

ASX Announcement

2nd December 2013

Thick, high-grade gold intercepts at Bongou Prospect

Predictive Discovery (ASX: PDI) is pleased to announce excellent drill assay results from its Bongou Gold Prospect in Eastern Burkina Faso, West Africa.

Highlights:

- Results from first five drill holes of the current RC/diamond drill program included:

BNGRD003: 55m (47m true width) at 3.2 g/t Au from 215m, including:

- 24.5m at 4.9 g/t Au

BNGRD001: 49m (41m true width) at 2.8g/t Au from 144m including:

- 6m at 7.8g/t Au
- 8m at 4.5g/t Au

BNGRC015: 64m (58m true width) at 2.0g/t Au from 14m including:

- 5m at 7.3g/t Au

BNGRD004R: 15m (11m true width) at 3.1g/t Au from 166m including:

- 3.8m at 5.7g/t Au

- Thick, gold mineralised zone extends to at least 200m below surface and is open down dip and along strike
- High grade zone consistently intersected at or near the northern ("hanging wall") contact of the gold mineralised granite
- All holes assayed so far have intersected gold mineralisation
- Planned follow-up program includes RC/diamond drilling for extensions at Bongou, exploration along strike for additional Bongou-style mineralisation and metallurgical test work.

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: 301M shares

Share Price: 2.0 cents

Market Capitalisation: \$6M

Cash (at 30th October 2013): \$1.8M

Directors

Phillip Harman
Non-Exec Chairman

Paul Roberts
Managing Director

Phil Henty
Non-Executive Director

Tim Markwell
Non-Executive Director

Mr Paul Roberts, the Company's Managing Director said: *"We are very pleased with these excellent new drill results as they confirm the strength and consistency of the Bongou mineralised system."*

All of these drill holes intersected intensely altered, gold mineralised granite, mostly over large widths. Assays received so far have given very good overall grades and confirmed a consistent, substantial high grade component in the hanging wall position. We are also seeing some evidence that the strike of the gold mineralised zone could increase at depth, thereby expanding the prospect's tonnage potential.

These drill results have taken us a big step closer to making a large, transformative and high grade gold discovery in Burkina Faso. We have already discovered two gold geochemical anomalies, suggestive of more granite-hosted gold mineralisation, within a few hundred metres of the Bongou drilling and we have multiple untested targets within a few kilometres along strike from the prospect. We will now focus our next efforts on discovering more Bongou-style gold mineralisation, both in extensions to the known gold deposit and in the immediate surrounding area."

INTRODUCTION

The Bongou gold prospect is located in the south-western portion of the Bonsiega Project tenements in Eastern Burkina Faso (Figure 1). It underlies artisanal workings which form an irregular open pit approximately 150m long and 50m wide. Prior exploration by PDI has included rock chip sampling, trenching, ground geophysical surveys and completion of 14 RC holes in 2012 and 2013, which obtained a number of very encouraging drill intersections¹ including:

- **BNGRC010: 48m** (39.6m true width) **at 4.3g/t Au** from 34m, including **16m** (13.2m true width) **at 9.7g/t Au**
- **BNGRC014 : 37m** (35.5m true width) **at 5.0g/t Au** from 111m, including **16m** (15.4m true width) **at 8.9g/t Au**
- **BNGRC001 : 20m** (7.6m true width) **at 4.8g/t Au** from 70m
- **BNGRC004 : 50m** (42m true width) **at 1.9g/t Au** from 47m, including **8m** (6.7m true width) **at 9.2g/t Au.**

Locations of the above drill holes and those completed in the recent drilling campaign are provided on Figure 2 and in Tables 1 and 2.

Gold mineralisation at Bongou is contained within an intensely silicified and quartz veined, pyrite-bearing granite intrusion.

¹ See Table 2 for a re-statement of these results, which were first released to the ASX on 5th July 2012 ("New Gold Discovery and Positive Drill Results at Bonsiega"), 22nd January 2013 ("Burkina Faso - New Gold Intercepts Confirm Bongou Potential"), and 10th April 2013 ("Outstanding High Grade Gold Drill Results from Bongou").

DRILLING PROGRAM

PDI commenced drilling at the Bongou Prospect in Burkina Faso (Figure 1) on 1st November 2013. The program was conducted using a multi-purpose rig (with combined reverse circulation and diamond coring capacity). Assay results from the first five holes are reported here.

