

# **ASX Announcement**

26 July 2024

# QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 30 JUNE 2024

**Predictive Discovery Limited (ASX:PDI) ("PDI" or the "Company")** is pleased to provide a summary of activities undertaken during the June quarter at the Tier-1 Bankan Gold Project in Guinea, West Africa. Extensive drilling programs were conducted, including resource definition drilling at BC and exploration drilling at near-resource and Argo targets, with results for >40,000m of drilling announced. The key milestones of Pre-Feasibility Study ("PFS") and Environmental & Social Impact Assessment ("ESIA") completion were also achieved during the quarter.

# HIGHLIGHTS

# **PFS**<sup>1</sup>

- PFS announced in April 2024, outlining a robust profile production and financial metrics for the Bankan Gold Project, confirming it as the largest current gold development project in Africa.
- Maiden Probable Ore Reserve estimate of 57.7Mt @ 1.64g/t for 3.05Moz of contained gold across the NEB open pit, NEB underground and BC open pit areas. Represents 74% conversion of the 4.14Moz Indicated Mineral Resource into Probable Ore Reserves.
- PFS developed an Ore Reserve Case based on Indicated Mineral Resources only, plus an Extension Case (PDI's preferred case) which incorporates some Inferred Mineral Resources (12.8% of total contained gold) in year 6 onwards to extend the mine life of the underground operation.
- Extension Case produces an average of 269koz per annum over 12 years (total production of 3.23Moz), from mill feed of 61.5Mt @ 1.77g/t containing 3.49Moz of gold.
- Post-tax NPV<sub>5%</sub> of US\$668m (A\$1.0bn), IRR of 25.4% and payback period of 3.5 years at a conservative PFS gold price assumption of US\$1,800/oz.
- Significant upside at a gold price assumption of US\$2,300/oz. Post-tax NPV<sub>5%</sub> increases to US\$1.4bn (A\$2.1bn) with an IRR of 41.7% and a payback period of 2.0 years.
- Competitive upfront capital cost estimate of US\$456m, which includes pre-production operating costs, indirect costs and US\$43m contingency.
- All-in sustaining costs ("AISC") of ~US\$1,130/oz based on robust and conservative assumptions, delivering high profit margins.
- Multiple opportunities identified to improve the technical and financial outcomes reported in the PFS, which will be pursued in the Definitive Feasibility Study ("DFS").

<sup>1</sup> ASX Announcement – PFS Delivers Attractive Financials & 3.05Moz Ore Reserve (15 April 2024). Refer also to Compliance Statement at the end of this announcement.



## **Resource Definition Drilling**

- Resource definition drilling programs being completed at BC and Gbengbeden, aiming to upgrade Inferred Mineral Resource to Indicated to potentially increase Ore Reserves.
- Initial results from BC program announced during the quarter (20 holes for 2,047m), with best intercepts of 14m @ 4.60g/t from 71m, 14m @ 4.54g/t from 47m, 21m @ 2.50g/t from 79m, 12m @ 4.22g/t from 22m, 7m @ 4.00g/t from 98m, 6m @ 3.11g/t from 30m and 13m @ 1.30g/t from 58m.<sup>2</sup>
- BC program subsequently completed (additional positive results announced in July 2024) and infill drilling is underway at Gbengbeden.

#### *Near-Resource Exploration*

- Further shallow mineralisation intersected at the SB target, with best results of 19m @ 1.22g/t from 26m, 5m @ 2.41g/t from 58m, 9m @ 1.28g/t from 10m, 6m @ 1.88g/t from 43m and 2m @ 4.71g/t from 11m.<sup>23</sup>
- BC East drilling confirms localised zone of mineralisation, with intercepts of 9m @ 3.36g/t from 17m and 10m @ 1.43g/t from 85m.<sup>3</sup>
- 800W and SB targets advanced to resource definition drilling, aiming to define maiden Mineral Resources by late 2024 to support the DFS.

#### Regional Exploration (Argo)

- Extensive exploration drilling completed across the Argo area, aiming to discover the next gold deposit at the Bankan Project. Results announced during the quarter for 11 holes for 2,820m of diamond ("DD") drilling and 554 holes for 23,073m of aircore ("AC") drilling.
- Fouwagbe and Sounsoun advance to resource definition drilling following additional positive results:
  - Fouwagbe: Mineralisation confirmed to extend at depth, with best DD intercepts of 5.5m @ 4.04g/t from 169m, 3m @ 6.83g/t from 89.5m and 3m @ 5.59g/t from 150m.<sup>4</sup> AC drilling extends mineralisation towards Sinkoumba, intersecting 6m @ 3.90g/t from 36m.<sup>5</sup>
  - Sounsoun: DD hole intersects 11.5m @ 1.26g/t from 208.5m down-dip of previous positive intercepts.<sup>5</sup> AC drilling returns best intercepts of 4m @ 2.24g/t from 18m, 6m @ 1.30g/t from 26m and 10m @ 0.73g/t from 30m, confirming mineralisation over 1km of the 1.8km long target area tested to date.<sup>5</sup>
  - Resource definition drilling to commence shortly, aiming to define maiden Mineral Resource estimates by late 2024.

<sup>&</sup>lt;sup>2</sup> ASX Announcement - BC Resource Definition Drilling Returns Positive Intercepts (27 June 2024).

<sup>&</sup>lt;sup>3</sup> ASX Announcement - BC East Drilling Confirms Previous Positive Results (24 April 2024)

<sup>&</sup>lt;sup>4</sup> ASX Announcement – Excellent New Results from Argo Central Trend (9 April 2024).

<sup>&</sup>lt;sup>5</sup> ASX Announcement – Fouwagbe & Sounsoun Progress to Resource Development (12 June 2024).



- Promising results from other Argo Central Trend targets along strike of Fouwagbe:
  - Sinkoumba records 8m @ 3.65g/t from 16m, 5m @ 3.70g/t from 75.8m, 6m @ 1.73g/t from 12m, 8m @ 1.14g/t from 6m and 4m @ 2.00g/t from 38m south-west of Fouwagbe.<sup>4,5</sup>
  - Sanifolon South, along strike to the north-west of Fouwagbe, delivers excellent AC drilling results, including 12m @ 6.29g/t from 14m, 2m @ 41.71g/t from 34m, 7m @ 3.28g/t from 66m, 2m @ 7.52g/t from 42m, 10m @ 1.09g/t from 8m and 2m @ 4.89g/t from 24m.<sup>4,5</sup>
- Best results from other targets include **4.95m @ 3.00g/t** from 111m in Tindini DD hole, and highgrade AC results at Sanifolon North of **2m @ 78.67g/t** from 8m and **2m @ 10.72g/t** from 6m.<sup>5</sup>

#### Sustainability and Permitting

- ESIA completed in April 2024 following an extensive program of environmental and social studies carried out over a period of more than 2 years.
- ESIA was translated into French and submitted to Guinea's Ministry for the Environment and Sustainable Development ("MEDD") in June 2024, and the permitting process for the Bankan Gold Project is formally underway.
- Government engagement continued in the lead up to and following submission of the ESIA. Representatives from the Guinean Agency for Environmental Assessment ("AGEE") completed a site visit to the Project as part of the annual renewal of the environmental compliance certificate.
- Further engagement with the Guinean Office of National Parks and Wildlife Reserves ("OGPNRF"), including a PDI Board site visit to the Upper Niger National Park and PDI participation in a workshop to explore collaboration opportunities.
- Environmental baseline monitoring continued, and will be ongoing to capture data.
- Continued support for the Bankan Primary School, via the canteen project and the provision of financial assistance for the employment of three teachers. Construction of two additional classrooms at the Samankoura Primary School completed and handed over to the local education department.

