



10 July 2024

AIM: AAU

# 1.2Moz IN-PIT OPTIMISED DOKWE GOLD RESOURCE

## In-pit Resources Increased by 16%

Ariana Resources plc ("Ariana" or "the Company"), the AIM-listed mineral exploration and development company with gold project interests in Africa and Europe, is pleased to announce the completion of revised in-pit JORC 2012 Measured and Indicated Resources for both Dokwe North and Dokwe Central, which contain a combined 1.2Moz of gold. Ariana recently acquired 100% of the Dokwe Project ("Dokwe") in an all-share merger with Rockover Holdings Ltd ("Rockover")

# Highlights:

- Recent Mineral Resource Estimate ("MRE") and pit optimisations have enabled the examination of an expanded mining scenario of 75,000 to 100,000 ounces production over 10 to 15 years as part of the Definitive Feasibility Study of Dokwe.
- The global MRE remains unchanged but revised pit optimisations have increased the in-pit resources by 16%; in-pit JORC 2012 Measured and Indicated Resources now 29.6Mt @ 1.33g/t Au for 1.2Moz of gold.
- Latest results indicate that both the Pre-Feasibility Study ("PFS") proposed 60,000oz per annum production rate and a 12-year mine life, could be increased significantly.

## Dr. Kerim Sener, Managing Director, commented:

"Yet again we have demonstrated the considerable value presented by the Dokwe Project. The latest pit optimisations run at higher gold price scenarios underscore the opportunity for over 1Moz of gold to be mined from two open pits at North and Central. This provides an exceptional platform for the Company as we proceed to take our 100%-owned Dokwe Project through to the feasibility stage.

"Strategically, we are considering the development of the Dokwe Project in two stages, with Dokwe Central potentially being mined during the early years of the operation and Dokwe North taking over in future years. With in-pit Resources now exceeding 1.2Moz of gold, we see a pathway to exploring the opportunity to take production to 75,000 to 100,000 ounces per annum over a 10 to 15-year mine life.

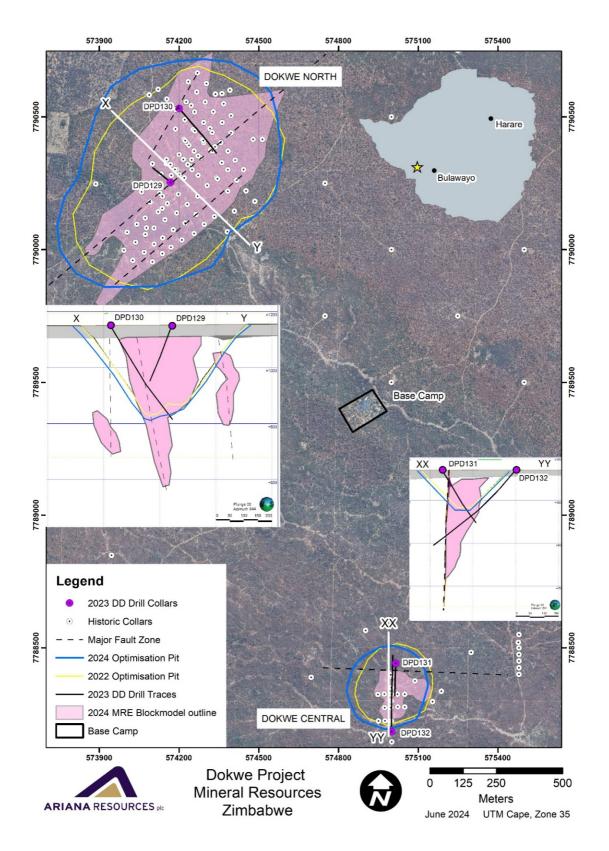
"Coupled with this, we see a significant amount of exploration upside across the project and in the region. Existing drilling has defined areas worthy of follow-up at both Dokwe North and Central. In addition, several as yet untested gold geochemical anomalies remain to be drilled and extensions of known structures further explored. We envisage the opportunity to increase Resources across the Dokwe Project and to define additional Reserves to potentially increase the mine life. We are currently working towards completing a further revision of the Dokwe PFS in the next few months, to enable the definition of our revised Reserves. This is being undertaken as an interim step ahead of commencing a Definitive Feasibility Study of the Project."

