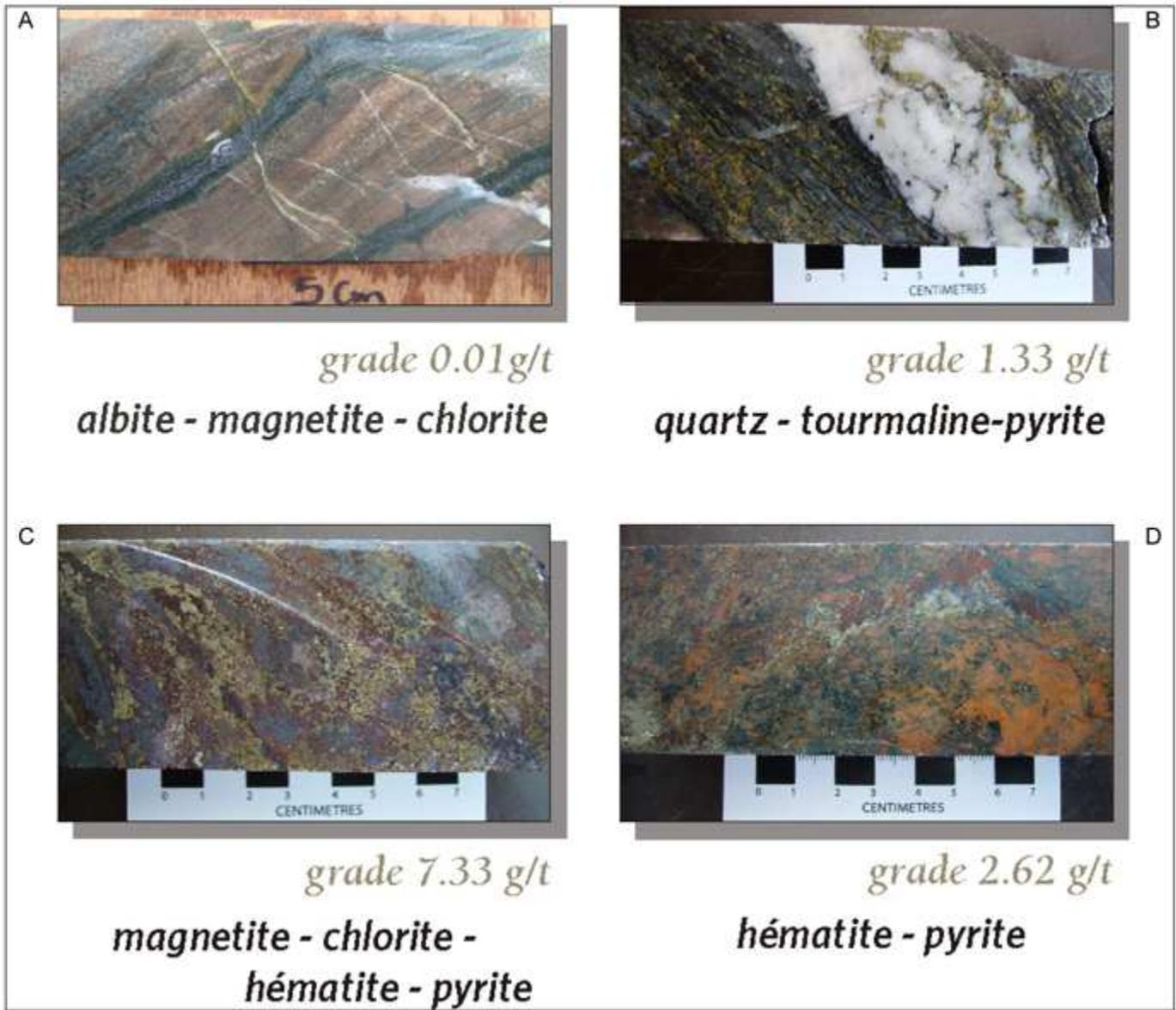
1. Albite - sodic pervasive alteration that has turned the rock to pink
2. Chlorite-calcite-magnetite, in fractures and wallrock alteration
3. Quartz-tourmaline-pyrite veining, with only very limited wallrock alteration
4. Pyrite-hematite-calcite veining

The first alteration event is associated with intense fracturation and pervasive pink albitization. The second is associated with chlorite-calcite-magnetite alteration developed along the fracture network as infill and locally overprinting the albitized wall rock. These two phases produced the crackle-breccia that characterizes most of the mineralized rock along the Guemedji trend. The third phase of alteration is characterized by wall rock alteration that is associated with the emplacement of quartz-tourmaline-pyrite veins and, finally, the earlier phase of chlorite-magnetite alteration is locally overprinted by pyrite-hematite-calcite alteration.

With the exception of Boto 5, the mineralization at Boto is primarily associated with the crackle breccia. Brittle-ductile veins ranging between 0.5 cm and 2 cm in width are developed along pre-existing fractures and filled with permutations of quartz, carbonate (calcite and ankerite), tourmaline, magnetite, chlorite, hematite, and pyrite.

At the scale of the prospect, it seems that gold mineralization may have been favoured by the intersection of north-northeast and north-northwest faults.

FIGURE 7-8 ALTERATION AND MINERALIZATION AT BOTO 2-4-6 AND MALIKOUNDI



## MINERALIZATION

Primary gold mineralization within the Early Proterozoic Birimian terrain has been subdivided by Milési et al. (1989, 1992) into pre-orogenic, syn-orogenic, and late-orogenic. All five deposits at Boto are of the late orogenic type.

The late orogenic gold mineralization is typically associated with brittle-ductile deformation and is characterized by the association of Au, B, W, As, Sb, Se, Te, Bi, Mo, with traces of Cu, Pb, Zn. Gold commonly occurs as native gold or as fine inclusions within the base-metal sulphides or the gangue that consists of quartz, albite, carbonate, muscovite, pyrite, and tourmaline. In this category, there are two mineralization styles that, in some instances, may have superimposed each other locally:

- Disseminated Au-arsenopyrite and Au bearing quartz veins:
  - Occur within northeast-southwest striking tectonic corridors.
  - Commonly hosted by metasediments.
- Au-quartz vein deposits with rare polymetallic sulphides (Pb, Cu, Zn):
  - Associated with the final deformation stages of the Eburnean orogeny.
  - Hosted by various lithological sequences.

### ***BOTO 5***

The Boto 5 prospect lies in close proximity to the SMSZ. Gold is mainly hosted by an east-northeast striking intensely albitized diorite intrusion that intrudes a northeast striking sequence of turbiditic sediment and limestone. Numerous diorite intrusions have also been observed.

Gold mineralization is preceded by a phase of quartz tourmaline veining with associated pyrite and bleaching. The gold mineralizing event was accompanied by biotite alteration and pyrite mineralization, with lesser amounts of chalcopyrite, covellite, and chalcocite. Mineralization is thought to be truncated against an east-northeast striking fault and is locally offset by a series of north-south striking faults.

### ***BOTO 2-4-6 AND MALIKOUNDI***

The majority of gold mineralization at Malikoundi, Boto 2, Boto 4, and Boto 6 is hosted in the upper part of the Guemedji sandstone, near a structurally modified contact with the overlying finer grained sedimentary sequence. Three main phases of alteration-mineralization have been observed macroscopically, with gold mineralization interpreted to accompany the final two events:

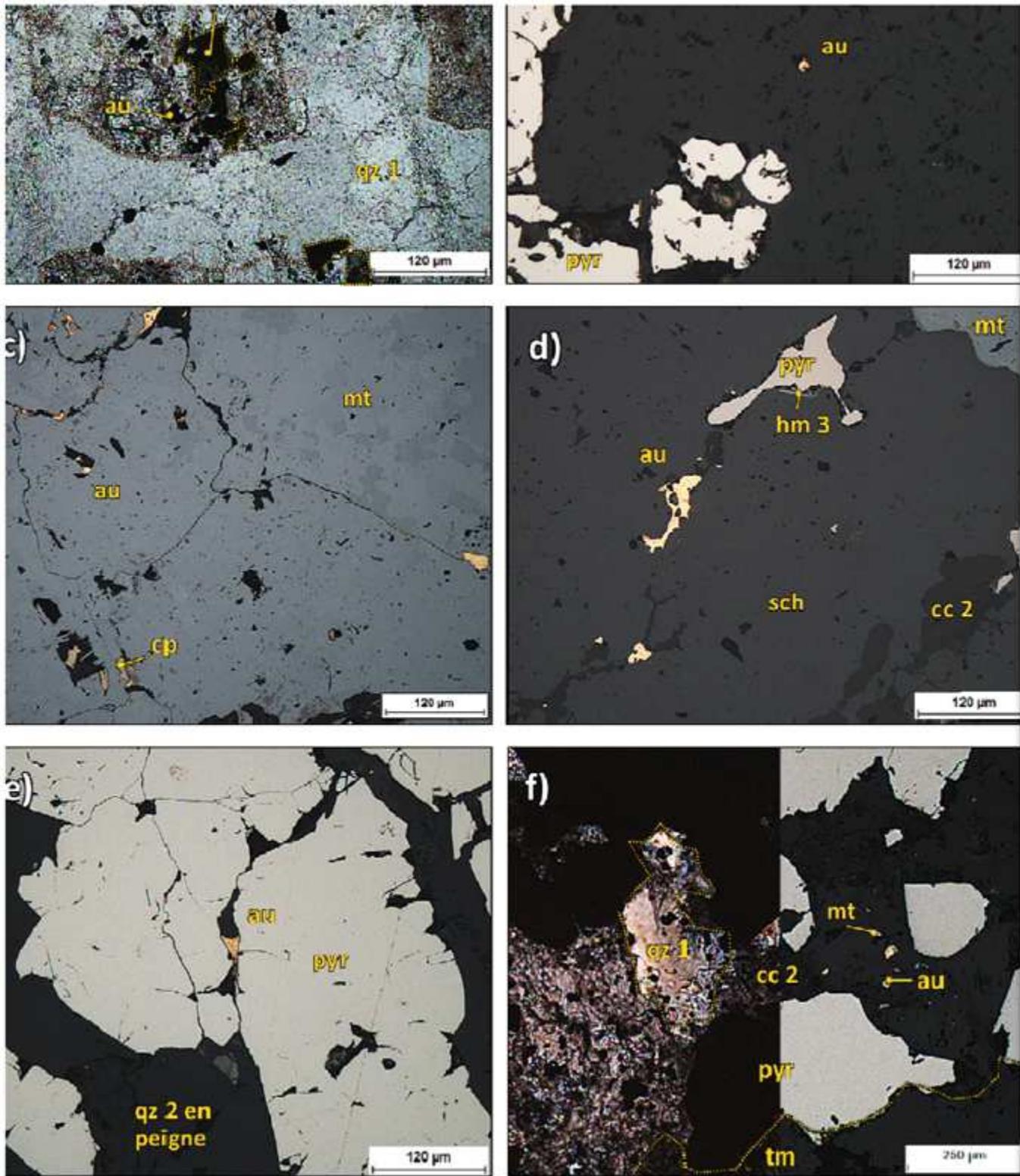
1. Chlorite-albite alteration and magnetite-hematite-chlorite veining. Calcite-tremolite alteration in distal settings.

2. Quartz-tourmaline-pyrite alteration and veins.
3. Hematite-calcite-pyrite alteration and veins.

Gold ranges from <math><10\ \mu\text{m}</math> to <math>100\ \mu\text{m}</math> in size, averaging approximately <math>20\ \mu\text{m}</math>. A review of gold mineralization and hydrothermal alteration at Boto has identified six modes of emplacement (Gatinel, 2012) (Figure 7-9):

1. Free gold in quartz-tourmaline veins.
2. Free gold grains in quartz.
3. Gold grains in fractures associated with chlorite-magnetite-pyrite +/- quartz-calcite.
4. Gold in fractures within scheelite.
5. Free gold in pyrite.
6. Free gold in calcite.

FIGURE 7-9 MODES OF GOLD EMPLACEMENT IN THE GUEMEDJI TREND



a) Free gold in quartz-tourmaline vein. b) Free gold grains in quartz. c) Gold grains in fractures associated with chlorite-magnetite-pyrite +/- quartz-calcite. d) Gold in fractures within scheelite. e) Free gold in pyrite. f) Free gold in calcite (Gatinel, 2012)

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## 8 DEPOSIT TYPES

Similar to the majority of deposits found within the Kédougou-Kéniéba inlier, gold mineralization at Boto is considered to be of the orogenic type. The orogenic gold deposits of the Birimian province have been classified into three groups (Pre, Syn, and Post Orogenic). Boto mineralization characteristics are most similar to deposits of the late orogenic class.

As mentioned previously, the Boto 2-4-6 and Malikoundi deposits are hosted by a turbiditic sedimentary sequence, with mineralization concentrated along contacts of litho-structural domains. The association of orogenic deposits with turbidite sequences is well documented by Poulsen et al. (2000). Turbidite-hosted gold deposits within the eastern Kédougou-Kéniéba inlier are controlled by north-northeast trending structures linked to the SMSZ and occur within the vicinity of intersecting north-northeast and north-northwest structures. At the Boto 2-4-6 and Malikoundi deposits, gold is typically associated with pyrite, which is either disseminated along fractures (crackle-breccia hosted type) or along brittle-ductile veins.

Alteration assemblages observed at Boto 5 differ from those observed at Boto 2-4-6 and Malikoundi. Boto 5 is hosted in a diorite dike that contains abundant endogenic albite or has been pervasively altered to albite. The host rock at Boto 5 is highly deformed and contains a stockwork of quartz-tourmaline-pyrite veins. Although differing in appearance, this style of brittle-ductile deformation and veining is consistent with an orogenic gold mineralization model.

**9 EXPLORATION**

The historical exploration is described in more detail in Section 6 History.

**1999-2012 EXPLORATION**

AGEM has carried out exploration on the Boto Project since 1999, with most work done during the period 2007 to 2013. Between 1999 and 2007, AGEM compiled results of the work performed by Anmercosa and Ashanti Goldfields and completed gradient, IP, magnetic, radiometric, and very low frequency (VLF) geophysical surveys. Early drilling centred upon the discovery and delineation of Boto 5 as well as initial drill fences at the Boto 2-4-6 anomalies. After 2007, the Boto 2-4-6 targets were the focus of infill drilling as well as high-resolution IP (HIRIP) and gradient surveys. The 2012 program culminated with the Malikoundi discovery northwest of Boto 2.

Table 9-1 summarizes the work performed by AGEM between 1999 and 2012.

**TABLE 9-1 AGEM EXPLORATION HISTORY  
IAMGOLD Corporation – Daorala-Boto Project**

Work Type	Details
Assay of soil samples left unassayed by Anmercosa from its regional sampling	4,069 samples of soils (one out of 2 samples were not assayed by Anmercosa)
Detailed Geochemical Sampling	3,938 soil samples 14,851 termite samples 914 lag samples 549 rock samples
Pitting	821 pits
Trenching	29 trenches totalling 1,720 m
Augers	212 mechanical augers totalling 2,095 m
Airborne Geophysical Surveys	magnetic and radiometric surveys Gradient (2000) Magnetic & VLF (2000) Induced Polarization (2000)
Detailed Geophysical Surveys	Magnetic (2002) VLF (2002) Gradient (2006-2009) HIRIP (2008) Induced Polarization (2009)
Drilling (Diamond and RC)	13,097.5 m

## CURRENT EXPLORATION

IAMGOLD has approved a US\$4.3 million exploration budget for the Boto project in 2013, including approximately 11,000 m of diamond drilling. The goal of the program is to:

1. Continue the infill delineation drilling program initiated in 2012 to support the completion of a Mineral Resource estimate.
2. Expand the known extents of gold mineralization at the Malikoundi Zone, Boto 4, and Boto 6.
3. Provide drill core composite samples for metallurgical and grinding tests.

Approximately 7,100 m of diamond drilling, approximately half of the planned 2013 campaign, had been completed on the Boto property at the end of April 2013. Two step-out sections have been drilled on the Malikoundi Zone to test for potential lateral extensions. Results obtained to date have confirmed strike continuity of gold mineralization and the Malikoundi Zone remains open to the north.

At Boto 4, all drill sections completed in 2012 have been extended down-dip to the west and up-dip to the east. Two infill lines were completed to better define known gold mineralization.

At Boto 6, the planned program will reduce drill spacing to 50 m x 50 m centres over the total strike extent of known mineralization.

An airborne electromagnetic geophysical survey is being planned in the third quarter of 2013 to advance geological understanding and to help identify additional exploration targets.

The following supporting studies are also in progress:

- A metallurgical study on nine representative samples of Boto mineralization.
- An environmental baseline study (commissioned).

## EXPLORATION POTENTIAL

The Boto project is underlain by prospective Birimian aged rocks within the southern part of the Early Proterozoic Kédougou-Kéniéba inlier, within the area affected by the SMSZ. The host rocks and observed structural setting demonstrated at the Boto project are also observed at many of the economic gold deposits located elsewhere in the Kédougou-Kéniéba window.

