RNS Number : 7325l Oriole Resources PLC 15 May 2025

The information contained within this announcement is deemed to constitute inside information as stipulated under the retained EU law version of the Market Abuse Regulation (EU) No. 596/2014 (the "UK MAR") which is part of UK law by virtue of the European Union (Withdrawal) Act 2018. The information is disclosed in accordance with the Company's obligations under Article 17 of the UK MAR. Upon the publication of this announcement, this inside information is now considered to be in the public domain.

## Oriole Resources PLC

('Oriole Resources' or the 'Company')

# Increased Mineral Resource Estimate for the Bibemi Gold Project in Cameroon

### and new Exploration Target

Oriole Resources PLC (AIM: ORR), the AIM quoted gold exploration company focused on West and Central Africia, pleased to provide an update on its 90% owned Bibemi orogenic gold project in Cameroon (the 'Project'), including an increased JORC Code Mineral Resource Estimate ('MRE') for the Bakassi Zone 1 (or 'BZ1') prospect and an additional JORC Exploration Target\* range, highlighting the significant upside potential of the wider licence area.

### Highlights

- Independent consultant Forge International Limited has produced an updated total MRE for the BZ1-MRE zone of 460,000oz of contained gold ('Au'), using a US 2,750/oz gold price. This is a 23% increase on the BZ1 MRE published in January 2024.
- The new MRE has also achieved a greater level of confidence, with 100,000oz at 2.05 g/t Au in the Indicated and 360,000oz Au at 2.06g/t Au in the Inferred JORC categories. The Indicated Resources occur as a unified block in the centre of the deposit and could provide a suitable location for a starter pit if mined.
- An additional JORC Exploration Target\* range of 3 to 5 million tonnes at 1.50 to 2.50g/t Au for 145,000oz to 400,000oz contained Au has been estimated for the Bakassi Zone 1, Bakassi Zone 2, Lawa East and Lawa West prospects, highlighting the significant upside potential of the wider licence
- A separate, small-scale study was undertaken which flagged possible underreporting of gold grades (determined by fire assaying) for samples over 10g/t Au, due to gold-telluride mineralogy. Reassaying samples using photon assay could deliver additional resource upside.
- A detailed, independent assessment of the mineralogy of two representative samples from the centre of the BZ1-MRE zone has confirmed that the ore tested exhibits gold encapsulation in pyrite and the predominance of gold-telluride (calaverite and petzite) mineralisation. Whilst gold-telluride mineralogy is somewhat uncommon, ores of this type have been mined and successfully processed for decades at Kalgoorlie in Western Australia, one of the world's richest goldfields (approximately 60 million oz extracted to date since discovery in 1893 11), Cripple Creek in Colorado (approximately 21 million oz extracted 51), Fiji and elsewhere.
- Mineral processing test work data provided by SGS and CS Solutions in South Africa, and supervised
  by our consultant Stirling Process Engineering Ltd., has enabled the development of a potential
  mineral processing flowsheet. It indicates that gold recovery of approximately 85% could be
  obtained by adopting flotation followed by a pressure oxidation of a bulk concentrate and cyanide
  leaching of the pressure oxidation residue.
- The Company is reviewing the new MRE, JORC Exploration Target and mineral processing scouting test
  work reports so that it can carry out preliminary economic assessment ('PEA') study work on the
  viability of the Project's mineral resources and consider the potential for further conversion of MRE
  ounces to the JORC Indicated category.

Chief Executive Officer of Oriole Resources, Martin Rosser, said:"We are delighted with the new Bibemi MRE upgrade, which shows a significant 23% increase in contained gold to 460,000oz when compared to the January 2024 estimate, with grades still above 2g/t Au. In addition, 100,000oz are now in the JORC Indicated category and this plus the JORC Exploration Target range of 145,000oz to 400,000oz contained gold estimate for the Bakassi Zone 1, Bakassi Zone 2, Lawa East and Lawa West prospects provides optimism for an ultimately even larger contained gold resource.

"Separately, mineral processing work has enabled our consultant to prepare a provisional treatment plant flow sheet which, with the new MRE, will enable us to undertake provisional economic assessment studies, consider the next technical study steps, and progress the lodged Exploitation Licence Application with the Cameroon Government."

Figure 1. Plan view showing the distribution of Indicated and Inferred Resources within the optimised Resource pit shell.

A map of a geodesic structure Al-generated content may be incorrect.				

