



25<sup>th</sup> September 2014

## ASX Announcement

**Predictive Discovery Limited** is a gold exploration company with strong technical capabilities focused on its advanced gold exploration projects in West Africa.

**ASX:** PDI

**Issued Capital:** 388M shares

**Share Price:** 1.1 cents

**Market Capitalisation:** \$4.3M

### Directors

Phillip Harman  
*Non-Exec Chairman*

Paul Roberts  
*Managing Director*

Phil Henty  
*Non-Executive Director*

Tim Markwell  
*Non-Executive Director*

## Exploration and Corporate Update

Predictive Discovery (ASX: PDI) announces that, following the release of a high-grade Mineral Resource Estimate for the Bongou Gold Deposit in Burkina Faso<sup>1</sup>, it has undertaken a comprehensive review of its West African properties and exploration strategy.

As a result of this review, the clear priority has now been established to focus on leveraging the economic potential of the Bongou gold deposit and the geological understanding gained from this discovery to:

- Identify extensions to the known deposit,
- Discover granite-hosted Bongou-style mineralisation within 2km of the Bongou gold deposit,
- Target high grade gold mineralisation along the Bongou Fault and in the Laterite Hill Gold Field, within 20km of the Bongou deposit.
- Seek joint venture partners to advance exploration on areas outside of the immediate Bongou area in Burkina Faso. In this regard PDI has recently announced the farm out of its remaining Australian exploration property, Cape Clear in Victoria, and is in advanced discussions regarding its Cote D'Ivoire properties.

Mr Paul Roberts, PDI's Managing Director said: *"The recent high grade gold Mineral Resource Estimate at our Bongou deposit has provided PDI with a clear platform from which we can advance the Company, and underpins a natural focus for future exploration. In the new field season, starting in November, our approach will be to use low cost exploration methods to identify and test high priority targets around Bongou. Overhead cost reductions in Australia and Burkina Faso over the past six months will enable efficient application of our funds to our ground."*

*Elsewhere, we are aiming to continue substantial exploration programs with the help of suitable joint venture partners."*

<sup>1</sup>184,000oz in the Inferred and Indicated Mineral Resource categories with an average grade of 2.6g/t Au including 136,000oz at 3.8g/t Au (ASX release dated 4 September, 2014)

## INTRODUCTION

The Company released a high-grade Mineral Resource Estimate for the Bongou gold deposit to the ASX on 4<sup>th</sup> September 2014. Highlights of that announcement included the following:

- Maiden Mineral Resource Estimate of **2.2Mt at 2.6g/t Au for 184,000oz**, including **136,000oz (>70% of Global Resource) with average grade of 3.8g/t Au** (at 2g/t Au cut-off).
- Thick, near-surface gold mineralisation, favourable for development as an open pit mining operation.
- >50% of the Mineral Resource Estimate is in the Indicated category.
- The deposit remains open to the south-west and at depth.
- Excellent potential for more high-grade gold mineralisation within 20km of Bongou, which will be PDI's drilling focus in the next field season.