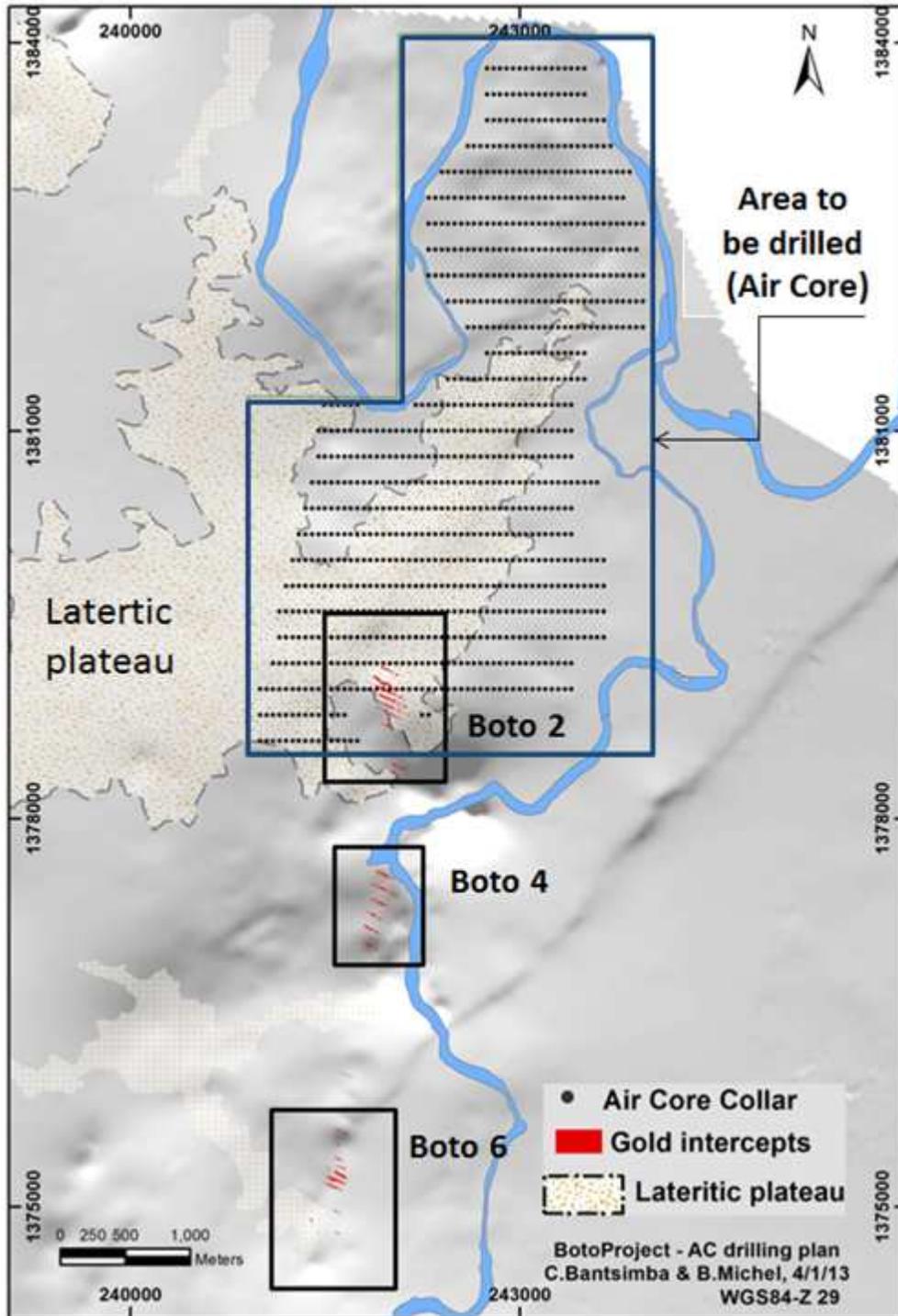
The Guemedji geochemical trend, which hosts the Malikoundi Zone, is approximately 8 km in length and has only been tested on its southern part where the Boto 2-4-6 deposits are located. The bedrock geology between the Malikoundi Zone and Papillon's Fekola deposit in Mali (discussed further in Section 23) is masked by a thick lateritic cover, rendering traditional exploration geochemical techniques largely ineffective. The northern part of this trend (about 40% of its total length) has not yet been tested by drilling and is the focus of an extensive air core drilling program slated for 2014 (Figure 9-1). The Malikoundi Zone has not been closed off by drilling and future drilling is planned to determine the extents of the mineralization.

It should be noted that termite mound sampling has been an integral factor in identifying anomalies under the lateritic cover, which lies over much of the surface of the property (Boto 2, Boto 5, and Boto 6).

The Lelou trend, which hosts the Boto 5 deposit, is considered by IAMGOLD geologists to be underexplored in the north. The lateritic cover in the area is thick and has not been tested by any subsurface probing methods.

Within the western domain, there is another structural trend, which hosts the Boto 1 and Boto 3 targets. IAMGOLD considers these targets to be relatively underexplored. Boto 3 has only been tested with pit sampling while Boto 1 has been tested with drill holes.

FIGURE 9-1 EXPLORATION POTENTIAL NORTH OF BOTO 2 AND MALIKOUNDI



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## **BAMBADJI EXPLORATION**

AGEM began exploring the Bambadji permit in the early 1990s, eventually entering into a joint venture agreement with Ashanti Goldfields in 1996. Earlier geochemical sampling identified Bambadji's first anomalies "KA" and "KB". Diamond drilling programs conducted in late 1990s targeted coincident EM and IP anomalies, while exploration programs in the early 2000s tested geochemical anomalies with regional trenching and RAB drilling programs. In 2006, IAMGOLD conducted an extensive review and re-interpretation of historical data from the Bambadji and Daorala-Boto properties prior to entering into a joint venture agreement with Randgold in 2007. The work performed by Randgold since 2007 has consisted of detailed mapping, pit and trench sampling, and RAB drilling. Some of the more prospective targets were then followed up with a combination of diamond and RC drilling. Mineralized structures were defined in five main corridors: Kolya-Kabewest, Baqata, Kabetea, Mananord-Goukoto, and Kach.

## **DAORALA EXPLORATION**

Historical exploration work on the Daorala block was carried out by Anmercosa from 1994 to 1996 and by AGEM from 1999 to 2012. No significant exploration work was carried out during the period 1996 to 1999 when Ashanti Goldfields controlled the project. Exploration at Daorala included geochemical sampling, RC drilling, trenching and pitting, and shallow auger drilling. The RC drilling was completed between 2011 and 2012.

The regional geochemical sampling carried out by Anmercosa between 1994 and 1996 included soil, termite mound, and stream sediment sampling. Anmercosa followed up anomalies with additional soil sampling. The "DE" anomaly has been the primary focus of most exploration activities at Daorala. Between 1999 and 2012, AGEM re-analyzed samples left by Anmercosa, before conducting additional termite mound sampling on identified anomalies. Targeted auger drilling completed in 2010 enabled two geochemical trends to be distinguished within the original DE anomaly (DE1 and DE2). These two trends were the main targets of the 2011 and 2012 RC drilling campaigns, with the DE1 trend being covered on 800 m spaced drill sections. RC drilling totalled 83 holes for 7,997 m.

## 10 DRILLING

### SUMMARY

The Mineral Resources discussed in this report were estimated using the data provided by reverse circulation (RC) and diamond core drilling (DD) completed by IAMGOLD's subsidiary AGEM from 2000 until the date of this report. AGEM also drilled 33 shallow (<40 m) rotary air blast (RAB) holes, but these were not used for the resource estimate. RPA is unaware of any drilling completed by previous owners.

The Boto drilling has outlined four zones (Boto 2-4-6 and Malikoundi) of gold mineralization along the north-northeast trending contact between the central deformation corridor and the eastern domain.

Table 10-1 is a summary of the drilling included in the project database that was used to estimate the Mineral Resources presented in Table 14-1.

**TABLE 10-1 DRILL HOLE DATABASE SUMMARY – APRIL 19, 2013**  
**IAMGOLD Corporation – Daorala-Boto Project**

Year	Core		RC		Total	
	Metres	No.	Metres	No.	Metres	No.
2000	1,994	17	239	2	2,233	19
2001	2,059	13	2,080	23	4,139	36
2002	—	—	1,593	24	1,593	24
2003	—	—	3,292	52	3,292	52
2004	—	—	—	—	—	—
2005	—	—	—	—	—	—
2006	—	—	—	—	—	—
2007	2,639	11	10,687	107	13,326	118
2008	3,722	18	—	—	3,722	18
2009	3,880	17	7,667	74	11,546	91
2010	—	—	—	—	—	—
2011	284	1	—	—	284	1
2012	13,098	50	—	—	13,098	50
2013	3,600	14	—	—	3,600	14
<b>Total</b>	<b>31,275</b>	<b>141</b>	<b>25,558</b>	<b>282</b>	<b>56,832</b>	<b>423</b>

Of the 423 holes in the resource database, 224 intersect the modelled mineralized wireframes. The mineralization at the Boto 2-4-6 and Malikoundi deposits comprises a series of stacked, sub-parallel zones that follow the regional north-northeast trending faults and lithological contacts.

A downhole survey has been carried out for most of the DD holes and for the 2009 RC campaign only. Prior to 2009, no downhole surveys had been carried out for RC or RAB holes. Most of the collars have recently been surveyed with DGPS.

The use of oriented core at Boto started in 2003, and most of the DD holes drilled after this date have been oriented with a red line along the core to indicate the bottom of the hole.

### **DRILLING PROCEDURES**

Drilling pads are made to be about 15 m by 8 m, and the positions of planned drill holes are located using a handheld GPS. A piece of wood with flagging tape that states the technical parameters for the holes to be drilled (i.e., Hole ID, Azimuth, Dip and Planned length) is placed firmly in the ground.

For DD drilling, two pieces of wood are placed in front of the hole to be drilled at 15 m and at 25 m along the same line to help align the drill rig with the correct azimuth. For RC and RAB drilling, a line is marked on the ground and the drill rig is aligned parallel to the line.

### **DIAMOND DRILLING**

Generally, the DD holes were drilled using HQ size core within lateritic overburden and weathered material (saprolite and saprock) and then reduced to NQ size core in fresh rock. To mark bottom of oriented core holes, two methods were used: a “down-hole spear” (used before 2010) and an ACE apparatus more recently. For both methods, the downhole tools were handled by the driller and markings were made every three metres. DD holes were surveyed downhole with a reflex instrument. Downhole surveys were performed every 100 m, at the point where HQ was reduced to NQ, and at the end of the hole.

The drill rig is set up by drillers under the supervision of a geologist, who checks the planned azimuth and dip before the drilling starts. Since 2009, the drillers have been allowed to align the rig with the marks pre-made by a geologist or technician. Geologists align the drill rig with a compass and a clinometer. Core trays are transported from the drilling site to the camp by the technician at the end of each shift. Upon arrival in the camp, the subsequent operations are carried out under the direct supervision of the geologists.

At the camp, core trays are aligned on logging tables according to their depth so that the geologists can review the core for orientation, recovery, and rock quality designation (RQD). Core recovery and RQD measurements are then documented in detail by a trained technician under the supervision of the geologists, who are usually logging the hole at the same time. The core is logged by geologists for lithology, alteration, structure, veining, mineralization (sulphide content), and weathering/oxidation.

For structural logging, alpha and beta angles for each type of structure are measured and recorded. Observations are usually made every metre. Commonly logged structures include bedding, schistosity, veining, shear bands, fractures, and fault markers. Vein characteristics such as size, infill material, alteration minerals, and sulphides are also recorded. After logging is complete, samples are taken for density measurements. The core trays are then transferred to the sawing area. Since 2012, 10 cm long pieces of core have been collected every 25 m for density measurements using the plastic wrapped, water immersion method.

The core is sawn with a diamond saw blade and placed in bags. The saw is washed between samples. Where core recovery is poor and no sufficient sample is available to prepare a sample, two or three metres are combined to make a composite sample.

The following activities take place in the core sawing area:

- Pictures are taken of core in the tray, three trays at a time. Core is split into two halves, with one half to be sent for assay and the other half kept for reference. Soft rocks such as saprolite are usually cut with a machete.
- Half of each one metre long core is broken with a hammer and placed in a 24 cm by 40 cm plastic bag. A pre-prepared sample tag is added and the bag is wrapped and stapled at the top.
- Sample preparation starts immediately after all core in the core tray is cut.

A sampling sheet is provided to the technician for each hole to be sampled.

#### ***REVERSE CIRCULATION AND ROTARY AIR BLAST***

Samples are taken every one metre down the hole and the entire hole is sampled. Samples are collected at the exit of the drill cyclone using 50 cm X 80 cm plastic bags, resulting in 25 kg to 35 kg sample weights when the recovery is good. The cyclone is blown clean by the drill operator between each sample. The Hole ID and the sample depth are written on the plastic bag with a permanent marker. After collecting the sample, a sample tag, which

includes the sample number as well as an aluminum-made tag that includes both the sample number and Hole ID, is put inside the bag. All of these operations are under the supervision of a geologist, who is also in charge of logging the geology immediately after a sample is collected. Tags and sample bags are prepared and marked in advance.

After the rig has moved to another hole, another crew will start splitting the samples. Each sample is split with a high capacity splitter until a two to three kilogram sample for assay and a duplicate are obtained, with both samples being bagged and numbered. Control samples are introduced approximately every 20 samples: a duplicate sample and a blank sample are alternatively inserted within the sampling sequence.

Prior to 2003, the bulk samples from the cyclone were transferred to the camp where they were weighed before splitting. Geology was being logged twice, with a quick log done by a site geologist to monitor geology while drilling and a more detailed logging was completed in the camp by another geologist, who would use a chipboard as a lithological reference tool. Two-metre composites were usually submitted to the assay laboratory. After the 2003 campaign, samples have been logged and prepared in the field as outlined above. The chipboard reference tool has been replaced by a chip tray that can be brought into the field. RC and RAB holes are logged in one metre increments and information captured in the logs is same as core logging with the exception of structural information.

### ***2012-2013 DRILLING CAMPAIGN***

The majority of the 2012 and 2013 drilling campaigns focused on defining the Boto 4 and Malikoundi deposits. Drilling in these areas followed up on encouraging results from previous campaigns. The 2012 program also included a number of infill holes at Boto 6 (Figures 10-1 to 10-3).