# This announcement contains inside information for the purposes of Article 7 of EU Regulation 596/2014.

## About the Dokwe Project

The Dokwe North and Dokwe Central gold deposits are located 2km apart ("Dokwe Project") and are situated in the Tsholotsho District 110km WNW of Bulawayo, Zimbabwe (Figure 1). The Dokwe Project was discovered utilising innovative soil geochemistry capable of detecting mineralisation beneath cover, followed by drill-testing of the geochemical anomalies in 2004. It represents the largest undeveloped gold project in Zimbabwe. Ariana owns 100% of Dokwe following the all-share merger with Rockover Holdings Limited.

Since 2004, the Project has undergone ten phases of drilling for over 42,000 metres, three iterations of Mineral Resource Estimation ("MRE") and several geotechnical studies. In March 2022, an independent PFS for Dokwe North was completed by Minxcon (Pty) Ltd in South Africa ("Minxcon"). In June 2022, an independent optimisation study for Dokwe Central was completed by UK-based Axe Valley Mining Consultants Limited.



**Figure 1:** Summary map of Dokwe North and Central showing the outline of the designed prefeasibility pit for Dokwe North and the optimised pit, not included in the pre-feasibility, for Dokwe Central (both in yellow). The 2024 optimisation pits are based on Measured and Indicated Resources only, and are shown in blue. The 2024 MRE domain outlines are shaded in pink. Ariana's 2023-2024 due diligence drilling collars are also shown in magenta.

# **Summary of Recent Activities**

- November 2023 to April 2024; initiation of a detailed geotechnical Due Diligence ("DD") review of the Dokwe North and Dokwe Central deposits. Initial results of this work were announced in April (<u>AIM: 25 April 2024</u>).
- May 2024 (<u>AIM: 09 May 2024</u>); Ariana announced revisions to the Minxcon 2022 Dokwe North PFS, which primarily focused on a financial model update on the Reserves at Dokwe North using a revised gold price of US\$2,000/oz.
- June 2024 (<u>AIM: 6 June 2024</u>); the Company announced the completion of the DD review work in which 1,222 metres of diamond drilling was completed for four holes.
- June 2024 (<u>AIM: 13 June 2024</u>); the Company provided an update on the Dokwe Project Mineral Resources Estimate (MRE) based on the DD drilling results, the measurement of over 21,000 pXRF readings from historic drill core, and new geological modelling (**Table** 1).

**Table 1:** Summary of the Dokwe Project JORC 2012 compliant Mineral Resource Estimate (Global Resource), based on 141 drill holes (dated 13 June 2024). Reporting is based on a 0.3g/t Au cut-off grade for both Dokwe North and Dokwe Central. Figures in the table may not sum precisely due to rounding.

Classification	Tonnage (t)	Grade	Metal Content	
		Au (g/t)	Au (oz)	
Measured	13,757,000	1.35	599,000	
Indicated	20,137,000	1.15	742,000	
Inferred	21,994,000	0.69	490,000	
Global Total	55,888,000	1.02	1,831,000	

## **Optimisation Study Parameters**

The 2024 MRE at a 0.3g/t reporting cut-off was previously constrained by the 2022 Dokwe North PFS designed pit and Dokwe Central 2022 optimisation pit, which captured 24.7Mt for 1.1Moz of Measured and Indicated Resources at an average in-situ grade of 1.38g/t Au **(Table 3).** 

The work presented in this announcement discusses results from a revised open-pit optimisation study, applied to the 2024 MRE updates at the 0.3g/t reporting cut-off grade for both Dokwe North and Dokwe Central. The open pit optimisation work was completed by Hovhannes Hovhannisyan, an independent mining consultant to Ariana Resources plc, using Datamine NPV Scheduler (NPVS) software, which is regarded as the industry standard for mine optimisation studies.

To determine mining inputs into the optimisation base-case run, the study assumed conventional drill, blast and haul methods. Input costs were guided by the PFS (**Table 2**). The Mineral Inventory for Dokwe Central has been estimated using similar mine optimisation and mine design parameters to those established in the Dokwe North PFS. The rock types at Dokwe Central differ from Dokwe North and their geotechnical properties are untested therefore a more conservative pit slope has been assumed for Dokwe Central as shown in **Table 2**. The processing of ore from Dokwe Central is likely to take place at Dokwe North,

and mining contract services (Drill & Blast and Load & Haul) can be shared between both operations.

Various inputs were tested for the optimisations, with all producing similar pits although they displayed expected sensitivities to altering input parameters.

**Table 2:** Summary of key modifying factor inputs for the base-case optimisation for both Dokwe

 North and Dokwe Central.

