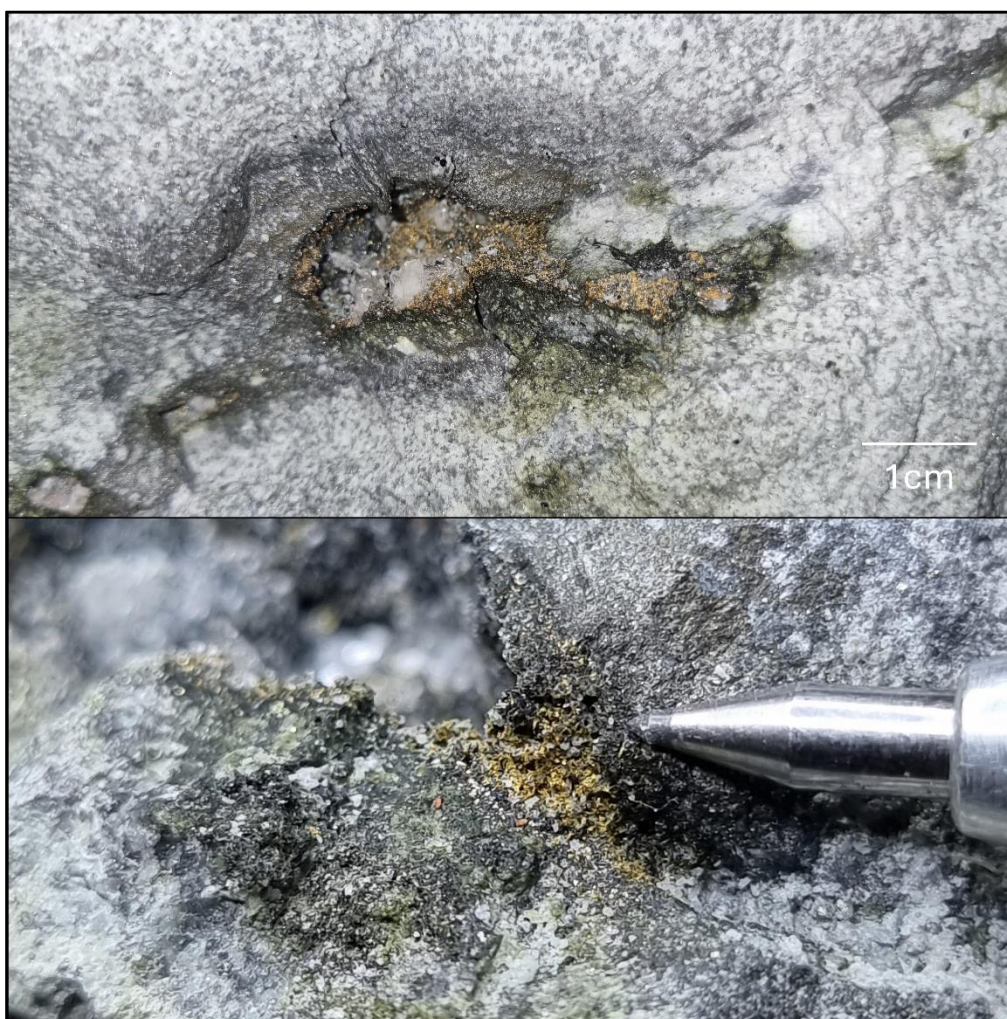


## LION ONE INTENSIFIES ROSCOELITE FOCUS AND ENHANCES FIJI GOLD TEAM WITH ADDITION OF TWO EX-NEWMONT GEOLOGISTS

North Vancouver, B.C., November 19, 2024 - Lion One Metals Limited (TSX-V: LIO) (OTCQX: LOMLF) (“Lion One” or the “Company”) is pleased to report an intensification of roscoelite-targeting efforts at Tuvatu and announces the return of Sergio Cattalani to Fiji to lead the technical team in these efforts. The company is also pleased to announce the additions of Ivan Maldonado and Alexander Valencia as the new Mine Geology Manager and Senior Mine Geologist respectively at the Company’s Tuvatu Gold Mine in Fiji.