FIGURE 10-1 PLAN VIEW – BOTO 2/MALIKOUNDI DEPOSIT

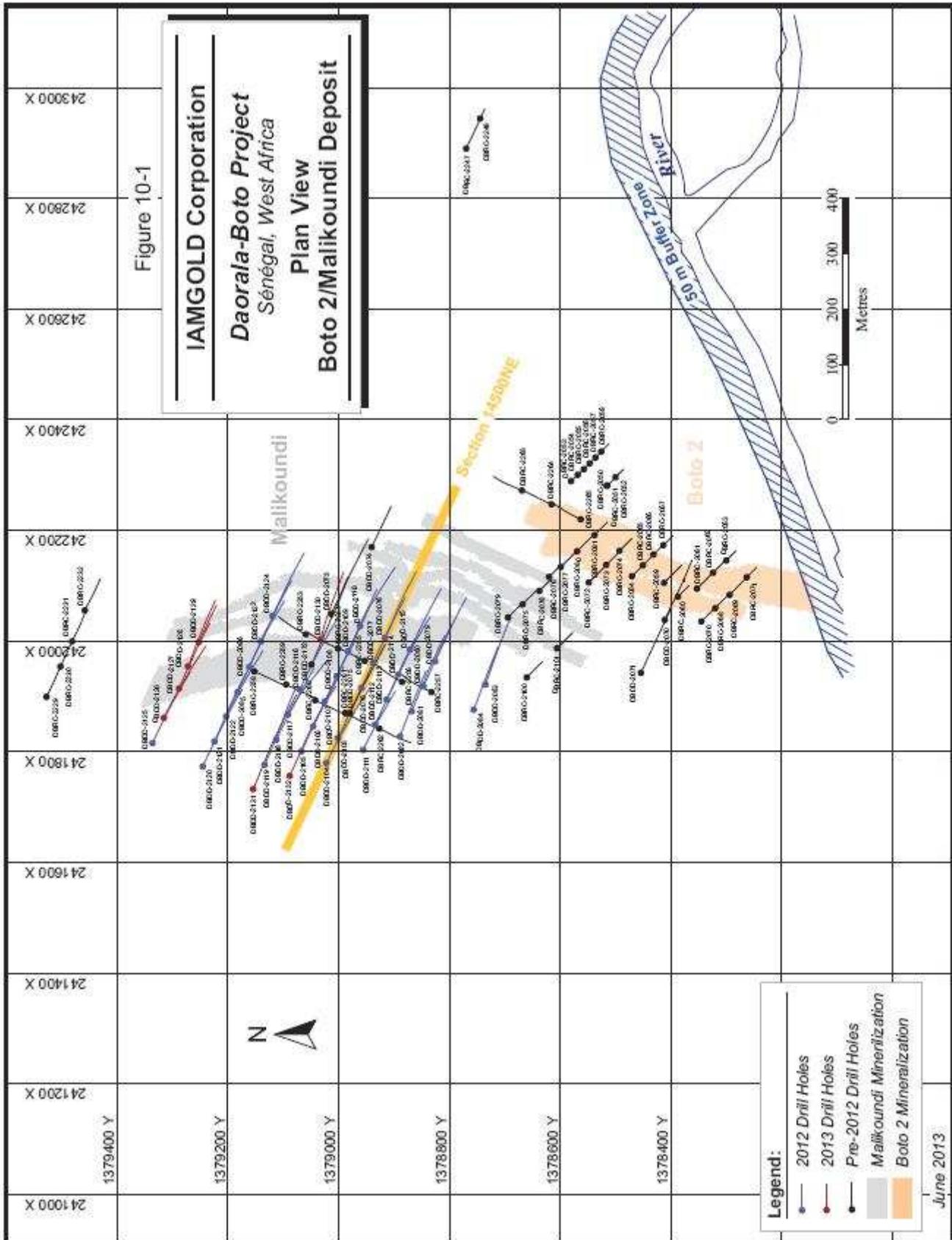


FIGURE 10-2 PLAN VIEW – BOTO 4 DEPOSIT

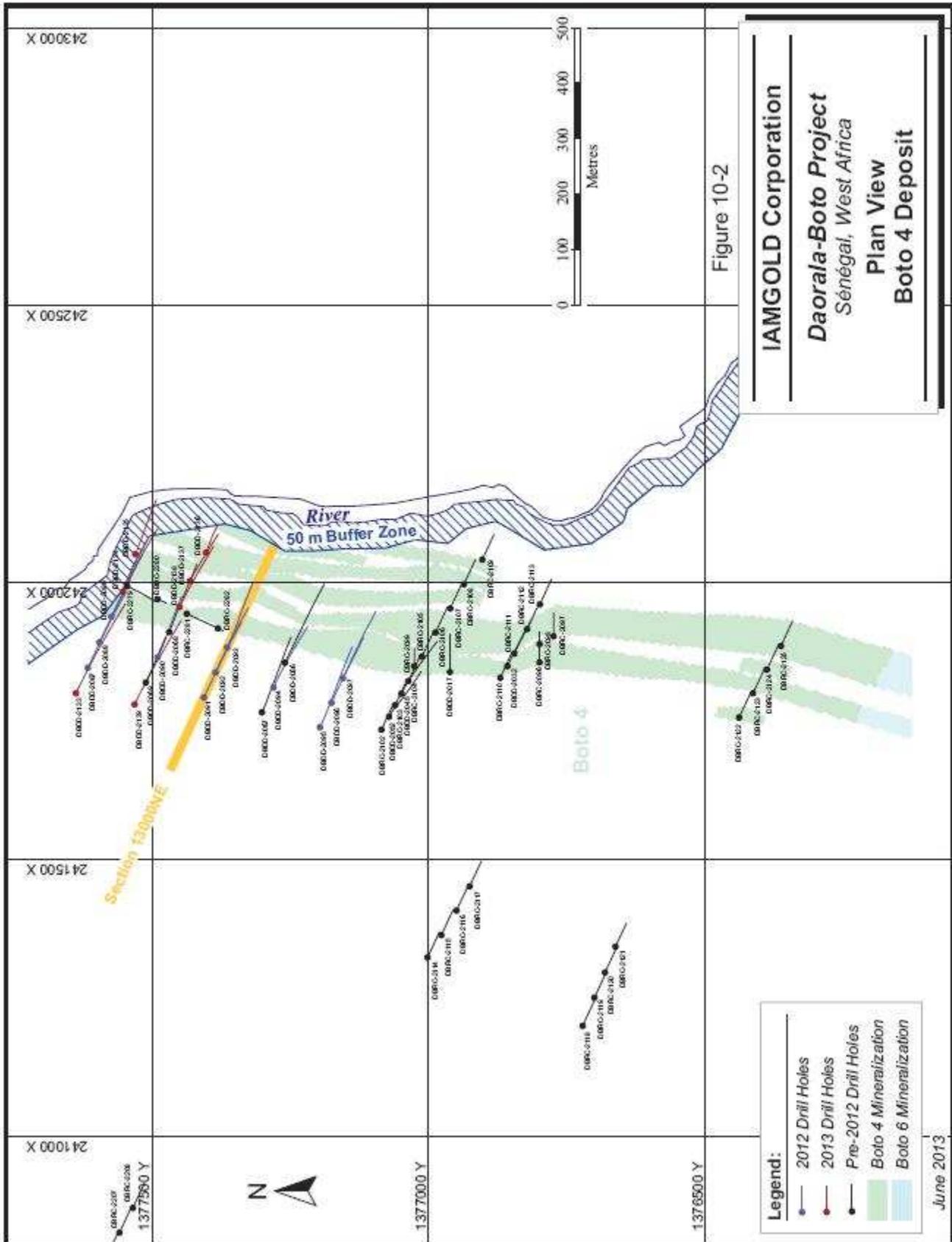


FIGURE 10-3 PLAN VIEW – BOTO 5 AND 6 DEPOSITS

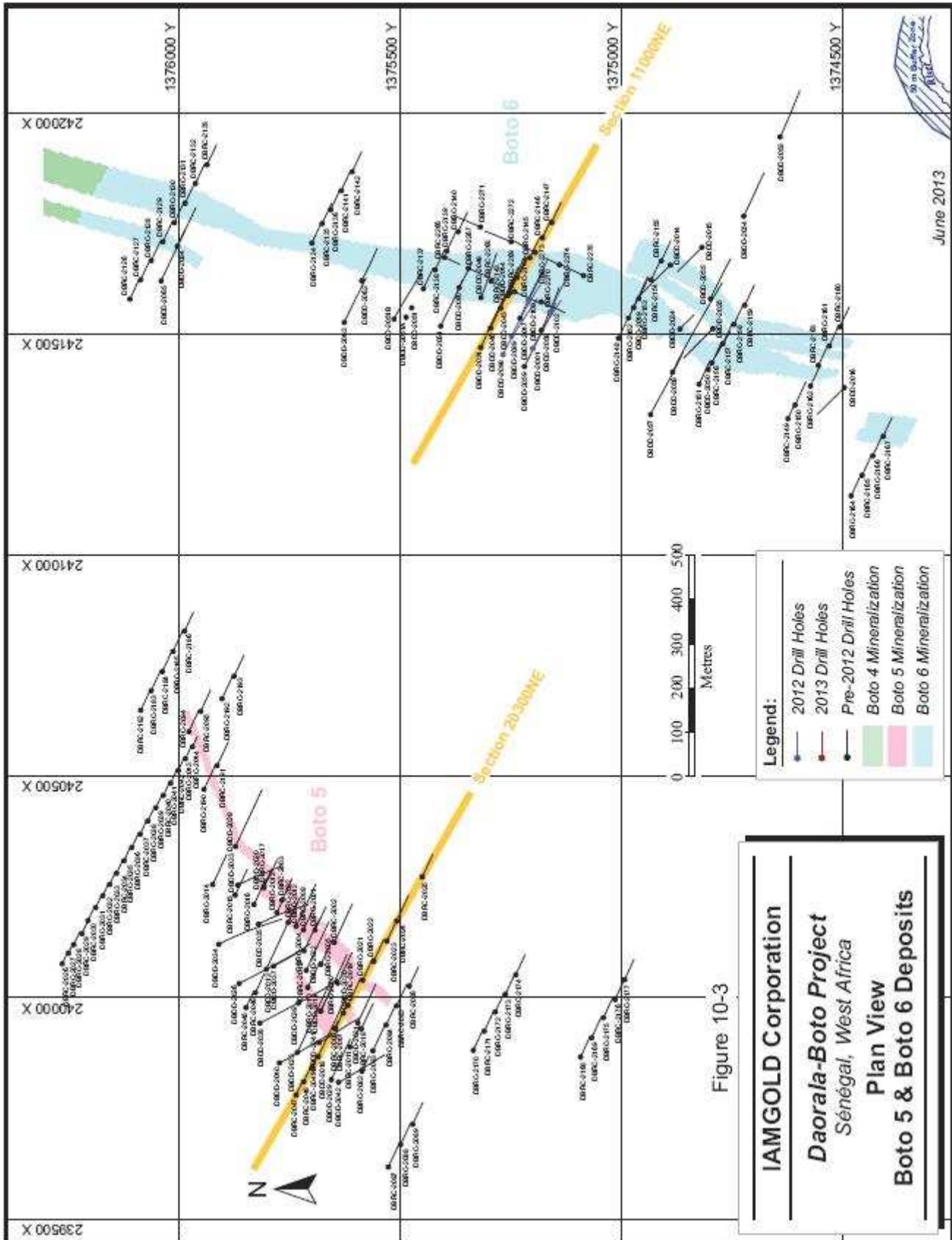


Figure 10-3

## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

### HISTORICAL SAMPLE PREPARATION AND ANALYSIS

Prior to 1999, exploration was conducted by Ashanti Goldfields and Anmercosa. The only types of sampling known to have been conducted during this period were geochemical and grab samples.

From 1999 to 2004 sample preparation was carried out in the Karakaena camp for both the Bambadji and Daorala-Boto permits. Preparation included crushing, pulverization, and splitting to 100 g samples that were shipped for assays to the laboratory.

Quality assurance/quality control (QA/QC) in 1999-2004 consisted of insertion of duplicates, blanks, and standards at the following rates:

- A duplicate is inserted in every batch of 10.
- One certified blank is inserted every 20<sup>th</sup> sample.
- One certified standard is inserted every 40<sup>th</sup> sample.

During this period, AGEM had a field laboratory to do preliminary preparation before submitting to a commercial laboratory. This laboratory was under the supervision of an experienced technician.

Drill core from diamond holes was being split with a core saw, with half the core sampled and the other half kept for future reference. For RC and RAB, all of each one metre (20 kg mean weight) samples were fully dried before being split into two kilogram samples using a riffle splitter. This representative sample would then be crushed and pulverized.

After processing each sample, the equipment was cleaned with compressed air. The pulverizer was cleaned by pulverizing sterile material (quartz sand) between samples.

The entire two kilogram sample was crushed using a standard mechanical crusher or hand crushed by pilling the sample in metal bowls, to achieve a maximum particle size of two millimetres. The crushed sample was pulverized to achieve 80% passing a 120 mesh sieve.

The entire sample was then split using a riffle splitter to extract a 200 g sample. This 200 g sample was then split again into two twin samples of 100 g each. One sample was sent for assaying, and the other was kept at camp as an archive. Before April 2002, the sample extraction sizes were 400 g and 200 g respectively.

The assay laboratory would pulverize the 100 g sample to less than 200 mesh size material before assaying on 30 g of material as requested by IAMGOLD.

For some drill holes, composite samples were prepared after pulverization by mixing a one metre sample with the subsequent one metre sample by combining each 100 g sub-samples with a riffle splitter.

From 2004 to 2007, there were some periods where only duplicate samples and blanks were used as controls for RC, RAB, trench, and termite mound samples. However, an internal validation of pre-2007 samples was completed by IAMGOLD in 2007 and did not identify any significant sampling issues. QC sample insertion rates during this period were:

- A duplicate is inserted in every batch of 10.
- One local blank is inserted every 20<sup>th</sup> sample.
- No certified standards used.

Table 11-1 shows the analysis method and laboratory that have been used over the years.

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**TABLE 11-1 ANALYSIS METHOD AND LABORATORY  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Year</u>	<u>Laboratory</u>	<u>Assay Method (Gold)</u>	<u>Notes</u>
1999	Chimitec à Val D'Or	FA30g	Re-analyse Anglo Soil -samples of 1995
2000	Chimitec à Val D'Or	FA30g	
2001	Chimitec à Val D'Or	FA30g	
2002	Chimitec à Val D'Or et Abilab Bamako	FA30g	
2003	Abilab Bamako	FA50g	
2004	Abilab Bamako	FA50g	
2005	Abilab Bamako	FA50g	
2006	Abilab Bamako	FA50g	Abilab acquired by ALS Chemex
2007	ALS Chemex Bamako (ex-Abilab)	FA50g	
2008	ALS Chemex Bamako (ex-Abilab)	FA50g	

In 2007-2008, the QA/QC was reviewed and new procedures were implemented to ensure adequate confidence in sample and assay data. Current QA/QC methods were applied to previous data and approximately 10% of the samples were re-analyzed in batches that included certified standards in order to comply with the new procedures. Since then, this validation procedure has been applied systematically.

Since 2004, no further preparation has been done in the camp other than splitting RC and RAB samples. Core, pit, trench, and termite mound samples have been bagged and numbered prior to being sent to the laboratory.

#### **CURRENT QAQC PROCEDURES**

Since 2009, all AGEM sampling programs have used certified standards and blanks in addition to taking duplicate samples and check assay samples.

Over this period AGEM has used two types of blanks. One of the blanks is sourced from a late Proterozoic sandstone near the Guinea border (Blank R), and the other is sourced from a termite mound known to have no gold (Blank S). The first is usually inserted among samples of fresh rock and the later among samples of saprolite. Certified standard materials have been purchased from Rocklabs and their values cover the grade ranges observed at Boto.

For DD holes, a certified standard is inserted every 20 samples, alternating with blank samples, which are also inserted every 20 samples, so that each 10<sup>th</sup> sample is either a blank or a certified standard. The same protocol is applied to both RC and RAB drilling.

The QA/QC results are monitored during each drill program. Both standards and blanks are graphed and are plotted against their theoretical value and dispersion plots are created for duplicates and check assays. An assay batch is considered to be validated if the returned certified reference value for that batch falls within the range of  $\pm 15\%$  of the mean certified value for that standard. The entire batch will be re-assayed if any certified standard fails to meet this requirement. For blank samples, any assay value that is above 10 ppb constitutes a batch failure and the entire batch is re-assayed.

Boto maintains detailed records for each sample including the date it was picked up by the laboratory, the date it arrived at the laboratory, the assay results as well as the name and date of the results file. Boto keeps detailed records to monitor the performance of blanks, certified standards, duplicates, and check assays using the aforementioned control charts. Boto also tracks the performance of the internal laboratory standards and blanks using the same type of control charts as their own data.

In the reception area of the laboratory, samples are taken out of the sample bags and checked against the chain of custody form. Each sample is weighed and assigned a bar code number and unique job number. Sample information is entered into the ALS system under the ALS job number.

The sample is placed in a drying tray. A tag with a unique sample number with the job number is placed in the sample tray with the sample. Samples are dried for 24 hours. The following procedures are applied to the following sample types:

DD and RC samples are coarse crushed to 75% <2 mm. The jaw crusher is cleaned by compressed air after each sample. After every five samples, barren rock is passed through the crusher and the crusher is cleaned again. To ensure that adequate crushing is maintained, ALS completes a sieve size analysis after every 70 samples. A 1,000 g split of the crushed material is pulverized in a "ring and puck" grinding mill to 80% passing 200 mesh. To ensure that adequate pulverization is maintained, ALS completes a sieve size analysis after every 20 samples. After grinding, a 50 g pulp sample is split by cone and quartering and used for analysis.

All samples from Boto are analyzed at the ALS Chemex Laboratory in Bamako. DD and RC samples are assayed using fire assay with an atomic absorption finish (ALS code Au-AA24) on pulverized 50 g aliquots, with a lower detection limit of 5 ppb. Core samples that are assayed using fire assay with an atomic absorption finish and return a result greater than 10 ppm are re-assayed using a gravimetric finish (ALS code Au-GRA22).

ALS Chemex includes two internal certified standards and two internal blanks in each batch of 24 samples. Duplicates are also routinely assayed. An internal laboratory QA/QC assessment of every sample batch is made. Results from control samples are evaluated to ensure that they meet set standards determined by the precision and accuracy requirements of the method. In the event that any reference material or duplicate result falls outside the established control limits, an Error Report is automatically generated initiating a sample batch data review. Quality control sample data is automatically captured and retained for ongoing assessment and is routinely issued together with the Certificates of Analysis.

RPA is of the opinion that the sample preparation and analytical procedures used by IAMGOLD followed industry-standard procedures and the resulting analytical data are acceptable for use in the resource estimation.

## **SECURITY**

Samples were only transferred from the field to the camp in presence of a qualified and experienced technician. Drill core cutting, sample packaging, and storage were undertaken under the supervision of Boto geologists and technicians.

Half core and RC/RAB samples were packaged into sealed tamper proof plastic sample bags labelled with the sample number, and the aluminum sample tag was included in the bag. Samples were then picked up and transported to ALS Chemex Bamako by lab personnel.

RPA considers sample security and integrity to be satisfactory.

## 12 DATA VERIFICATION

RPA visited the Boto property during the 2013 drill campaign. The core logging facility was examined during the visit. RPA notes that:

- Core logging was completed to industry standards.
- Logging was completed through direct inspection by geologists.
- Generally, the entire length of the hole was sampled, but in some instances sampling was limited to known gold bearing lithology types. Core was sampled in one metre intervals.
- Core sampling was being carried out appropriately.
- Core density measurements were completed in-house using the water immersion method with regolith samples wrapped in plastic beforehand.
- Verification samples were collected by RPA from DBDD-2086 and are summarized for comparison against the database values in Table 12-1.

**TABLE 12-1 VERIFICATION SAMPLE COMPARISON  
IAMGOLD Corporation – Daorala-Boto Project**

HOLE-ID	Type	Sampling Interval		Database Sample Number	g/t Au	
		From	To		IAMGOLD	RPA
DBDD-2086	1/4 Core	47	48	91209	8.81	9.40
DBDD-2086	1/4 Core	48	49	91211	3.74	10.25
DBDD-2086	1/4 Core	49	50	91212	3.45	1.31
DBDD-2086	1/4 Core	50	51	91213	3.89	8.10
DBDD-2086	1/4 Core	51	52	91214	4.00	2.67

## DRILL HOLE DATABASE

The following is a list of the data validation checks performed on the drill hole database by RPA:

- Checked for duplicate drill hole collar locations and hole numbers.
- Checked collar locations for zero/extreme values.
- Checked assays for missing intervals, long intervals, extreme high values, blank/zero values, reasonable minimum/maximum values, etc.
- Ran validity report to check for out-of-range values, missing intervals, overlapping intervals, out of sequence intervals, etc.
- Carried out visual inspection of drill holes for unusual azimuths, dips, and deviations.
- Checked for duplicated sample numbers.

The project database provided to RPA included a total of 423 RC and DD holes (Boto), as well as sample data for trenches, pits, augers, RAB drilling, and percussion drilling. RPA only used the RC and DD holes to estimate the resources at Boto, and the remaining data was used to guide interpretation. Table 12-2 summarizes the sample types within the database header file as provided to RPA.

**TABLE 12-2 DATABASE SUMMARY**  
**IAMGOLD Corporation – Daorala-Boto Project**

<u>Sampling Data Types</u>	<u># of Data Type</u>
DD Holes	141
RC Drill Holes	282
RAB Drill Holes	33
Percussion Drill Holes	1
Pits	549
Augers	71
Trenches	26
<b>Total</b>	<b>1,103</b>

The database used by RPA for the resource estimate represents a modified and corrected subset of the Daorala-Boto Project masterfile, which is aggregated and maintained by IAMGOLD personnel. The masterfile contains all the data for both the Daorala and Boto concession blocks. The numbers provided in Table 12-2 refer only to Boto, whereas the numbers provided in Table 12-3 refer to both Boto and Daorala. As part of the data validation process, RPA documented all corrections and adjustments to the database. After completing a preliminary set of import validations on the 1,103 header file records (Boto) and their respective sub-table data, RPA focused its validation efforts on comparisons between assay values and certificate values.

RPA used digital copies of the assay certificates to validate 39,287 of the 54,510 total values (Daorala-Boto) in the database provided by IAMGOLD. This validation exercise covered all sample types (DD, RC, RAB, Trench, Pit and Auger), deposits (Daorala, Boto 2-4-5-6 and Malikoundi), and the majority of sampling campaigns conducted from 2000 to 2012. The only years omitted from data validation were 2004, 2005, and 2006; in these years no RC or DD drilling was completed.

In total, RPA's assay validation revealed 150 errors or only 0.4% of the data checked. Table 12-3 summarizes all of the different types of errors found as well as their frequency. All errors found were corrected to the extent possible.