#### Corporate

- Board and Management Team further strengthened to support progress with the Bankan Project. Alberto Lavandeira joins as Non-Executive Director, Sandra Bates transitions from Non-Executive Director to Executive Director – Legal and ESG, and Henk Diederichs joins as Chief Operating Officer.
- \$50m (before costs) raised via a strongly supported placement to fund continuing growth and advancement of the Bankan Gold Project. Proceeds will be used for additional resource definition drilling and regional exploration drilling, the Exploitation (Mining) Permit application process, ongoing environmental and social activities, and completion of a DFS.
- PDI had \$50.9m in cash and no debt as at 30 June 2024.



#### September 2024 Quarter Planned Activities

- Complete infill drilling programs at the BC and Gbengbeden deposits, with the aim of upgrading Inferred Mineral Resources to Indicated to potentially increase Ore Reserves.
- Complete resource definition drilling at 800W and commence resource definition drilling at SB, with the aim of defining maiden Mineral Resource estimates by late 2024.
- Conduct resource definition drilling at Argo targets Fouwagbe and Sounsoun, with the aim of defining maiden Mineral Resource estimates by late 2024.
- Further develop the pipeline of regional exploration targets on the Argo and Bokoro permits, and near-resource targets on the Kaninko and Saman permits.
- Advance DFS workstreams.
- Advance the permitting process for the Bankan Gold Project. Planned activities in line with the prescribed process comprise an AGEE site visit including presentations from subject matter experts, stakeholder engagement and an independent review of the ESIA.
- Further collaboration with the OGPNRF to finalise the Upper Niger National Park management plan.
- Implement corporate governance enhancements, including establishing a Technical Committee to be chaired by Non-Executive Director, Alberto Lavandeira.

#### **PRE-FEASIBILITY STUDY<sup>6</sup>**

PDI completed the PFS in April 2024, which confirmed the Bankan Gold Project as the largest current gold development project in Africa.

Two cases were developed for the PFS:

- Ore Reserve Case: based on Indicated Mineral Resources only, supporting the Ore Reserve estimate;
- Extension Case: incorporates some Inferred Mineral Resources in year 6 onwards to extend the mine life of the underground operation. The Extension Case is PDI's preferred PFS case.

The maiden Ore Reserve estimate completed as part of the PFS totals 57.7Mt @ 1.64g/t for 3.05Moz of contained gold across the NEB open pit, NEB underground<sup>7</sup> and BC open pit areas (refer to Table 1 below). This represents 74% conversion of the 4.14Moz Indicated Mineral Resource into Probable Ore Reserves.

<sup>&</sup>lt;sup>6</sup> ASX Announcement – PFS Delivers Attractive Financials & 3.05Moz Ore Reserve (15 April 2024). Refer also to Compliance Statement at the end of this announcement. <sup>7</sup> The NED underground Ore Reserve is based on open pit Indicated Mineral Resources situated below the PFS pit design.



Deposit	Mining Method	Classification	Cut-off (g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Contained (Koz Au)
	Open Pit	Probable	0.5	46.2	1.41	2,101
NEB	Underground	Probable	1.7	7.1	3.24	739
	Total			53.3	1.66	2,840
BC	Open Pit	Probable	0.4	4.3	1.48	207
	Total			4.3	1.48	207
Total Open Pit	t			50.6	1.42	2,308
Total Underground				7.1	3.24	739
Total Bankan Project				57.7	1.64	3,047

#### Table 1: Bankan Gold Project Ore Reserve estimate

Key project and financial metrics for both the Ore Reserve Case and the Extension Case are presented in Table 2 below, outlining a large-scale and long-life operation with strong financial metrics.

A two-year construction period will commence with initial site earthworks, construction of key enabling infrastructure and establishment of NEB underground mine access, allowing underground ore to be delivered to the processing plant for the start of operations.

Establishment, mining and stockpiling of the BC deposit will commence approximately 6 months prior to first production, with BC ore forming part of initial processing plant feed. On the current Ore Reserve, BC will be mined in just over one year. The NEB open pit will be mined in two stages, bringing forward access to high-grade ore within the middle section of the pit. The Gbengbeden satellite deposit will be mined in one year during year 6. Open pit mining will employ a conventional drill, blast, truck and shovel operation.

In the Extension Case, the NEB underground operation will mine Ore Reserves in years 1-6 and in year 12 (crown pillar). Inferred Mineral Resources will be mined in years 6-11 and comprise 12.8% of total contained gold. Underground mining will be via transverse long hole open stoping with paste fill.

A 5.5Mtpa processing plant will be constructed, utilising conventional CIL technology with upfront gravity recovery. Conservative PFS recovery assumptions of 92.6% for NEB and 89.5% for BC were adopted.

Overall, the Extension Case produces an average of 269koz per annum over 12 years (for total production of 3.23Moz), from mill feed of 61.5Mt @ 1.77g/t containing 3.49Moz of gold. This makes Bankan the largest current gold development project in Africa.

The Extension Case delivers a post-tax NPV<sub>5%</sub> of US\$668m (A\$1.0bn), IRR of 25.4% and payback period of 3.5 years, at a conservative PFS gold price assumption of US\$1,800/oz. Financial metrics improve significantly at a gold price assumption of US\$2,300/oz, with a post-tax NPV<sub>5%</sub> of US\$1.4bn (A\$2.1bn), IRR of 41.7% and payback period of 2.0 years.

Upfront capital costs were estimated at US\$456m, including pre-production operating costs, indirect costs and US\$43m contingency. This equates to a capital intensity of less than US\$1,700/oz of average annual production, the lowest of current African gold development projects. AISC was estimated at ~US\$1,130/oz based on robust and conservative assumptions, delivering high profit margins.