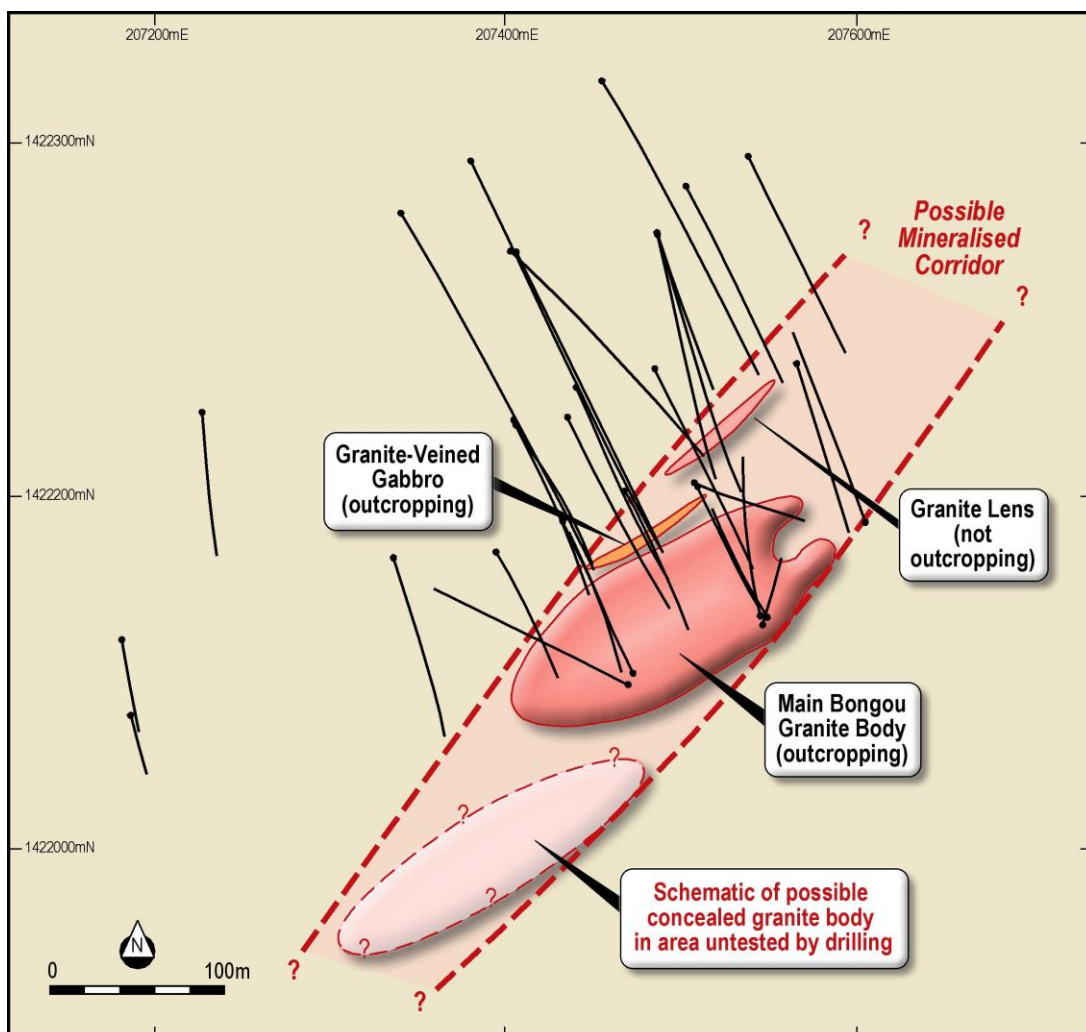


Figure 1: Map of the Bongou Prospect, showing possible location of another granite lens south-west of the main granite body. The “en echelon” arrangement of mineralised granite bodies suggests that they are located within a north-east trending mineralised corridor.

## EXPLORATION STRATEGY – BONGOU AREA

### Bongou Deposit – Potential for Extensions

The Bongou deposit is open to the south-west and at depth. Detailed geological re-interpretation of the gold deposit has shown that the mineralisation is hosted in three zones, arranged in “en echelon” fashion from NE to SW (Figure 1). The north-eastern zone does not appear to reach the surface and the area south-west of the largest single mineralised granite body is yet to be effectively tested. This opens up the possibility of concealed gold mineralisation in an untested area to the south-west of the drilled resource (Figure 1). There is also the distinct possibility that the deposit may widen with depth below the deepest hole drilled so far, BNGRD008R (Figure 2).