**TABLE 12-3 DATABASE VALIDATION ERROR SUMMARY**  
**IAMGOLD Corporation – Daorala-Boto Project**

<u>Error Types</u>	<u># of Errors</u>
Sample Value Not Entered	28
Incorrect Conversion	13
Incorrect Sample Value	9
Sample Value Mis-assigned to the Subsequent Interval	89
Sample Not Received by Lab and Given Value of Subsequent Sample	1
Sample Swap with Duplicate, Standard or Blank	4
No fire Assay Completed for Assays >10 ppm	2
Duplicate Sample Pairs	1
Incorrect Sample Number Assigned to Interval	3
<b>Total</b>	<b>150</b>

Prior to 2004, assay values for Boto were reported by the laboratory in ppb, but more recent assays are reported by the laboratory in ppm. In order to maintain consistent units within the database, certificates reported in ppm were converted to ppb by the Boto database manager. RPA checked all 39,287 records for incorrect conversions from ppm to ppb and found only 13 instances of conversion errors. RPA regards only 30 of the above errors to be potentially substantive, while the remainder of the errors are considered to be marginally significant or insignificant.

Overall, the Boto database has been well maintained and is well designed for data validation. RPA's review found 4,465 pairs of records sharing the same sample identification number (duplicates), however, only one of these pairs also had the same laboratory batch number. RPA recommends that Boto continue with the database management practice of using the laboratory batch number as a secondary key-id field along with the sample number. RPA also recommends that any missing laboratory batch numbers be added to the database where possible. In the opinion of RPA, the corrected database is acceptable for the purposes of resource estimation.

### 13 MINERAL PROCESSING AND METALLURGICAL TESTING

Preliminary metallurgical testwork was completed in June 2013 at SGS Mineral Services at Lakefield, Ontario. The results are summarized in a report by Pelletier (2013). Nine composite samples from diamond drill core were sent for testwork. Six of the samples weighed approximately 25 kg each and three of the samples were smaller, weighing approximately 5 kg each (Table 13-1).

**TABLE 13-1 PRELIMINARY METALLURGICAL RESULTS  
IAMGOLD Corporation – Daorala-Boto Project**

Sample	Deposit and Rock Type	Weight (kg)	g/t Au	BWI (kWh/t)	Cyanide Recoveries (%)	Cyanide Plus Gravity Recoveries (%)
MET #1	Malikoundi, Pelite	23.8	10.9	19.7	88.6	88.5
MET #2	Malikoundi, Marble	5.5	2.64	—	91.8	—
MET #3	Malikoundi, Greywacke	24.0	2.96	19.2	82.0	90.6
MET #4	Boto 2, Greywacke	23.8	2.8	18.6	85.7	89.8
MET #5	Boto 4, Greywacke	25.4	6.47	18.3	91.8	95.8
MET #6	Boto 6, Greywacke	25.3	1.77	19.4	88.2	96.6
MET #7	Boto 5, Saprolite	5.3	0.48	—	25.0	—
MET #8	Boto 5, Saprock	24.0	0.99	2.2	—	93.0
MET #9	Boto 5, Albite Alteration	5.7	4.48	—	95.6	—

The samples were taken from well-mineralized intervals in a variety of rock types from the five deposits. The gold grades range from 0.48 g/t Au to 10.9 g/t and average 3.7 g/t Au, which is significantly higher than the resource grade. The recovery results, however, do not appear to correlate with gold grade. The gold recoveries for fresh rock range from 82.0% to 95.6% and average 89% for the direct cyanide tests and range from 88.5% to 96.6% and average 92% for the cyanide plus gravity tests for a grind size of 55 microns. Adding a gravity circuit does not appear to have a significant impact on gold recovery. The cyanide gold recovery generally increased by one to three percent at finer grind sizes indicating the sensitivity to grind size is minor. The cyanide consumption is slightly high, ranging from approximately 0.7 kg/t to 0.9 kg/t. Meanwhile, the lime consumption is relatively low, ranging from 0.5 kg/t to 0.8 kg/t. The very low recovery of only 25% for the Boto 5 saprolite sample warrants follow-up.

The bond work index (BWI) results for fresh rock range from 18.3 kWh/t to 19.7 kWh/t and confirm that the siliceous host rock is very hard.

Acid base accounting (ABA) tests were done on all nine composites. The three composites from Boto 5 are acid generating and five of the six other composites from the other deposits may be acid generating. Only sample #2, the marble from Malikoundi, showed a strong neutralizing potential.

Gravity recovery tests were done on the six larger composites and the gold recovery results have a wide range from 3.8% to 34.5%.

RPA concurs with IAMGOLD that the testwork to date is preliminary and that more metallurgical testwork should be carried out.

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## 14 MINERAL RESOURCE ESTIMATE

### SUMMARY

RPA has carried out an initial Mineral Resource estimate for the Boto deposit using a block model constrained with 3D wireframes of the principal mineralized domains. Values for gold were interpolated into blocks using inverse distance cubed (ID<sup>3</sup>). The estimate is summarized in Table 14-1.

**TABLE 14-1 MINERAL RESOURCE ESTIMATE SUMMARY – APRIL 19, 2013**  
**IAMGOLD Corporation – Daorala-Boto Project**

Classification	Zone	Tonnes (000s)	Gold Grade (g/t Au)	Contained Ounces (Au) (000s)
	Malikoundi	14,491	1.68	783
	Boto 2	514	1.15	19
	Boto 4	2,980	1.27	121
	Boto 6	2,362	1.14	86
	Boto 5	1,612	2.54	132
<b>Total Indicated</b>		<b>21,960</b>	<b>1.62</b>	<b>1,142</b>
	Malikoundi	702	1.37	31
	Boto 2	5	0.72	0
	Boto 4	646	1.12	23
	Boto 6	420	1.53	21
	Boto 5	87	2.16	6
<b>Total Inferred</b>		<b>1,861</b>	<b>1.35</b>	<b>81</b>

#### Notes:

1. CIM definitions were followed for classification of Mineral Resources.
2. Mineral Resources are estimated at a gold cut-off grade of 0.60 g/t Au.
3. Resources are estimated using a gold price of US\$1,500 per ounce.
4. High grade capped assay values vary from 15 g/t Au to 30 g/t Au based on geological area.
5. Bulk density varies from 1.61 g/cm<sup>3</sup> to 2.62 g/cm<sup>3</sup> based on weathering code.
6. The resources are constrained by a Whittle pit shell.

The weathering surfaces were constructed based on lithological and weathering logs, while mineralization wireframes were constructed based on logged pyrite percentage, alteration intensity, and a nominal cut-off grade of 0.15 g/t Au. RPA completed the interpretation of the mineralized domains and weathering surfaces, based on previous interpretations and data provided by IAMGOLD site geologists. Twenty-nine mineralized domains were created for the estimate. Mixed oxide material (pedolith, saprolite and transition) represents 7% of the reported resource at Boto 2-4-6/Malikoundi and 75% of the reported resource at Boto 5. However, on a global basis, mixed oxide material comprises only 13% of the total resource.

RPA is not aware of any known environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant factors that could materially affect the resource estimate at the time of this report.

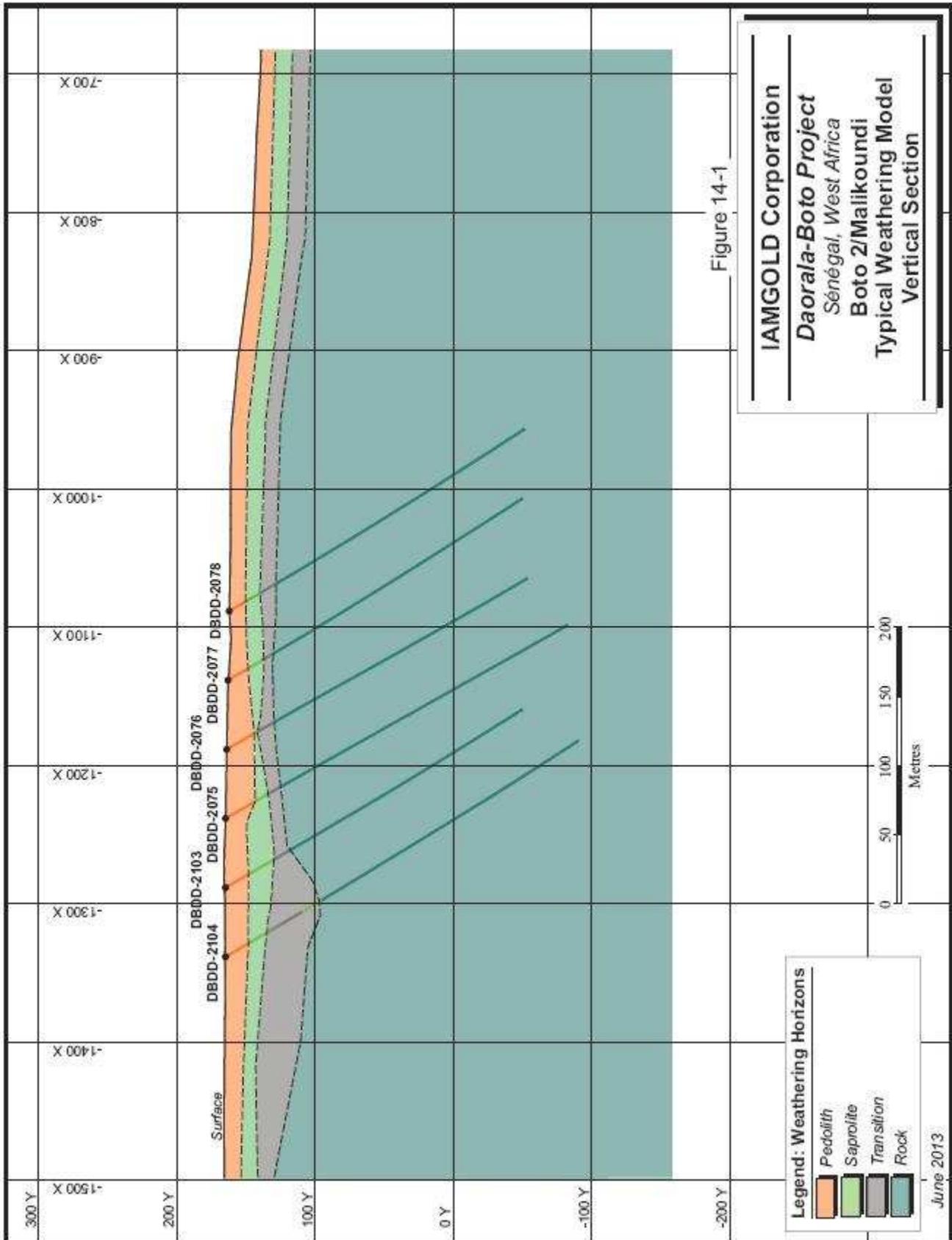
### **GEOLOGICAL AND STRUCTURAL MODELS**

From 2000 to 2013, a detailed geological data compilation was carried out by Boto geologists to identify major geological contacts, mineralization, structural features, and regolith units and alteration zones. The geological model for Boto is composed of five deposit areas: Malikoundi, Boto 2, Boto 4, Boto 5, and Boto 6.

### **WEATHERING MODEL**

Using a combination of lithology and weathering logs, RPA created a simplified weathering model composed of pedolith, saprolite, transition (saprock), and rock. IAMGOLD geologists logged regolith in detail, allowing RPA to distinguish between transported and in-situ regolith material when creating mineralized wireframes. The weathering domains are used to assign density values to the resource model. The average depth of the pedolith, saprolite, and transition weathering profiles is 8 m, 20 m and 10 m respectively. Figure 14-1 provides a typical vertical section showing the extent of the weathering profile at Boto.

FIGURE 14-1 BOTO 2/MALIKOUNDI TYPICAL WEATHERING MODEL – VERTICAL SECTION



## BULK DENSITY

IAMGOLD geologists compiled 961 density measurements from Boto 2-4-6. A comparison between mineralized rock and barren rock weathering types indicated a relatively insignificant difference in density. However, in RPA's opinion, there are an insufficient number of density measurements on saprolite and saprock to make the same comparison for those material types. RPA recommends additional density measurements for all mineralized saprolite and saprock material types prior to future resource estimate updates or economic studies.

The test method used for bulk specific gravity measurements was the water immersion method with porous samples wrapped in plastic. Table 14-2 summarizes the average densities of the aforementioned material types.

**TABLE 14-2 MATERIAL TYPE DENSITY SUMMARY – APRIL 19, 2013**  
**IAMGOLD Corporation – Daorala-Boto Project**

	All		Barren		Mineralized	
	Density (g/cm <sup>3</sup> )	Measurements	Density (g/cm <sup>3</sup> )	Measurements	Density (g/cm <sup>3</sup> )	Measurements
Pedolith	1.90	54	1.90	54	—	0
Saprolite	1.61	79	1.59	72	1.86	7
Transition	2.09	82	2.09	77	2.22	5
Rock	2.62	746	2.60	444	2.63	302

## MINERALIZATION MODEL

Gold mineralization at Boto 2-4-6 and Malikoundi is typically focused along the contact between fine-grained sediment and the Guemedji sandstone. This contact has been affected by thrusting at different scales and is generally oriented parallel to bedding with mineralization occurring as both fracture related veins and intensely altered crackle breccias along the same trend. Gold mineralization at Boto 5 is primarily associated with intense albite alteration along a northeast trending structural corridor.

Gold mineralization at the Boto 2-4-6 and Malikoundi deposits is concentrated within a series of stacked, sub-parallel zones that follow the regional north-northeast trending faults and lithological contacts. Wireframes representing these mineralized zones were constructed based on logged pyrite percentage, alteration intensity, and gold assay grades. Mineralized domains were generated on a section-by-section basis from drill hole intersections, with a minimum width of 5 m at a nominal cut-off grade of 0.15 g/t Au. There were a minor number

of instances where lower grade intercepts were included at the edges of the wireframe or within larger intercepts in order to maintain continuity between sections. On each section, the interpreted upper and lower boundaries of the mineralized domains were snapped to drill holes.

There are 29 mineralized wireframes in total that represent 26 mineralized zones. Two of the mineralized zones were subdivided in order to carry out the interpretation along strike from one prospect to the next. These subdivided zones were treated as soft boundaries during the interpolation. Additionally, at the north end of Boto 4, the mineralized wireframes were clipped with a 50 m buffer adjacent to the Falémé River. The centre of the river marks the border between Senegal and Mali. The clipped wireframes were used to code the rock type model for interpolation.

The mineralization wireframes are shown in Figure 14-2 and the clipped mineralization wireframes are shown in Figure 14-3.

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FIGURE 14-2 BOTO 2/MALIKOUNDI TYPICAL MINERALIZATION ZONES - VERTICAL SECTION

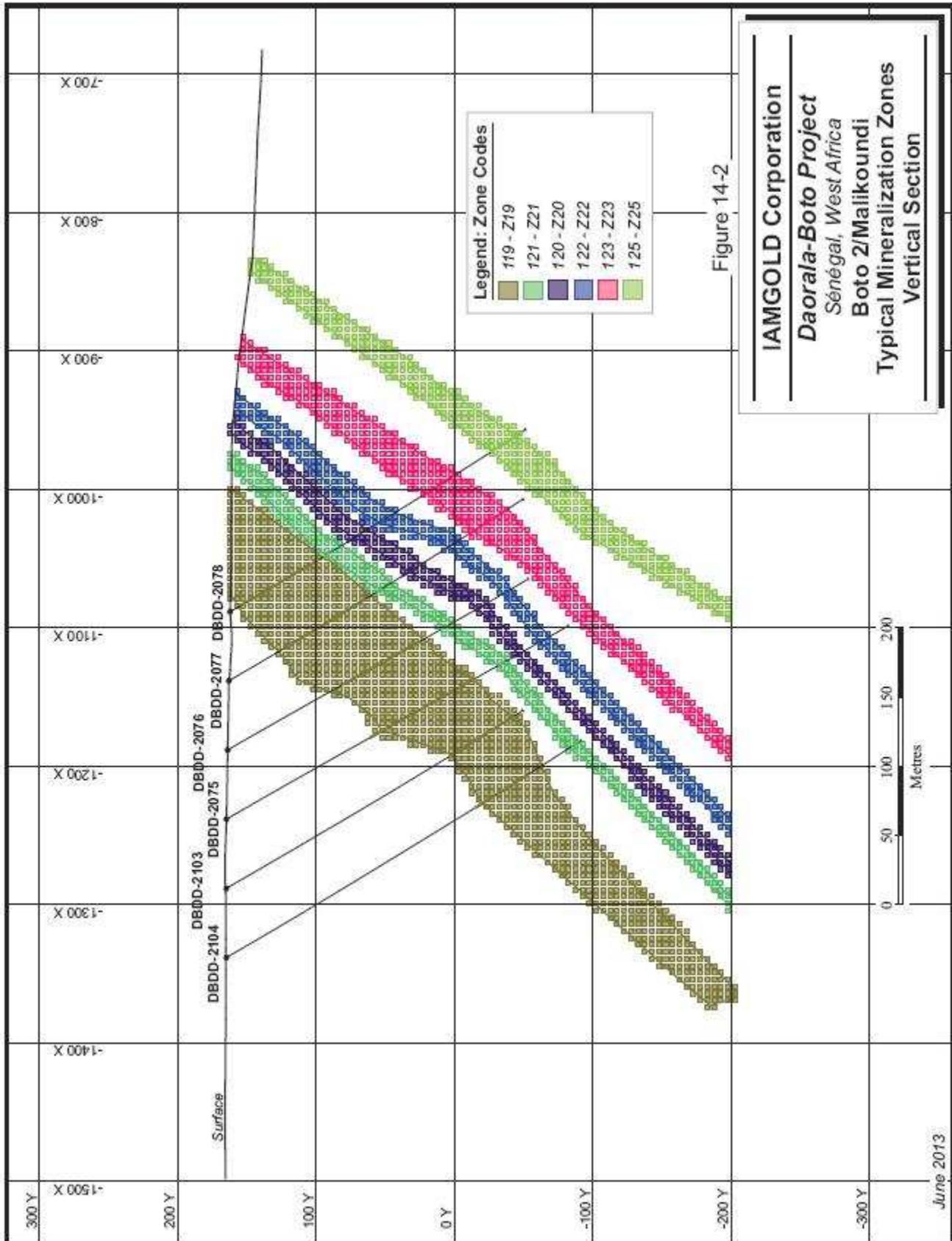
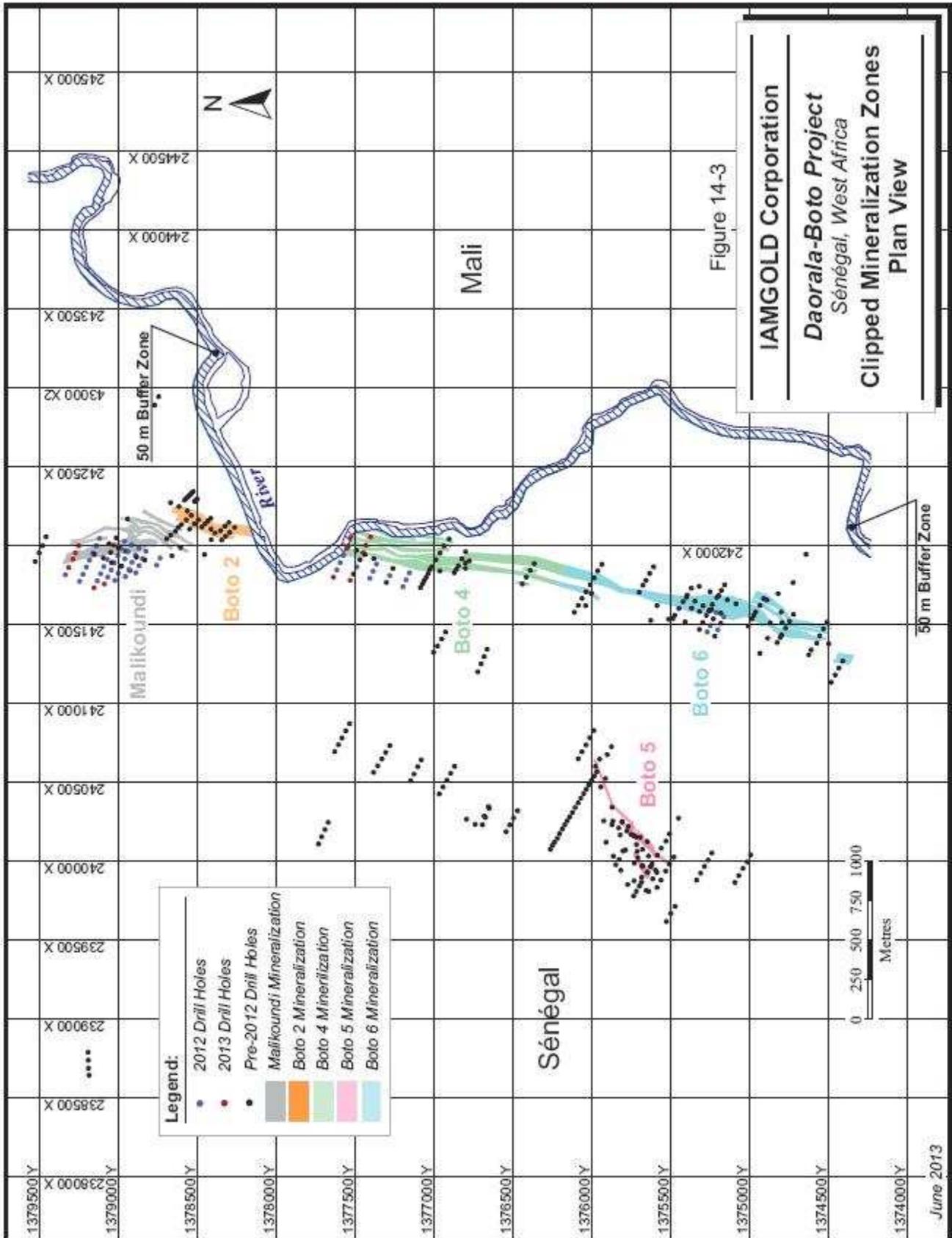