### Roscoelite Targeting

A new significantly mineralized structure has been exposed in the near-surface underground workings at Tuvatu. This structure has consistently returned very high-grade gold since it was first identified in September from underground face sampling. The structure is associated with abundant roscoelite, a feature which is characteristic of several large alkaline gold deposits such as Porgera<sup>1</sup>, Cripple Creek<sup>2</sup>, and Vatukoula<sup>3</sup> (see Figure 1 below). An initial underground bulk sample from this structure has returned 11.6 g/t gold from 861 tonnes of material fully diluted ( [November 12, 2024](#) News Release).



**Figure 1. Visible gold and roscoelite vein underground at Tuvatu.** Top: Abundant visible gold and roscoelite from exposed vuggy quartz-roscoelite vein seen in-situ underground at Tuvatu. The gold displays a “wire gold” textural habit indicating the rapid deposition of gold from hydrothermal fluids. Bottom: Close-up image of visible gold in quartz-roscoelite vein. Tungsten-carbide scratcher used for scale.

The new structure has been continuously mapped and mined for over 100 m in the E-W direction and appears to extend further to the east of the current underground workings. While roscoelite-bearing mineralized structures have been identified in drill core at Tuvatu, this is the first time that a significant roscoelite-bearing lode array with high-grade gold has been identified and exposed continuously over a significant distance underground.

Notably, this structure is striking E-W and dipping at approximately  $-20^{\circ}$  to the north. This is an orientation that has not previously been defined or predicted in the Tuvatu geological model, though it has been identified in recent structural analysis.

Roscoelite-bearing structures represent an important target-type at Tuvatu as they are directly associated with high-grade gold. Lion One management has therefore determined that a dedicated effort be allocated to better characterize these lode types, with the goal being to define specific criteria that can be used to identify additional structures with similar attributes at Tuvatu. The current underground exposure of a high-grade roscoelite-bearing structure provides the Company with an invaluable opportunity to carry out detailed sampling and analysis to better understand the mineralogy, geochemistry, and orientation of these structures in situ. Sergio Cattalani has returned to Fiji to lead these efforts on site. Mr Cattalani has over 40 years of experience and as the former Senior Vice President of Exploration for Lion One Metals from mid-2021 to the end of 2023, he is intimately familiar with the deposit and is ideally suited to lead these efforts.

One of the Company's primary objectives is to develop a detailed understanding of the spatial mineralogical and grade characteristics of the exposed roscoelite structure, and to document if/how the structure and associated gold mineralization varies with proximity to cross-cutting structures of different orientations. The conceptual model, strengthened by direct observations underground, suggests that high-grade "blow-out" zones (or "shatter zones" as described at Vatukoula) are produced at the intersection of multiple structures with different orientations, as has previously been observed in deposits with similar alteration and grade characteristics to Tuvatu, such as the Porgera gold mine.<sup>1</sup> Mr. Cattalani has been charged with investigating precisely how the gold grades, widths, and alteration type and intensity vary along the exposed roscoelite-bearing structure with proximity to the cross-cutting, predominantly steeply dipping, structures that are widely prevalent at Tuvatu. An increased understanding of both the primary characteristics of these roscoelite-bearing structures, as well as their structural interactions, will enable the company to efficiently interrogate and augment the extensive database at Tuvatu to effectively target additional similar features throughout the deposit, and to thereby enhance and expand the long-term mine plan at Tuvatu.

### **Strengthened Fiji Technical Team**

Lion One Metals is pleased to welcome Mr Ivan Maldonado and Mr Alexander Valencia to the Lion One technical team in Fiji. Both Mr Maldonado and Mr Valencia bring extensive technical experience to Lion One, and both will be working with the production geology team at Tuvatu.

#### **Ivan Maldonado, P.Geo. – Mine Geology Manager**

Mr Ivan Maldonado is a professional geoscientist with over 17 years' experience in mine production, resource modeling, and brownfields exploration in Mexico and Canada. Mr Maldonado gained significant experience with Red Lake Gold Mines at the Campbell mine & Cochenour mine where he spent six years in positions such as Underground Production Geologist, Exploration Geologist and Resource estimation Geologist, followed by six years at Newmont's Borden gold mine where he rose to the rank of Senior Underground Production Geologist.

Mr Maldonado's past experiences as a production geologist includes positions at Pan American Silver's Dolores open pit mine, and Goldcorp's San Dimas underground gold-silver mine, both in Mexico.