#### Table 2: Key project and financial metrics

		Unit	Ore Reserve Case	Extension Case
Production M	etrics			
Mine Life		Years	11	12
Processing Rat	e	Mtpa	5.5	5.5
Total Ore		Mt	57.7	61.5
Average Grade	9	g/t	1.64	1.77
Total Containe	d Gold	koz	3,047	3,494
Average Proce	ssing Recovery	%	92.4%	92.4%
Total Gold Pro	duction	koz	2,818	3,232
Average Gold	Production	koz pa	256	269
Proportion Infe	erred	%	Nil	12.8%
Financial Met	rics			
Gold Price		US\$/oz	1,800	1,800
Capital Costs (	incl. Pre-production Costs)	US\$m	456	456
C1 Cash Costs		US\$/oz	984	968
All-in Sustainir	ng Costs (AISC) <sup>1</sup>	US\$/oz	1,129	1,131
Mine Closure (	Costs	US\$m	39	39
	Pre-tax NPV <sub>5%</sub>	US\$m	848	998
	Pre-tax IRR	%	30.3%	31.3%
US\$1,800/oz Gold Price	Pre-tax Payback Period	Years	3.0	3.0
(Base Case)	Post-tax NPV <sub>5%</sub>	US\$m	567	668
(Buse Cuse)	Post-tax IRR	%	24.3%	25.4%
	Post-tax Payback Period	Years	3.5	3.5
	Pre-tax NPV <sub>5%</sub>	US\$m	1,778	2,038
	Pre-tax IRR	%	51.3%	51.9%
US\$2,300/oz	Pre-tax Payback Period	Years	1.5	1.5
Gold Price (Spot Case)	Post-tax NPV <sub>5%</sub>	US\$m	1,218	1,396
(-per euse)	Post-tax IRR	%	41.0%	41.7%
	Post-tax Payback Period	Years	2.0	2.0

1: AISC based on gold price of US\$1,800/oz and increases by ~US\$30/oz at a US\$2,300/oz gold price due to higher royalties.

Multiple opportunities were identified in the PFS, which have potential to significantly improve the technical and financial outcomes. These opportunities will be pursued in the DFS and include:

- Resource definition and exploration drilling to increase or upgrade Mineral Resources which can extend mine life, provide mine planning flexibility and improve project economics.
- Explore potential for grid power to materially reduce power costs, with the Linsan-Fomi transmission line currently under construction with a planned alignment close to the Project site.
- Additional geotechnical testwork and assessment to potentially increase pit wall angles from the conservative PFS assumptions, which could reduce stripping ratios and mining costs.
- Further metallurgical testwork in areas where initial results indicate upside potential for recovery assumptions, including combined gravity and leach testwork and lithology specific testwork.



- Multiple mining-related optimisations, including pit staging, the transition point between open pit and underground mining, timing of underground operations, pit haulage profiles, underground mine design and mining method.
- Various other optimisation as disclosed in the PFS announcement.

Based on the positive outcomes of the PFS, the Board endorsed PDI proceeding to a DFS.

# **RESOURCE DEFINITION DRILLING (BC)<sup>8</sup>**

During the PFS, PDI identified an opportunity to potentially increase Ore Reserves by conducting further resource definition drilling at the BC and Gbengbeden deposits, targeting an upgrade of Inferred Mineral Resources below the PFS pit designs to the Indicated category.

A resource definition drilling program has been completed at BC, with a total of 11 DD holes and 16 RC holes drilled. During the quarter, results were announced from 6 DD holes and 14 RC holes for a total of 2,047m drilled, with multiple positive intercepts reported as shown in Figure 1 below.

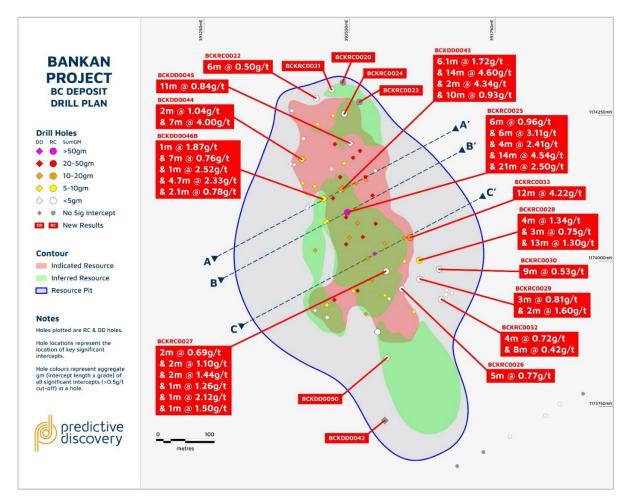


Figure 1: BC drill plan

<sup>8</sup> ASX Announcement – BC Resource Definition Drilling Returns Positive Intercepts (27 June 2024).



Importantly, multiple significant intercepts were recorded below the PFS pit design. On cross section A-A' (refer to Figure 2), BCKDD0043 intercepted 2m @ 4.34g/t from 95m and 10m @ 0.93g/t from 104m below the PFS pit, as well as 14m @ 4.60g/t from 71m at the base of the pit. BCKDD0046B returned multiple intercepts below the PFS pit, including 7m @ 0.76g/t from 81m, 1m @ 2.52g/t from 107m, 4.7m @ 2.33g/t from 111.3m and 2.1m @ 0.78g/t from 132.9m.

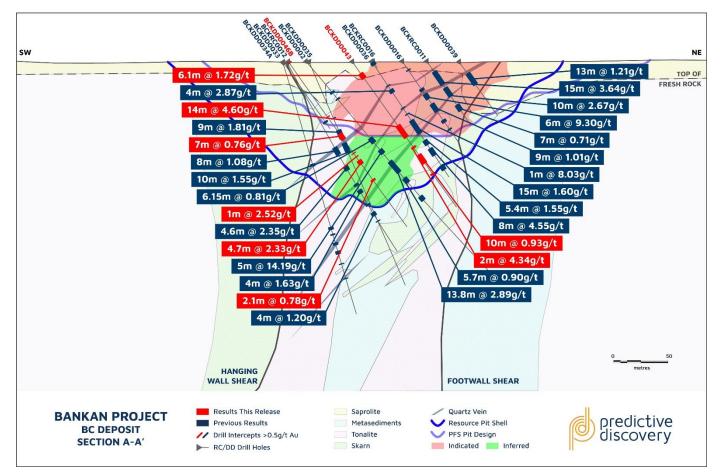


Figure 2: BC cross section A-A'

On cross section B-B' (refer to Figure 3), an excellent intercept of 21m @ 2.50g/t from 79m was recorded just below the PFS pit design within the Inferred Mineral Resource envelope. Higher up the hole, positive intercepts were also recorded within the Indicated Mineral Resource envelope, including 6m @ 3.11g/t from 30m, 4m @ 2.41g/t from 40m and 14m @ 4.54g/t from 47m.

Towards the eastern edge of the central part of the deposit, BCKRC0033 recorded several significant intercepts within the PFS pit design, but outside the current Indicated Mineral Resource envelope, including an excellent intercept of 12m @ 4.22g/t from 22m (refer to cross section C-C' in Figure 4).