FIGURE 14-3 CLIPPED MINERALIZATION ZONES - PLAN VIEW



**DATABASE – GENERAL DESCRIPTION**

The Mineral Resource estimate for Boto is based primarily on information from surface RC and diamond drilling, and supplemented by auger, trench, pit, and RAB sampling to assist with the interpretation. The database provided to RPA contained collar records for 423 RC and diamond drill holes. Most of the holes are drilled at and inclined orientation and intersect mineralization at a near perpendicular angle. Hole lengths vary widely, but they are typically in the range from 60 m to 120 m.

Drilling at Boto covers an approximate area of 5 km (north-south) by 2 km (east-west), with the majority of the drilling focused on Boto 2, 4, 5, 6 and Malikoundi. Drilling on these deposits has average drill hole spacing of 50 m to 100 m both along and across strike. Further detail on drilling can be found in Section 10 Drilling.

The RPA Gemcom drill hole database tables and fields are listed in Table 14-3. The number of records in the drill hole database used by RPA for the resource estimation work are summarized in Table 14-4.

**TABLE 14-3 GEMCOM DATABASE STRUCTURE  
IAMGOLD Corporation – Daorala-Boto Project**

<u>File</u>	<u>Field</u>	<u>Field Description</u>
<b>HEADER</b>	HOLE-ID	Primary Key
	(X-COORDINATE)	
	(Y-COORDINATE)	
	(Z-COORDINATE)	
	LENGTH	Length of Drillhole
	DATUM	WGS84
	ZONE	Datum Zone: 29
	SURV_TYPE	Survey Instrument Type
	DH_TYPE	Trench, RAB, DD, RC, Auger, Pit
	YEAR	Year of Work
	PERMIT	Permitted Area Name
	PROSPECT	Prospect Name
	LINE	Section Line (Planning Reference)
	COMPANY	Ownership Company
DRILLER	Drilling Company	
GEOLOGIST	Logging Geologist	
<b>SURVEY</b>	DISTANCE	Distance from Collar
	AZIMUTH	Azimuth Angle at Survey
	DIP	Dip Angle at Survey
	SUR_METHOD	Survey Method

<u>File</u>	<u>Field</u>	<u>Field Description</u>
<b>ASSAY</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	SAMP_ID	Sample ID
	AU_PPB	Primary Assay Field <0.005ppm = 2.5ppm (Detection Limit)
	AU_PPM	Au_PPB/1000 (Calculated Field)
	BATCH_ID	Laboratory Batch Number
	LABDATE	Lab Date
	SOLID_FLAG	Backflag from Solid_Int
	ZONE_FLAG	Backflag from Zone_Int
	WTHR_FLAG	Backflag from Wether_Int
	AU_CAP	Capped Au_PPM Field
<b>LITHO</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	LITHOLOGY	Lithology Type
	LITH_CODE	Compiled Lithologies (IMG Field)
	LITHDESC	Lithology Description (255 Char limit)
<b>ALTERATION</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	ALT_INTENS	Overall Alteration Intensity (1-3)
	ALBITE	Mineral Alteration Intensity (1-3)
	SILICIFICA	Mineral Alteration Intensity (1-3)
	CHLORITE	Mineral Alteration Intensity (1-3)
	ACTINOLITE	Mineral Alteration Intensity (1-3)
	KAOLINITE	Mineral Alteration Intensity (1-3)
	SERICITE	Mineral Alteration Intensity (1-3)
	BIOTITE	Mineral Alteration Intensity (1-3)
	MAGNETITE	Mineral Alteration Intensity (1-3)
	DOLOMITE	Mineral Alteration Intensity (1-3)
	CALCITE	Mineral Alteration Intensity (1-3)
	EPIDOTE	Mineral Alteration Intensity (1-3)
	HEMATITE	Mineral Alteration Intensity (1-3)
	K_FELDSPAR	Mineral Alteration Intensity (1-3)
	MANGANESE	Mineral Alteration Intensity (1-3)
TOURMALINE	Mineral Alteration Intensity (1-3)	
GRAPHITE	Mineral Alteration Intensity (1-3)	
<b>DENSITY</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	ROCK_TYPE	Lithology of Density Sample
	WEIGHT_AIR	Sample Weight in Air
	WEIGHT_WAT	Sample Weight in Water
	DENSITY	Calculated Density (t/m3)
	LITHO_CODE	Lithology Code (IMG Field)
	SOLID_FLAG	Backflag from Solid_Int
	ZONE_FLAG	Backflag from Zone_Int
	WTHR_FLAG	Backflag from Wether_Int
	W_CODE	Weathering Code (IMG Field)

<u>File</u>	<u>Field</u>	<u>Field Description</u>
<b>MINERALIZ</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	PY_PCT	% Pyrite
	GOLD_PTS	Visible Gold (pts)
	OTHER_MIN	Other Minerals
	DESCRIP	Description
	COMMENTS	
<b>RECOVERY</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	RECOVERY	Core Recovery (%)
	HQ/NQ	Core Size
	RQD>10CM	RQD Measurement
	RQD_PCT	RQD (%)
<b>REDOX</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	REDOX_TYPE	Oxidized or Reduced
	REDOX_CODE	
<b>WEATHERING</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	WEATHERING	Weathering Material Type
	W_CODE	Weathering Code
<b>MINZONE</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	COMP-ID	Composite ID Number
	LENGTH	Composite Length Field
	C_LENGTH	From - To
	AU_PPM	Calculated Composite Value (ppm)
	FLAG1	Backflag from Solid_Int
	FLAG2	Backflag from Zone_Int
FLAG3	Backflag from Wether_Int	
<b>SOLID_INT</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	NAME1	Wireframe Name1
	NAME2	Wireframe Name2
	NAME3	Wireframe Name3
	ROCK_CODE	Wireframe Rock Code
<b>ZONE_INT</b>	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	NAME1	Wireframe Name1
	NAME2	Wireframe Name2
	NAME3	Wireframe Name3
	ROCK_CODE	Wireframe Rock Code

<u>File</u>	<u>Field</u>	<u>Field Description</u>
WEATHER_INT	FROM	Starting Position of Interval
	TO	Ending Position of Interval
	NAME1	Wireframe Name1
	NAME2	Wireframe Name2
	NAME3	Wireframe Name3
	ROCK_CODE	Wireframe Rock Code

**TABLE 14-4 DRILL HOLE DATABASE RECORDS  
IAMGOLD Corporation – Daorala-Boto Project**

<u>File</u>	<u>Number of Records</u>
ALTERATION	13,924
ASSAY	49,182
DENSITY	961
HEADER	1,103
LITHO	7,503
MINERALIZ	12,464
MINZONE	6,930
RECOVERY	24,165
REDOX	1,551
SOLID_INT	485
SURVEY	2,669
WEATHERING	3,011
WETHER_INT	1,435
ZONE_INT	319

**ASSAYS**

The mineralization wireframes were used to flag drill hole intervals in the database that lie inside the wireframes, and statistics on the resulting raw data intercepts were compiled. These are given in Table 14-5.

**TABLE 14-5 ASSAY STATISTICS BY PROSPECT  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Prospect</u>	<u>Number</u>	<u>Min (g/t Au)</u>	<u>Max (g/t Au)</u>	<u>Average (g/t Au)</u>	<u>Std Dev (g/t Au)</u>	<u>Coefficient of Variation</u>
Boto 2/ Malikoundi	4,527	0	190.00	0.95	3.57	3.77
Boto 4	2,892	0	296.00	0.79	5.90	7.44
Boto 6	3,601	0	57.00	0.45	1.37	3.06
Boto 5	764	0	149.59	2.20	8.24	3.75

## ASSAY CAPPING

The grade capping was determined using a combination of histograms, decile analysis, probability plots, and visual inspection of the spatial location of higher grade assays. The statistical analysis considered all deposits separately. RPA capped all assays prior to compositing.

Table 14-6 summarizes statistics on the raw data after top cuts were applied.

**TABLE 14-6 CAPPED ASSAY STATISTICS BY PROSPECT  
IAMGOLD Corporation – Daorala-Boto Project**

Prospect	Number	Min (g/t Au)	Max (g/t Au)	Average (g/t Au)	Std Dev (g/t Au)	Coefficient of Variation	Contained Metal Lost (%)	Assays Capped
Boto 2/ Malikoundi	4,527	0	20	0.88	1.87	2.12	6	10
Boto 4	2,892	0	15	0.66	1.43	2.17	15	7
Boto 6	3,601	0	15	0.43	0.84	1.97	5	2
Boto 5	764	0	30	1.85	4.34	2.35	16	5

In general, it can be seen that the application of top cuts has improved the coefficient of variation significantly across all deposits. The proportion of metal lost from capping at Boto 4 and Boto 5 is a function of the strong positive skew of their respective distributions. In total, 24 samples within the five deposits were capped.

## COMPOSITES

After top cuts were applied to the raw data, assay intervals that varied between one metre and two metres were composited to two metres within each mineralized zone. Samples were composited in downhole intervals of two metres, starting at the wireframe pierce-point for each zone, continuing to the point at which the hole exited the zone. A review of raw data sample lengths showed that the 84% of the samples are one metre in length and 15% of the samples are two metres in length, with a maximum of three metres and a minimum of 0.4 m. In order to minimize potential bias during the composite process, the two metre composite length was deemed most suitable. A minimum of 50% of the composite interval (nominally 0.97 m) was required for the composite to be included in grade estimation. RPA evaluated the distributions, including mean grades, of the resulting composites greater than and less than one metre and concluded that no material bias is introduced by removing these composites. In total, 20 of the 6,950 composites within the five deposit areas were removed.

Table 14-7 summarizes statistics on the composite data, excluding composites less than one metre.

**TABLE 14-7 COMPOSITE STATISTICS BY DOMAIN  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Domain</u>	<u>Number</u>	<u>Min (g/t Au)</u>	<u>Max (g/t Au)</u>	<u>Average (g/t Au)</u>	<u>Std Dev (g/t Au)</u>	<u>Coefficient of Variation</u>
Boto 2/Malikoundi	2.596	0	20.00	0.85	1.59	1.87
Boto 4	1.694	0	13.52	0.64	1.13	1.77
Boto 6	2.217	0	15.00	0.42	0.73	1.71
Boto 5	423	0	25.17	1.62	3.29	2.02

## **BLOCK MODEL AND GRADE ESTIMATION PROCEDURES**

### **DIMENSIONS AND CODING**

Two block model frameworks were generated to cover the Boto 2-4-5-Malikoundi and Boto 5 areas respectively with sufficient extents to allow for any pit optimization to proceed to the natural surface without being constrained by the block model. A parent block size of 5 m x 5 m x 5 m was used in order to reflect an assumed selective mining unit and to maintain sufficient resolution in the model to represent the geometry of the mineralized wireframes. The block model extents are given in Figure 14-4. All modelling work was carried out using Gemcom GEMS software.

**FIGURE 14-4 BLOCK MODEL EXTENTS**

Workspace name: Boto246		Workspace name: Boto5	
Number of blocks		Number of blocks	
Columns:	462	Columns:	220
Rows:	1030	Rows:	230
Levels:	86	Levels:	86
Origin and rotation		Origin and rotation	
X:	239441.152	X:	239400
Y:	1375126.904	Y:	1375600
Z:	225	Z:	225
Rotation:	-25	Rotation:	-28.5
Block size		Block size	
Column size:	5	Column size:	5
Row size:	5	Row size:	5
Level size:	5	Level size:	5

Before grade estimation, all model blocks were assigned density, weathering, and mineralized values or codes. The volumes of the mineralized domains in the block model were compared to the volumes from the mineralization wireframes and were within  $\pm 0.5\%$ . Two rock type models were maintained for Boto 2-4-6-Malikoundi in order to quantify associated metal losses caused by clipping the mineralized zones with the 50 m river buffer. The relevant attributes used in the block model are given in Table 14-8 with a list of the codes used for each attribute given in Table 14-9.

**TABLE 14-8 BLOCK MODEL ATTRIBUTES  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Attribute Name</u>	<u>Description</u>
RT_Buff	Coded Mineralized Zones Clipped by River Buffer (Reporting)
DEN_Buff	Assigned Density (Reporting)
%PCT_Buff	% of Block within Mineralized Zones (Reporting)
AU	ID <sup>3</sup> Gold Attribute Populated During Estimation (Reporting)
Class	Classification (Reporting)
DistClosest	Distance from Block to Closest Sample
NumSamples	Number of Samples Used to Populate a Block
Pass	Estimation Pass Number
Rock Type	Unclipped Coded Mineralized Zones

**TABLE 14-9 BLOCK CODING FOR ATTRIBUTES  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Deposit</u>	<u>RockType</u>	<u>Wireframe</u>			<u>Density</u>
	<u>#</u>	<u>NAME1</u>	<u>NAME2</u>	<u>NAME3</u>	<u>(g/cm<sup>3</sup>)</u>
Boto 5	101	101	Z1	Boto5_B	—
Boto 5	102	102	Z2	Boto5_B	—
Boto 5	103	103	Z3	Boto5_B	—
Boto 5	104	104	Z4a	Boto5_B	—
Boto 6	105	105	Z5	Boto6_B	—
Boto 6	106	106	Z6	Boto6_B	—
Boto 6	107	107	Z7	Boto6_B	—
Boto 6	108	108	Z8	Boto6_B	—
Boto 6	109	109	Z9	Boto6_B	—
Boto 6	110	110	Z10	Boto6_B	—
Boto 4	111	111	Z11	Boto4_B	—
Boto 4	112	112	Z12	Boto4_B	—
Boto 4	113	113	Z13	Boto4_B	—
Boto 4	114	114	Z14	Boto4_B	—
Boto 4	115	115	Z15	Boto4_B	—
Boto 4	116	116	Z16	Boto4_B	—
Boto 4	117	117	Z17	Boto4_B	—
Boto 2	118	118	Z18	Boto2_B	—
Malikoundi	119	119	Z19	Boto2_B	—
Malikoundi	120	120	Z20	Boto2_B	—
Malikoundi	121	121	Z21	Boto2_B	—
Malikoundi	122	122	Z22	Boto2_B	—
Malikoundi	123	123	Z23	Boto2_B	—
Malikoundi	124	124	Z24	Boto2_B	—
Malikoundi	125	125	Z25	Boto2_B	—
Boto 5	126	126	Z4b	Boto5_B	—

Deposit	RockType		Wireframe			Density
	#	NAME1	NAME2	NAME3	(g/cm <sup>3</sup> )	
Boto 6	127	127	Z11S	Boto6_B	—	
Boto 2	128	128	Z11N	Boto2_B	—	
Boto 4	129	129	Z7N	Boto4_B	—	
All deposits	40	Ped	SLD	Res	1.90	
All deposits	50	Sap	SLD	Res	1.61	
All deposits	60	Trans	SLD	Res	2.09	
All deposits	70	Rock	SLD	Res	2.62	

## VARIOGRAPHY AND TREND ANALYSIS

Variograms were developed for gold for each prospect as well as the largest individual zones of each prospect. These variograms were compared to grade (>0.4 g/t Au) trends observed using Leapfrog software. Overall, the grade trends identified in Leapfrog correspond with reasonably stable variograms along those preferred orientations.