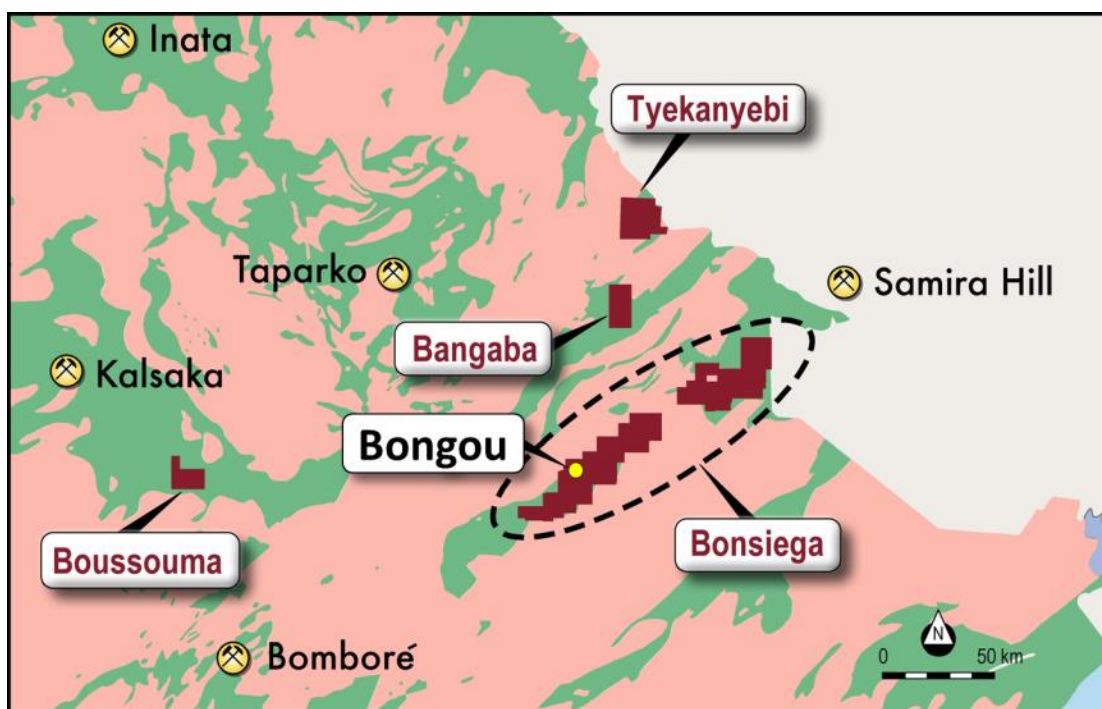


Figure 1: Locality map of PDI permits in eastern Burkina Faso, showing location of Bongou Prospect.

The drilling program consisted mainly of reverse circulation (RC) pre-collars and diamond cored “tails”. Only one hole, BNGRC015, was drilled entirely with RC. The aims of the program were to identify extensions to the Bongou mineralisation and obtain several infill intercepts to improve understanding of the mineralisation’s continuity and grade variability. Samples were analysed at the SGS laboratory in Ouagadougou Burkina Faso. Details of the drilling, sampling and quality control methods used are provided in footnotes to Table 1.

Drill Results

All holes have intersected intensely silicified and pyrite-bearing altered granite. Assaying of the first five holes resulted in the following drill intercepts:

- BNGRC015: **64m** (57.6m true width) **at 2.0g/t Au** from 14m including:
 - **5m** (4.5m true width) **at 7.3g/t Au** from 14m
- BNGRD001: **48.7m** (40.9m true width) **at 2.8g/t Au** from 144.3m including:
 - **5.9m** (5.0m true width) **at 7.8g/t Au** from 144.3m
 - **7.9m** (6.6m true width) **at 4.5g/t Au** from 169.1m

- BNGRD002: 3.3m (approximately 1.6m true width) at 1.44g/t Au from 40m
- BNGRD003: **55.0m (46.8m true width) at 3.2 g/t Au** from 215m, including:
 - **24.5m at 4.9 g/t Au**
- BNGRD004R: 15m (11.4m true width) at 3.1g/t Au from 166m including:
 - **4.8m at 5.3g/t Au**