Project	Parameter	Input	
	Overall Slope Angle (Dokwe North)	50-55 Degrees	
	Overall Slope Angle (Dokwe Central)	45 Degrees	
	Reference Mining Cost (Ore)	US\$3.2/t	
	Reference Mining Cost (Waste)	US\$1.8/t	
	G&A Processing	US\$20.9	
Dokwe North and Dokwe Central	Mining Losses	5%	
and Dokwe Central	Mining Dilution	5%	
	Sell Price Gold	US\$2,000/oz	
	Sell Costs	1.2% (US\$0.77/g)	
	Discount Rate	7.50%	
	Mill Constraint	1.5Mpta	
	Processing Recovery	89%	

#### Results

The new 2024 optimisation pits, when applied to the 2024 MRE, demonstrate a tonnage increase of 20% (for 5.0Mt) and an overall gold ounce increase of 16% (for 176,000 oz) (**Table 3**). These increases have largely come from:

**1)** An overall increase in the base-case gold selling price per ounce from US\$1,650 (2022) to US\$2,000 (2024), has resulted in larger optimised pits being defined, thereby capturing more of the Resources.

**2)** The new pits are optimised on the 2024 MRE which incorporated improvements over previous estimates (and associated optimisations) with a better understanding of the geology, the addition of four new drill holes, and more robust mineral resource modelling.

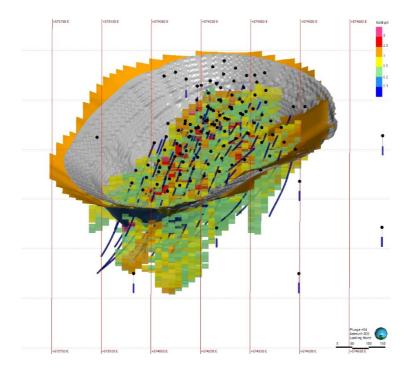
The gold captured by the new optimisation at Dokwe North represents 98% of the additional tonnes (4.9Mt) and 93% of the additional gold ounces (164,000oz) (Figure 2). The increase at Dokwe Central has contributed 2% (0.09Mt) of the additional tonnage and 7% of the gold ounces (12,000oz) (Figure 3).

**Table 3:** Summary of the Dokwe 2024 Mineral Resources captured by 1) the 2022 PFS designed pit for Dokwe North, and the 2022 optimisation pit for Dokwe Central, and 2) the 2024 Mineral Resources captured by the 2024 optimisation work. The figures summarised below represent in-situ Resources at the MRE cut-off grade of 0.3g/t without the application of modifying factors as demonstrated in Table 2; the revised economic cut-off grade defined by the optimisation is 0.44g/t.

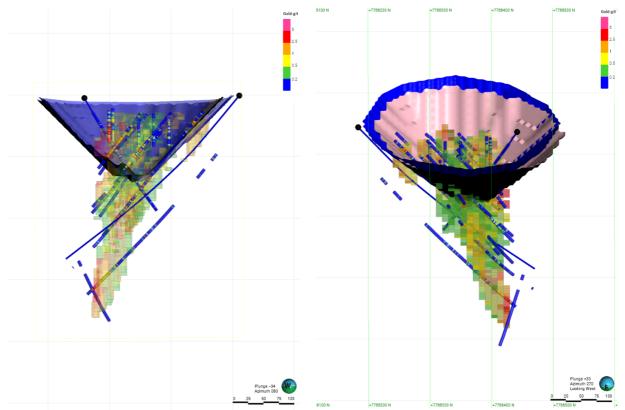
Project Area	Pit Status	Classification	Tonnage (t)	Grade	Metal Content
				Au (g/t)	Au (oz)
		Measured	13,296,000	1.37	587,000
	Previous - In Pit	Indicated	10,141,000	1.36	443,000
	2022 PFS Design	Meas & Ind Sub	23,437,000	1.37	1,030,000
	applied to 2024	Total	23,437,000	1.37	1,030,000
	MRE	Inferred	1,693,000	0.86	47,000
		Sub Total	25,130,000	1.33	1,077,000
Dokwe North					
		Measured	13,586,000	1.36	595,000
	Revised - In Pit	Indicated	14,751,000	1.26	599,000
	2024 Optimisation	Meas & Ind Sub	28,337,000	1.31	1,194,000
	Pit applied to 2024	Total			
	MRE	Inferred	1,546,000	0.82	41,000
		Sub Total	29,726,000	1.28	1,226,000
	Previous - In Pit 2022 Optimisation applied to 2024 MRE	Indicated	1,250,000	1.54	62,000
Dokwe Central					
Central	Revised - In Pit 2024 Optimisation applied to 2024 MRE	Indicated	1,349,000	1.71	74,000
	1		1	1	1
TOTAL	Previous - 2022 Pits	All	26,380,000	1.34	1,139,000
	Revised - 2024 Pits	All	31,233,035	1.30	1,309,007
	Revised 2024 Pits	Meas & Ind Only	29,686,000	1.33	1,268,000