Generally, the best looking variograms within the horizontal plane aligned well with the strike direction of the mineralized wireframes. The mineralized wireframes for Boto 4 and 6 have a strike orientation of 010°N and horizontal trend variograms showed the best continuity along orientations between 030°N and 005°N respectively. The mineralized wireframes at Malikoundi have a strike orientation of 345°N and the wireframes at Boto 2 have a strike orientation of 030°N and horizontal trend variograms showed the best continuity along orientations between 345°N and 035°N, respectively. The mineralized wireframes for Boto 5 have a strike orientation of 040°N and all horizontal trend variograms were of a poor quality.

The ranges of the variograms oriented along strike varied from 100 m to 150 m, while the downhole variogram yielded a range of 6 m to 8 m. Variograms oriented in the down dip direction largely matched the strike ranges of 100 m and 150 m.

RPA is of the opinion that multiple search orientations are warranted to adequately fit the shape of the mineralization locally and that the search ranges obtained from the variogram analysis provide sufficient support for the search ellipse dimensions used for the estimation.

IAMGOLD is currently logging diamond drill holes with oriented core, and initial analysis of the Boto 2-4-6-Malikoundi deposits indicates that bedding and foliation orientations are not sub-parallel to the mineralization zone wireframes. RPA recommends that this difference

between structural measurements and mineralization trends be investigated further to establish a better understanding of how structure relates to mineralization at Boto. Additionally, RPA concurs with IAMGOLD that lithology is a significant factor in establishing a relationship between structure and mineralization as rheology contrasts between the Guemedji sandstone and more ductile lithologies have created mineralized zones that are internally complex and occasionally discontinuous.

#### **GRADE INTERPOLATION**

Estimation of gold grade was carried out using ID<sup>3</sup> constrained within the mineralized domain wireframes. Two passes with increasingly more relaxed search parameters were carried out to ensure that blocks within the mineralized domain wireframes were assigned a grade and to assist with resource classification. The mineralized zones were split into separate sectors with different ellipse orientations in order to accommodate the locally changing orientations of the zones. An isotropic ellipse was used for only one mineralized zone where changes in wireframe shape and orientation did not permit the use of a fitted ellipse. The estimation parameters and ellipse orientations used are summarized in Table 14-10.

The ellipsoid orientations for all mineralized domains were fixed to reflect the dominant azimuth and dip for each domain or sector. Figures 14-5 to 14-8 show the interpolated gold block grades relative to the composites.

**TABLE 14-10 INTERPOLATION PARAMETERS AND ELLIPSE ORIENTATIONS  
IAMGOLD Corporation – Daorala-Boto Project**

<u>Estimation Pass</u>	<u>Malikoundi</u>	<u>Malikoundi South Zones</u>	<u>Boto 2-4</u>	<u>Boto 4</u>	<u>Boto 6</u>	<u>Boto 5</u>	<u>Boto 5E</u>
<b>Estimation Pass 1:</b>							
<b>Samples</b>							
Min samples used	4	4	4	4	4	4	4
Max samples used	12	12	12	12	12	12	12
Max samples per hole	3	3	3	3	3	3	3
<b>Distances</b>							
Range Major (m)	60	60	60	60	60	60	60
Range Semi-Major (m)	60	60	60	60	60	60	60
Range Minor (m)	10	10	10	10	10	10	10
<b>Ellipsoid Orientation (GEMS ZXZ)</b>							
Principal Azimuth (degrees)	130	85	95	105	105	78.5	50
Principal Dip (degrees)	- 50	- 50	- 55	- 50	- 55	- 47.5	- 60
Intermediate Azimuth (degrees)	0	0	0	0	0	0	0
<b>Estimation Pass 2:</b>							
<b>Samples</b>							
Min samples used	1	1	1	1	1	1	1
Max samples used	12	12	12	12	12	12	12
Max samples per hole	0	0	0	0	0	0	0
<b>Distances</b>							
Range Major (m)	120	120	120	120	120	120	120
Range Semi-Major (m)	120	120	120	120	120	120	120
Range Minor (m)	20	20	20	20	20	20	20
<b>Ellipsoid Orientation (GEMS ZXZ)</b>							
Principal Azimuth (degrees)	130	85	95	105	105	78.5	50
Principal Dip (degrees)	- 50	- 50	- 55	- 50	- 55	- 47.5	- 60
Intermediate Azimuth (degrees)	0	0	0	0	0	0	0

FIGURE 14-5 BOTO 2/MALIKOUNDI BLOCK GRADES – VERTICAL SECTION 14,500NE

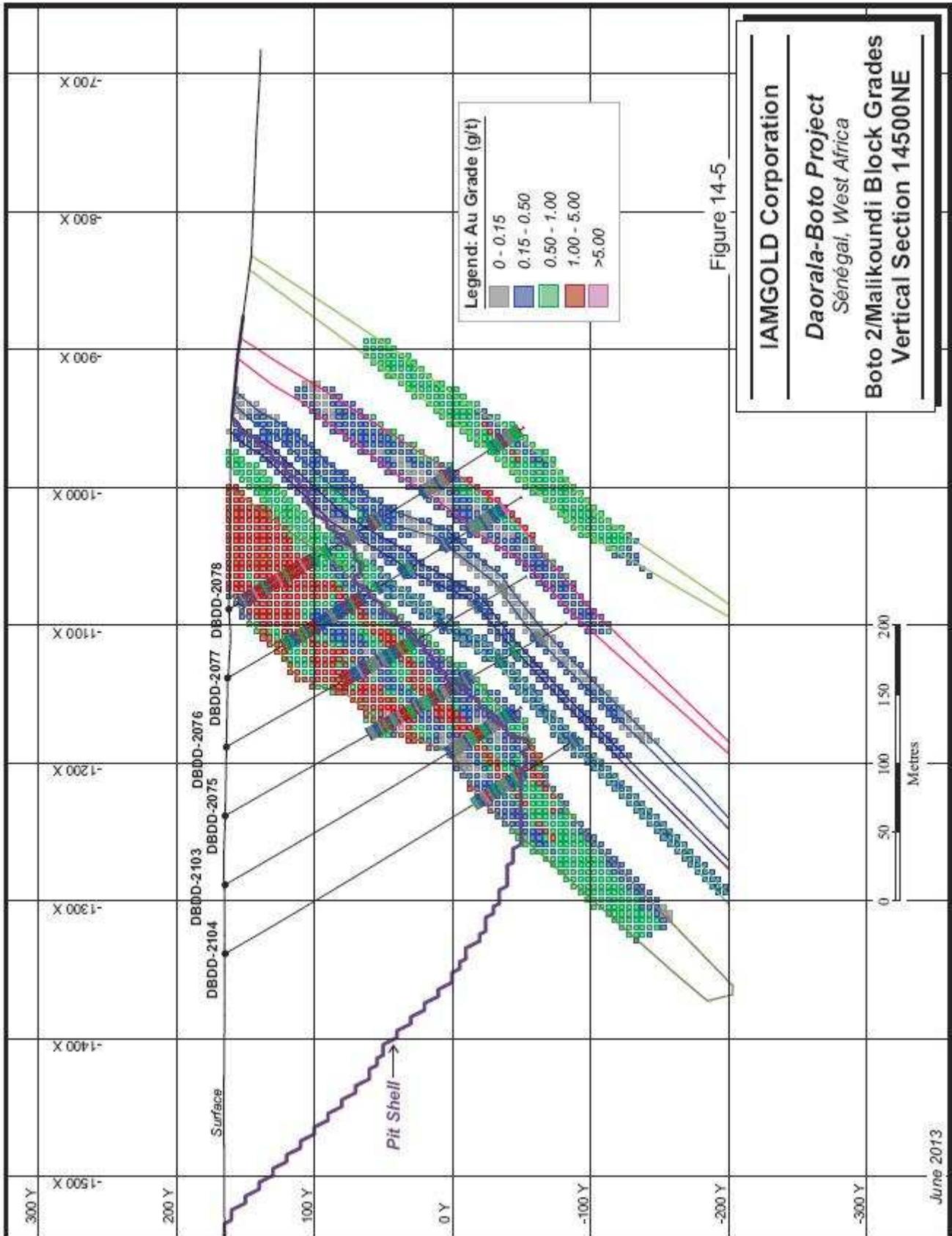


FIGURE 14-6 BOTO 4 BLOCK GRADES – VERTICAL SECTION 13,000NE

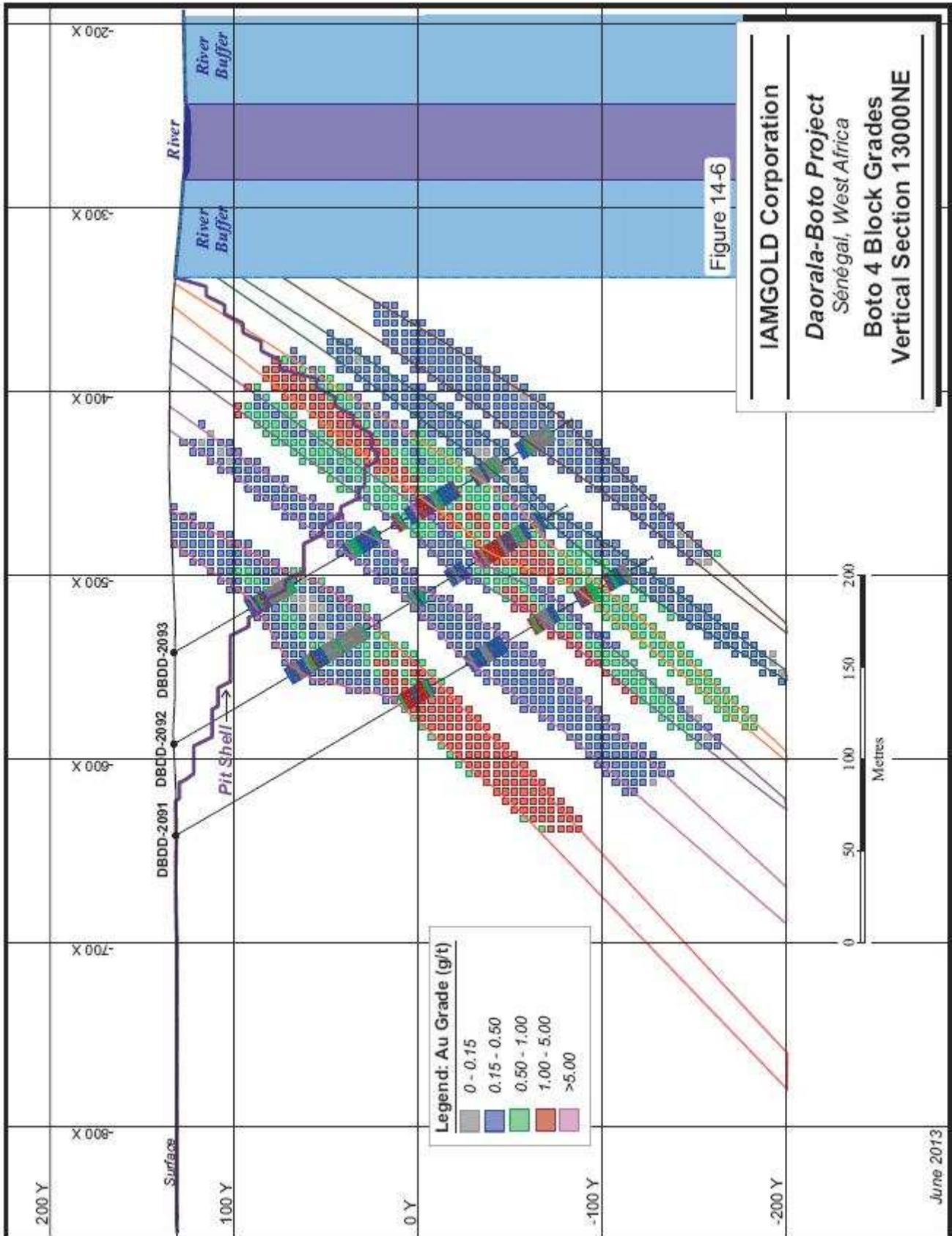


FIGURE 14-7 BOTO 6 BLOCK GRADES – VERTICAL SECTION 11,000NE

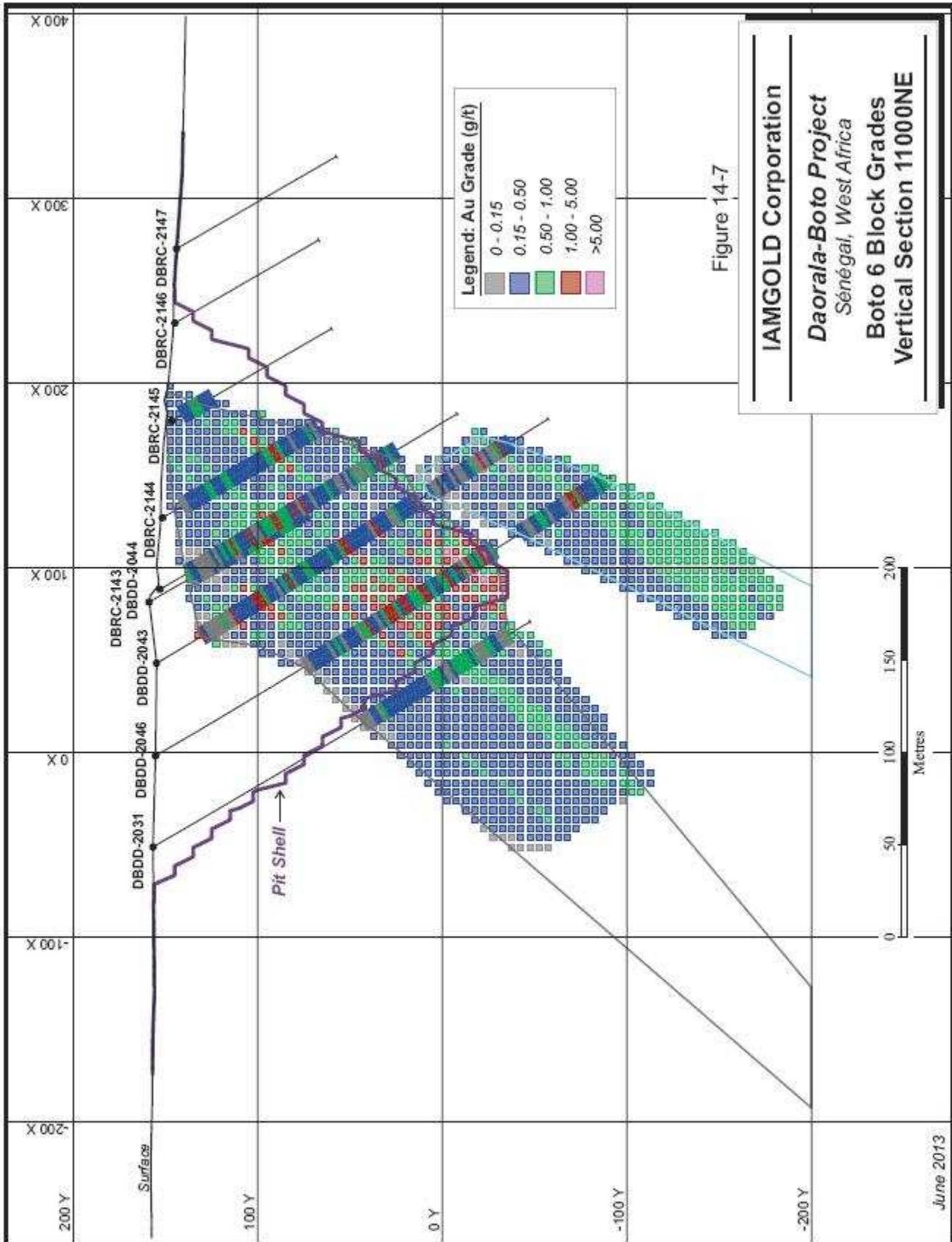
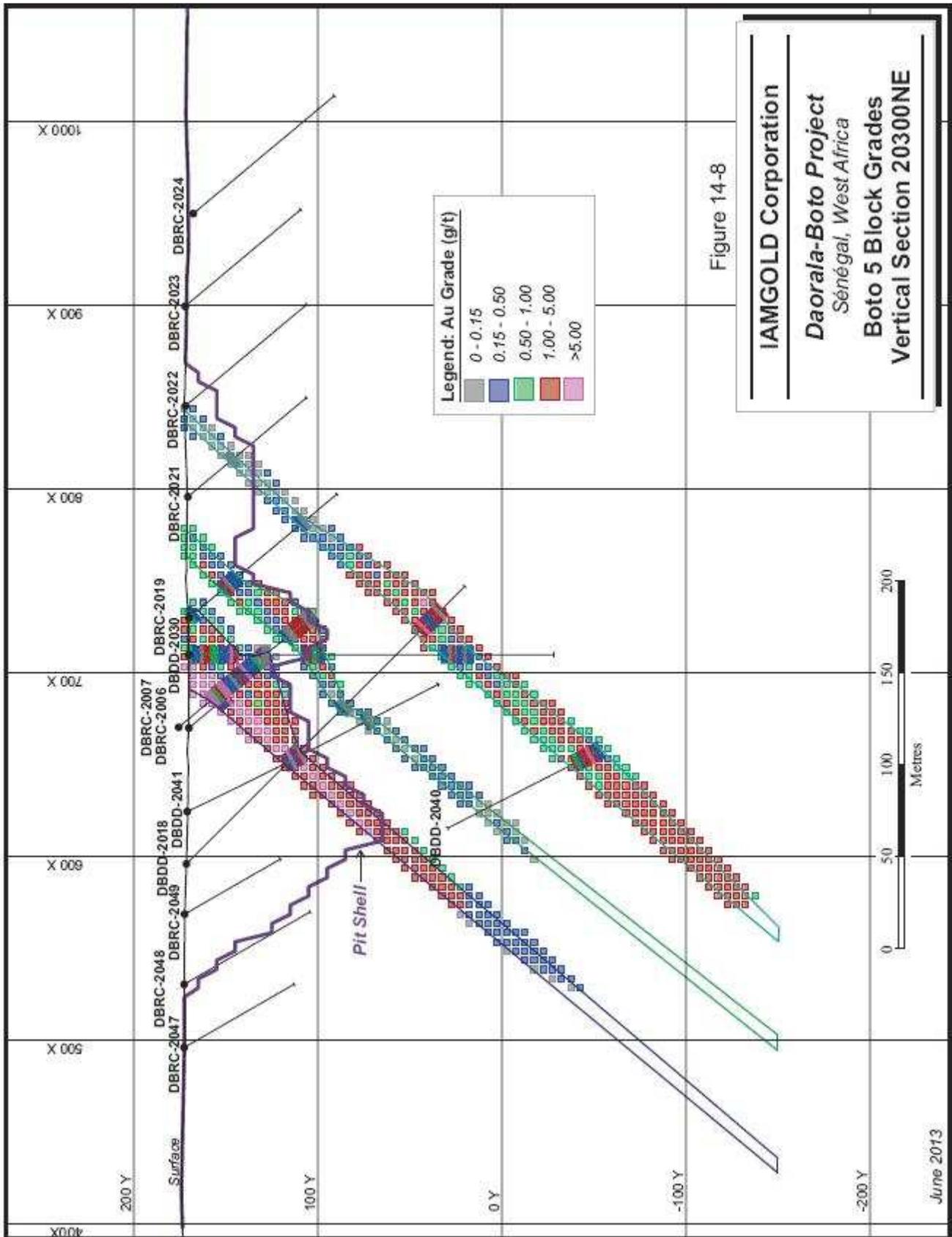


FIGURE 14-8 BOTO 5 BLOCK GRADES – VERTICAL SECTION 20,300NE



IAMGOLD Corporation  
 Daorala-Boto Project  
 Sénégal, West Africa  
 Boto 5 Block Grades  
 Vertical Section 20300NE

Figure 14-8

### CUT-OFF GRADE

Based on the parameters outlined in Table 14-11 as well as other considerations, RPA has reported the Boto Mineral Resources at a cut-off grade of 0.60 g/t Au. Only those blocks contained within the preliminary pit shell are reported as a Mineral Resource.

