



LIONONEMETALS.COM | TSXV: LIO | OTCQX: LOMLF

DEVELOPING A  
**MAJOR ASSET**  
WITHIN A  
**JUNIOR COMPANY**

Tuvatu Alkaline Gold Project | Fiji Islands

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Investor Presentation, December 2024

DRILLING | DISCOVERIES | DEVELOPMENT | PRODUCTION

# Forward Looking Statements

## DISCLAIMER

The information provided in this presentation is not intended to be a comprehensive review of all matters and developments concerning the Company and should be read in conjunction with all other disclosure documents of the Company. The information contained herein is not a substitute for detailed investigation or analysis. No securities commission or regulatory authority has reviewed the accuracy or adequacy of the information presented.

## FORWARD-LOOKING STATEMENTS

This presentation contains statements and information that constitute forward-looking information within the meaning of Canadian securities legislation, referred to herein as "forward-looking statements", include statements regarding proposed exploration and development activities and their timing, resource estimates, exploration potential and the PEA, including estimates of capital and sustaining costs, anticipated internal rates of return, mine production, estimated recoveries, mine life, estimated payback period and net present values, opportunities to enhance the value of the Tuvatu Gold Project and other plans and objectives of the Company. In making the forward-looking statements herein, the Company has applied several material assumptions, including that (1) required approvals, permits and financing will be obtained; (2) the proposed exploration and development of the Company's properties will proceed as planned and that actual results will be consistent management's expectations; (3) with respect to mineral resource estimates, the key assumptions and parameters on which such estimates are based; (4) market fundamentals will result in sustained metals and minerals prices; and (5) with respect to the PEA, the assumptions underlying the PEA, that the proposed mine plan and recoveries will be achieved, that capital costs and sustaining costs will be as estimated and that no unforeseen accident, fire, ground instability, flooding, labor disruption, equipment failure, metallurgical, environmental or other events that could delay or increase the cost of development will occur.

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements, including: delays or inability to obtain required government or other regulatory approvals, permits or financing, the risk of unexpected variations in mineral resources, grade or recovery rates, of failure of plant, equipment or processes to operate as anticipated, of accidents, labor disputes, and unanticipated delays in completing exploration and development activities, the risk that estimated costs will be higher than anticipated and the risk that the proposed mine plan and recoveries will not be achieved, bad weather, exploration and development risks, actual results of exploration and/or development activities being materially different from those expected by management; uncertainties related to interpretation of drill results and geological tests, failure to meet expenditure and financing requirements, title matters, third party consents, operating hazards, metal prices, political and economic factors, competitive factors and general economic conditions. Actual results may vary from those implied or projected by forward-looking statements and therefore investors should not place undue reliance on such statements. The forward-looking statements herein are made as at the date of this presentation and the Company expressly disclaims any intention or obligation to update or revise any forward-looking statements except as required by applicable securities legislation.

## TECHNICAL DISCLOSURE

The technical information in this presentation has been approved by Melvyn Levrel, MAIG., a Qualified Person as defined by National Instrument "NI" 43-101 Standards of Disclosure for Mineral Projects

# Ideally Positioned in the Pacific Ring Of Fire



Prolific geological & tectonic setting



Host to several major gold & copper-gold systems

One of the only large  
**alkaline gold** systems  
not owned by a major





# Analog Alkaline Gold Systems

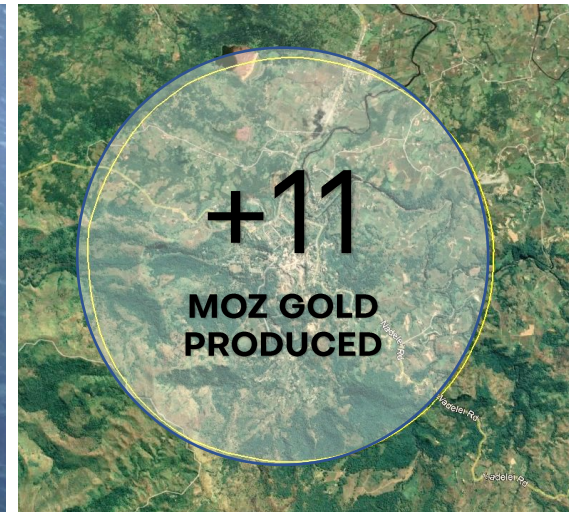
**PORGERA, PNG**  
BARRICK



**LIHIR, PNG**  
NEWMONT



**VATUKOULA, FIJI**  
ZHONGRUN



**CRIPPLE CREEK, USA**  
SSR (ex-NEWMONT)



**“...alkaline magmas...carry a lot of  
gold... usually, they turn out to be big.”**

Dr Quinton Hennigh

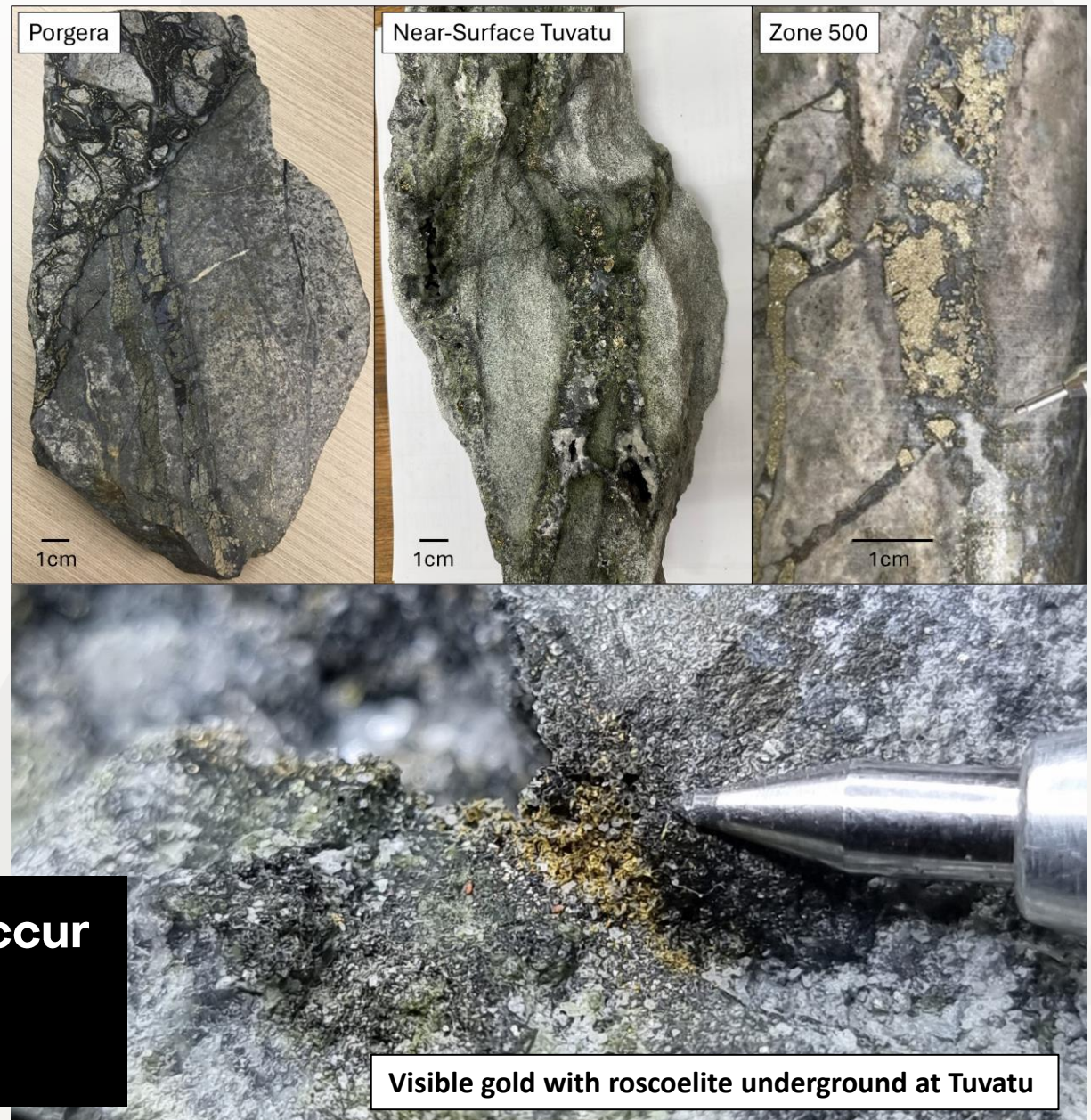


# Roscoelite

- ❏ Rare green-black alteration mineral
- ❏ Directly related to high grade gold
- ❏ Characteristic of large high-grade alkaline gold systems, including Porgera, Lihir, Cripple Creek
- ❏ Widely observed at Tuvatu, including in the ultra high-grade Zone 500

