

## **LION ONE PROVIDES UPDATE ON TUVATU OPERATIONS IN FIJI, GRANTS OPTIONS**

**North Vancouver, BC, January 19, 2024** - Lion One Metals Limited (TSX-V: LIO) (OTCQX: LOMLF) (ASX: LLO) ("Lion One" or the "Company") is pleased to provide an update on ongoing operations at the company's 100% owned Tuvatu Alkaline Gold Project in Fiji.

Lion One Metals' Chairman and CEO Walter Berukoff stated: *"2023 was a year of noteworthy accomplishments for Lion One Metals. Within one year we have gone from pouring concrete to pouring gold. We built the entire processing plant at Tuvatu within one year, completed over 2,000 m of underground mine development, drilled over 40,000 m of core, completed Stage 1 of our Tailings Storage Facility, and on October 10<sup>th</sup> we celebrated with over 1,000 community members, employees, and government officials as we poured our first gold at Tuvatu. We're very proud of our technical team's ability to achieve these significant milestones, especially in such a short period of time."*

*"In 2024 we expect another watershed year for Lion One Metals. During the 300 TPD pilot plant phase of operations we will be focusing on the development of the mine and the expansion of the processing plant to 500 TPD. We are pursuing a staged increase in development and the 300 TPD pilot plant stage is a critical step in the continuous improvement of mining and milling at Tuvatu. The knowledge and experience gained during the pilot plant stage of operations will be crucial in achieving long-term success and in optimizing performance at the 500 TPD stage. The goal for 2024 is to have the 500 TPD processing plant in operation by the end of Q3. We will then use the cash flow from our 500 TPD operations to fund the next stage of growth for Lion One, which includes the development of the 500 Zone at Tuvatu, and the advancement of our regional exploration program throughout the Navilawa Caldera, where we intend to discover and develop the next Tuvatu."*

### **Mine Operations**

The focus of mining activities during the 300 TPD pilot plant phase of operations is the development of the underground mine, with the goal of advancing the main decline to the 500 Zone as quickly as is safely possible. A secondary goal during this phase of operations is the development of as many stope access points as feasible in advance of the plant expansion to 500 TPD. A significant portion of the material mined during the 300 TPD pilot plant phase of operations is therefore expected to be development material.

As mine development has progressed at Tuvatu, additional mineralization has been discovered in areas in Zone 2 that were not previously expected to be mineralized. This includes mineralization associated with stockwork veining as well as entirely new mineralized lodes. Many of the development headings at Tuvatu have been found to contain low-grade gold mineralization. This low-grade development material is ideal for use as feed stock to test the different gold recovery circuits during the initial stages of plant operation. Processing the development material also serves to offset costs during mine development as this material needs to be removed regardless of whether it is mineralized. Most of the mill feed during the start-up of the 300 TPD pilot plant has therefore consisted of low-grade development material. The first production material was extracted on December 13<sup>th</sup>, 2023, from the URW1 leading edge stope in Zone 2. This stope is located outside the original PEA resource and represents an expansion of the resource.

Mining activities at Tuvatu in 2024 will consist of a mix of handheld and mechanized mining methods. Handheld mining is ideal for narrow vein mining as it is precise and enables the effective development of narrow drives, thereby minimizing dilution. Mechanized mining produces wider voids and results in a

considerably higher production rate. It is therefore the preferred alternative for wider zones of mineralization that are not sensitive to dilution. At Tuvatu there are areas more suitable for handheld mining and others more suitable for mechanized mining. The mining method employed will be tailored to the style of mineralization being extracted. Mine development is proceeding in a manner designed to preserve the optionality of switching between mining methods as appropriate. To date, development mining at Tuvatu has progressed using both handheld and mechanized mining, yet production mining has been limited to handheld methods. Mechanized production is scheduled to start in Q1 2024. Production mining refers to the mining of production stopes through which most of the mineralized material will be extracted, whereas development mining refers to all the supporting development required to access the production stopes, such as the declines, access drives, crosscuts, ventilation rises, and so on. While the primary mining objective during the 300 TPD pilot plant stage is development, mine production is anticipated to steadily increase as production mining is introduced and as the number of available production areas increases ahead of the plant expansion to 500 TPD.