### PIT OPTIMIZATION

In order to comply with the CIM definitions of “reasonable prospects for economic extraction”, RPA prepared a preliminary Lerchs-Grossmann pit shell using Whittle software and the assumed costs and parameters shown in Table 14-11. Only those blocks contained within the preliminary pit shell are reported as Mineral Resources (Table 14-1).

**TABLE 14-11 PIT OPTIMIZATION FACTORS  
IAMGOLD Corporation – Daorala-Boto Project**

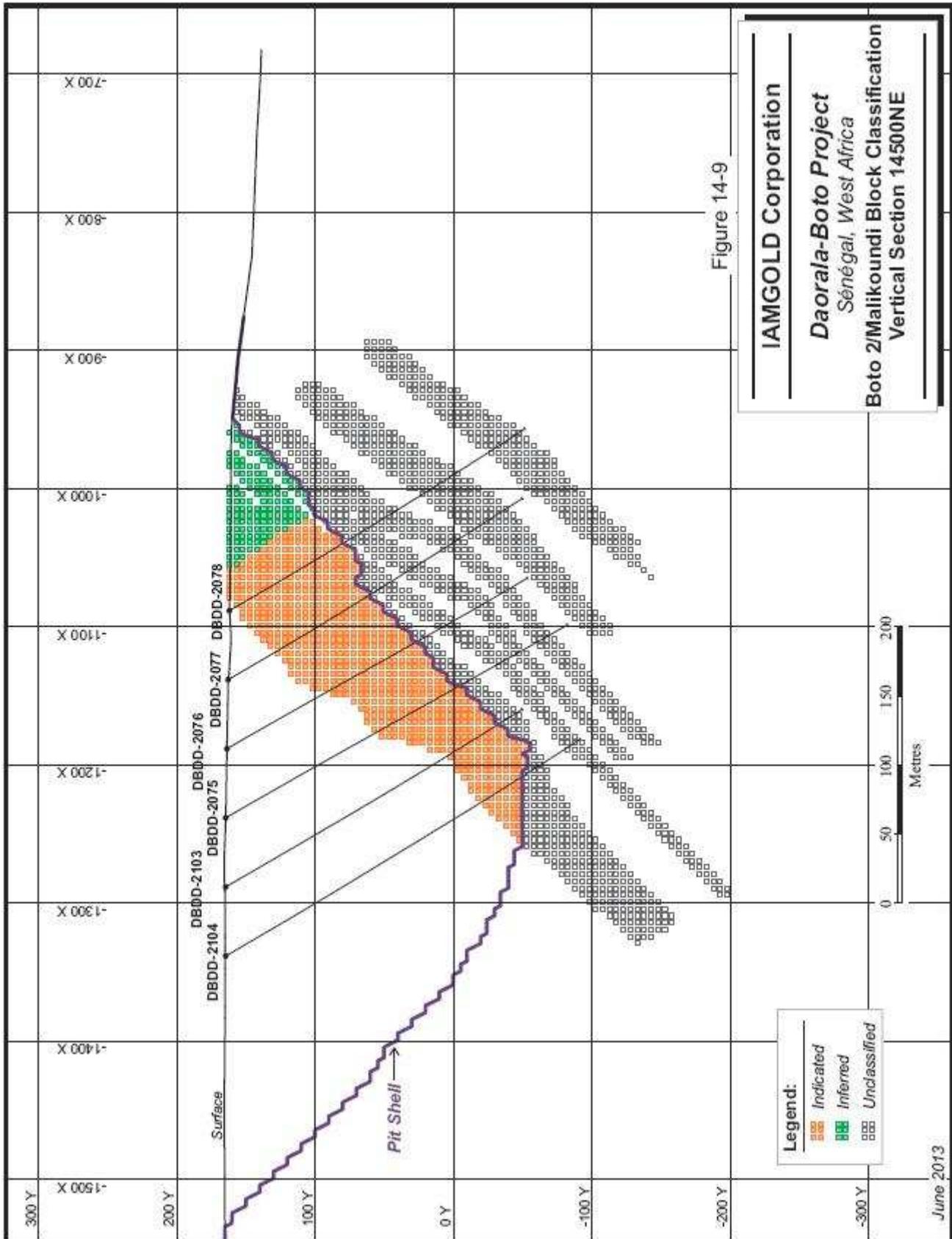
<u>REVENUE</u>	<u>Input</u>
Au	\$ 1,500 /oz Au
Royalty (NSR)	5%
<u>OPERATING COST</u>	
Ore Mining Cost	\$ 2.40/t mined
Mining Cost Depth Increment	\$0.004/m mined
Processing	\$ 20.00/t ore
G&A	\$ 3.80/t ore
<u>PROCESSING</u>	
Average Recovery	92%
<u>MINING</u>	
Pit Slope	50°

### CLASSIFICATION

RPA developed resource classification criteria that have considered the distance of the closest sample populating a block, the interpolation and search distance parameters, as well as the overall sample density, geological continuity, and grade continuity.

Figure 14-9 is a typical section showing block classifications.

FIGURE 14-9 BOTO 2/MALIKOUNDI BLOCK CLASSIFICATION – VERTICAL SECTION 14,500NE



RPA found that all blocks populated by Pass 1 or Pass 2 had sufficient support to be classified as Inferred. RPA's review of blocks that were interpolated by samples less than approximately 60 m away showed that there is sufficient geological and grade continuity to support Indicated classification. Wireframes were created to classify the Indicated blocks and eliminate any isolated blocks of Inferred material. Isolated drilling fences were also reassigned as Inferred despite having blocks that fell within a 60 m distance threshold.

### **BLOCK MODEL VALIDATION**

The following is a list of the checks performed on the resource model by RPA:

- Checked for overlapping wireframes to assess potential double counting of resource volumes.
- Checked mineralized domain/wireframe extensions beyond last holes to see if they were reasonable and consistent.
- Compared basic statistics of assays and composites within wireframes with block grade statistics.
- Checked for reasonable compositing intervals.
- Checked that composite intervals started and stopped at wireframe boundaries.
- Checked that assigned composite rock type coding was consistent with intersected wireframe coding.
- Checked if block size and orientation was appropriate for drilling density, mineralization, and mining method.
- Checked search volume radii and orientations from variography analysis against known structural trends.
- Checked estimation parameters against available variography.
- Visually checked block resource classification coding for isolated blocks.
- Visually compared block grades to drill hole composite values on section and plan views.
- Visually checked for grade banding, smearing of high grades, plumes of high grades, etc., on sections and plans.

In addition to the above, the Boto 2-4-6 and Malikoundi deposits were also interpolated using ordinary kriging, to serve as a potential alternative to the ID<sup>3</sup> interpolation results. RPA performed a visual review of the OK and ID<sup>3</sup> models and concluded that the ID<sup>3</sup> estimate did a better job of preserving the local high grades observed in drilling and better reflected the variability of the mineralization at Boto. Boto 5 was interpolated using ID<sup>3</sup> only.

The block model grades (ID<sup>3</sup>) at Boto 2-4-6 and Boto 5 were also visually compared with composite grades on a section by section basis. This evaluation indicates an acceptable spatial correlation of block grades with composite grades. As an additional check of the local estimate, RPA compared the average of the composites in a block to the estimated value in the same block. At Boto 2-4-6, the results of the comparison indicated that the datasets have similar descriptive statistics, a coefficient of determination ( $R^2$ ) of 0.77, and a correlation factor of 88%. The same comparison at Boto 5 produced a coefficient of determination ( $R^2$ ) of 0.81, and a correlation factor of 90%.

Swath plots were prepared to evaluate and compare trends in composite and block grades throughout the Boto deposit. These plots were compiled on 100 m section spacing south to north through the deposit, omitting gaps in drilling. In RPA's opinion, the plots at both Boto 2-4-6-Malikoundi and Boto 5 show a good comparison between the blocks and the composites, particularly in portions of the deposit with the greatest drilling density. At Boto 5, there are two sections that show noticeable differences between composite and block grades. These particular sections have higher drilling density, and a number of blocks were populated by the first interpolation pass which requires more than one hole for estimation. This two-hole requirement for the first pass has restricted the influence of local high grade composites.

The differences in grade between block model grades and composite grades are shown in Figures 14-10 and 14-11. The differences in grade between raw assays, capped assays, composites, and blocks are shown in Table 14-12.

**TABLE 14-12 COMPARISON OF BLOCK, COMPOSITE AND ASSAY GRADES  
IAMGOLD Corporation – Daorala-Boto Project**

	Boto 2/Malikoundi			Blocks
	Au Raw	Au Capped	Comps	
Mean, g/t Au	0.95	0.88	0.85	0.74
Standard Deviation, g/t Au	3.57	1.87	1.59	0.89
Coefficient of Variation	3.77	2.12	1.87	1.20
Minimum, g/t Au	0	0	0	0
Maximum, g/t Au	190.00	20.00	20.00	15.01
Number	4,527	4,527	2,596	257,814

	Boto 4			Blocks
	Au Raw	Au Capped	Comps	
Mean, g/t Au	0.79	0.66	0.64	0.58
Standard Deviation, g/t Au	5.90	1.43	1.13	0.58
Coefficient of Variation	7.44	2.17	1.77	1.00
Minimum, g/t Au	0	0	0	0
Maximum, g/t Au	296.00	15.00	13.52	11.89
Number	2,892	2,892	1,694	284,449

	Boto 6			Blocks
	Au Raw	Au Capped	Comps	
Mean, g/t Au	0.45	0.43	0.42	0.38
Standard Deviation, g/t Au	1.37	0.84	0.73	0.34
Coefficient of Variation	3.06	1.97	1.71	0.88
Minimum, g/t Au	0	0	0	0.01
Maximum, g/t Au	57.00	15.00	15.00	14.88
Number	3,601	3,601	2,217	235,509

	Boto 5			Blocks
	Au Raw	Au Capped	Comps	
Mean, g/t Au	2.20	1.85	1.62	1.25
Standard Deviation, g/t Au	8.24	4.34	3.29	1.36
Coefficient of Variation	3.75	2.35	2.02	1.09
Minimum, g/t Au	0	0	0	0
Maximum, g/t Au	149.59	30.00	25.17	20.35
Number	764	764	423	42,700

FIGURE 14-10 SOUTH TO NORTH SWATH PLOT BOTO 2-4-6-MALIKOUNDI

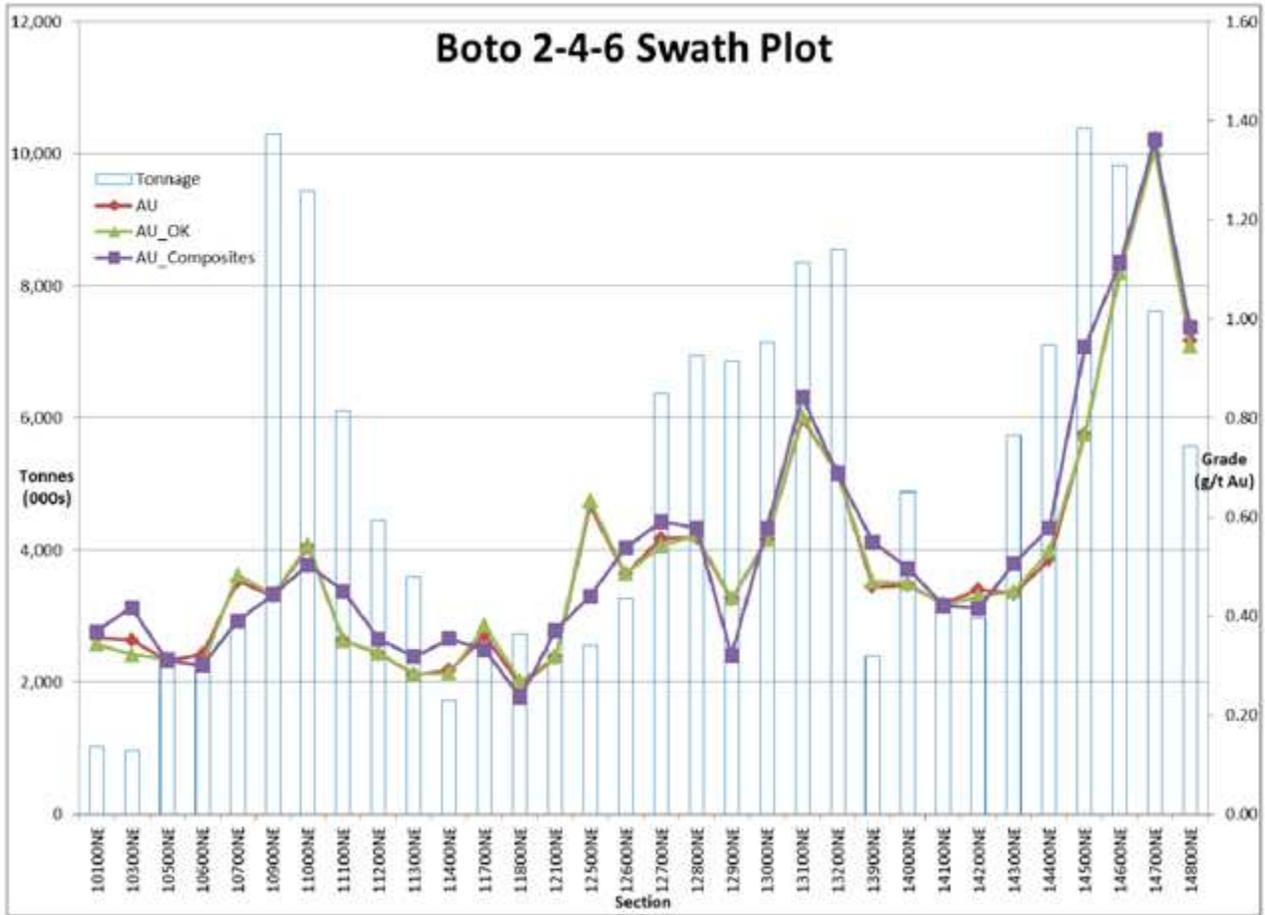
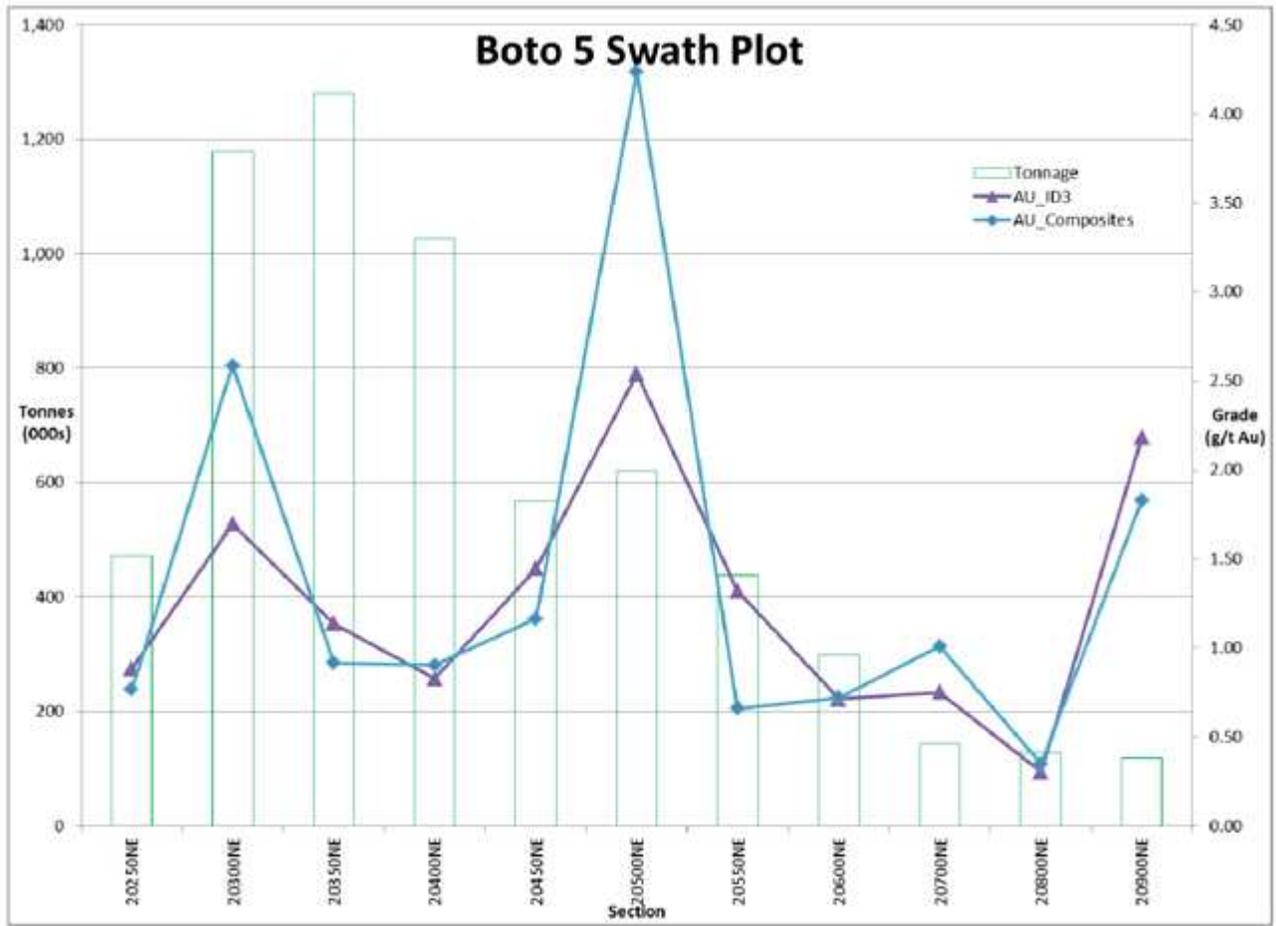


FIGURE 14-11 SOUTH TO NORTH SWATH PLOT BOTO 5



RPA also prepared grade and tonnage curves to evaluate the impact of different cut-off grades on the reported resources at Boto and these are shown in Figures 14-12 and 14-13.

