

ECR MINERALS plc

("ECR Minerals", "ECR" or the "Company")

Photon Analysis Yields Grades Up to 51.5 g/t Gold at Swifts Creek (Tambo)

ECR Minerals plc (LON: ECR), the exploration and development company focused on gold in Australia, is pleased to provide the first gold results from photon analysis of rock chips from the historic Duke of Cornwall Mine, Swifts Creek (Tambo), Eastern Victoria, Australia.

HIGHLIGHTS

- A selection of 37 rock chips from the Duke of Cornwall Lode have been analysed for gold using photon analysis.
- Best results include **51.5 g/t Au, 26.5 g/t Au and 24 g/t Au.**
- A further 5 rock chips contain gold grades **greater than 5 g/t Au.**
- Total of 56 rock chips and 84 soil samples were taken across the broader strike of mineralisation with results from these additional samples due shortly.
- The Eastern Victorian exploration tenements offer a new area for gold and base metal exploration.

Recently completed exploration

ECR Minerals holds exploration tenement EL007484 in eastern Victoria, Australia. It has also applied for, but is awaiting final approval, for exploration licence EL007486 (in the same area). Situated approximately 500km east of ECR's Central Victorian projects (Creswick and Bailieston), the project area hosts distinct geology offering potential opportunities for gold and base metals.

There has been no significant exploration work completed on EL007484 since a site visit by ECR in 2023. Initial findings at that time included a significant rock chip sample of 0.2m @ 22 g/t Au from the Duke of Cornwall Mine. Elevated levels of pathfinder elements arsenic and bismuth alongside gold indicated the potential for further discoveries.

A recent exploration campaign included detailed mapping of historical gold workings and the collection of 56 rock chips and 84 soil samples taken at spaced intervals across and along strike of the mineralisation to gain a better understanding of the spread of pathfinder elements. Notably, historical mine development below 20m from surface remains unexplored.

With positive community and landowner relations the Board is confident that ECR is well positioned to make substantial progress on the project going forward.

Photon analysis

In response to recent challenges in obtaining laboratory results for gold through conventional fire assay methods, as previously announced, ECR has been trialling alternative approaches, including the use of photon analysis. PhotonAssay, described in more detail at the end of this announcement, is a novel, cost effective and non-destructive analytical technique, which can significantly reduce both sample preparation time and the duration of final analysis. This method has undergone testing by a number of mining companies and its consultants, in recent years, to understand its precision and the Directors understand it has been extensively used for grade control sampling at the Fosterville Goldmine (owned by Agnico-Eagle). Whilst it is still a new technique, the work done to date suggests that gold grade analysis does not necessarily need fire assay accuracy and that photon analysis can achieve the same results, particularly if grades mined are high and the sample size is large.

Out of the 56 rock chips, 37 have been analysed for their gold content using Photon analysis. The initial findings suggest encouraging indications of high grade gold. Notably, eight samples have revealed gold

findings suggest encouraging indications of high-grade gold. Notably, eight samples have revealed gold concentrations exceeding 5 grams per tonne (g/t). Sample BTR056 was obtained from in-situ unmined vein material and has demonstrated an expected grade of up to 51.5 g/t Au. Sample BTR047, extracted from a vein previously sampled in 2023 where a fire assay indicated 0.2 meters at 22 g/t Au, yielded a photon analysis result consistent with expectations, measuring 24 g/t Au.

All 56 rock chips are now undergoing duplicate analysis for gold by way of fire assay, and the results of this analysis will be announced as soon as they are available. In addition, earlier findings from 2023 indicate the presence of the metal bismuth, with concentrations reaching up to 0.4 kilograms per tonne, alongside gold. Further work is underway to better understand the significance and implications of bismuth in these samples.