**“The highest gold grades... ubiquitously occur with roscelite, a vanadium-rich mica.”**

D. Schmidt, 2023 Thesis, Colorado School of Mines

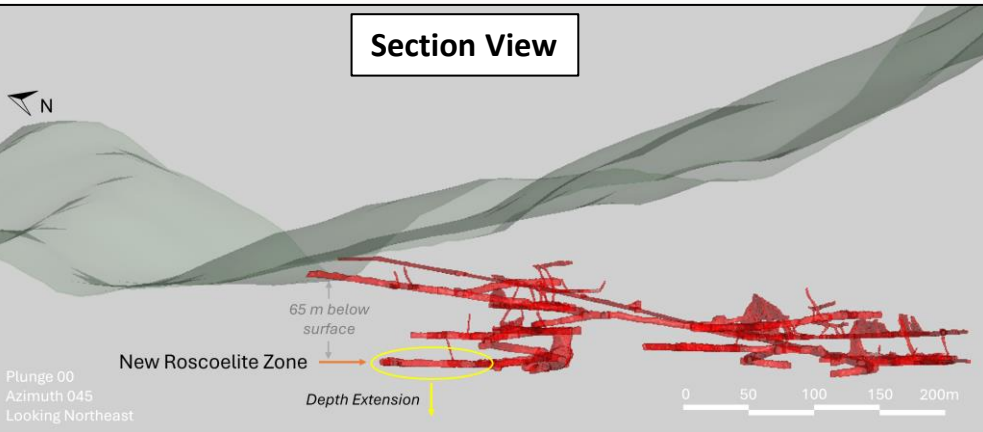


# Near Surface Roscoelite Zone

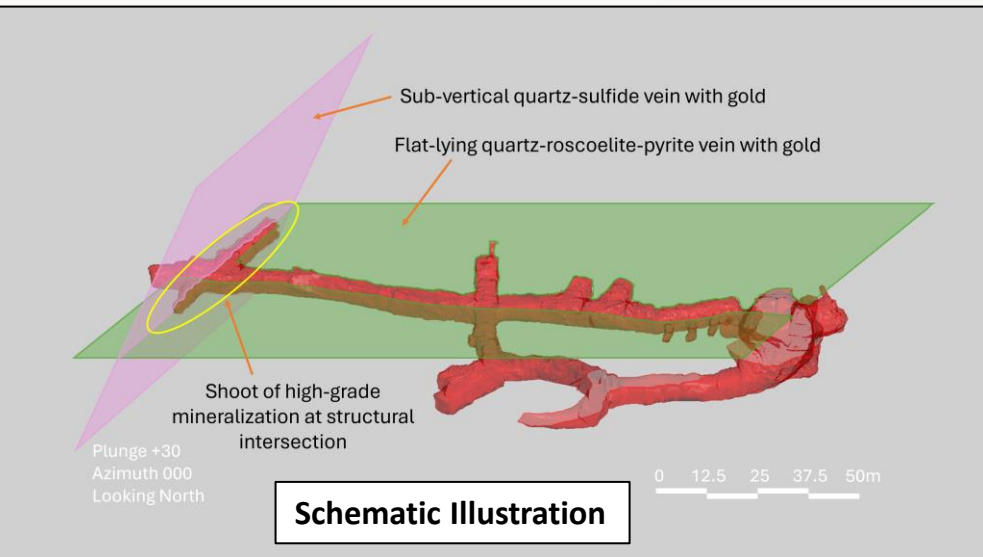
- 65m below surface, >100 m exposed underground
- 11.6 g/t Au from 816 t bulk sample
- Blow-out zones at the intersection of structures
- Already in production

High-grade **gold** shoots occur at the intersection of sulfide veins with **roscoelite** veins, as seen at Porgera