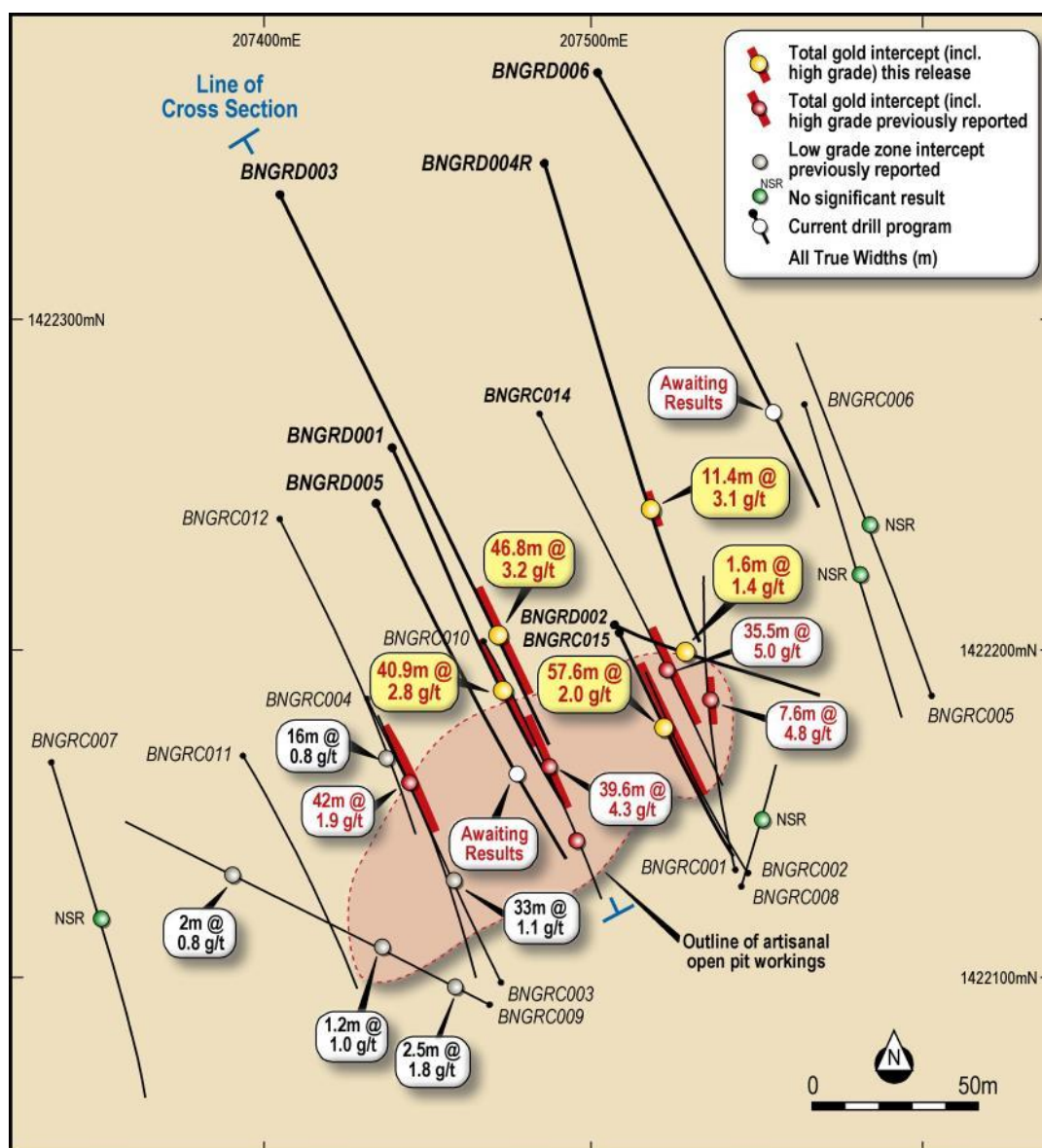


Figure 2: Drill hole locality plan, Bongou Prospect. Gold intercepts are all shown as estimated true widths. "Total" intercepts were calculated across the width of gold mineralised altered granite, irrespective of the width of internal waste zones at a cut-off grade of 0.5g/t Au.