Table One: Rock chip results above 0.5g/t Gold from Latest Tambo Project Exploration

SAMPLE ID	g/t Au	Comment
BTR056	51.5	40cm wide Unmined quartz outcrop above Adit
BTR044	26.5	Quartz from dump
BTR047	24	20cm Quartz vein in situ. (Same sample site from 2023 at 22 g/t Au)
BTR054	19.7	10 cm Unmined vein extension within Adit
BTR046	16.9	Quartz from mine dump
BTR021	16.7	Quartz from mine dump
BTR027	7	Subcropping quartz vein
BTR025	5.01	Quartz from mine dump
BTR045	2.03	-
BTR028	1.07	-
BTR029	1.04	-
BTR026	0.84	-

No other rock chip samples returned reportable results.

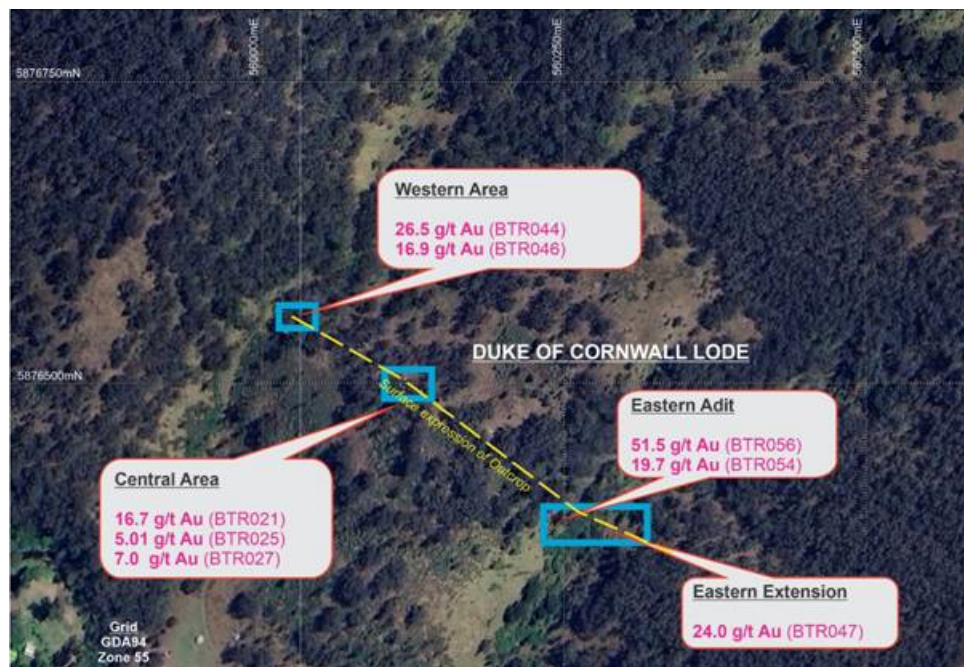


Figure One: Plan view of Duke of Cornwall Lode and Best Rock Chips.

Mike Whitlow Chief Operating Officer said: "Our technical strategy in Victoria continues to deliver promising results. We are observing significant variations in the geological age and footprint at our easternmost tenement, Tambo. Today's findings are particularly encouraging, as they are based on new scientific data analysis, further supporting the potential for drilling this asset in the second half of this year."

Adam Jones Chief Geologist added: "The Eastern Adit has shown very encouraging high-grade results which

merit further exploration. Although still early stage, our work done to date suggests these grades continue at greater depths below surface and beyond the shallow historical workings. These encouraging findings have pinpointed several high-priority drill targets which we will revisit in the coming months. What was also apparent during my visit is that large parts of the tenement are yet to be explored so there is considerable scope to follow up. It's worth considering what other sites have been overlooked since the early days of mining, especially in the current strong gold price environment."

REVIEW OF ANNOUNCEMENT BY QUALIFIED PERSON

This announcement has been reviewed by Adam Jones, Chief Geologist at ECR Minerals plc. Adam Jones is a professional geologist and is a Member of the Australian Institute of Geoscientists (MAIG). He is a qualified person as that term is defined by the AIM Note for Mining, Oil and Gas Companies.