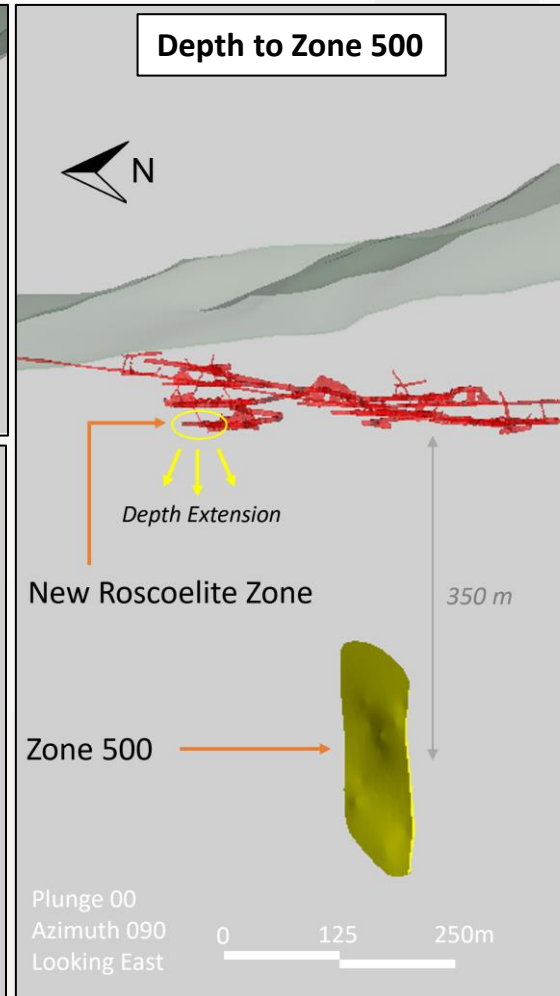
Section View



Schematic Illustration



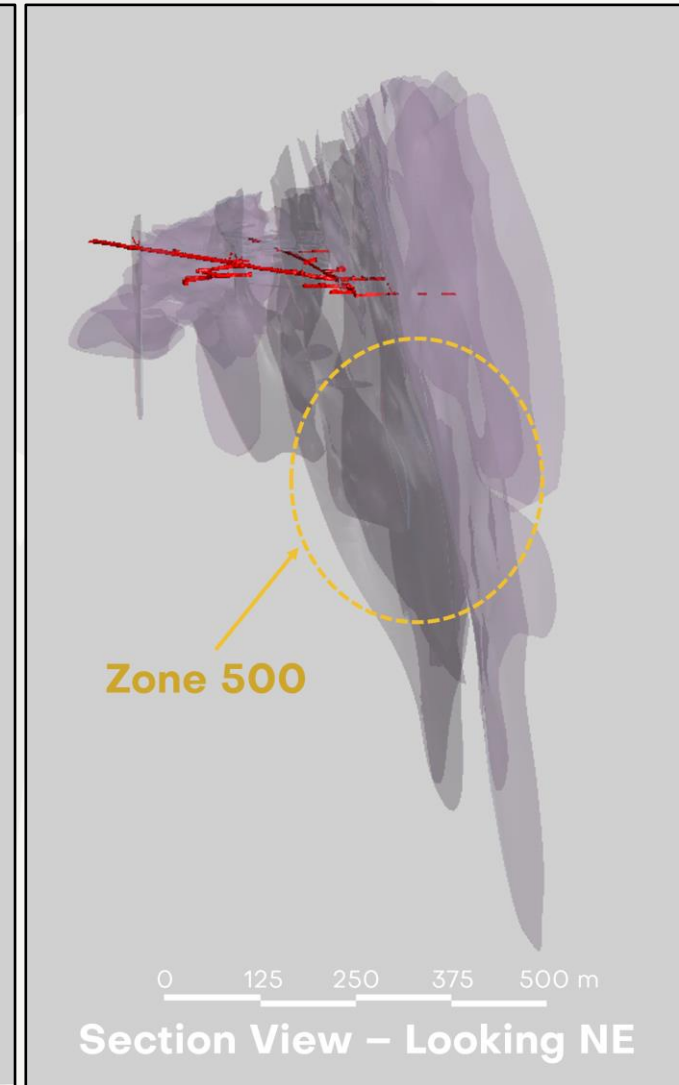
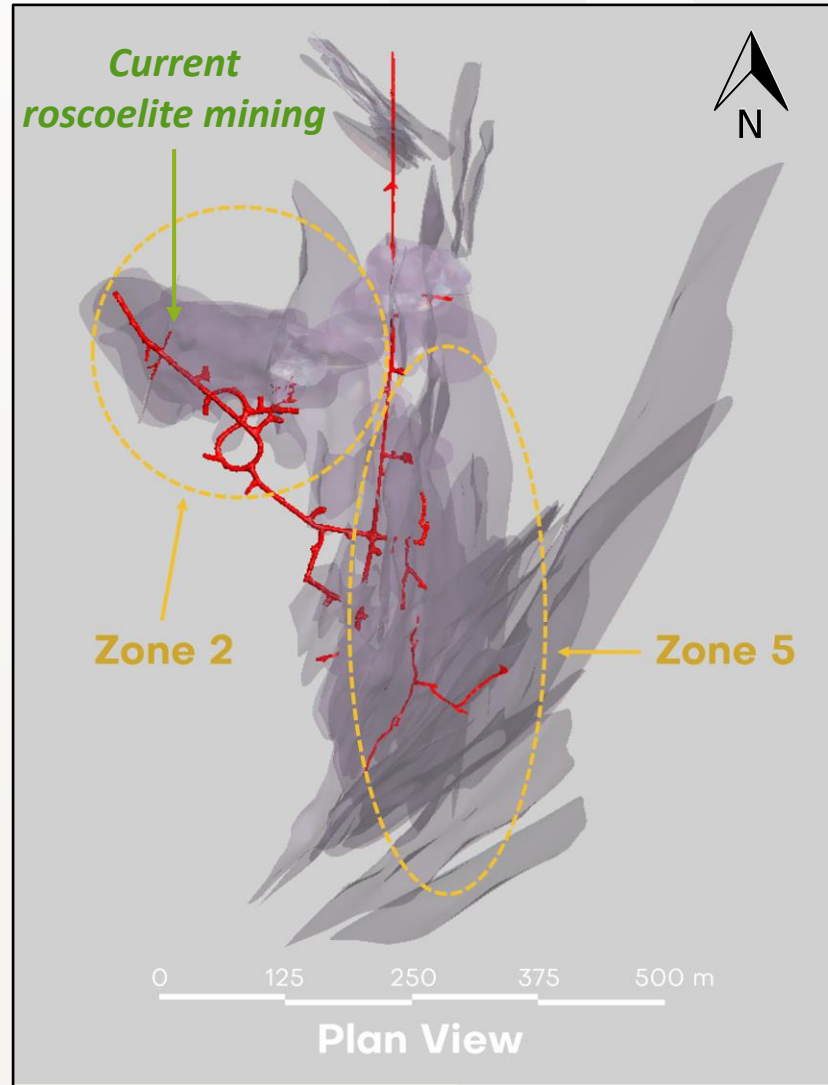
Depth to Zone 500





# Tuvatu Deposit

- Steeply dipping high-grade gold lodes trending N-S and NE-SW
- Surface footprint 500 m x 900 m
- Extends to >1000 m depth
- Open at depth and along strike
- Zone 2 and Zone 5 near surface
- Zone 500 feeder zone



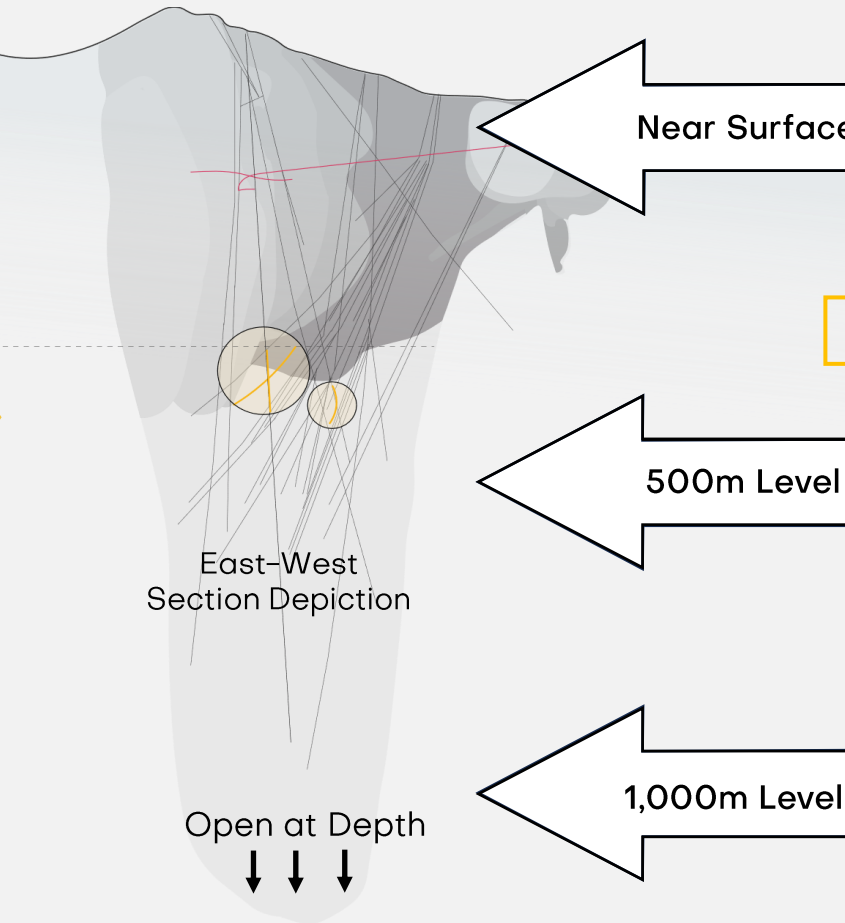
EXAMPLE DRILL RESULTS

# High-Grade Gold Results

**ZONE 2 and ZONE 5**  
IN PRODUCTION  
300 TPD

**ZONE 500**  
EXPECTED PRODUCTION 2026  
600 TPD

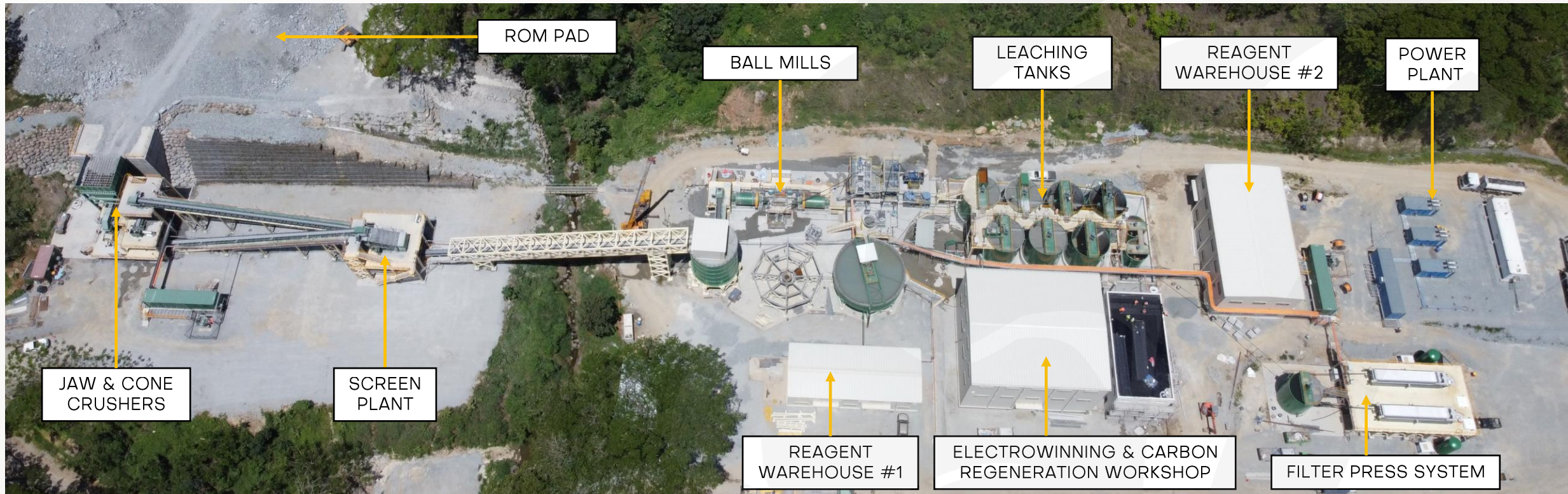
**DEEP FEEDER ZONE**  
EXPLORATION,  
DEVELOPMENT DRILLING