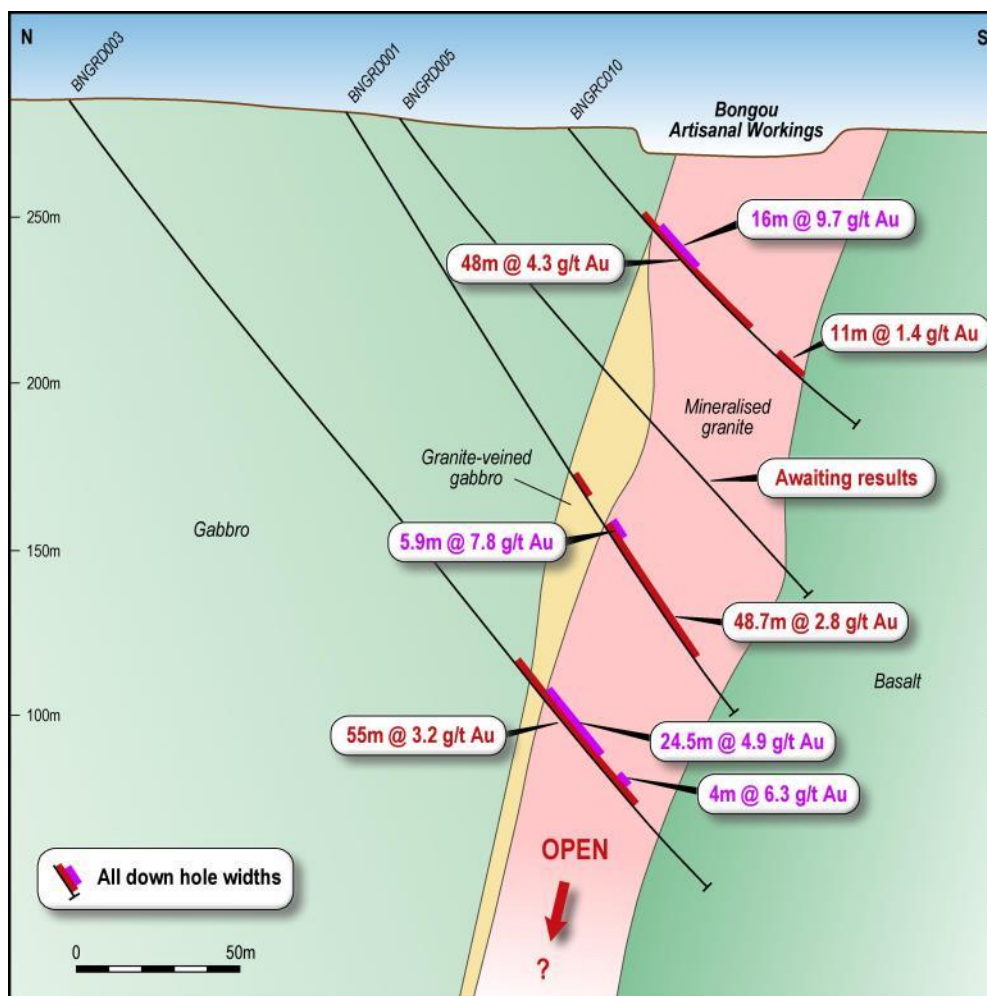


Figure 3: Cross Section through drill holes BNGRC010, BNGRD001, BNGRD003 and BNGRD005. No vertical exaggeration. Only down-hole widths are shown on this cross-section; estimated true widths are provided in Figures 2 and 4 and Tables 1 and 2.

Interpretation of these drill results along with detailed new geological mapping of the artisanal workings has indicated that:

- The bulk of the known mineralisation exists within a single, steeply north-dipping, strongly silicified granite body containing quartz-carbonate veining, minor disseminated pyrite (iron sulphide) and lesser sericite and magnetite. High gold grades appear to be associated with coarse crystalline pyrite.
- Higher gold grades are consistently located against the northern “hanging wall” boundary of the altered granite with sheared gabbro (Figure 3).
- The western and eastern limits of the main mineralised body are affected by steep dipping faults which are not yet fully understood (Figure 4), however:
 - at least two faults on the western side of the mineralisation cut off part of the high grade hanging wall position, leaving a lower grade remnant in outcrop and some of the western holes. One of those faults is shown on Figure 4. The displaced high grade mineralisation

may be located at depth to the west and will be a target for future drilling.

- An inferred fault at the eastern end displaces the mineralised granite to the north and apparently downwards. The BNGRD004R intercept reported here lies on the eastern side of that inferred fault (Figure 4). Both the BNGRD002 and BNGRC001 mineralised intercepts appears to terminate against the same structure (Figure 4). The presence of pyrite mineralised and altered granite veins in drill hole BNGRD006 (Figure 4) 40m to the east of the BNGRD004R intercept suggests that the same mineralised granite body plunges shallowly to the east. It is also possible that the latter two intercepts represents the upper part of the altered granite intrusive which may therefore thicken at depth.