### **Further Details**

Updated Mineral Resource Estimate

At the 177km<sup>2</sup> Bibemi orogenic gold project in the North region of Cameroon, the Company's exploration to date has identified shear-hosted gold mineralisation at four main prospects - Bakassi Zone 1, Bakassi Zone 2, Lawa West and Lawa East - within an approximately 12km long mineralised hydrothermal system at surface.

Between 2021 and 2022, the Company completed four phases of diamond drilling at the Project for a total of 6,685.40m in 54 holes, with the majority of that drilling focused on an approximately 1km long section at the BZ1-MRE zone. In January 2024, the Company published an MRE for BZ1-MRE of 5.1Mt grading 2.30g/t Au for approximately 375,000 oz Au contained in the JORC Inferred Resources category, based on a 0.45g/t Au lower cut-off grade and within a US 2,000/oz gold price open pit shell (announcement dated 15 January 2024).

In February 2025, the Company completed the Phase 5 diamond drilling programme at Bakassi Zone 1 to further test the BZ1-MRE zone, and two along-strike targets, BZ1-NE and BZ1-SW, for a total of 6,915.40m in 56 holes. This programme was fully funded by BCM International as part of its agreement to earn-in to a 50% interest by spending up to US 4 million in exploration expenditure (announcement dated 5 January 2024).

Reported intersections from this programme include 4.10m at 7.99g/t Au (BBDD059), 2.70m at 14.67g/t Au (BBDD058), 2.00m at 12.50g/t Au (BBDD061), 2.15m at 9.95g/t Au (BBDD063), 2.00m at 8.57g/t Au (BBDD075) and 1.20m at 25.54g/t Au (BBDD068), 1.00m at 15.11g/t Au and 2.00m at 3.51g/t Au (BBDD104), 4.10m at 2.20g/t Au (BBDD105), and 2.20m at 8.11g/t Au and 2.00m at 2.50g/t Au (BBDD109) (announcements dated 12 September 2024, 14 October 2024, 28 November 2024 and 17 March 2025).

The Company today reports that independent consultant Forge has integrated these results into an updated MRE for the BZ1-MRE zone. The estimate has delivered a total gross resource of 460,000oz contained gold Au at over 2g/t,based on a 0.40g/t Au lower cut-off grade and within a US 2,750/oz gold price open pit shell. In addition to this being an approximate 23% increase on the 2024 MRE, the confidence level of the MRE has also been improved, with 100,000oz Au falling into the JORC Indicated category and the remaining in the Inferred category (see Table 1). The Indicated Resources occur as a unified block in the centre of the deposit and could provide a suitable location for a starter pit if mined.

Table 1. Updated JORC MRE for the Bakassi Zone 1 prospect

JORC Classification	Gross			Net Attributable (90%)		
	Tonnage	Grade (g/t Au)	Total Contained Gold (oz)	Tonnage	Grade (g/t Au)	Total Contained Gold (oz)
Indicated	1,460,000	2.05	100,000	1,314,000	2.05	90,000
Inferred	5,500,000	2.06	360,000	4,950,000	2.06	324,000
Total** (Indicated + Inferred)	6,960,000	2.06	460,000	6,264,000	2.06	414,000

## Notes:

- Effective date of the Mineral Resource is 30 April 2025.
- \*\*The total includes Inferred Mineral Resources. The Inferred component is too speculative to have
  economic considerations applied to it, and there is no certainty it will be converted to Indicated or
  Measured categories.
- The Operator of the Bibemi Project is Oriole Resources.
- The Mineral Resource Estimate is based on 61 diamond drillholes for a total of 7,011.52 metres. Gold
  grades were estimated using ordinary kriging within hard-boundary mineralisation wireframes, based
  on composited assay data and variogram models for the principal mineralised domains.
- A total of 6.791 density measurements were collected and used to support the estimate. Bulk density

- was interpolated into the block model using inverse distance weighting.
- The Resource Estimate is shown on a gross (100%) basis of the Bakassi Zone 1 target within the Bibemi Project. Oriole currently holds a 90% net attributable beneficial interest through the licence holding company, OrrCam2 SARL. The remaining 10% interest is held by BCM International Limited which has an option to earn up to a 50% interest by funding US 4 million of exploration work.
- All figures are rounded to reflect the relative accuracy of the estimate. Differences may occur due to rounding.
- Mineral Resources are not Mineral Reserves and have not demonstrated economic viability. It is uncertain if further exploration will convert Inferred Mineral Resources to higher confidence categories.
- To define the blocks with reasonable prospects of economic extraction, the Inferred Mineral Resource
  Estimate is reported above a cut-off grade of 0.40g/t and constrained within wireframe models
  representing the mineralised bodies and within a Lerchs-Grossman optimised pit shell, based on a gold
  price of US 2,750/oz, with the application of reasonable mining parameters.
- The Resource has been estimated by Mr. Robert Davies, EurGeol, CGeol, a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (The JORC code).