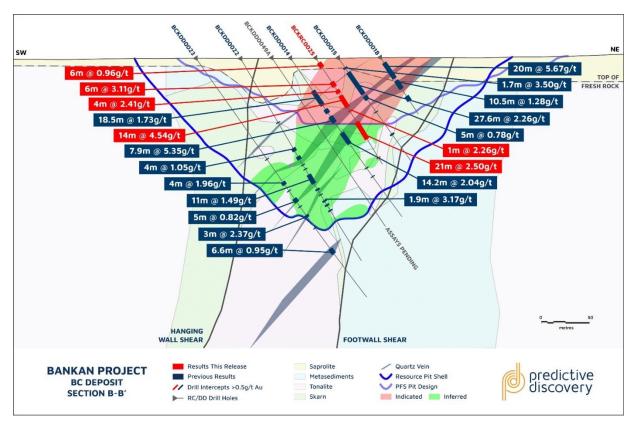


Figure 3: BC cross section B-B'

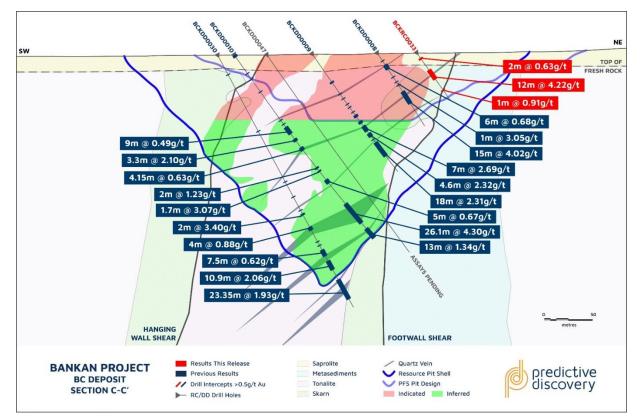


Figure 4: BC cross section C-C'



# **NEAR-RESOURCE EXPLORATION**

Previous exploration defined numerous near-resource targets in the NEB and BC area, which have been subject to follow-up drilling campaigns aimed at discovering additional gold deposits which can support a future operation centred around NEB and BC.

During the quarter, results from 214 holes for 14,385m were announced from multiple near-resource target areas, as shown in Figure 5. The drilling was a combination of DD and RC holes on more advanced targets, as well as RC and AC holes on earlier stage targets or previously untested areas.

Based on the results of near-resource drilling completed to-date, PDI is advancing the 800W and SB targets to resource definition drilling.

Table 3: June 2024 quarter near-resource exploration drilling results

Location	Drill type	Holes	Metres
Near-Resource	DD	5	1,043
	RC	86	7,383
	AC	123	5,959
Total		214	14,385

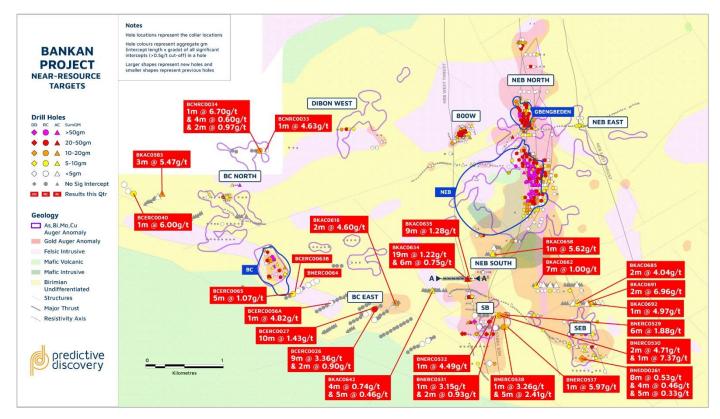


Figure 5: Drill plan for near-resource targets



#### **SB**<sup>9,10</sup>

At SB, which is located to the south of the NEB deposit, two lines of RC holes were drilled in the central part of the target area and two lines of AC holes were drilled to the north in previously untested areas.

The RC results suggest an additional zone of mineralisation is present in the central part of the SB target, with the interpretation now of three parallel west-dipping zones, controlled by a N-S structure but offset by multiple secondary structures. Best new intercepts included:

- BNERC0538: 1m @ 3.26g/t from 54m and 5m @ 2.41g/t from 58m
- BNERC0530: 2m @ 4.71g/t from 11m and 1m @ 7.37g/t from 18m
- BNERC0529: 6m @ 1.88g/t from 43m
- BNERC0537: 1m @ 5.97g/t from 29m
- BNERC0531: 1m @ 3.15g/t from 14m and 2m @ 0.93g/t from 51m
- BNERC0532: 1m @ 4.49g/t from 77m

The northern-most line of AC holes recorded a number of positive intercepts on the main N-S structure, which suggests a continuation of the mineralisation encountered further to the south. Best results included:

- BKAC0634: 19m @ 1.22g/t from 26m and 6m @ 0.75g/t from 54m
- BKAC0635: 9m @ 1.28g/t from 10m

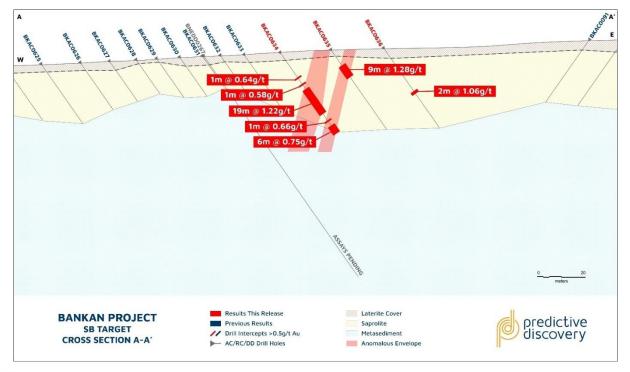


Figure 6: SB cross section A-A'

<sup>9</sup> ASX Announcement – BC East Drilling Confirms Previous Positive Results (24 April 2024).
 <sup>10</sup> ASX Announcement – BC Resource Definition Drilling Returns Positive Intercepts (27 June 2024).



#### **SEB**<sup>11,12</sup>

The SEB target is located to the south-east of the NEB deposit, within the same multi-kilometre N-S deformation corridor. Two lines of AC holes were drilled to test for extensions of the mineralisation along strike to the north. Best intercepts included:

- BKAC0691: 2m @ 6.96g/t from 6m
- BKAC0685: 2m @ 4.04g/t from 29m
- BKAC0662: 7m @ 1.00g/t from 18m
- BKAC0636: 1m @ 4.97g/t from 20m

One DD hole drilled at the southern end of the target area intercepted 8m @ 0.53g/t from 70m in basalt altered by chlorite and sericite, containing disseminated pyrite. Other minor intercepts were recorded further down the hole.