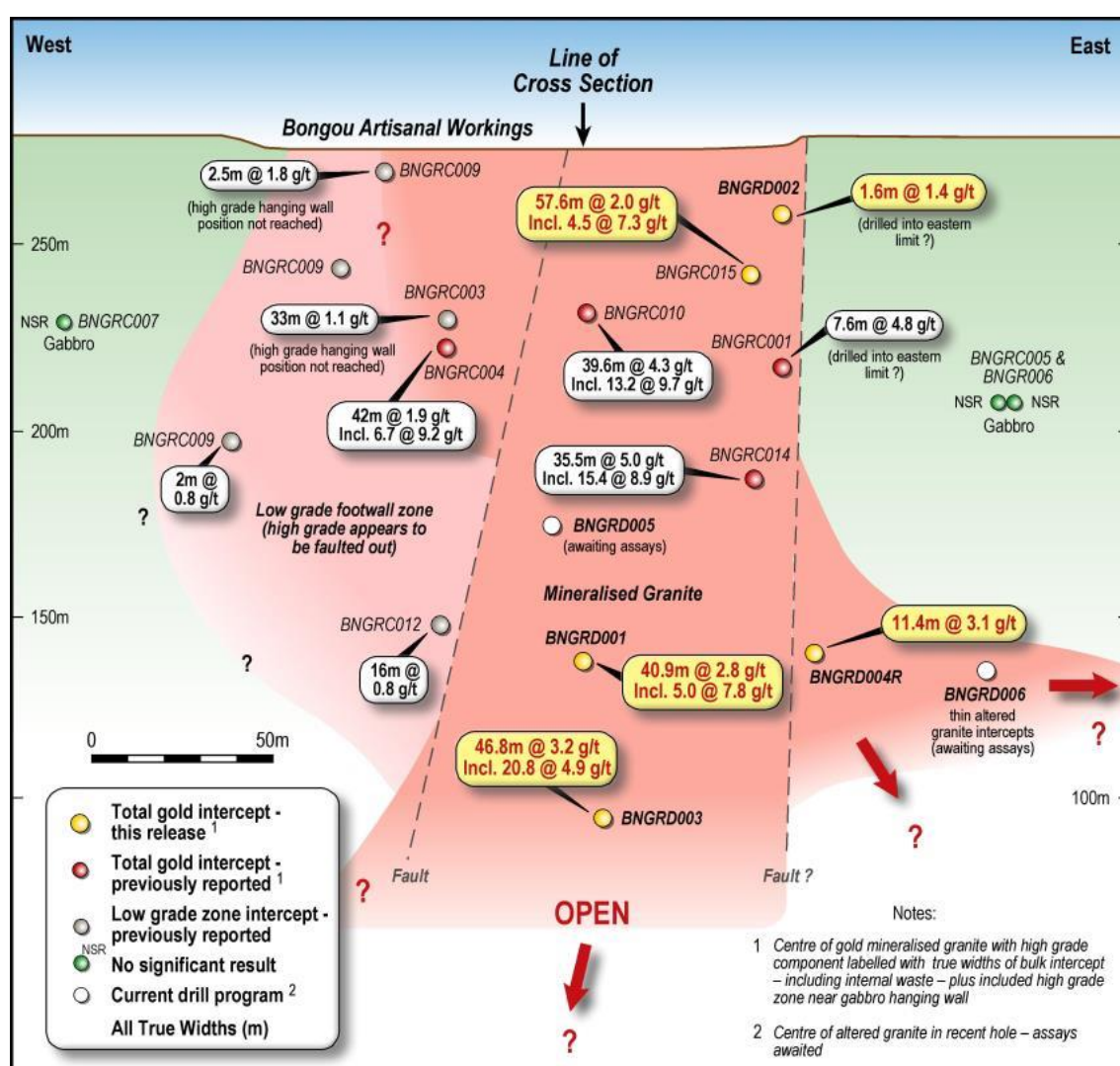


Figure 4: Long Section through the mineralised body oriented at 065 degrees, showing true width drill intercepts of both the total gold mineralised body at a 0.5g/t Au and true widths of the higher grade hanging wall mineralisation calculated at a cut-off grade of 3g/t Au.

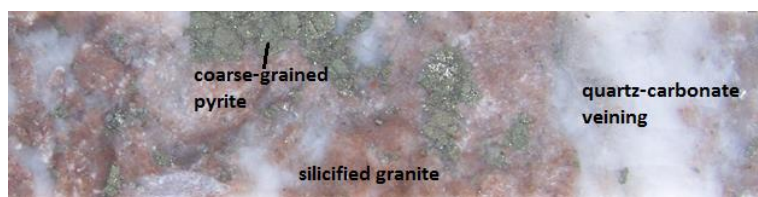


Figure 5: Cut Bongou diamond drill core – high grade gold mineralisation with coarse-grained pyrite, intense silicification and quartz-carbonate veining.

FOLLOW-UP PROGRAM

Following receipt and analysis of the remaining drill assay results in the next few weeks, PDI intends to plan and carry out an exploration program consisting of the following components:

- RC and diamond drilling to test for extensions of the known Bongou mineralisation - which remains open at depth and along strike.
- Trenching followed by RC and/or RAB and/or air core drilling of the known gold geochemical anomalies west and north-west of Bongou (Figure 6) aimed at discovering additional Bongou-style mineralisation within a few hundreds of metres of the drilled prospect.
- Geochemical drilling of targets along the strike of the Bongou Structure, aimed initially at 10km of the 43km of strike length within PDI's exploration permits.
- Metallurgical test work to determine the bond work index of the ore and to identify potential low cost and efficient metallurgical treatment routes. Results for previous metallurgical test work at Bongou were released to the ASX on 14 May 2013. These preliminary results demonstrated a high recovery at Bongou of 94% from cyanidation of a composite sample of primary gold mineralisation using a 75 micron grind size.

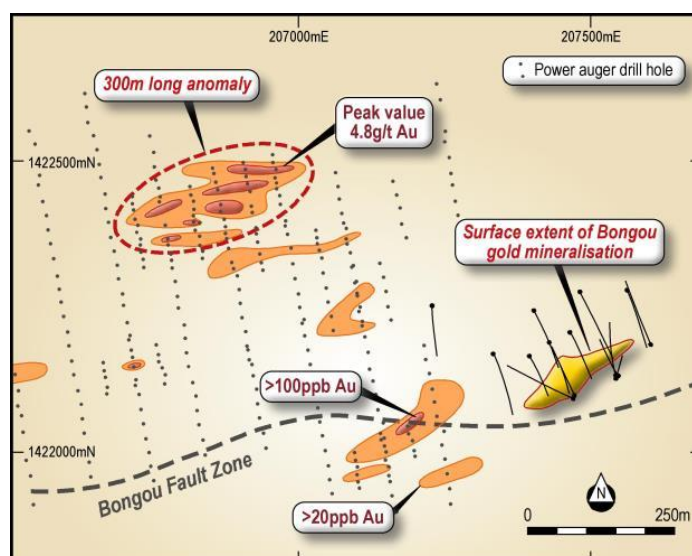


Figure 6: Power auger drill grid, showing location of gold geochemical anomalies relative to Bongou Prospect.

BURKINA FASO BACKGROUND

PDI's major country focus is Burkina Faso, West Africa where it has established a well-qualified Burkina-based exploration team and a large regional tenement package mainly in the north east of the country, covering 1,605km² (Figure 1).

PDI's tenement holding includes approximately 100 km of strike length in the Samira Hill greenstone belt in eastern Burkina Faso (the Bonsiega permit group, Figure 1). This belt hosts the 2.5 million ounce Samira Hill gold mine across the border in Niger and contains numerous active artisanal gold mine sites along its length. PDI now owns 100% or rights to earn 95 to 100% of all its permits in Burkina Faso. Specifically, the Company owns 100% of the Madyabari, Bassieri and Tamfoagou permits which cover both Bongou and any possible extensions along the Bongou structure over a strike length of 42km within PDI's ground (Figure 6).