### **Mill Operations**

The focus of mill operations during the 300 TPD pilot plant stage is on determining the best methods and parameters required to maximize gold recovery from each type of gold mineralization at Tuvatu. Mill operations to date have consisted of a start-up period and a campaign period with feed from different areas within Zone 2 and Zone 5.

During the start-up period of operations from late October to early December 2023, predominantly low-grade material was put through the mill. This is typical of mill start-ups and is done while identifying and resolving any start-up issues that may be present before ramping up production. It also serves to build the in-process store of gold that is retained within the plant. During the subsequent campaign periods of operation, the focus changed to the metallurgical variability of the gold mineralization. Several different types of mineralization have been identified at Tuvatu, including three different types within Zone 2 and Zone 5. Due to the complexity of the deposit, additional variability in mineralization is anticipated as development progresses deeper into the mine. The campaign period of operations, which began in mid-December, has consisted of processing separate batches of material from specific parts of Zone 2 and Zone 5 to determine how the plant responds in each case. The knowledge gained from these campaigns will be applied to maximize gold recovery from the larger production stopes in these areas. Gold recovery rates during the start-up and campaign periods have been in line with expectations.

In addition to the start-up and campaign activities, mill commissioning and upgrading has been carried out. Commissioning of both the continuous gravity concentrator and the intensive leach circuit has been on hold due to a delayed shipment of component parts from suppliers. Both circuits are expected to be brought on-line by early February. Similarly, the blowers supplied to aerate the CIL tanks and cyanide detoxification circuit were found to be undersized by the supplier. New blowers will be installed, along with new air spargers and diffusion cones to improve the performance of the CIL circuit.

The mill expansion to 500 TPD is scheduled to be complete by the end of Q3 2024. The expansion consists of three main components: a tower mill, a flotation circuit, and a third ball mill. The purpose of the tower mill is to produce a finer grind of concentrates from the continuous gravity concentrator, thereby further increasing recoveries. The tower mill is expected to be on site in February. The flotation circuit is also being added to maximize recoveries, while the third ball mill is required to increase the milling capacity of the plant. Site preparations for both the flotation circuit and the third ball mill are already complete and construction is pending. All three mill components are on schedule for completion and commissioning by the end of Q3 2024, which is a year ahead of the originally scheduled completion date of Q3 2025.





**Figure 1. Aerial Views of Tuvatu Processing Plant and Mine Portal, December 2022 and January 2024.** Top image: Aerial view in December 2022 shortly after plant construction started. Bottom image: Aerial view in January 2024 after construction is complete and the 300 TPD pilot plant is in operation. These views highlight some of the substantial progress made at Tuvatu throughout 2023.

### Options

The Company also announces it has granted stock options pursuant to its 10% rolling stock option plan to an officer of the Company to purchase up to an aggregate of 500,000 common shares of the Company. The stock options are exercisable at \$1.00 per share and expire 5 years from the date of grant.

### Qualified Person (NI43-101)

In accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-

101”), Alex Nichol, MAIG, VP Geology and Exploration, is the Qualified Person for the Company, and has reviewed, validated, and approved the technical and scientific content of this news release.

**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.

As disclosed in its “Technical Report and PEA Update for the Tuvatu Gold Project” dated April 29, 2022, the 2018 Tuvatu resource estimate comprises 1,007,000 tonnes indicated at 8.50 g/t Au (274,600 oz. Au) and 1,325,000 tonnes inferred at 9.0 g/t Au (384,000 oz. Au) at a cut-off grade of 3.0 g/t Au. The technical report is available on the Lion One website at [www.liononemetals.com](http://www.liononemetals.com) and under the Lion One profile on the SEDAR+ website at [www.sedarplus.ca](http://www.sedarplus.ca).

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

Walter Berukoff, Chairman & CEO

**Contact Information**

Investor inquiries: [info@liononemetals.com](mailto:info@liononemetals.com)

Phone: 1-855-805-1250 (toll free North America)

Website: [www.liononemetals.com](http://www.liononemetals.com)

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