#### **BC East**<sup>11,12</sup>

RC lines spaced approximately 400m apart were drilled within the interpreted WNW-ESE trending corridor which hosts the BC deposit. Encouraging results were reported from one RC line in particular, with intercepts of 9m @ 3.36g/t from 17m in BCERC0026 and 10m @ 1.43g/t from 85m in BCERC0027 confirming the previous positive results received from adjacent holes. Subsequent drilling to test for extensions to this mineralisation recorded minor significant intercepts, suggesting the mineralisation is most likely localised.

Other significant intercepts recorded at BC East included:

- BKAC0616: 2m @ 4.60g/t from 53m
- BCERC0065: 5m @ 1.07g/t from 68m
- BCERC0056A: 1m @ 4.82g/t from 17m

<sup>&</sup>lt;sup>11</sup> ASX Announcement – BC East Drilling Confirms Previous Positive Results (24 April 2024).

<sup>&</sup>lt;sup>12</sup> ASX Announcement – BC Resource Definition Drilling Returns Positive Intercepts (27 June 2024).



# **REGIONAL EXPLORATION (ARGO)**

PDI's regional exploration to-date has been focused on the Argo area, which is located 15-20km north of NEB along the major gold structural corridor and is highly prospective for additional gold discoveries. During the quarter, results were released from 11 holes for 2,820m of DD drilling, mainly at the Fouwagbe and Sounsoun targets, and 554 holes for 23,073m of AC drilling across the Argo target area. A summary of the best intercepts released during the quarter is presented in Figure 7.

Based on the positive drilling results, the Fouwagbe and Sounsoun targets have progressed to resource definition drilling. PDI will continue to further develop additional targets in the Argo area. Regional exploration has also expanded south into the Bokoro permit.

#### Table 4: June 2024 quarter regional exploration drilling results

Location	Drill type	Holes	Metres
Argo	DD	11	2,820
	AC	554	23,073
Total		565	25,893

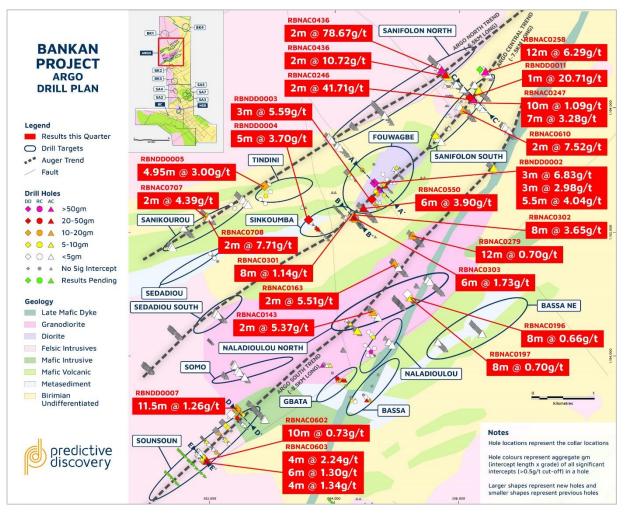


Figure 7: Argo drill plan



#### Fouwagbe<sup>13,14</sup>

The Fouwagbe target is located on the Argo Central Trend, and previous drilling has recorded many positive intercepts. Results announced during the quarter were from several DD holes to follow up mineralisation intersected in previous drilling, as well as one line of AC holes to test for mineralisation south-west along strike towards Sinkoumba.

RBNDD0002 was drilled to test for down-dip extensions of previous intercepts of 12m @ 6.75g/t from 41m and 4m @ 4.81g/t from 90m in holes RBNRC0016 and RBNRC0041.<sup>15,16</sup> Results demonstrate good continuity of the mineralised structure at depth, with 3m @ 2.98g/t from 162m and 5.5m @ 4.04g/t from 169m intersected approximately 100m down-dip of the RBNRC0041 intercepts. Significant intercepts were also recorded further up the hole: 1.3m @ 3.11g/t from 6.5m and 3m @ 6.83g/t from 89.5m.

RBNDD0003 intersected 2m @ 1.53g/t from 131m and 3m @ 5.59g/t from 150m, in what appears to be the south-west extension of the structure encountered in RBNDD0002.

The main trend was intersected in the line of AC holes drilled further south-west, with RBNAC0550 recording 6m @ 3.90g/t from 36m.

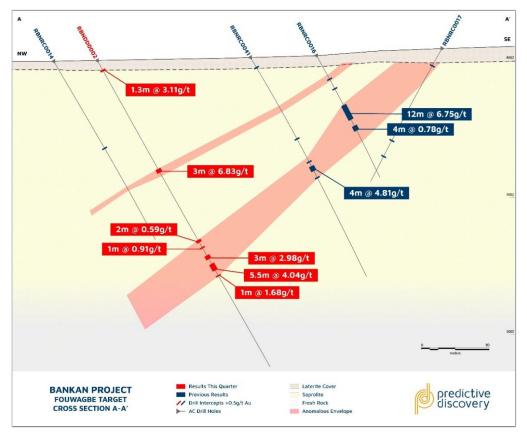


Figure 8: Fouwagbe cross section A-A'

<sup>13</sup> ASX Announcement – Excellent New Results from Argo Central Trend (9 April 2024).

<sup>14</sup> ASX Announcement – Fouwagbe & Sounsoun Progress to Resource Development (12 June 2024).

<sup>15</sup> ASX Announcement – Encouraging Initial Argo RC Results (29 August 2023).
<sup>16</sup> ASX Announcement – Browies Results from Argos the Backap Cold Design (24 October 2)



## Sinkoumba<sup>17,18</sup>

The Sinkoumba target is located on the Argo Central Trend, along strike to the south-west of Fouwagbe.

One line of AC holes was drilled in the north-eastern end of the target area, along strike of previous AC lines which returned positive results. Multiple mineralised zones were intersected close to surface, with intercepts including 8m @ 3.65g/t from 16m in RBNAC0302, 6m @ 1.73g/t from 12m in RBNAC0303, 8m @ 1.14g/t from 6m in RBNAC0301 and 4m @ 2.00g/t from 38m in RBNAC0304.

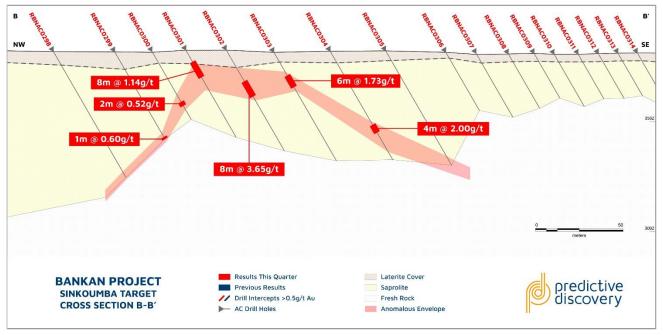


Figure 9: Sinkoumba cross section B-B'

One DD hole drilled at the southern-west end of the target area to test mineralisation at depth recorded a best intercept of 5m @ 3.70g/t from 75.8m.