GRADE (g/t Au)	INTERVAL (meters)	FROM (meters)
359.76	1.80	70.80
21.31	12.45	90.10
71.41	8.41	96.10
90.76	2.40	221.30
83.47	6.60	242.70
291.77	3.65	333.00
20.86	75.90	443.40
35.25	37.50	471.30
43.62	30.00	477.60
90.35	7.20	494.40
55.43	12.70	571.00
12.22	54.90	576.10
17.89	23.70	594.50
10.52	0.35	983.15
12.22	0.30	1,192.00



# Tuvatu Processing Plant

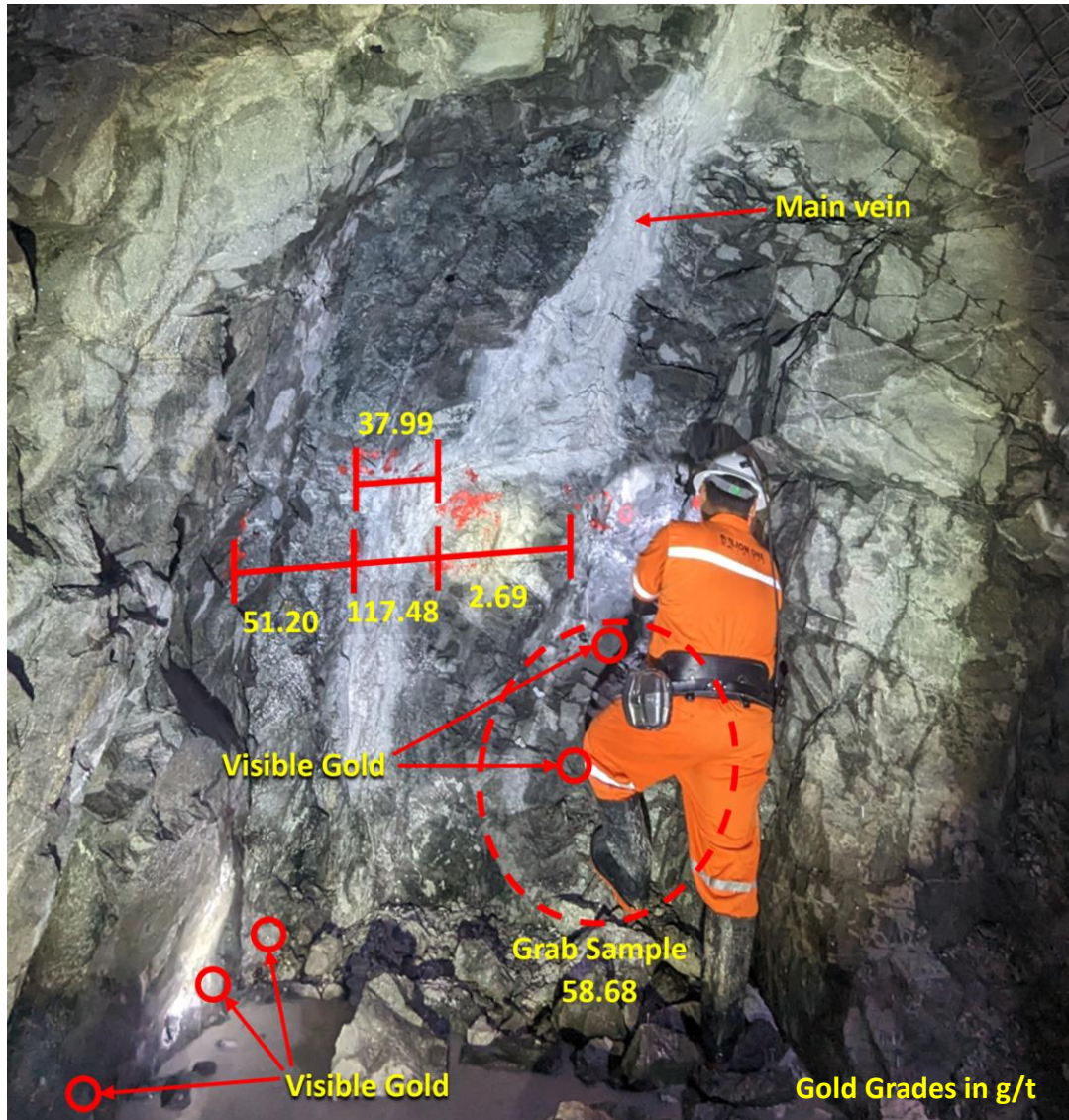


300 TPD PLANT IN OPERATION; EXPANSION TO 600 TPD TARGETED FOR END 2025  
FULLY PERMITTED



# Narrow-Vein Mining

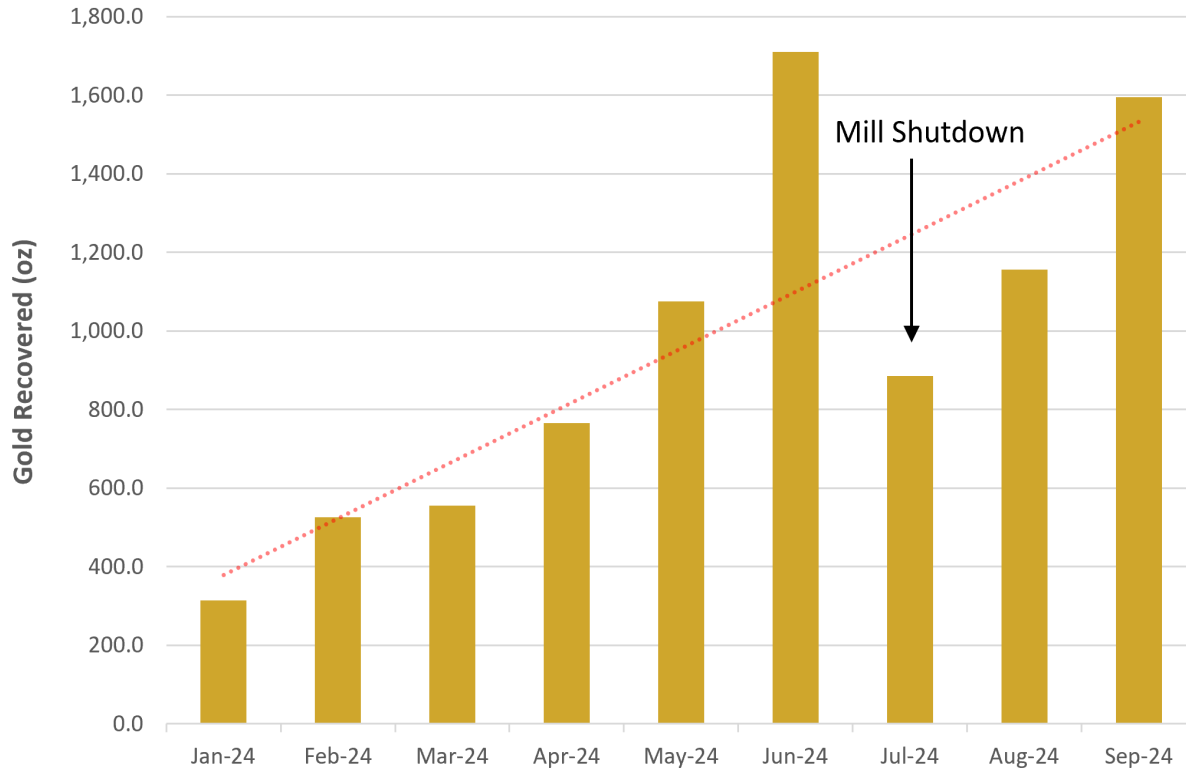
- High-grade narrow vein gold
- Flexible use of airleg mining and long hole stoping to maximize production, minimize dilution
- Adaptable to a range of mining conditions
- >3500 m of development completed in 2024