Market Abuse Regulation (MAR) Disclosure

This announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ("MAR"), and is disclosed in accordance with the Company's obligations under Article 17 of MAR.

FOR FURTHER INFORMATION, PLEASE CONTACT:

ECR Minerals plc
Nick Tulloch, Chairman
Andrew Scott, Director

Tel: +44 (0) 1738 317 693

Email:
info@ecrminerals.com
Website: www.ecrminerals.com

WH Ireland Ltd
Nominated Adviser
Katy Mitchell / Andrew de Andrade

Tel: +44 (0) 207 220 1666

Axis Capital Markets Limited
Broker
Ben Tadd/Lewis Jones

Tel: +44 (0) 203 026 0320

SI Capital Ltd
Broker
Nick Emerson

Tel: +44 (0) 1483 413500

Novum Securities Limited
Broker
Jon Belliss

Tel: +44 (0) 20 7399 9425

Brand Communications
Public & Investor Relations
Alan Green

Tel: +44 (0) 7976 431608

ABOUT ECR MINERALS PLC

ECR Minerals is a mineral exploration and development company. ECR's wholly owned Australian subsidiary Mercator Gold Australia Pty Ltd ("MGA") has 100% ownership of the Bailieston and Creswick gold projects in central Victoria, Australia, has six licence applications outstanding which includes one licence application lodged in eastern Victoria (Tambo gold project).

ECR also owns 100% of an Australian subsidiary LUX Exploration Pty Ltd ("LUX") which has three approved exploration permits covering 946 km² over a relatively unexplored area in Lolworth Range, Queensland, Australia. The Company has also submitted a license application at Kondaparinga which is approximately 120km² in area and located within the Hodgkinson Gold Province, 80km NW of Mareeba, North Queensland.

Following the sale of the Avoca, Moormbool and Timor gold projects in Victoria, Australia to Fosterville South Exploration Ltd (TSX-V: FSX) and the subsequent spin-out of the Avoca and Timor projects to Leviathan Gold Ltd (TSX-V: LVX), MGA has the right to receive up to A\$2 million in payments subject to future resource estimation or production from projects sold to Fosterville South Exploration Limited. MGA also has approximately A\$75 million of unutilised tax losses incurred during previous operations.

ECR holds a royalty on the SLM gold project in La Rioja Province, Argentina which could potentially receive up to US\$2.7 million in aggregate across all licences.

ABOUT PHOTON ASSAY

Developed by Australia's national science agency, CSIRO, photon assay is described as a technique that can deliver faster, safer, and more accurate gold analysis. The developers of PhotonAssay are positioning it as an environmentally-friendly replacement for fire assay that can provide rapid turnaround on high sample volumes. Samples can be processed in less than 2 minutes in an automated process, compared to 3-4 hours for fire assay samples. A number of companies have undertaken a thorough evaluation of the method on their projects by undertaking extensive testing against fire assays (currently considered the gold standard for grade determination) with excellent results. PhotonAssay is considered most suitable for coarse gold mineralisation where analysis of large sample sizes is advantageous.

The technique works by hitting samples with high-energy X-rays, which causes excitation of atomic nuclei allowing enhanced analysis of gold, silver, copper and other elements in as little as two minutes. A highly sensitive detector picks up the unique atomic signatures from these elements to determine concentrations.

PhotonAssay has the following features:

- Bulk measurement of large samples, typically 400-650 g
- Minimal sample preparation e.g. crush to 2-3 mm top-size
- Non-destructive; no chemical reagents required
- Rapid (< 2 mins per sample, 70 samples/hour)
- Excellent sensitivity (0.01 ppm detection limit on reagent blanks, 0.015-0.030 on typical gold ores)
- Independent of sample matrix, chemistry or mineralogy
- Fully-automated

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