#### Sanifolon South<sup>17,18</sup>

Sanifolon South is also located on the Argo Central Trend, to the north-east of Fouwagbe. Four lines of AC holes were drilled during the quarter. Best results included:

- RBNAC0258: 12m @ 6.29g/t from 14m
- RBNAC0246: 2m @ 41.71g/t from 34m
- RBNAC0247: 10m @ 1.09g/t from 8m, 2m @ 4.89g/t from 24m and 7m @ 3.28g/t from 66m
- RBNAC0610: 2m @ 7.52g/t from 42m

RBNDD0011 was drilled to follow up mineralisation encountered in RBNAC0246 and RBNAC0247. Results confirmed the structures continue at depth, with the main structure returning 1m @ 21.71g/t from 121m.

<sup>&</sup>lt;sup>17</sup> ASX Announcement – Excellent New Results from Argo Central Trend (9 April 2024).

<sup>&</sup>lt;sup>18</sup> ASX Announcement – Fouwagbe & Sounsoun Progress to Resource Development (12 June 2024).



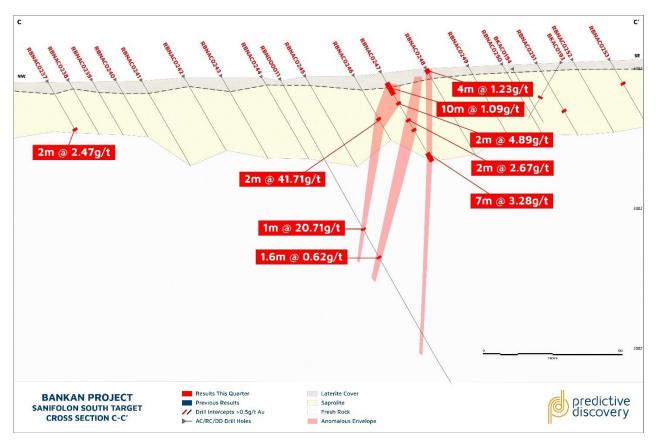


Figure 10: Sanifolon South cross section C-C'

# Sounsoun<sup>19</sup>

Previous drilling in the north-eastern half of a 1.8km long auger anomaly which characterises the Sounsoun target intersected multiple mineralised structures. During the quarter, results were announced from four DD holes to follow-up these previous results and two lines of AC holes to further test the Sounsoun target along strike to the north-east and south-west.

Several mineralised intervals were encountered in DD hole RBNDD0007, including a best intercept of 11.5m @ 1.26g/t from 208.5m, which is associated with a shear zone within a tonalite intrusive. This mineralisation is interpreted as the down-dip extension of previous intercepts (refer to Figure 11).

Multiple mineralised structures were intersected in the AC line located in the central part of the target area. Best results included 4m @ 2.24g/t from 18m, 6m @ 1.30g/t from 26m and 4m @ 1.34g/t from 48m in RBNAC0603, 6m @ 0.59g/t from 16m and 10m @ 0.73g/t from 30m in RBNAC0602 and 2m @ 2.94g/t from 8m in RBNAC0598 (refer to Figure 12). These results now confirm mineralisation is present over a strike length of approximately 1km, and results from two AC lines further to the south-west remain pending.

Based on the positive results received to date and the potential of the overall target area, Sounsoun has been advanced to resource definition drilling.



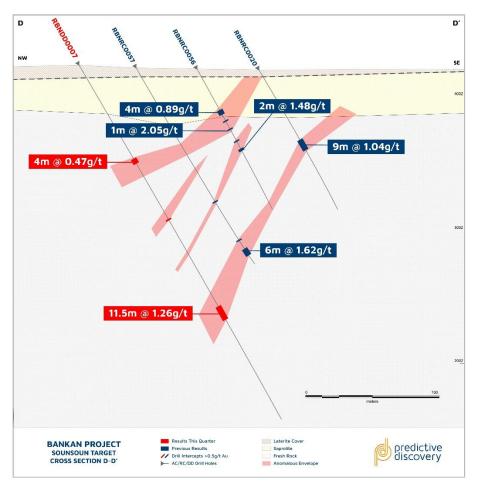


Figure 11: Sounsoun cross section D-D'

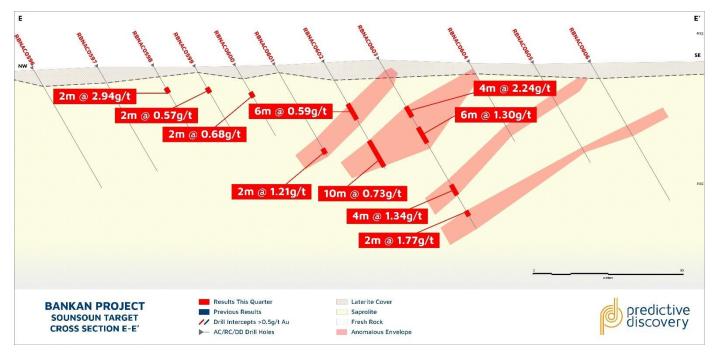


Figure 12: Sounsoun cross section E-E'



# Sanifolon North<sup>20</sup>

The Sanifolon North target, situated on the Argo North Trend, was tested by several lines of AC holes. High-grade intercepts were recorded on the north-eastern line, including 2m @ 78.67g/t from 8m in RBNAC0432 and 2m @ 10.72g/t from 6m in RBNAC0436. This area appears to be structurally complex. Further drilling is warranted due to the high grades and presence of artisanal gold workings.

#### Other Argo Targets<sup>20,21</sup>

Results from multiple other target areas were received during the quarter, with the best intercepts including:

#### Tindini

• RBNDD0005: 4.95m @ 3.00g/t from 111m

#### Sanikourou

- RBNAC0708: 2m @ 7.71g/t from 6m
- RBNAC0707: 2m @ 4.39g/t from 12m

#### Naladioulou North

- RBNAC0143: 2m @ 5.37g/t from 16m
- RBNAC0196: 8m @ 0.66g/t from 18m
- RBNAC0197: 8m @ 0.70g/t from 8m

#### Argo South Trend

- RBNAC0163: 2m @ 5.51g/t from 16m
- RBNAC0279: 12m @ 0.70g/t from 8m

<sup>20</sup> ASX Announcement – Fouwagbe & Sounsoun Progress to Resource Development (12 June 2024).
<sup>21</sup> ASX Announcement – Excellent New Results from Argo Central Trend (9 April 2024).