# Production Start-up

- Plant commissioning complete, January 2024
- Increased mill throughput, March 2024
- Start of mechanized production, May 2024
- Consistent increase in production each quarter

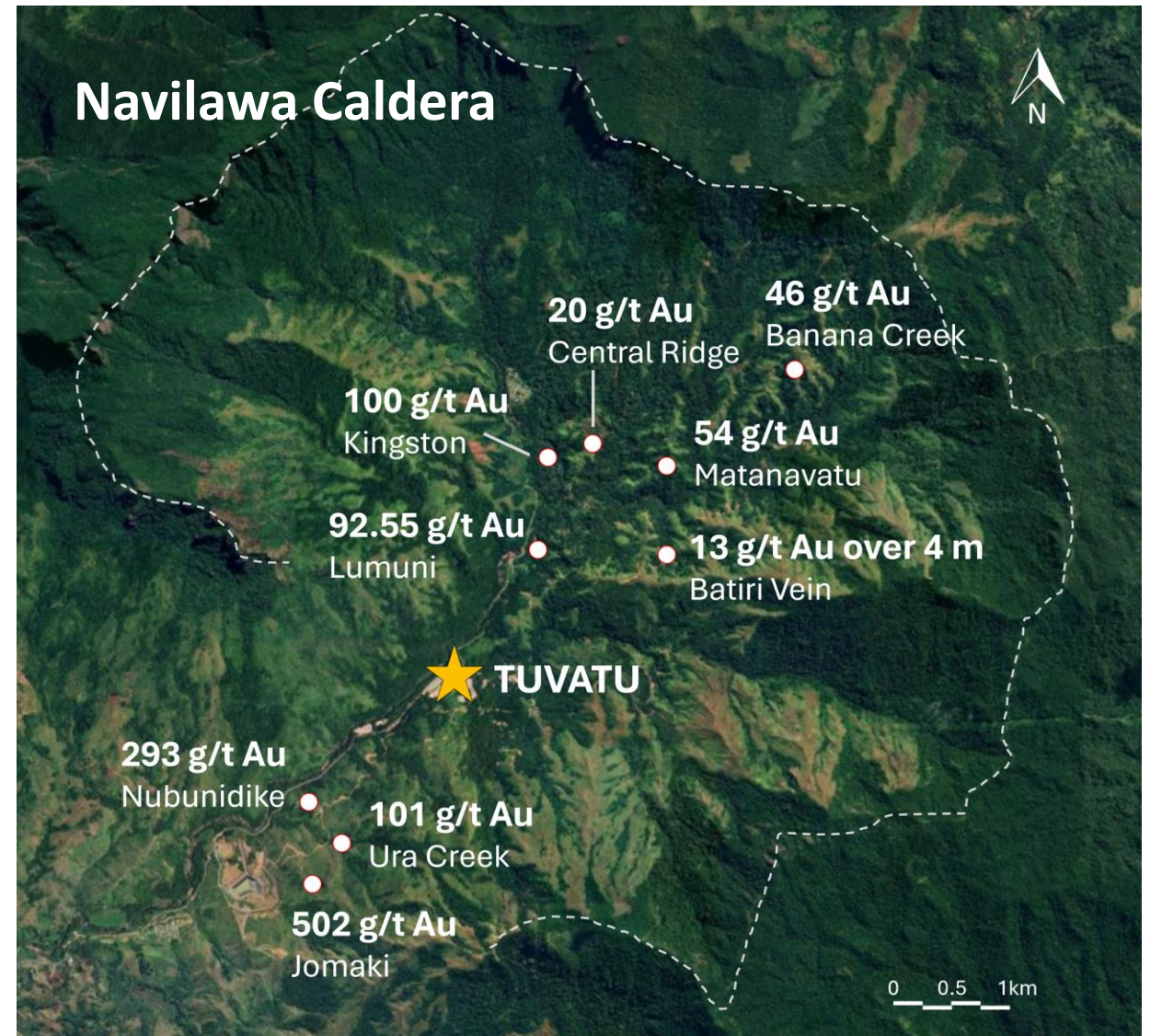
Tuvatu Monthly Gold Production





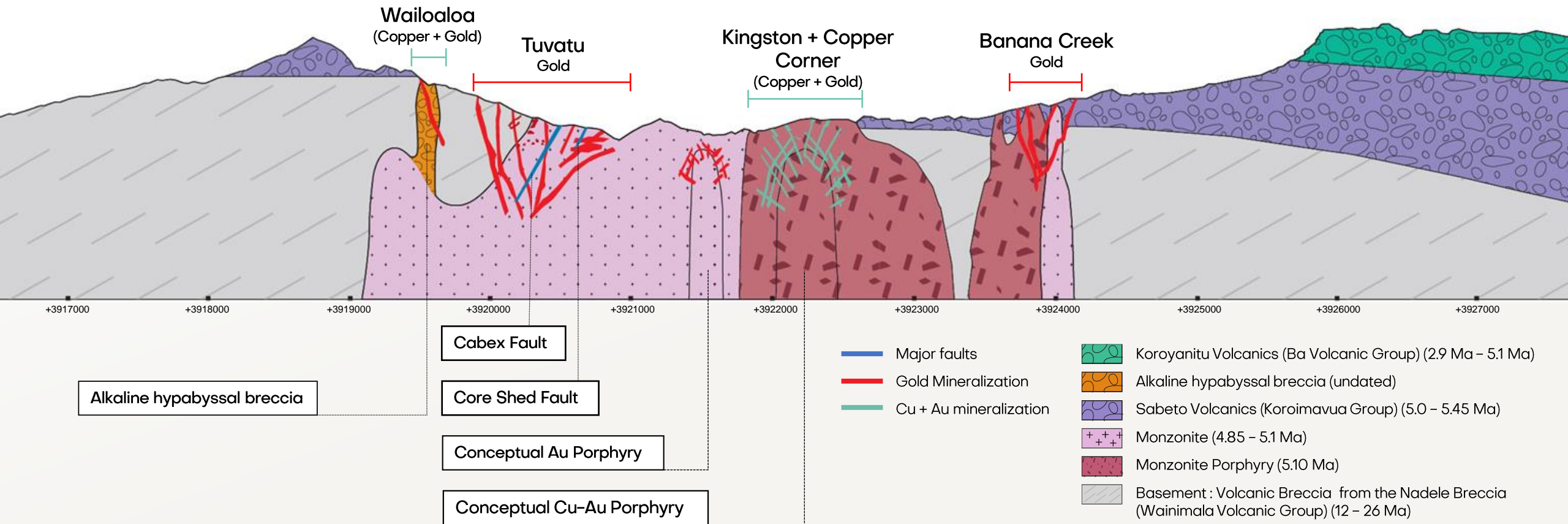
# Regional Exploration

- 7 km wide caldera with very limited modern exploration
- Multiple deep feeder systems possible throughout the caldera
- Numerous bonanza grade gold results from surface sampling
- >30 high-potential untested drill targets already identified
- No modern systematic exploration for copper