### Additional JORC Exploration Taraet\*

Outside of the MRE, an additional JORC Exploration Target range of 3 to 5Mt at 1.50 to 2.50g/t Au for 145,000oz to 400,000oz contained Au has been estimated for the Bakassi Zone 1, Bakassi Zone 2, Lawa East and Lawa West prospects (see Table 2). Only limited drilling has been completed to date at Bakassi Zone 2, Lawa East and Lawa West, highlighting the potential for upside in the wider licence area.

Table 2. Exploration Target\* for the Bakassi Zone 1, Bakassi Zone 2, Lawa East and Lawa West prospects

Tonnage Range	Grade Range (g/t Au)	Total Contained Metal Range (oz Au)
3,000,000 - 5,000,000	1.50 - 2.50	145,000 - 400,000

<sup>\*</sup>The potential quality and grade of the Exploration Target are conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource, and there is no certainty that further exploration work will result in the determination of a Mineral Resource.

#### Notes:

- The Exploration Target is an estimate of the exploration potential of the Bakassi Zones 1, Bakassi Zone 2, Lawa East and Lawa West areas.
- The Exploration Target has been generated using 77 diamond holes totalling 4,631m of drilling. The Exploration Target has been prepared by constructing wireframe models to represent mineralised bodies. The areas have been subjected to scout drilling only at this stage. The wireframe models are extrapolated up to 500m along strike, following the mineralised trends. The wireframes have been extrapolated to a depth of 90 to 150m depth below the current topography. The grade is presented as a range of approximately 25% above and below the average Resource grade for Bakassi Zone 1.
- A density of 2.81 t/m<sup>3</sup> has been used throughout. All figures are rounded to reflect the relative accuracy of the estimate.
- The potential quantity and grade of the Exploration Target is conceptual in nature. There has been
  insufficient exploration to estimate a Mineral Resource for all target areas reported. It is proposed
  that such areas are tested with infill Diamond and/or Reverse Circulation drilling although it is
  uncertain whether further exploration will result in the estimation of a Mineral Resource.
- The Exploration Target sits outside of the Current Resource for the Bibemi project.
- The Exploration Target has been estimated by Mr. Robert Davies, EurGeol, CGeol., a Competent Person as defined in the JORC code.

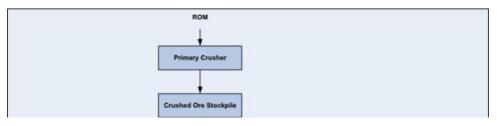
## Potential Underreporting and Mineral Processing Flowsheet

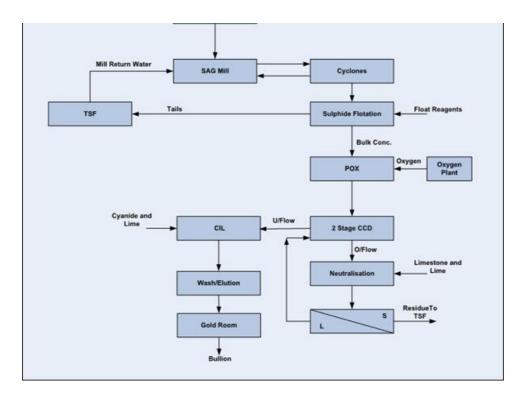
The Company has also completed a separate, small-scale study to assess a potential underreporting issue whereby, for higher-grading samples (those greater than 10g/t Au), photon assay has typically delivered higher grades compared to fire assay results for the same samples. The sample population is currently too small to meaningfully assess what impact this might have on the MRE, but further work is being considered to evaluate fully the upside potential.

A more detailed assessment of the mineralogy of two representative samples from the centre of the BZ1-MRE zone has confirmed that the underreporting is related to the presence of tellurides (predominantly calaverite with lesser petzite) in the system, whereby the tellurides coat the gold during heating and prevent it from it being reported fully during a standard fire assay procedure. This is not the case during photon assay analysis.