The results discussed here only take into account Measured and Indicated Resources, with Inferred Resources not being included as an optimisation input. However, it is worth noting that 1.5Mt at 0.82g/t Au for 41,000 ounces of gold currently categorised as Inferred Resources at Dokwe North are captured within the defined optimisation pit (the Inferred Resources captured represent approximately 3% of the total in-pit resource for Dokwe North). It is possible that these additional resources could be included within the Dokwe Reserves after additional drilling is completed.

Furthermore, between 0.1 g/t Au and the 0.3g/t Au reporting cut-off for the MRE, there is approximately 23.6Mt of material within the optimised pit at Dokwe North, with an average grade of 0.18g/t Au for a further 135,000 ounces of gold. This material is currently classified as "waste" but may be of future economic interest. The indicative strip ratio from the Dokwe North optimisation is 6:1 and for Dokwe Central it is 12:1.



**Figure 2:** Oblique view looking north over the Dokwe North pit. The 2022 PFS-designed pit is presented in grey. The 2024 optimisation pit is presented in orange. Both pits are broadly similar in shape and in volume. As expected, the 2024 optimisation pit is somewhat larger, as it utilises a high base-case gold price of US\$2,000/oz.



**Figure 3: (Right)** North-south section through the 3D model of Dokwe Central, showing the block model and the historic optimised pit (grey), and the new 2024 optimisation pit (blue). **(Left)** Oblique view looking west over the Dokwe Central deposit. The new 2024 optimisation pit is only slightly larger in some directions compared to the 2011 optimisation pit. Both pits capture a similar volume of Indicated Resources.

#### Conclusions

The positive scoping-level results of the pit optimisations reported in this work indicate the project is robust to gold price fluctuations and variations from key base-case parameters. The 2022 Minxcon PFS identified a mineable ore Reserve of 0.8Moz at an average grade of 1.36g/t. The increase in gold captured within the pit in this study suggests that the Reserve could be expanded with the advancement of further technical studies.

The 2022 PFS advocated a production rate of 60,000oz per annum over a 12-year mine life. The encouraging results herein indicate production could be increased and mine life extended, and a Definitive Feasibility Study (DFS) on Dokwe is expected to be based on an annual production scenario of 75,000 to 100,000 ounces of gold over a 10 to 15-year mine life.

Ariana Resources plc	Tel: +44 (0) 20 7407 3616
Michael de Villiers, Chairman	
Kerim Sener, Managing Director	
Beaumont Cornish Limited (Nominated Adviser)	Tel: +44 (0) 20 7628 3396
Roland Cornish / Felicity Geidt	
Panmure Liberum (Joint Broker)	Tel: +44 (0) 20 7886 2500
Kieron Hodgson / Atholl Tweedie / Rauf Munir	
WHIreland Limited (Joint Broker)	Tel: +44 (0) 207 2201666
Harry Ansell / Katy Mitchell / George Krokos	
Yellow Jersey PR Limited (Financial PR)	Tel: +44 (0) 7983 521 488
Dom Barretto / Shivantha Thambirajah / Bessie Elliot	arianaresources@yellowjerseypr.com

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#### **Editors' Note:**

The information that relates to Exploration Results is based upon information compiled by Mr. Zack van Coller BSc (Hons), Targeting Group Leader, Ariana Resources plc. Mr. van Coller is a Fellow of The Geological Society of London, and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr. van Coller has over 10 years of relevant experience in the Technical Assessments of Mineral Properties. Mr. van Coller 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 this announcement that relates to exploration results is based on information compiled by Dr. Kerim Sener BSc (Hons), MSc, PhD, Managing Director of Ariana Resources plc. Dr. Sener is a Fellow of The Geological Society of London and a Member of The Institute of Materials, Minerals and Mining and has sufficient experience relevant to the styles of mineralisation and type of deposit under consideration and to the activity that has been undertaken to qualify as a Competent Person as defined by the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and under the AIM Rules - Note for Mining and Oil & Gas Companies. Dr. Sener consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## About Ariana Resources:

Ariana is an AIM-listed mineral exploration and development company with an exceptional track-record of creating value for its shareholders through its interests in active mining projects and investments in exploration companies. Its current interests include a major gold development project in Zimbabwe, gold production in Türkiye and copper-gold exploration and development projects in Cyprus and Kosovo.