**Alexander Valencia MSc. G.I.T. CAPM – Senior Mine Geologist**

Mr Alexander Valencia is a professional geoscientist with over 12 years' experience in the mining industry, specializing in resource modeling and with expertise in the exploration of Porphyry Cu-Au, Epithermal Au-Ag, VMS, Orogenic and Skarn deposits. Mr Valencia also has experience in open-pit and underground mining production, ground control, and slope stability and gained significant experience over the last four years as Underground Production Geologist at Newmont's Borden, Porcupine, and Hoyle Pond gold mines in Ontario.

Mr Valencia's prior experience includes one year as a Geological Technician at Glencore's Kidd Creek Mine, and five years as a Geologist Engineer for ESCARTEC and Constructora Villacreces Andrade in Quito, Ecuador.

The Company also announces that Mr. Alex Nichol has resigned from his role as Vice President, Exploration and Geology, to pursue other opportunities. The Company thanks Mr. Nichol for his hard work and significant contributions to Tuvatu and extends their best wishes to him on his future endeavors.

Lion One Chairman and CEO Walter Berukoff commented: "We are delighted to welcome Ivan and Alexander to Fiji where their expertise will be invaluable to our team at the Tuvatu Gold Mine. I also wish to thank Alex Nichol for his valuable contributions to the Company and wish him the best of luck in all his future endeavours."

**References:**

1. Ronacher, E. (2002). *The Porgera gold deposit: Fluid characteristics, ore deposition processes, and duration of the ore forming event*. [Doctoral Thesis, University of Alberta].
2. Kadel-Harder, I. K., Spry, P. G., McCombs, A. L., Zhang, H. (2020). Identifying pathfinder elements for gold in bulk-rock geochemical data from the Cripple Creek Au-Te deposit: a statistical approach. *Geochemistry: Exploration, Environment, Analysis*, v. 21.
3. Scherbath, N. L., & Spry, P. G. (2006). Mineralogical, Petrological, Stable Isotope, and Fluid Inclusion Characteristics of the Tuvatu Gold-Silver Telluride Deposit, Fiji: Comparisons with the Emperor Deposit. *Economic Geology*, v 101.

**Competent Persons Statement**

The information in this report that relates to mineral exploration at the Tuvatu Gold Project is based on information compiled by the Lion One team and reviewed by Melvyn Levrel, who is the company's Senior Geologist. Mr Levrel is a Member of the Australian Institute of Geoscientists and 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 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC code). Mr Levrel consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

**Lion One Laboratories / QAQC**

Lion One adheres to rigorous QAQC procedures above and beyond basic regulatory guidelines in conducting its drilling, sampling, testing, and analyses. The Company operates its own geochemical

assay laboratory and its own fleet of diamond drill rigs using PQ, HQ and NQ sized drill rods.

Diamond drill core samples are logged and split by Lion One personnel on site and delivered to the Lion One Laboratory for preparation and analysis. All samples are pulverized at the Lion One lab to 85% passing through 75 microns and gold analysis is carried out using fire assay with an AA finish. Samples that return grades greater than 10.00 g/t Au are re-analyzed by gravimetric method, which is considered more accurate for very high-grade samples.

Duplicates of 5% of samples with grades above 0.5 g/t Au are delivered to ALS Global Laboratories in Australia for check assay determinations using the same methods (Au-AA26 and Au-GRA22 where applicable). ALS also analyses 33 pathfinder elements by HF-HNO<sub>3</sub>-HClO<sub>4</sub> acid digestion, HCl leach and ICP-AES (method ME-ICP61). The Lion One lab can test a range of up to 71 elements through Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES), but currently focuses on a suite of 23 important pathfinder elements with an aqua regia digest and ICP-OES finish.

### **About Lion One Metals Limited**

Lion One Metals is an emerging Canadian gold producer headquartered in North Vancouver BC, with new operations established in late 2023 at its 100% owned Tuvatu Alkaline Gold Project in Fiji. The Tuvatu project comprises the high-grade Tuvatu Alkaline Gold Deposit, the Underground Gold Mine, the Pilot Plant, and the Assay Lab. The Company also has an extensive exploration license covering the entire Navilawa Caldera, which is host to multiple mineralized zones and highly prospective exploration targets.

### **On behalf of the Board of Directors,**

Walter Berukoff, Chairman & CEO

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