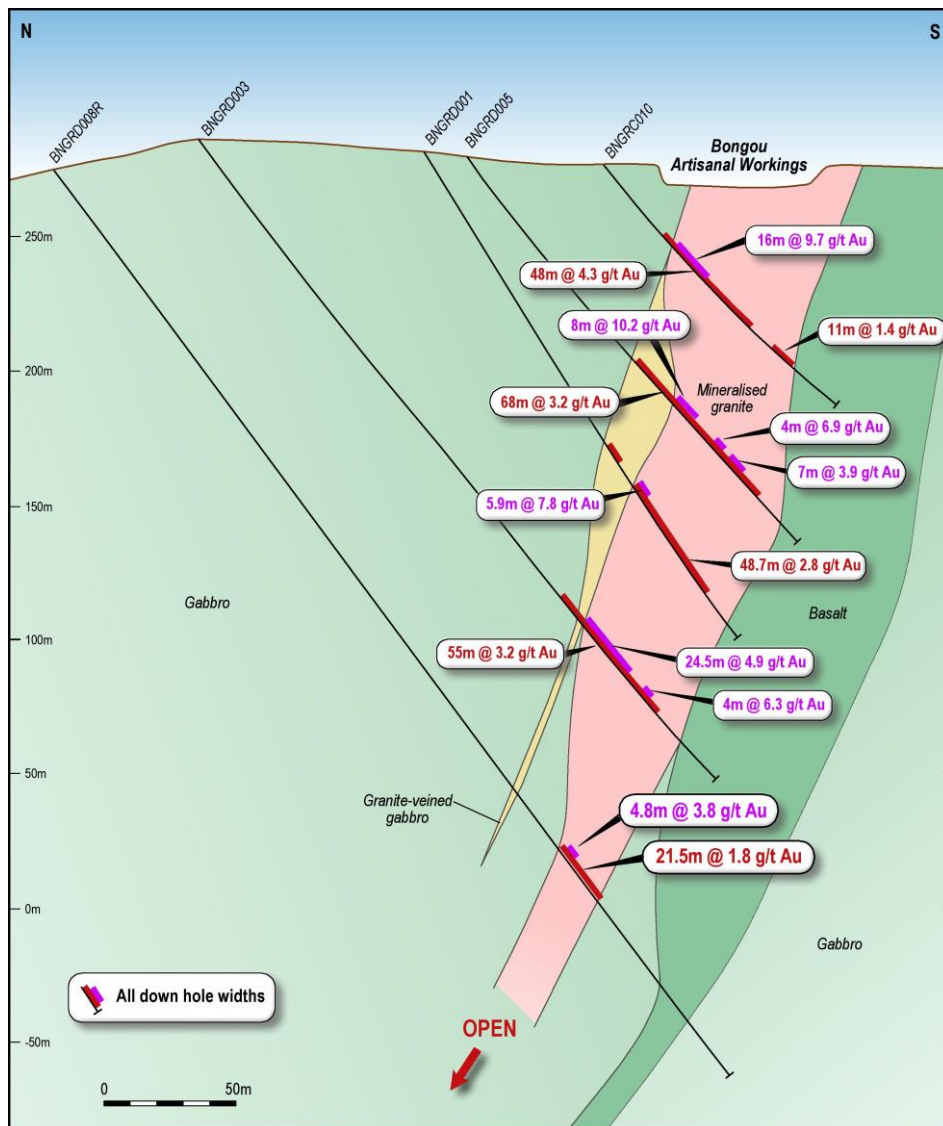


Figure 2: Cross Section through drill holes BNGRC010, BNGRD001, BNGRD003, BNGRD005 and BNGRD008R. No vertical exaggeration. Only down-hole widths are shown on this cross-section. Intervals marked in dark red are calculated at a 0.5g/t Au cut-off and in magenta at a 3g/t Au cut-off. Assay data reported in PDI's ASX releases dated 2<sup>nd</sup> December 2013, 16<sup>th</sup> December 2013, 20<sup>th</sup> March 2014 and 1<sup>st</sup> April 2014.

## Targets within 2km of Bongou

Power auger drilling and trenching has identified five locations within 2 km of the Bongou deposit with anomalous gold values in altered granite (ASX release dated 30<sup>th</sup> July, 2014). Completion of four shallow drill holes on two of these targets in the 2013-14 field season intersected up to **12 m at 2.45 g/t Au** (ASX release dated 1<sup>st</sup> April 2014). Most of these targets and Bongou itself are located on interpreted E-W magnetic lineaments. (Figure 3). Recognition of the importance of these lineaments is an essential component in Predictive's targeting of nearby prospects.

