



("Tertiary" or "the Company")

AIM Announcement

17 January 2023

LAB RESULTS CONFIRM PROSPECTIVITY OF JACKS COPPER PROJECT, ZAMBIA

Further to its announcement of 8 November 2022, Tertiary Minerals plc is pleased to advise that laboratory check analytical results on soil samples from the Jacks Copper Project in Zambia have confirmed and enhanced the provisional results previously reported based on portable XRF ("pXRF") analyses taken in the field.

Key Points:

- Laboratory check multielement analytical results now received for 107 soil samples from 4 sample grids.
- Laboratory results show excellent correlation with previously reported field pXRF results.
- New scandium analyses (not available with pXRF analysis) allows evaluation of key copper:scandium ("Cu:Sc") ratios. High Cu:Sc ratios are considered indicative of hydrothermal copper sulphide mineralisation elsewhere in Zambia.
- The high Cu:Sc ratios obtained from the soil samples taken over copper sulphide mineralisation intersected in Company's 2022 drill programme at Area D validate the application of the Cu:Sc ratio and both enhance and extend the Area D soil anomaly beyond the area drilled.
- Laboratory analyses for 27 contiguous soil samples along a check profile in Area C exhibit high Cu:Sc ratios for a strike length of approximately 1 km and make Area C another priority for drill testing.

Commenting today, Executive Chairman Patrick Cheetham said:

"These check analyses, and the scandium results in particular, have materially enhanced the previously reported results and confirm the prospectivity of the priority copper soil anomalies outlined to date at the Jacks Project."

"These results build on a number of recent positive announcements for our Zambian copper projects that highlight the prospectivity of the portfolio we have built over the past 18 months. We are looking forward to an exciting field season in 2023."

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Market Abuse Regulation (MAR) Disclosure

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 which forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ('MAR'). Upon the publication of this announcement via a Regulatory Information Service ('RIS'), this inside information is now considered to be in the public domain.

Detailed information

Background

The Jacks Copper Prospect lies within Exploration Licence 27069-HQ-LEL which covers 141.4 km² and is located 85 km south of Luanshya in Zambia. Tertiary has earned a 90% interest in the licence from local company Mwashia Resources Limited ("Mwashia") and recently signed a joint venture and shareholder agreement with Mwashia, details of which are given in the Company's announcement of 4 November 2022.

Following a successful drilling programme at the main Jacks Prospect in 2022, the Company conducted a sampling programme in October 2022 where a total of 1,807 soil samples were collected over four separate areas covering 11.5 km². Samples were analysed in the field using a portable x-ray fluorescence ("pXRF") analyser on a near real-time basis, allowing daily definition of soil anomalies which were then sampled in more detail on infill lines.

Multiple soil anomalies were defined by pXRF analysis and results compared favourably with soil anomalies in the vicinity of various ore zones at current and past producing mines on the Copperbelt. An anomaly threshold of 80ppm copper was reported.

Field pXRF analytical results are considered semi-quantitative, while scandium cannot be analysed by pXRF but is considered to be an important reference element in discriminating soil anomalies due to copper sulphide mineralisation.

Check samples from key soil lines on all four grids (Areas A-D) were sent to the ALS Laboratory in Johannesburg for multielement analysis by ICP-MS (Method code: ME-MS61). A total of 107 samples were analysed.

Analytical Results

The laboratory results for copper in soil samples show an excellent correlation (correlation coefficient of 0.98) with field pXRF results and when samples above the 80ppm anomaly threshold are considered, the average difference between ICP-MS copper results and pXRF copper results is just 4%.

The new analytical results therefore substantiate the details of the copper soil anomalies discussed in the Company's news release of 8 November 2022. Furthermore, the results of scandium analysis have allowed further discrimination of the anomalies and enhanced the priority anomalies as discussed below.