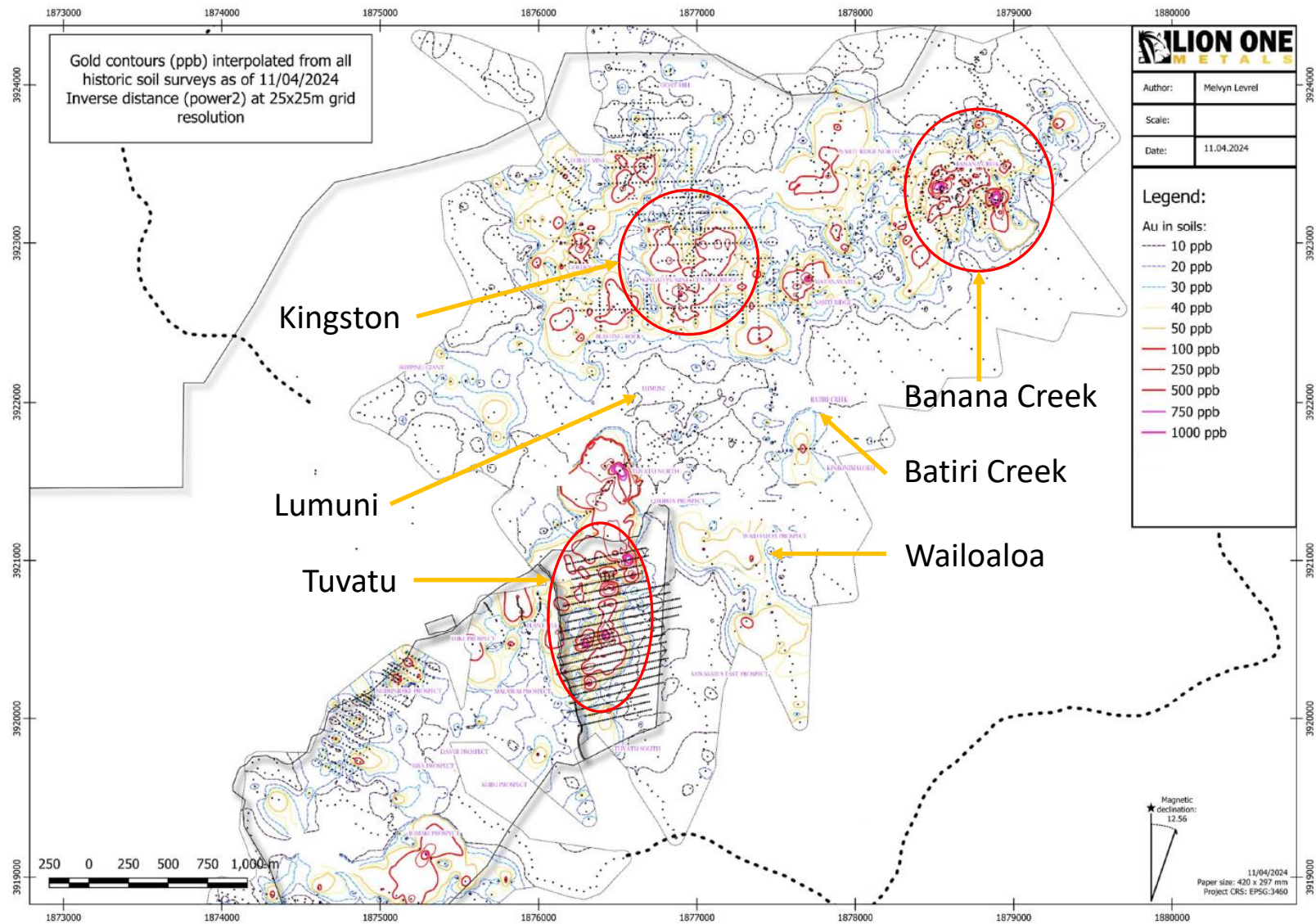


# Cross-Section of Navilawa Caldera

## CONCEPTUAL ILLUSTRATION OF DIFFERENT DEPOSIT TARGETS







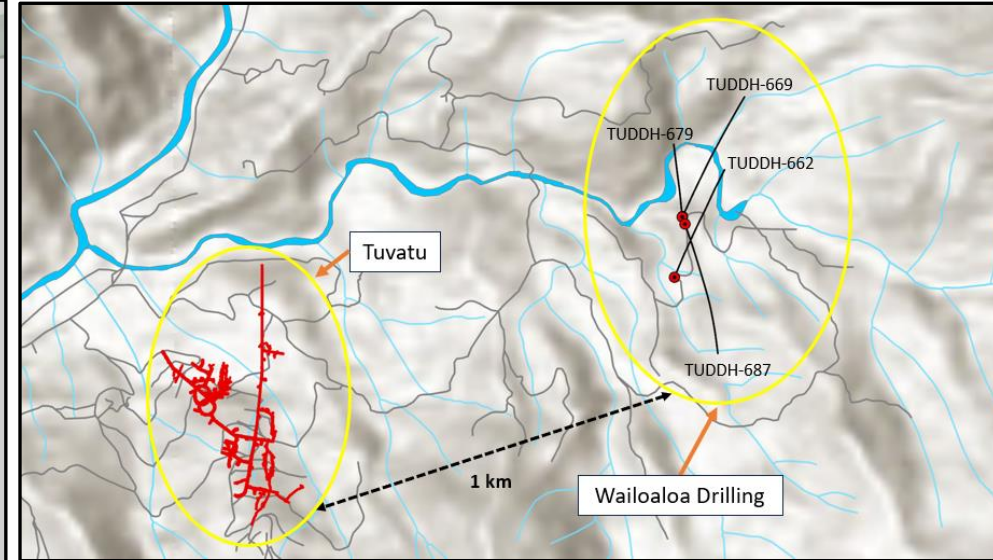
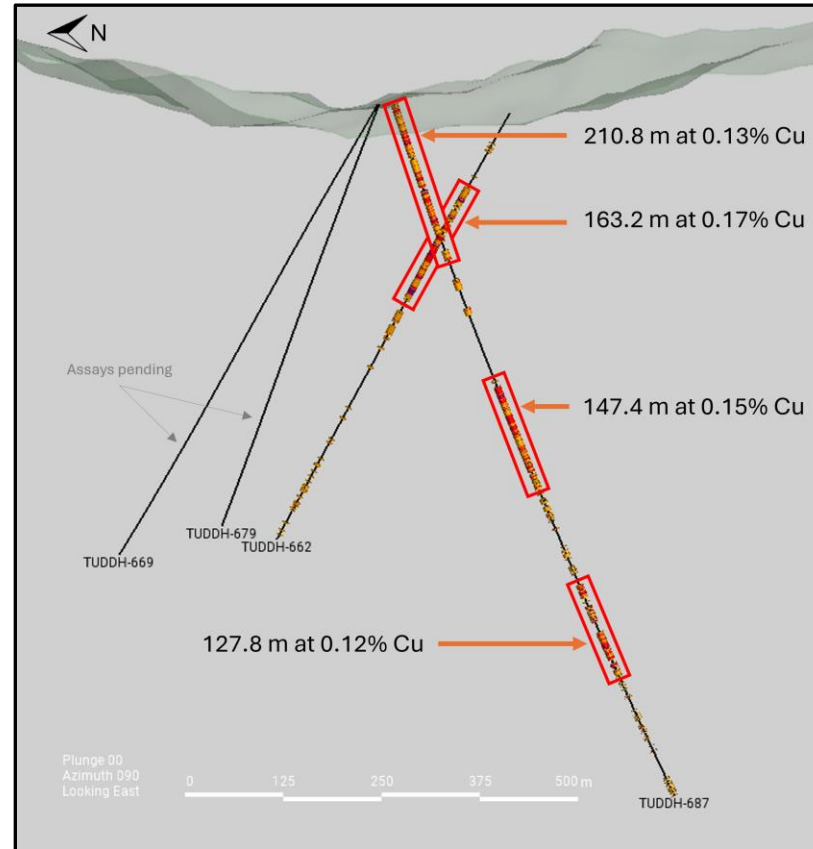
# Historical Gold in Soil Results

- Extensive gold anomalies from historical soil surveys
- Limited advanced exploration conducted outside Tuvatu
- District scale exploration upside
- Future exploration funded by cash flow from Tuvatu