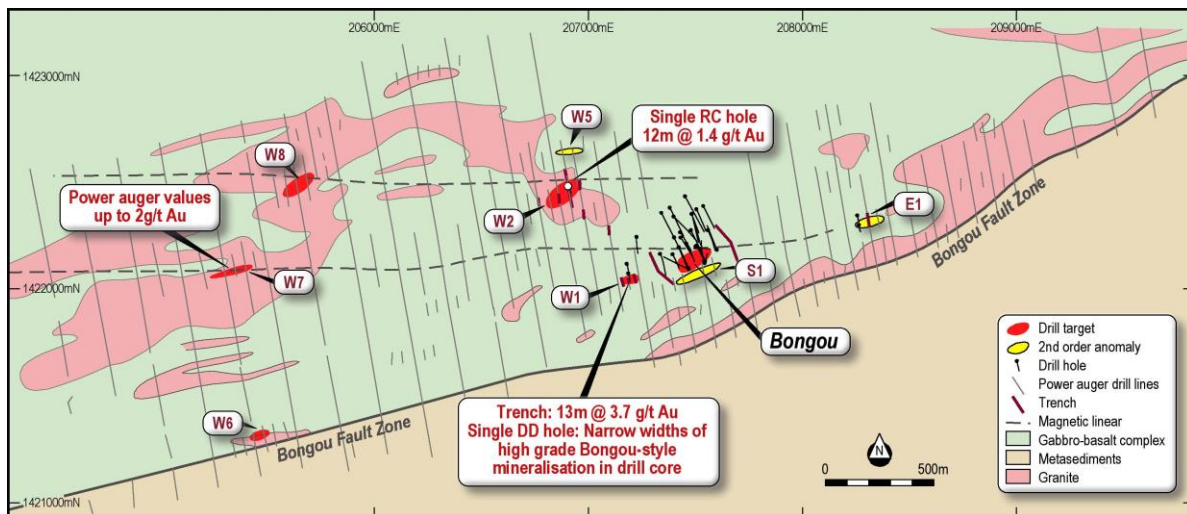


Figure 3: Geological Map of the area near the Bongou Gold Deposit, showing location of drill targets and east-west magnetic lineaments (dashed lines). **Note:** power auger and RC/DD drill results were reported to the ASX on 1/4/2014, 12/5/2014 and 30/7/2014

## Targets within 20 km of Bongou

A large part of the 42km-long Bongou Structure remains untested by effective modern exploration methods. In addition, the Company identified at least 18km of strike of geochemical anomalies in the Laterite Hill Gold Field south of Bongou, including numerous untested targets. Application of PDI's new geological understanding from Bongou, including recognition of the importance of the east-west lineaments, will enable highly focused exploration of high priority targets with good potential for the discovery of high grade gold mineralisation.

## EXPLORATION PROGRAM

The next field program, starting in November 2014, will consist of the following elements:

- Detailed ground geophysics and geological mapping on targets selected either on past results or by mapping of structures using aeromagnetic data.
- Trenching where cover is thin enough.
- Power auger and RAB drilling of high priority targets
- RC drilling of:

- Possible extensions to Bongou immediately south-west of the known deposit
- Bongou-like targets within a 2 km radius of Bongou
- The targets with best potential for high grade gold mineralisation outlined by the trenching and power auger and RAB drilling.

The Company has reduced its full time staff in Burkina Faso to five people, so contract staff will undertake the above field programs on a campaign basis. This work is expected to be highly cost-effective.