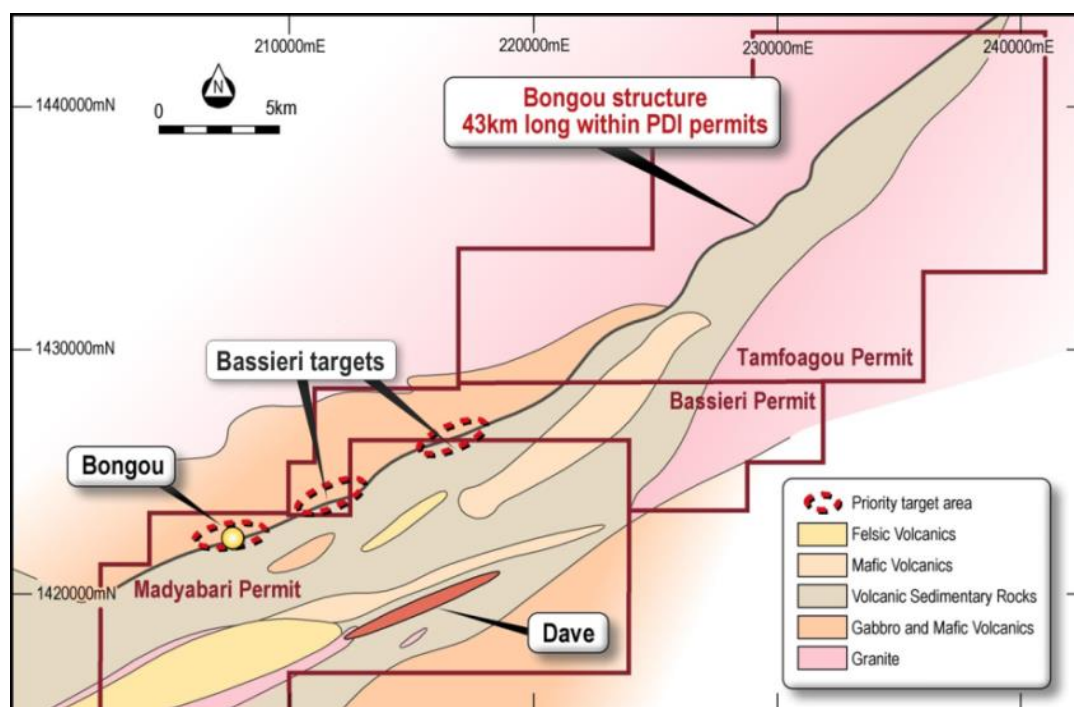


Figure 7: Regional geological map of the area near Bongou, showing location of Bongou itself and two target zones (red dashed line ellipses) 4km and 10km north-east of Bongou and the Dave Prospect.

TABLE 1 – DRILL RESULTS – NOVEMBER 2013

Hole Number	Drill hole collar details ^{5,6}					Hole depth (m)	0.5 g/t cut-off ⁸			3.0 g/t cut-off ⁸			Comments ^{1,2,8}
	UTM East	UTM North	RL	UTM Azimuth (°)	Hole dip (°)		From (m)	Interval (true width in brackets)	Au g/t	From (m)	Interval (true width in brackets)	Au g/t	
BNGRC015	207509	1422204	275	154	-45	103	14	64 (57.6)	2.03	14	5 (4.5)	7.32	All RC samples
BNGRC015	207509	1422204	275	154	-45	103				57	2 (1.8)	4.77	
BNGRC015	207509	1422204	275	154	-45	103				30	4 (3.6)	3.92	
BNGRC015	207509	1422204	275	154	-45	103				24	2 (1.8)	3.45	
BNGRC015	207509	1422204	275	154	-45	103				62	5 (4.5)	3.28	
BNGRC015	207509	1422204	275	154	-45	103	85	2 (1.8)	1.63				
BNGRD001	207439	1422261	281	154	-60	213.5	127	6 (5)	0.79				RC samples from 127-130m, DD samples 130-133m.
BNGRD001	207439	1422261	281	154	-60	213.5	144.3	5.9 (5.0)	7.82	144.3	5.9 (5.0)	7.82	"Total" intercept: 2.80 g/t Au average from 144.3 to 193.0m (48.7m down-hole or 40.9m true width) . All DD samples.
BNGRD001	207439	1422261	281	154	-60	213.5	156.7	36.3 (30.5)	2.48	169.1	7.9 (6.6)	4.49	
BNGRD001	207439	1422261	281	154	-60	213.5				158.6	2.2 (1.9)	3.87	
BNGRD001	207439	1422261	281	154	-60	213.5				185	3.4 (2.8)	3.17	
BNGRD002	207508	1422206	275	107	-50	100	24.3	1.4 (est. true width 0.7m)	2.22				All DD samples
BNGRD002	207508	1422206	275	107	-50	100	29	3.8 (est. true width 1.9m)	0.63				
BNGRD002	207508	1422206	275	107	-50	100	40	3.3 (est. true width 1.6m)	1.44				
BNGRD003	207405	1422338	286	152	-53	305	215	55.0 (46.8)	3.20	227.6	24.5 (20.8)	4.92	All DD samples
BNGRD003	207405	1422338	286	152	-53	305				261	4 (3.4)	6.34	
BNGRD004 R	207485	1422347	277	160	-52	239	163	15.0 (11.4)	3.15	165	4.8 (3.6)	5.29	BNGRD004 not assayed - hole abandoned because of excessive deviation. RC samples to 166, DD samples below that depth.
1. RC drilling was carried out using a face sampling hammer. Samples were recovered every 1m. Attention was paid to wet samples and the drilling method was changed from RC to diamond coring at or before the point when the air pressure from the RC rig was incapable of keeping the samples dry.													
2. Diamond core size was NQ apart from up to 3m of HQ core which was drilled immediately after the changeover from RC to diamond coring.													
3. Sample recovery was estimated for all samples. Core samples were measured from core block to core block once core had been placed in the core trays. Recoveries were generally excellent.													
4. All drill core has been measured for RQD and over 90% was successfully oriented using a Reflex Act II RD core orientation device. Representative samples have also been measured for dry bulk density.													
5. Collar positions were located using a hand held GPS with a location error of +/-3m. Collar RLs were established by interpolation between surveyed points established for an earlier geophysical survey with an estimated elevation error of less than 2m.													
6. Collar coordinates listed in the table are for Universal Transverse Mercator (UTM), Datum WGS 84, Zone 31 - Northern Hemisphere.													
7. All holes were surveyed down-hole for azimuth and inclination at 50m intervals or less. Surveys within RC holes were carried out inside non-magnetic rods.													
8. Cut-off grades reported in this table: for the 0.5g/t Au cut-off calculations, up to 4m (down-hole) of internal waste is included. For the 3g/t Au cut-off calculations, up to 2m (down-hole) of internal waste is included. For the "total intercept" average grade recorded for hole BNGRD001 in the Comments column, the average grade is calculated with a cut-off grade of 0.5 g/t Au and up to 6.5m of internal waste (down-hole). No top-cut has been applied as the maximum value in the entire assay database is 32.9g/t Au and only 4 samples contain more than 20g/t Au.													