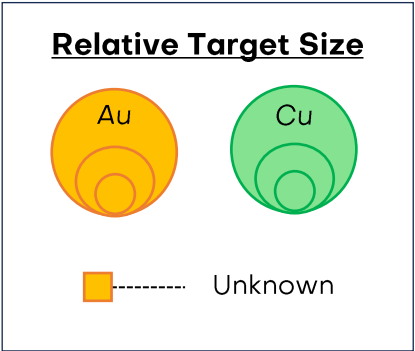
# Wailoaloa Discovery

- Alkalic copper-gold porphyry discovery
- 1 km northeast of Tuvatu
- Strong surface copper anomaly
- Drilled four test holes, the first hole hit 163.2 m of 0.17% copper
- Potassic alteration and veining intensity increasing with depth



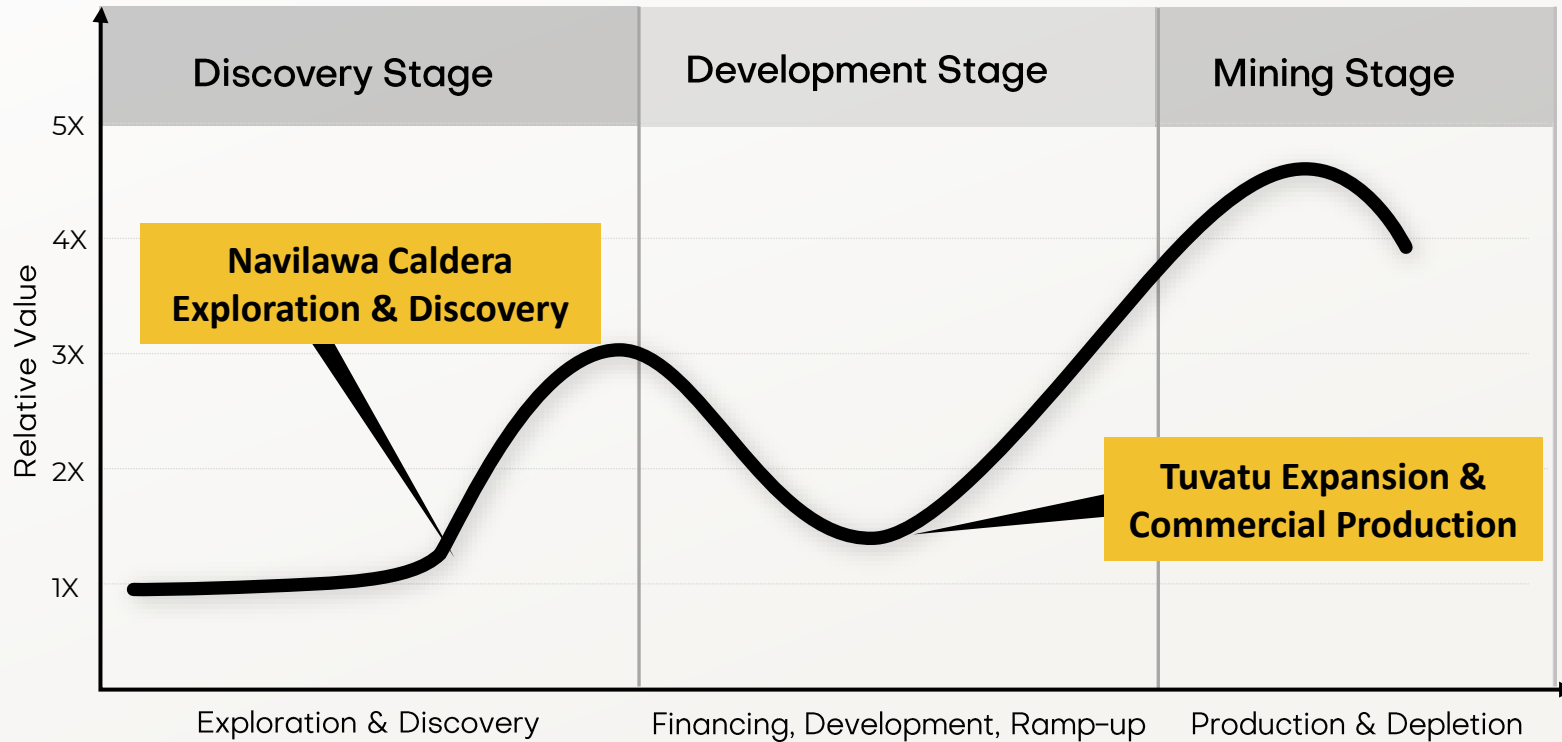
**May have intersected the periphery of a large Cu system – significant potential for discovery**

# Exploration and Discovery Pipeline



# Lassonde Curve

## Dual Opportunities of Discovery and Production



- Dual opportunity for re-rating
- Left hand side potential for regional discovery in Navilawa
- Right hand side final development, expansion, and ramp-up at Tuvatu
- Strong catalysts in exploration and production





# Mining-Friendly Jurisdiction

- +100-year gold mining industry
- Stable democracy & regulatory system
- Skilled mining workforce
- Supportive government
- 2023 Fraser Ranking #31, between New South Wales #30, and Colorado #32