#### **SUSTAINABILITY**

#### **ESIA** and Permitting

The ESIA for the Bankan Gold Project was completed in April 2024 following an extensive program of environmental and social studies carried out by PDI, together with ERM and other specialist advisers, throughout 2022 and 2023. The content of the ESIA was subject to prior public consultations and is the result of a participatory procedure involving local communities and stakeholders. Submission of the ESIA in June 2024 marks a key milestone for PDI in advancing the Bankan Gold Project towards the development phase.

The review of the ESIA by the MEDD, the AGEE and the OGPNRF has commenced as part of the environmental and social compliance certification process essential to obtaining the Bankan Gold Project Exploitation Permit.

#### Environmental

Environmental baseline monitoring continued as part of PDI's ongoing environmental work, to capture additional data and seasonal information. During the quarter, PDI completed the installation of river gauges with the support of the Guinea National Direction of Hydrology to monitor water flow and levels.

Government engagement continued in the lead up to and following submission of the ESIA. Representatives from the AGEE completed a site visit to the Project in May as part of the annual renewal of the Project's environmental compliance certificate.

Further engagement and collaboration also took place with the OGPNRF, the department responsible for the Upper Niger National Park, with several meetings and a workshop held during the quarter. The purpose of the workshop was to identify and consider opportunities for PDI to further support the Upper Niger National Park. Separately, PDI has also agreed to provide financial support to recommission Park vehicles.

#### Social & Community

PDI continued regular community engagement during the quarter and has continued to provide temporary crop compensation for landowners impacted by drilling operations, in line with the prescribed compensation requirements.

#### **Community Projects**

PDI has specific social programmes dedicated to supporting the community and supporting local education.

PDI continues to support the Bankan Primary School Canteen Project, which supplies lunch to pupils in coordination with the local education authorities. PDI also provides financial assistance for three teachers at the school. During the quarter, PDI completed the construction of two additional classrooms at the Samankoura Primary School. The classrooms were also handed over to the local education department.



#### CORPORATE

#### **Board and Management Team Strengthened**

During the quarter, PDI announced a number of key appointments to further strengthen the Company's Board and Management Team to support progress with the Bankan Gold Project.

Mr Alberto Lavandeira joined as Non-Executive Director, bringing more than 45 years of development and operating experience across gold, copper and industrial minerals in Africa and Europe.

Ms Sandra Bates transitioned from Non-Executive Director to Executive Director – Legal and ESG to strengthen PDI's in-house legal, ESG and permitting expertise.

Mr Henk Diederichs joined as Chief Operating Officer to advance the Bankan Gold Project through the DFS phase and into development and operations.

#### **Financial Position**

As at 30 June 2024, the Company had \$50.9m in cash with no debt.

During the quarter, PDI completed a placement to institutional, professional and sophisticated investors to raise \$50m (before costs) at an issue price of \$0.19 per share. The placement received strong support from existing shareholders and introduced a number of new high-quality institutional investors to the register.

The proceeds will fund the continuing growth and advancement of the Bankan Gold Project, including:

- Resource definition and near-resource exploration drilling to grow and upgrade the existing 5.38Moz Mineral Resource<sup>22</sup>;
- Argo exploration drilling to further define the multiple highly prospective targets;
- The Exploitation Permit application process and ongoing environmental and social activities;
- Completion of the DFS, including the pursuit of multiple value enhancement opportunities identified in the PFS;
- Corporate costs, general working capital and costs of the Placement.

#### **Expenditure on Mining Exploration Activities**

In accordance with ASX Listing Rule 5.3.1, the Company advises its exploration and evaluation expenditure during the quarter totalled \$11.2m included at item 2.1(d) of the Appendix 5B. This includes \$5.7m for drilling and \$5.5m in associated geology, assaying and other exploration and evaluation costs (note that figures may not sum due to rounding). There were no substantive mining production and development activities during the quarter.

<sup>&</sup>lt;sup>22</sup> Refer to Compliance Statement at the end of this announcement.



#### Payments to Related Parties and their Associates

In accordance with ASX Listing Rule 5.3.5, payments to related parties of the Company and their associates during the quarter was approximately \$192,000 including GST. The Company advises that this relates to Directors' fees and salaries.

#### **Capital Structure**

PDI currently has 2,346,901,983 fully paid ordinary shares on issue and 101,437,500 unlisted options on issue at various exercise prices and expiry dates.

- END -

This announcement is authorised for release by PDI's Managing Director, Andrew Pardey.

For further information visit our website at www.predictivediscovery.com or contact:

Investor Enquiries Brad Milne Corporate Development Manager E: brad.milne@predictivediscovery.com P: +61 8 9216 1000

#### **Media Enquiries**

Bobby Morse / George Pope Buchanan E: predictive@buchanan.uk.com P: +44 (0) 20 7466 5000



#### **ABOUT PREDICTIVE DISCOVERY**

PDI's strategy is to identify and develop gold deposits within the Siguiri Basin, Guinea. The Company's key asset is the Tier -1 Bankan Gold Project. A Mineral Resource of 5.38Moz has been defined to date at the NEB (4.89Moz) and BC (487Koz) deposits,<sup>23</sup> making Bankan the largest gold discovery in West Africa in a decade.

PDI recently completed a Pre-Feasibility Study ("PFS") and Environmental & Social Impact Assessment, which are crucial steps to secure a mining permit for the Project. The PFS outlined a 269kozpa operation over 12 years, with a maiden Ore Reserve of 3.05Moz and strong financials.<sup>23</sup>

The Bankan Project is highly prospective for additional discoveries. PDI is also exploring targets near the NEB and BC deposits, and regionally to the north along the 35km gold super structure which runs through the permits.

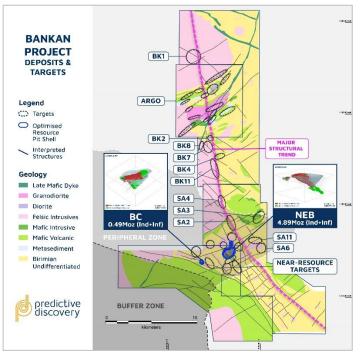


Figure 13: Bankan Project deposits and targets

#### **COMPLIANCE STATEMENT**

This Quarterly Activities Report contains information extracted from ASX announcements reported in accordance with the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("JORC Code"). Further details (including the JORC Code reporting tables) of exploration results referred to in this Quarterly Activities Report can be found in the following announcements lodged on the ASX and available to view on the Company's website under the "For investors" tab:

Announcement	Date
Excellent Results from Argo Central Trend	9-Apr-24
PFS Delivers Attractive Financials & 3.05Mo Ore Reserve	15-Apr-24
BC East Drilling Confirms Previous Positive Results	24-Apr-24
Fouwagbe & Sounsoun Progress to Resource Development	12-Jun-24
BC Resource Definition Drilling Returns Positive Intercepts	27-Jun-24

The Company confirms that it is not aware of any new information or data that materially affects previous exploration results referred to in this announcement. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the relevant original market announcements.