9. Core samples were cut in half with a diamond core saw with one half submitted for assay and the remaining half retained in core trays which are stored at PDI's field camp in Gayeri. Core sampling intervals were defined by variations in lithology and mineralogy but are typically 0.5-1.0m. An on-site riffle splitter was employed to produce a 2kg assay sample for submission to SGS. Either one or two reference riffle-split 2kg samples are retained from the RC samples for future re-assay or metallurgical testwork. The sampling (and analytical) methods were appropriate for the style of mineralisation, especially as no visible gold has been observed and previous petrological studies indicate that the typical gold grain size is less than 50 microns.

10. Unlabelled standards were submitted with all assay batches, whether from RC or diamond drilling. Blanks were also submitted with RC sample batches. Where any problems with bias or accuracy, especially outside of a +/- 10% envelope are observed, samples will be re-assayed.

11. All samples were assayed for gold by 50g fire assay at the SGS laboratory in Ouagadougou, Burkina Faso

12. Detailed geological logging has or is in the process of being carried out on all drill samples, recording lithology, weathering, structure, (including orientation where the core is oriented), veining and/or mineralisation, colour etc.

TABLE 2 – RESTATEMENT OF EARLIER BONGOU DRILL RESULTS OBTAINED IN 2012 AND 2013 PRESENTED IN DIAGRAMS AND TEXT IN THIS REPORT