Copper:Scandium Ratios

Published data (²Halley et. al., 2016) from soil sampling by first Quantum Minerals ("FQM") at the Sentinel Copper Mine in Zambia shows that a soil copper:scandium (Cu:Sc) ratio greater than 8 successfully delineated the now operating giant Sentinel Copper Deposit and suggested that high Cu:Sc ratios are indicative of hydrothermal copper mineralisation of economic interest rather than high background copper levels of no economic interest. This threshold has been used in evaluating the Company's new analytical results. A map showing the location of soil grids Areas A-D can be found on the Jacks Project page of the Company's website.

A total of 34 samples were analysed by ICP-MS at **Area D** along a profile which covered the soil anomaly associated with the original Jacks Copper Prospect which was successfully drilled by Tertiary during the Phase 1 Drill Programme in 2022. The purpose of this work was to obtain the geochemical footprint over known mineralisation. Above threshold anomalous Cu:Sc ratios were obtained across the full width of the Area D soil anomaly, confirming the relevance of the Cu:Sc ratio to mineralisation in the wider Jacks Copper Project.

Area C was originally targeted by FQM based on regional soil sampling which identified samples with high copper and above threshold Cu:Sc ratios. Tertiary's more detailed follow-up field pXRF analysis had defined a 1,100m long and 400m wide north-northeast striking copper anomaly. A total of 31 samples from one soil profile along the anomaly have now been analysed by ICP-MS and 27 contiguous samples show above threshold Cu:Sc ratios indicating a **possible mineralised strike length of approximately 1km**. Area C is now a target for immediate follow-up work.

At **Area B** a 600m long x 600m wide copper-in-soil anomaly was defined by pXRF analysis during the soil sampling programme with peak copper values higher than in Area C. However, of 22 samples now analysed by ICP-MS only 2 samples had anomalous Cu:Sc ratios. This downgrades the copper anomaly in Area B and illustrates the value of scandium analysis in discriminating and prioritising copper anomalies. A new map illustrating the differences between Area B and C anomalies can be found on the Jacks Project page of the Company website.

A total of 20 samples were analysed from **Area A** and were selected as a baseline due to the relatively low-level and narrow width of the copper-in-soil anomalism compared to areas B, C and D. The majority of samples had a Cu:Sc ratio below threshold confirming that this area remains a low priority.

The Company plans to carry out further drilling at Jacks in 2023 to test the soil anomaly at Area C and extend the drilling along strike at Area D (the original Jacks Prospect).

Notes:

1. *Samples were analysed by ALS in Johannesburg by method code ME-MS61, a 4-acid digest ICP-MS multielement suite. Internal company and laboratory QA/QC samples were inserted into the sample run and returned satisfactory results.*
2. *Halley, S.W., Wood, D., Stoltze, A., Godfroid, J., Goswell, H. and Jack, D., 2016 - Using Multielement Geochemistry to Map Multiple Components of a Mineral System: Case Study from a Sediment-Hosted Cu-Ni Camp, NW Province, Zambia: in SEG Newsletter, No. 104, January, 2016, pp. 1, 15-21.*
3. *The information in this release has been reviewed by Mr. Patrick Cheetham (MIMMM, M.Aus.IMM), Executive Chairman of Tertiary Minerals plc, who is a qualified person for the purposes of the AIM Note for Mining and Oil & Gas Companies. Mr. Cheetham is a Member of the Institute of Materials, Minerals & Mining and also a member of the Australasian Institute of Mining & Metallurgy.*
4. *The news release may contain certain statements and expressions of belief, expectation or opinion which are forward looking statements, and which relate, inter alia, to the Company's proposed strategy, plans and objectives or to the expectations or intentions of the Company's directors. Such forward-looking statements involve known and unknown risks, uncertainties, and other important factors beyond the control of the Company that could cause the actual performance or achievements of the Company to be materially different from such forward-looking statements. Accordingly, you should not rely on any forward-looking statements and save as required by the AIM Rules for Companies or by law, the Company does not accept any obligation to disseminate any updates or revisions to such forward-looking statements.*