Ariana owns 100% of the Dokwe Gold Project ("Dokwe") in Zimbabwe. Dokwe is made up of the Dokwe North and Dokwe Central gold deposits which are located in the Tsholotsho District near the city of Bulawayo. The deposits have a combined JORC Measured, Indicated and Inferred Resource of over 1.83 million ounces of gold (as at June 2024) and the project represents the largest undeveloped gold project in Zimbabwe.

The Company holds 23.5% interest in **Zenit Madencilik San. ve Tic. A.S.** a joint venture with Ozaltin Holding A.S. and Proceea Construction Co. in Türkiye which contains a depleted total of c. 2.2 million ounces gold equivalent (as at March 2024, using a price ratio of 90 Ag to 1 Au). The joint venture comprises the Kiziltepe Mine and the Tavsan and Salinbas projects.

The **Kiziltepe Gold-Silver Mine** is located in western Türkiye and contains a depleted JORC Measured, Indicated and Inferred Resource of 171,700 ounces gold and 3.3 million ounces silver (as at March 2024). The mine has been in profitable production since 2017 and has been producing at an average rate of c.22,000 ounces of gold per annum. A Net Smelter Return ("NSR") royalty of 2.5% on production is being paid to Franco-Nevada Corporation.

The **Tavsan Gold Mine** is located in western Türkiye and contains a JORC Measured, Indicated and Inferred Resource of 311,000 ounces gold and 1.1 million ounces silver (as at March 2024). Following the approval of its Environmental Impact Assessment and associated permitting, Tavsan is being developed as the second gold mining operation in Türkiye and is currently in construction. A NSR royalty of up to 2% on future production is payable to Sandstorm Gold.

The **Salinbas Gold Project** is located in north-eastern Türkiye and contains a JORC Measured, Indicated and Inferred Resource of 1.5 million ounces of gold (as at July 2020). It is located within the multi-million ounce Artvin Goldfield, which contains the "Hot Gold Corridor" comprising several significant gold- copper projects including the 4 million ounce Hot Maden project, which lies 16km to the south of Salinbas. A NSR royalty of up to 2% on future production is payable to Eldorado Gold Corporation.

Ariana owns 75% of UK-registered **Western Tethyan Resources Ltd** ("WTR"), which operates across south-eastern Europe and is based in Pristina, Republic of Kosovo. The company is targeting its exploration on major copper-gold deposits across the porphyry-epithermal transition. WTR is being funded through a five-year Alliance Agreement with Newmont Mining Corporation (www.newmont.com) and is separately earning-in to up to 85% of the Slivova Gold Project.

Ariana owns 61% of UK-registered **Venus Minerals PLC** ("Venus") which is focused on the exploration and development of copper-gold assets in Cyprus which contain a combined JORC Indicated and Inferred Resource of 16.6Mt @ 0.45% to 0.80% copper (excluding additional gold, silver and zinc.

Ariana owns several investments in listed and private companies via its Australian subsidiary **Asgard Metals Pty. Ltd.** ("Asgard"), which also provides technical input into the various investee company exploration programmes. Investments have been made in high-value potential, discovery-stage mineral exploration companies located across the Eastern Hemisphere and within easy reach of Ariana's operational hubs in Australia, Türkiye, UK and Zimbabwe. Its most advanced interest is through a 5.5% holding of Panther Metals Limited (ASX: PNT).

Panmure Liberum Limited and WH Ireland Limited are brokers to the Company and Beaumont Cornish Limited is the Company's Nominated Adviser.

For further information on Ariana, you are invited to visit the Company's website at www.arianaresources.com.

#### **Glossary of Technical Terms:**

"Au" chemical symbol for gold;

"DD" Due Diligence;

"g/t" grams per tonne;

"Inferred Mineral Resource" is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration; "Indicated Mineral Resource" is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve;

"JORC" Joint Ore Reserves Committee;

"k" thousand

"km" Kilometres;

"m" Metres;

"Measured Mineral Resource" is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve;

"MRE" Mineral Resource Estimate;

"M" million

"oz" Troy ounces;

"pXRF" portable XRF;

"t" tonnes;

Ends.