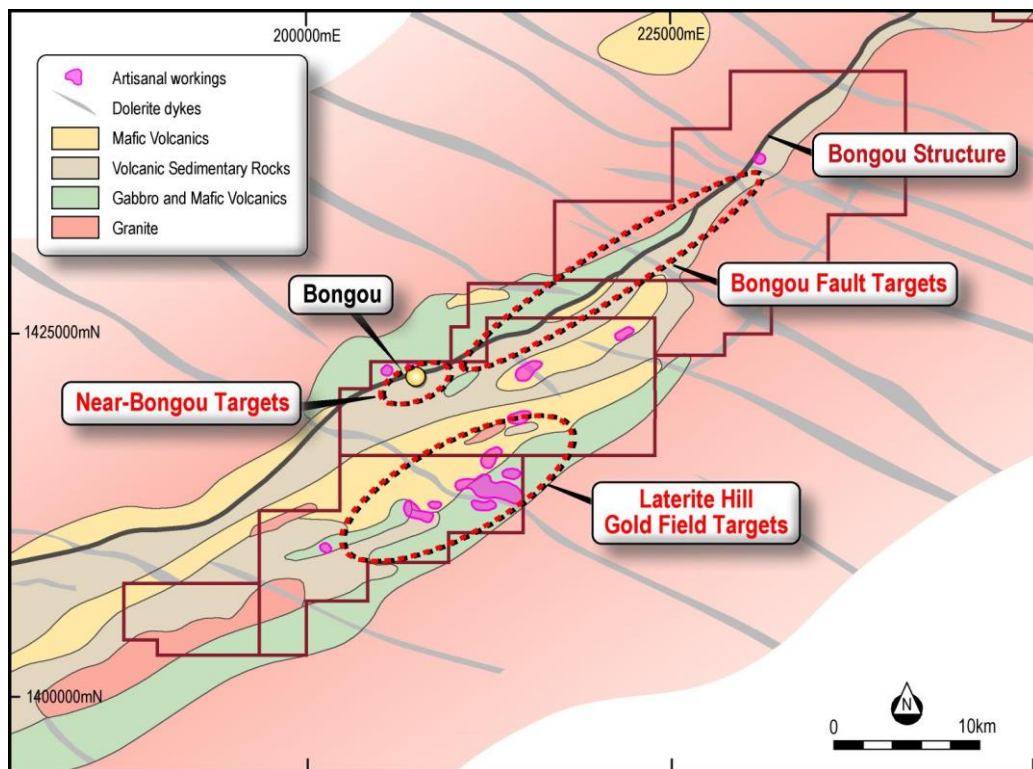


Figure 4: Geological map of SW Bonsiega permit group, including Bongou, showing PDI's priority target areas for the discovery of additional high-grade gold resources further afield from Bongou.

## PERMITS IN BURKINA FASO

The Company is currently seeking three year renewals on five of its Burkina Faso permits – Sirba, Madyabari, Fouli, Aoura and Bangaba (Figure 5). The Madyabari permit includes the Bongou Prospect. These permits have all reached the end of their nine year terms. PDI is advised that recommendations for renewal of the key Sirba, Madyabari and Fouli permits are at the Minister's office awaiting formal assent from the Minister. The Company is confident that all five permits will be renewed. This is consistent with PDI's previous experience in Burkina Faso.

The Boussouma and Aoura permits are both overdue for renewal. The Company is awaiting the beginning of the dry season for the required field inspection prior to the Ministry's preparation of its recommendation to the Minister for renewal. Notwithstanding this, to be conservative, and in accordance with accounting standards requirements, PDI will impair the carrying value of

accumulated exploration application to those permits for the financial year ending 30 June 2014, resulting in an impairment of approximately \$1m (unaudited).