FIGURE 14-12 GRADE-TONNAGE CURVE BOTO 2-4-6 AND MALIKOUNDI

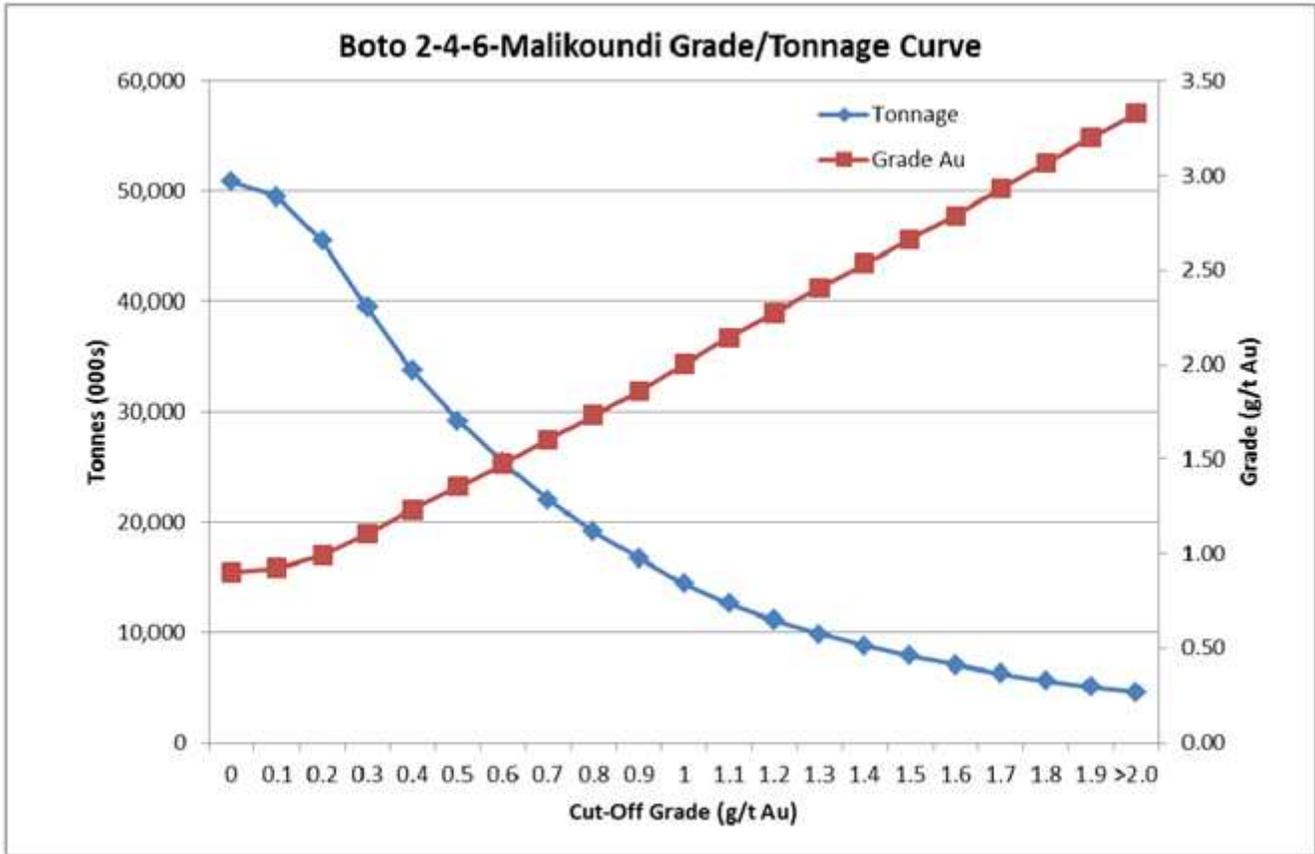
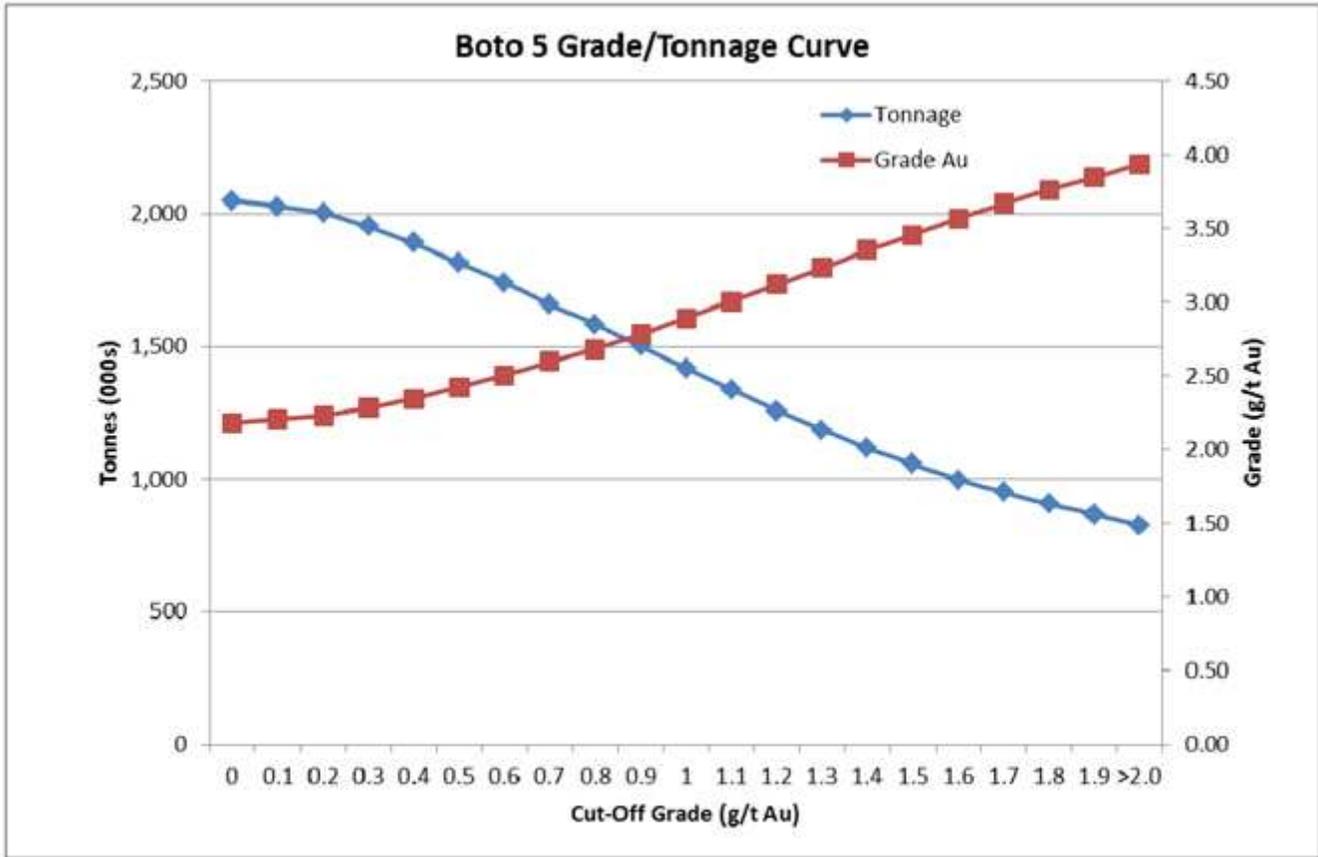


FIGURE 14-13 GRADE-TONNAGE CURVE BOTO 5



## **15 MINERAL RESERVE ESTIMATE**

There are no current Mineral Reserves at the Project.

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## **16 MINING METHODS**

This section is not applicable.

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## **17 RECOVERY METHODS**

This section is not applicable.

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## **18 PROJECT INFRASTRUCTURE**

This section is not applicable.

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## **19 MARKET STUDIES AND CONTRACTS**

This section is not applicable.

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**20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT**

This section is not applicable.

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## **21 CAPITAL AND OPERATING COSTS**

This section is not applicable.

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## **22 ECONOMIC ANALYSIS**

This section is not applicable.

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### **23 ADJACENT PROPERTIES**

As mentioned previously, the host rocks and observed structural setting demonstrated at the Boto project are also observed at many of the economic gold deposits located along Senegal-Mali shear zone. Well established mines such as Sadiola, Yatela, Loulo, Yalea, and Goukoto are located within a short distance of the Boto deposit. However, the most proximal and relevant property to the Boto deposit is the Fekola gold deposit located in southwest Mali. The Fekola deposit is immediately north and along strike with the Malikoundi Zone. Papillon Resources owns the Medinandi property that hosts the Fekola deposit.

Recently, Papillon released a mineral resource estimate for the Fekola deposit that was prepared by independent consultants, MPR Geological Consultants Pty Ltd, and reported in accordance with the JORC Code (2004). The mineral resource estimate reports a total of 44.31 million tonnes averaging 2.46 g/t Au, containing 3.50 million ounces of gold classified in the Measured and Indicated categories and a total of 10.7 million tonnes of Inferred Resources averaging 2.1 g/t Au, containing 0.7 million ounces of gold (January 24, 2013, Papillon Resources Website).

RPA has not independently verified this information and this information is not necessarily indicative of the mineralization at the Boto project.

#### **24 OTHER RELEVANT DATA AND INFORMATION**

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.

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## 25 INTERPRETATION AND CONCLUSIONS

As of April 19, 2013, the Boto database contained results of 423 diamond and RC drill holes for a total of 56,832 m. The most recent drill campaigns (2012-2013), which totalled 16,698 m, included sampling by IAMGOLD geologists and assaying by ALS Chemex in Bamako, Mali. RPA concludes that the data, the data density, and the additional information from the Boto database are adequate to form the basis for a Mineral Resource estimate.

RPA conducted a site visit to the Boto deposit, reviewed property and deposit geology, exploration and drilling methods and results, sampling method and approach, sample and data handling, including chain of custody, and completed independent verification of the data. RPA evaluated the compilation of QA/QC data from the Boto deposit and is of the opinion that the sample preparation, security, and analytical procedures used by IAMGOLD and prior companies followed industry-standard procedures and the resulting analytical data are acceptable for use in the resource estimation.

Drilling to date has been completed at an average drill hole spacing of 50 m to 100 m over known mineralized zones, the majority of which has been classified as Indicated Mineral Resources. Drilling has not completely defined the limits of the mineralization at Boto 2-4-6 or Malikoundi, and a number of the mineralized zones remain open along strike and down dip. RPA is of the opinion that additional diamond drilling is required to define the limits of the Boto mineralization zones, specifically the northern extension of Malikoundi.

RPA recommends that IAMGOLD continue to drill diamond core and use oriented core for in-fill drilling programs where Mineral Resources have already been identified. In general, maintaining 100 m spacing along strike and 50 m spacing across strike should be sufficient to achieve an Indicated classification for most step-out drilling. Based on the characteristics of existing zones, areas of greater structural complexity would require drill spacing along and across strike of 50 m x 50 m to achieve an Indicated classification.

## 26 RECOMMENDATIONS

With respect to the geological model, RPA recommends that IAMGOLD:

- Continue to use oriented core at Boto to analyze the relationship between structural measurements and mineralization.
- Take additional density measurements for all mineralized saprolite and transition material types prior to future resource estimate updates or economic studies.

With respect to the drill hole database, RPA recommends that IAMGOLD:

- Continue with the database management practice of using the laboratory batch number as a secondary key-id field along with the sample number.
- Add missing laboratory batch numbers to the database where possible.

IAMGOLD has prepared a three year exploration work program for the Boto deposit that totals US\$11.5 million. RPA concurs with IAMGOLD's upcoming work and believes that it is reasonable and is in line with the exploration potential of the project.

The proposed exploration work program has been designed to support the planned scoping, prefeasibility, and feasibility studies on the Boto project. A total exploration budget of US\$11.5 million is proposed and includes 30,000 m of diamond drilling, 10,000 m of RC drilling, and 9,000 m of aircore drilling. An annual breakdown of the proposed exploration budget and the principal objectives of the work program are summarized below:

### **2014 - BUDGET: US\$3.5 MILLION**

The planned drilling program includes: 10,000 m diamond drilling and 9,000 m aircore drilling.

Objectives:

- Commence 50 m x 50 m infill drilling on the Malikoundi Zone.
- Expand resources with 100 m step-out drilling north of the Malikoundi Zone and south of Boto 4.
- Complete 9,000 m of aircore drilling to identify additional exploration targets in the area of thick and lateritized alluvial cover between the Malikoundi Zone and the Senegal-Mali international border.

- Conduct IP/Resistivity geophysical surveys over areas of anomalous aircore drilling results to direct follow-up RC drilling programs.
- Construct a new exploration camp to accommodate an increased workforce in support of the accelerated exploration program and planned economic, engineering, and environmental studies.

**2015 - BUDGET: US\$4.5 MILLION**

The planned drilling program includes: 14,500 m diamond drilling and 5,000 m RC drilling.

**Objectives:**

- The 2015 exploration program aims to complete all resource delineation drilling by mid-year, in advance of the planned feasibility study. Exploration activities will then be transitioned to the more regional exploration targets as defined by the 2014 aircore and geophysical surveys.
- Complete 50 m x 50 m infill drilling on the Malikoundi Zone.
- Expand resources with step-out drilling at Boto 2.
- Commence RC drilling over prioritized regional exploration targets.
- Conduct a second phase of IP/Resistivity geophysical surveys over areas of anomalous aircore drilling results to direct follow-up RC drilling programs.

**2016 - BUDGET: US\$3.5 MILLION**

The planned drilling program includes: 10,000 m RC drilling and 5,500 m diamond drilling.

**Objectives:**

- The late 2015-2016 regional exploration program is planned to expand the resource base of the Boto project by identifying additional satellite gold deposits.
- Continue the RC drilling campaign over prioritized regional exploration targets.
- Follow up positive RC drill results with targeted diamond drilling to obtain detailed geological information.

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**28 DATE AND SIGNATURE PAGE**

This report titled “Technical Report and Initial Mineral Resource Estimate for the Daorala-Boto Project, Kédougou, Senegal” and dated June 30, 2013, was prepared and signed by the following author:

**(Signed & Sealed) “*Luke Evans*”**

Dated at Toronto, ON  
June 30, 2013

Luke Evans, M.Sc., P.Eng.  
Principal Geologist

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**29 CERTIFICATE OF QUALIFIED PERSON**

I, Luke Evans, M.Sc., P.Eng., as an author of this report titled “Technical Report and Initial Mineral Resource Estimate for the Daorala-Boto Project, Kédougou, Senegal”, prepared for IAMGOLD Corporation, and dated June 30, 2013, do hereby certify that:

1. I am a Principal Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
2. I am a graduate of University of Toronto, Ontario, Canada, in 1983 with a Bachelor of Science (Applied) degree in Geological Engineering and Queen’s University, Kingston, Ontario, Canada, in 1986 with a Master of Science degree in Mineral Exploration.
3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #90345885). I have worked as a professional geologist for a total of 29 years since my graduation. My relevant experience for the purpose of the Technical Report is:
  - Consulting Geological Engineer specializing in resource and reserve estimates, audits, technical assistance, and training since 1995.
  - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements.
  - Senior Project Geologist in charge of exploration programs at several gold and base metal mines in Quebec.
  - Project Geologist at a gold mine in Quebec in charge of exploration and definition drilling.
  - Project Geologist in charge of sampling and mapping programs at gold and base metal properties in Ontario, Canada.
4. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
5. I visited the Daorala-Boto Project from April 15 to 19, 2013.
6. I am responsible for all sections of the Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 30<sup>th</sup> day of June, 2013

**(Signed & Sealed) “Luke Evans”**

Luke Evans, M.Sc., P.Eng.



## CONSENT OF QUALIFIED PERSON

August 14, 2013

I, Luke Evans, M.Sc., P.Eng., do hereby consent to the public filing of the report titled “Technical Report and Initial Mineral Resource Estimate for the Daorala-Boto Project, Kédougou, Senegal” (the Technical Report), prepared for IAMGOLD Corporation and dated June 30, 2013, and extracts from, or the summary of, the Technical Report in the press release of IAMGOLD Corporation dated July 29, 2013 (the Press Release).

I also certify that I have read the Press Release and that it fairly and accurately represents the information in the Technical Report that supports the Press Release.

**(Signed)** “*Luke Evans*”

Luke Evans, M.Sc., P.Eng.