The information in this announcement that relates to the previous mineral resource estimate is from the announcement titled "Bankan Mineral Resource increases to 5.38Moz" dated 7 August 2023. The information in this announcement that relates to the previous ore reserve estimate is from the announcement titled "PFS Delivers Attractive Financials & 3.05Moz Ore Reserve" dated 15 April 2024.

The estimates are summarised in the tables below. The Company it is not aware of any new information or data that materially affects the mineral resource or ore reserve estimates contained in this announcement and all material assumptions and technical parameters underpinning the mineral resource and ore reserve estimates continue to apply and have not materially changed.

Deposit	Classification	Cut-off (g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Contained (Koz Au)
	Indicated	0.5	78.4	1.55	3,900
NEB Open Pit	Inferred	0.5	3.1	0.91	92
	Total		81.4	1.53	3,993
NEB Underground	Inferred	2.0	6.8	4.07	896
NEB Total			88.3	1.72	4,888
	Indicated	0.4	5.3	1.42	244
BC Open Pit	Inferred	0.4	6.9	1.09	243
BC Total			12.2	1.24	487
Total Bankan Project			100.5	1.66	5,376

#### Table 5: Bankan Gold Project Mineral Resource Estimate

#### Table 6: Bankan Gold Project Ore Reserve Estimate

Deposit	Mining Method	Classification	Cut-off (g/t Au)	Tonnes (Mt)	Grade (g/t Au)	Contained (Koz Au)
	Open Pit	Probable	0.5	46.2	1.41	2,101
NEB	Underground	Probable	1.7	7.1	3.24	739
	Total			53.3	1.66	2,840
DC	Open Pit	Probable	0.4	4.3	1.48	207
BC	Total			4.3	1.48	207
Total Open Pit				50.6	1.42	2,308
Total Underground				7.1	3.24	739
Total Bankan Project				57.7	1.64	3,047

The production targets and forecast financial information referred to in this announcement is from the announcement titled "PFS Delivers Attractive Financials & 3.05Moz Ore Reserve" dated 15 April 2024. The Company confirms that all the material assumptions underpinning the production targets and forecast financial information derived from the production targets in the previous announcement continue to apply and have not materially changed.



# **TENEMENT STATUS AS AT 30 JUNE 2024**

Name	Number	Location	Area (sq. km)	PDI equity	Change in equity
Kaninko (Bankan)	Exploration Permit	Guinea	98	100%	Nil
Saman (Bankan)	Exploration Permit	Guinea	100	100%	Nil
Bokoro (Bankan)	Exploration Permit	Guinea	100	100%	Nil
Argo (Bankan)	Exploration Permit	Guinea	58	Right to earn 90% during the exploration phase and acquire the remaining 10% on a decision to mine	Nil
Koundian 1	Exploration Permit	Guinea	85		Nil
Koundian 2	Exploration Permit	Guinea	100	Right to earn 90% during the exploration phase and	Nil
Koundian 3	Exploration Permit	Guinea	63	acquire the remaining 10% on a decision to mine	Nil
Koundian 4	Exploration Permit	Guinea	55		Nil
Nonta	Exploration Permit	Guinea	100	100%	Nil
Paramangui 1	Exploration Permit	Guinea	99	Right to earn 80% during	Nil
Paramangui 2	Exploration Permit	Guinea	98	the exploration phase	Nil
Boundiali South	Mining exploration permit No. 414	Cote D'Ivoire	167	Nil	Divested during the quarter
Ferkessedougou North	Mining exploration permit No. 367	Cote D'Ivoire	300		Divested during the quarter
Odienne South	Mining exploration permit No. 865	Cote D'Ivoire	367	Nil	
Odienne North	Mining exploration permit No. 866	Cote D'Ivoire	391		
Bocanda North	Mining exploration permit No. 844	Cote D'Ivoire	368		Nil
Issia	Mining exploration permit No. 880	Cote D'Ivoire	375	20% (Wia Gold Ltd 80%)	Nil
Wendene	Mining exploration permit No. 572	Cote D'Ivoire	400	Rights to bonus payments	Nil
Dabakala	Mining exploration permit application	Cote D'Ivoire	400	on production	Nil
Cape Clear	EL 5434	Victoria, Australia	63	12.5%, reducing to 5%	Nil

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity	
PREDICTIVE DISCOVERY LTD	
ABN	Quarter ended ("current quarter")
11 127 171 877	30 June 2024

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers		
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	-	-
	(e) administration and corporate costs	(2,075)	(6,089)
1.3	Dividends received (see note 3)		
1.4	Interest received	112	1,226
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (BAS Refund & FBT refund)	59	413
1.9	Net cash from / (used in) operating activities	(1,904)	(4,450)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(57)	(163)
	(d) exploration & evaluation	(11,158)	(38,567)
	(e) investments	-	-
	(f) other non-current assets	-	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (Fuel stock)	(160)	(741)
2.6	Net cash from / (used in) investing activities	(11,375)	(39,471)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	50,795	50,920
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	896
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(2,920)	(2,973)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other	-	-
3.10	Net cash from / (used in) financing activities	47,875	48,843

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	16,494	44,895
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,904)	(4,450)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(11,375)	(39,471)

# Appendix 5B Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000	
4.4	Net cash from / (used in) financing activities (item 3.10 above)	47,875	48,843	
4.5	Effect of movement in exchange rates on cash held	(154)	1,119	
4.6	Cash and cash equivalents at end of period	50,936	50,936	

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	5,378	8,436
5.2	Call deposits	45,558	8,058
5.3	Bank overdrafts		
5.4	Other (provide details) cash in transit	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	50,936	16,494

161	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	192
6.2	Aggregate amount of payments to related parties and their associates included in item 2	
	any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ ation for, such payments.	e a description of, and an
\$192K	in director fees (including GST (\$3K)	

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

8.	Estim	nated cash available for future operating activities	\$A'000	
8.1	Net cash from / (used in) operating activities (item 1.9)		(1,904)	
8.2	Payments for exploration & evaluation classified as investing activities) (item 2.1(d))		(11,375)	
8.3	Total relevant outgoings (item 8.1 + item 8.2)		(13,279)	
8.4	Cash a	and cash equivalents at quarter end (item 4.6)	50,936	
8.5	Unuse	ed finance facilities available at quarter end (item 7.5)	-	
8.6	Total available funding (item 8.4 + item 8.5)		50,936	
8.7	Estim item 8	ated quarters of funding available (item 8.6 divided by 8.3)	3.8	
		Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:			
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?			
	Answer:			
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?			
	Answer:			
	8.8.3	Does the entity expect to be able to continue its operations and objectives and, if so, on what basis?	d to meet its business	
	Answer:			
	Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.			

## **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 26/7/2024

Authorised by: ......The Board..... (Name of body or officer authorising release – see note 4)

#### Notes

- This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.