**“With Lion One, I am very impressed ... Lion One sets the bar for those that follow”**

– Ratu Wiliame Katonivere, President of Fiji

# Location & Infrastructure



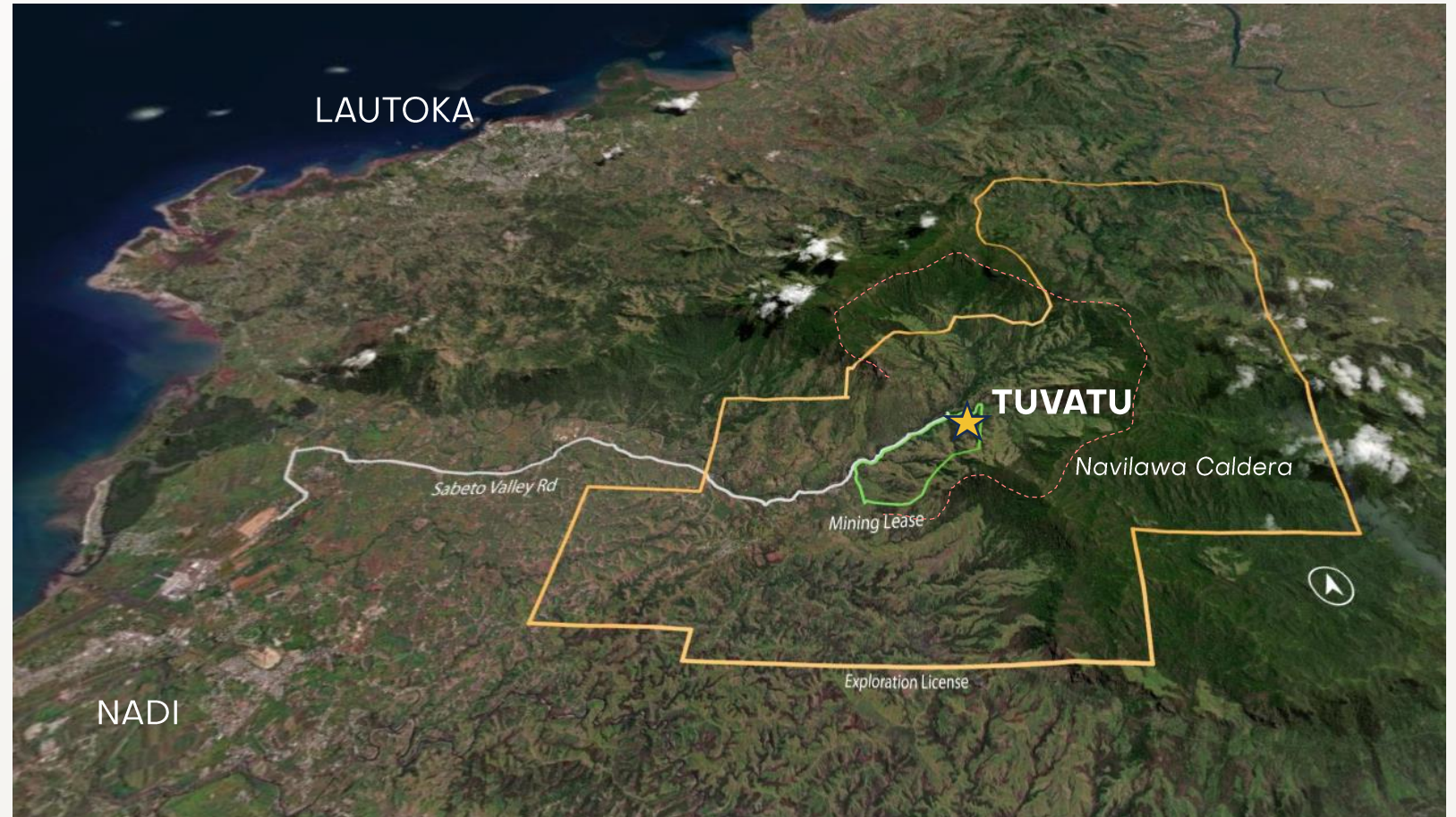
**20km**  
NADI INTERNATIONAL  
AIRPORT



**35km**  
LAUTOKA DEEPWATER  
PORT



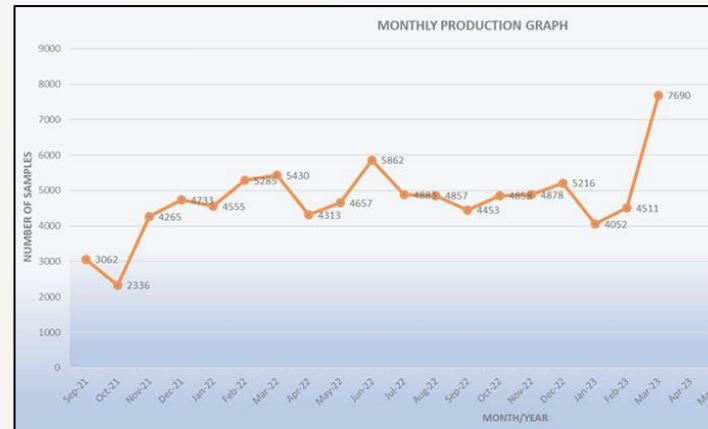
**<1 hour**  
URBAN CENTERS OF  
NADI & LAUTOKA



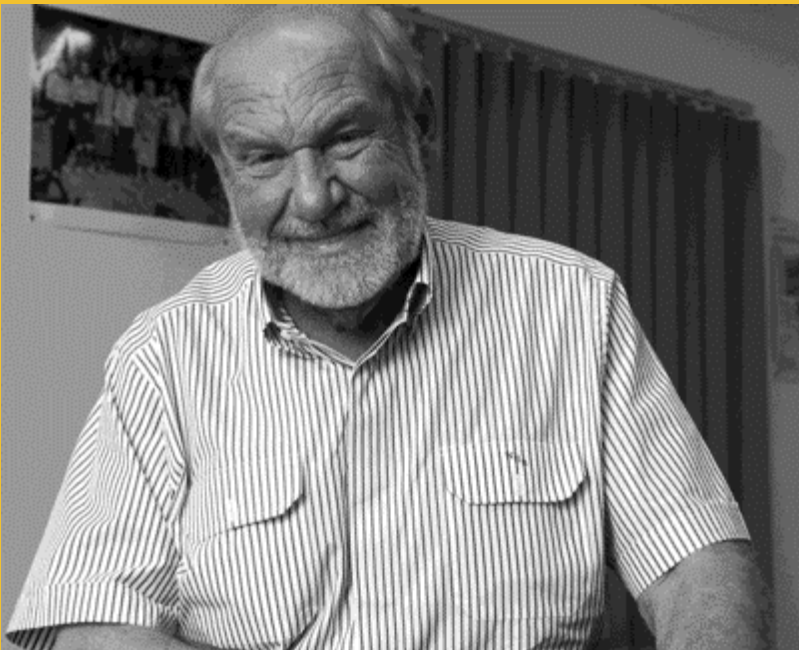


# State of the Art Lab On-Site

- Provides critical support for 7 company-owned drill rigs
- Rapid assay turnaround
- Fire assay, ICP, and Metallurgical Testing
- Facilitates real-time optimization of mining and drilling activities
- Production capacity of over 10,000 samples per month







## Walter Berukoff

CHAIRMAN & CEO

### Success Stories

**Northern Orion** sold to Yamana in 2007 for \$1.1B

**Miramar Mining** sold to Newmont in 2008 for \$1.5B

**La Mancha** sold in 2012 for \$600M

**Emperor Gold Mines** Fiji Gold Assets (Vatukoula & Tuvatu) purchased in 2008

Lion One Metals Limited created in 2011

# Leadership Team

## THE LION ONE METALS TEAM

### OFFICERS

Walter Berukoff, CEO

Tony Young, CPA, CA, CFO

Patrick Hickey, COO

Hamish Greig, VP, Corp. Secretary

### TECHNICAL TEAM

Kevin Li, P.Eng

Melvyn Levrel, MAIG

Darren Holder, P.Geo

Sergio Cattalani, P.Geo

Ivan Maldonado, P. Geo

Dr. Quinton Hennigh, P.Geo

### DIRECTORS

Walter Berukoff, Chairman

Richard Meli

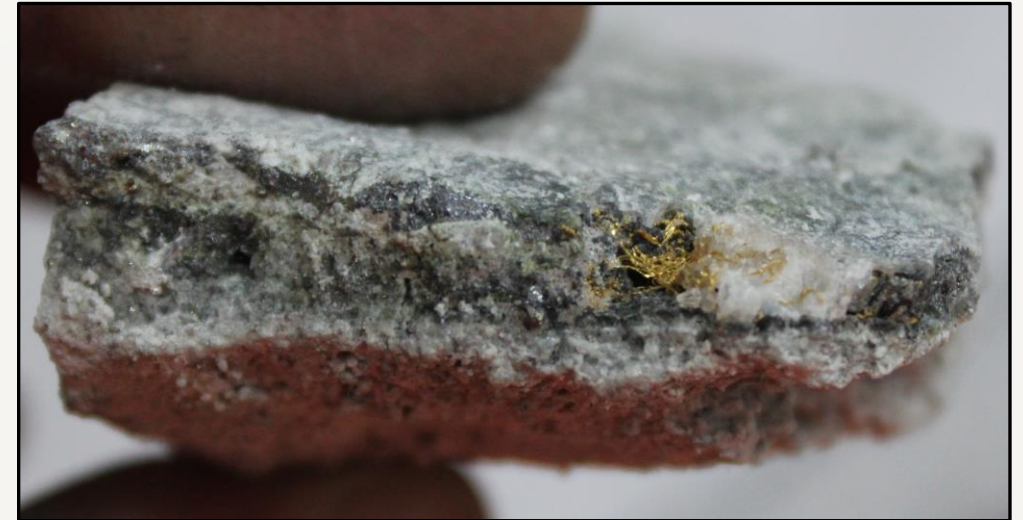
Kevin Puil, CFA



# Compelling Value Proposition

- High-grade gold resource
- Mining-friendly jurisdiction
- Strong proven executive leadership
- Highly experienced operations team
- 300 TPD pilot plant in operation
- 600-700 TPD plant expansion in 2025
- Multiple near-mine exploration targets
- District-scale high-grade gold exploration upside

One of the only large **alkaline gold** systems not already owned by a major mining company



# Corporate Snapshot

## CAPITALIZATION

**SHARE CAPITAL** As of December 11, 2024

Common Shares	262.04 M
Options	13.32 M
Compensation Warrants	6.24 M
Warrants	94.32 M
Shares Fully Diluted	369.44 M
Market Capitalization	CAD \$71 M

**LIO:** \$0.26 | 52wk: \$0.87 \$0.24 | **Avg. vol:** 380K

## MAJOR INVESTORS

Lion One Management (8.78%)  
Arbiter Partners  
Franklin Precious Metals Fund  
Nebari Gold Fund  
Delbrook Capital Advisors  
US Global Investors  
MMCAP

**TSX-V: LIO**

**TSX-V: LIO.WT**

**OTCQX: LOMLF**

## ANALYST COVERAGE

Eight Capital Partners

Felix Shafigullin





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# THANK YOU

## Q&A

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