Hole Number	Drill hole collar details ^{5,6}					Hole depth (m)	0.5 g/t cut-off ⁸			3.0 g/t cut-off ⁸			Comments ^{1,2,8}
	UTM East	UTM North	RL	UTM Azimuth (°)	Hole dip (°)		From (m)	Interval (true width in brackets)	Au g/t	From (m)	Interval (true width in brackets)	Au g/t	
BNGRC001	207544	1422132	274	347.5	-50	140	40	14 (3.5)	0.81				
BNGRC001	207544	1422132	274	347.5	-50	140	62	4 (1)	1.32				
BNGRC001	207544	1422132	274	347.5	-50	140	70	20 (7.6)	4.75	74	6 (2.3)	11.81	
BNGRC003	207472	1422098	274	332.5	-50	136	6	14 (4.6)	2.98	9	3 (1)	8.38	"Total" intercept: 1.09 g/t Au average from 6 to 105m (99m down-hole or approximately 33m true width)
BNGRC003	207472	1422098	274	332.5	-50	136	43	50 (16.5)	0.95				
BNGRC003	207472	1422098	274	332.5	-50	136	61	32 (10.6)	1.09				
BNGRC003	207472	1422098	274	332.5	-50	136	101	4 (1.3)	3.06				
BNGRC003	207472	1422098	274	332.5	-50	136	123	6 (2)	1.37				
BNGRC004	207431	1422184	277	152.5	-50	150	47	8 (6.7)	9.16	47	7 (5.9)	10.14	"Total" intercept: 1.94 g/t Au average from 47 to 97m (50m down-hole or 42m true width)
BNGRC004	207431	1422184	277	152.5	-50	150	75	11 (9.2)	1.10				
BNGRC004	207431	1422184	277	152.5	-50	150	92	5 (4.2)	1.59				
BNGRC009	207468	1422093	274	290.5	-50	170	13	10 (2.5)	1.79	14	1 (0.8)	6.72	
BNGRC009	207468	1422093	274	290.5	-50	170	49	5 (1.2)	1.05				
BNGRC009	207468	1422093	274	290.5	-50	170	115	8 (2)	0.82				
BNGRC010	207467	1422202	277	153	-50.0	125	34	48 (39.6)	4.27	40	16 (13.2)	9.65	
BNGRC010	207467	1422202	277	153	-50.0	125				62	1 (0.8)	5.33	
BNGRC010	207467	1422202	277	153	-50.0	125				70	2 (1.6)	5.33	
BNGRC010	207467	1422202	277	153	-50.0	125	91	11 (9.2)	1.45				
BNGRC011	207394	1422167	274	153	-54.0	126	4	4 (1.3)	0.69				
BNGRC011	207394	1422167	274	153	-54.0	126	105	2 (0.7)	1.14				
BNGRC012	207405	1422239	278	153	-56.0	196	146	4 (3.2)	1.65				"Total" intercept: 0.80 g/t Au average from 146 to 166m (20m down-hole or 16m true width)
BNGRC012	207405	1422239	278	153	-56.0	196	160	6 (4.8)	1.17				
BNGRC014	207483	1422272	278	150	-56.0	180	90	9 (8.6)	0.68				
BNGRC014	207483	1422272	278	150	-56.0	180	111	23 (22.1)	6.85	111	16 (15.4)	8.93	
BNGRC014	207483	1422272	278	150	-56.0	180	141	7 (6.7)	3.89	141	1 (1)	7.01	

BNGRC014	207483	1422272	278	150	-56.0	180				147	1 (1)	12.75
BNGRC014	207483	1422272	278	150	-56.0	180	156	3 (2.9)	1.43			
1. RC drilling was carried out using a face sampling hammer. Samples were recovered every 1m. Attention was paid to wet samples and nearly all samples were drilled dry. In most of the drilling (apart from the first hole, BNGRC001, a high pressure booster was employed to keep water out of the holes.												
2. Sample recovery was estimated for all samples. Recoveries were generally good.												
3. Collar positions were located using a hand held GPS with a location error of +/-3m. Collar RLs were established by interpolation between surveyed points established for an earlier geophysical survey with an estimated elevation error of less than 2m.												
4. Collar coordinates listed in the table are for Universal Transverse Mercator (UTM), Datum WGS 84, Zone 31 - Northern Hemisphere.												
5. All holes were surveyed down-hole for azimuth and inclination at 50m intervals or less.												
6. Cut-off grades reported in this table: for the 0.5g/t Au cut-off calculations, up to 4m (down-hole) of internal waste is included. For the 3g/t Au cut-off calculations, up to 2m (down-hole) of internal waste is included. For the "total intercept" average grades recorded in the Comments column, the average grade is calculated with a cut-off grade of 0.5 g/t Au and with no restriction on the amount of internal waste. No top-cut has been applied as the maximum value in the entire assay database is 32.9g/t Au and only 4 samples contain more than 20g/t Au.												
7. An on-site riffle splitter was employed to produce a 2kg assay sample for submission to SGS. Either one or two reference riffle-split 2kg samples are retained from the RC samples for future re-assay or metallurgical testwork. Apart from hole BNGRC001, where 2m composites were submitted for assay, 1m samples of mineralised granite were routinely submitted for assay with 4m composites for other lithologies. The sampling (and analytical) methods were appropriate for the style of mineralisation, especially as no visible gold has been observed and previous petrological studies indicate that the typical gold grain size is less than 50 microns.												
8. Unlabelled standards were submitted with all assay batches, together with blanks and duplicates.												
9. All samples were assayed for gold by 50g fire assay at the SGS laboratory in Ouagadougou, Burkina Faso												
10. Detailed geological logging was carried out on all drill samples, recording lithology, weathering, structure, veining and/or mineralisation, colour etc.												

Predictive Discovery Limited (PDI) was established in late 2007. The Company is focused on exploration for gold in West Africa. PDI has a distinctive technological capability, known as Predictore®, which is designed to increase drill targeting efficiency thereby reducing ore discovery cost. The Company's major focus is in Burkina Faso, West Africa where it has assembled a substantial regional ground position totalling 1,605km² and is exploring for large open-pit 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 and tenement applications in Cote D'Ivoire.

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Paul Roberts who is a Fellow of the Australian Institute of Geoscientists. Mr Paul Roberts is a full time employee of the company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration 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.

The information in Table 2 of this report is extracted from the reports entitled "New Gold Discovery and Positive Drill Results at Bonsiega" created on 5th July 2012, "Burkina Faso - New Gold Intercepts Confirm Bongou Potential" created on 22nd January 2013, and "Outstanding High Grade Gold Drill Results from Bongou" created on 10th April 2013 and are available to view on www.predictivediscovery.com. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The

company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

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