Ores with this style of mineralisation, with the gold tellurides being encapsulated in pyrite, are also resistant to conventional direct cyanidation. However, SGS and CS Solutions have, under the guidance of Stirling, completed mineralogical assessments and scouting test work on the same representative samples. This has enabled the development of a provisional mineral processing flowsheet (Figure 1). This work has indicated that approximately 85% gold recovery can be achieved by employing flotation followed by pressure oxidation of a bulk sulphide concentrate and cyanide leaching of the pressure oxidation residue.

Figure 1. Provisional Bibemi Processing Flowsheet





Whilst gold telluride mineralogy is somewhat uncommon, ores of this type have been mined and successfully processed for decades at Kalgoorlie in Western Australia, one of the world's richest goldfields (approximately 60 million oz extracted to date since discovery in 1893), Cripple Creek in Colorado (approximately 21 million oz extracted), Fiji and elsewhere.

Further sampling is being considered to support geo-metallurgical domaining at the Project, and PEA modelling is also underway to support the Company's optimisation of the Project, to consider the next steps of technical work, and to support the ongoing Exploitation Licence Application.

Further information can be found in the Bibemi JORC Table 1 disclosure on thefollowing page of the Company's website: <a href="https://orioleresources.com/projects/bibemi/">https://orioleresources.com/projects/bibemi/</a>.

### **Competent Persons Statement**

The information in this announcement that relates to the Mineral Resource Estimate and the Exploration Target is based on data compiled by Mr. Robert Davies, EurGeol, CGeol, an independent consultant to Oriole. Mr Davies is a Director of Forge International Limited. Mr Davies has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Mr Davies consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resource Estimate or the Exploration Target, and that all material assumptions and technical parameters underpinning the MRE and the Exploration Target continue to apply.

The technical information in this release that relates to Exploration Results and the planned exploration programme has been compiled by Mrs Claire Bay (Executive Director). Claire Bay (MGeol, CGeol) is a Competent Person as defined in the JORC code and takes responsibility for the release of this information. Claire has reviewed the information in this announcement and confirms that she is not aware of any new information or data that materially affects the information reproduced here.

The mineralogical and scouting process test work leading to the development of the provisional flowsheet has been supervised and interpreted by Mr David Lunt of Stirling Process Engineering Ltd. David has significant experience in gold processing and is a Competent Person as defined in the JORC Code.

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# **Glossary and Abbreviations**

2024 MRE	BZ1 MRE published in January 2024				
Au	Gold				
BZ1	Bakassi Zone 1				
Bibemi	Bibemi orogenic gold project				
Company	Oriole Resources PLC				
ELA	Exploitation Licence Application				
Forge	Forge International Limited				
g/t	Grammes per tonne				
JORC	Joint Ore Reserves Committee				
JORC Code	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves				
km	Kilometre				
km <sup>2</sup>	Square kilometre				
m	Metres				
MRE	Mineral Resource Estimate				
Mt	Million tonnes				
Oriole Resources	Oriole Resources PLC				
oz	Troy ounce of gold				
PEA	Preliminary Economic Assessment				
Project	Bibemi orogenic gold project				
Stirling	Stirling Process Engineering Ltd				
t/m <sup>3</sup>	Tonnes per cubic metre				

# **Notes to Editors:**

Oriole Resources PLC is an AIM-quoted gold exploration company, with projects in West and Central Africa. It is focused on early-stage exploration in Cameroon, where the Company has reported a JORC Resource of 460,000oz contained gold at 2.06g/t Au in the JORC Indicated and Inferred categories at its 90% owned Bibemi project and has identified multi-kilometre gold and lithium anomalies within the district scale Central Licence Package project. BCM International is currently earning up to a 50% interest in the Bibemi and Mbe projects in return for a combined investment of US 1.5 million in signature payments, up to US 8 million in exploration expenditure, as well as JORC resource-based success payments.

At the Senala gold project in Senegal, AGEM Senegal Exploration Suarl ('AGEM'), a wholly owned subsidiary of Managem Group, has completed a six-year earn-in to acquire an approximate 59% beneficial interest in the Senala Exploration Licence by spending US 5.8 million. Discussions on the formation of a joint venture company are currently underway. The Company also has several interests and royalties in companies operating in East Africa and Turkey that could give future cash payments.

For further information please visit <u>www.orioleresources.com</u>, @OrioleResources on X

 $<sup>{\</sup>color{red} \underline{11}} \underline{\text{https://www.ice.org.uk/what-is-civil-engineering/infrastructure-projects/kalgoorlie-super-pit}}$ 

 $<sup>\</sup>underline{^{[2]}}{} \underline{\text{https://www.achp.gov/preserve-america/community/cripple-creek-colorado}}$ 

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