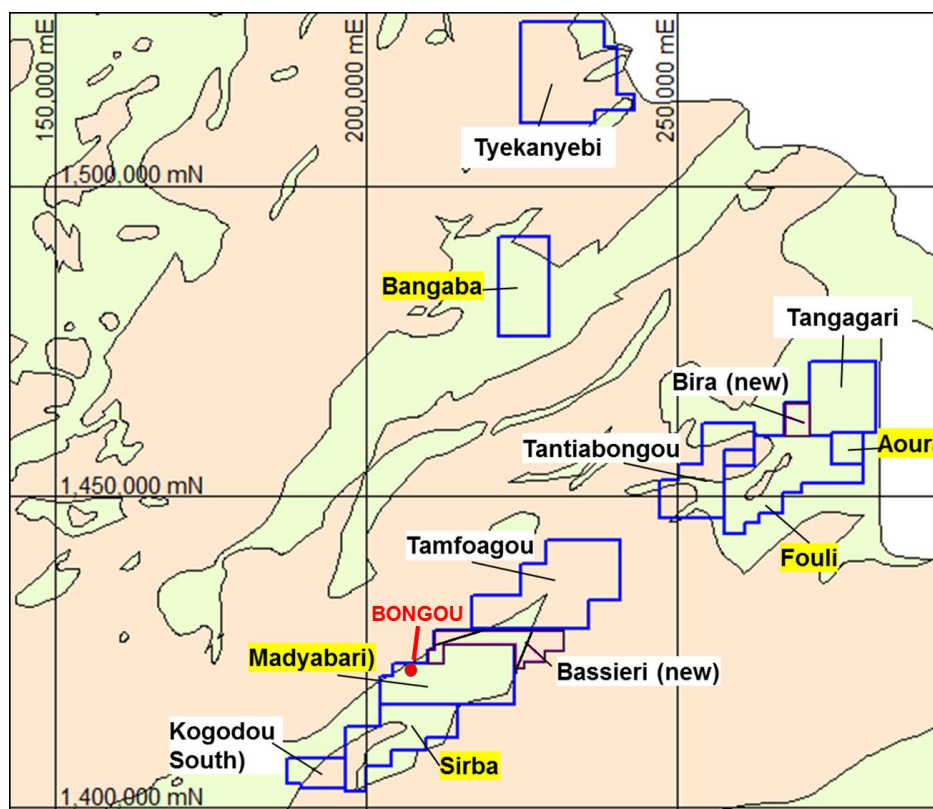


Figure 5: Locality map of PDI permits in eastern Burkina Faso, showing location of Bongou and the five permits under application for special renewals (yellow labels) – Madyabari, Sirba, Fouli, Bangaba and Aoura.

## EXPLORATION OUTSIDE OF BONGOU DISTRICT

PDI's review of exploration strategy has led the Company to focus future exploration activities on the tenement group around Bongou i.e. Madyabari, Sirba, Kogodou South, Bassieri and Tamfoagou (Figure 5). Elsewhere, PDI will seek joint venture partners to enable exploration programs to continue while maximising the Company's equity in these assets. At present, PDI is in advanced discussions on a possible farm out of the Cote D'Ivoire exploration permits.

## CORPORATE ADVICE

PDI is being provided corporate advisory services by Perth-based stockbroking and corporate advisory firm, Hartleys Limited. Pursuant to its mandate with Hartleys, the Company has agreed to issue a wholly owned subsidiary of Hartleys 12 million options with a strike price of 2.0 cents each and expiring 3 years from date of issue. These options will be the subject of a shareholder vote at PDI's upcoming Annual General Meeting in November or if that approval is not obtained, will be issued under the Company's available LR 7.1 capacity. These options will:

- Be issued as consideration for services provided by Hartleys, and
- Otherwise be on terms similar to those options already on issue.

*Predictive Discovery Limited (PDI) was established in late 2007 and listed on the ASX in December 2010. The Company is focused on exploration for gold in West Africa. The Company's major focus is in Burkina Faso, West Africa where it has assembled a substantial regional ground position totalling 1,605km<sup>2</sup> and is exploring for large open-pittable gold deposits. Exploration in eastern Burkina Faso has yielded a large portfolio of exciting gold prospects, including the Bongou trend where a series of high-grade gold drill intercepts have been obtained recently. PDI also has interests in a strategic portfolio of tenements in Côte D'Ivoire covering a total area of 1534 km<sup>2</sup>.*

**Competent Persons Statement**

*The exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Paul Roberts (Fellow of the Australian Institute of Geoscientists). Mr Roberts is a full time employee of the company and has sufficient experience relevant to the style of mineralisation and type of deposits being considered to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Roberts consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

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