

Bramaderos – initial Mineral Resource estimate and Exploration Target



13 December 2022

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## Sunstone Snapshot

### Ecuador focussed, gold-copper explorer and discoverer

ASX -STM

Market Capitalisation <sup>1</sup>	A\$105 mill
Cash + Equity Investments <sup>2</sup>	A\$13.1 mill

Shares on Issue	2,620 million
Top 20 Shareholding	36%
Institutional and Family Office Shareholding	29%
Board and Management Shareholding	5.1%

Analyst Coverage - Taylor Collison

- Morgans -
- MineLife \_
- Far East Capital





<sup>1</sup> Based on share price of A\$0.04

<sup>2</sup> At Nov 30, unaudited; Equity investments in NASDAQ Stockholm listed Copperstone Resources and CSE listed United Lithium Corp

# **Investment Opportunity**

- Simple proposition discovery adds significant shareholder value
- The Sunstone team has a track record of copper-gold porphyry discovery
  - Tujuh Bukit, Indonesia
  - Alpala, Cascabel, Ecuador
- In Ecuador late 2021
  - Initial El Palmar discovery announced 7th October 2021
  - Initial Alba discovery announced 18th November 2021
- Strong share price growth in past 18 months linked to periods of discovery with very significant upside still to deliver
- Expect additional discoveries to be delivered
- Sunstone owns 87.5% of the Bramaderos Gold-Copper porphyry project in southern Ecuador
- Sunstone holds 70%, and can acquire 100%, of the El Palmar Gold-Copper porphyry project in northern Ecuador



# ESG considered across the business

















Sunstone appreciates the strong community support that it has at its projects and takes its **environmental, social and governance** issues very seriously. It is committed to advance its social performance in the areas where we work

### Sunstone

- has significant environmental monitoring programs across it projects
- is involved in various community programs at Bramaderos and El Palmar
- undertakes considerable training programs across a large range of skills for workers and the communities in which we operate
- works with the local communities to assist where possible, for example, during the coronavirus pandemic
- offers employment and skills development
- has implemented strict coronavirus operating plans while not compromising local health and safety



# Bramaderos, Southern Ecuador





620000

640000

660000

680000

- 4,984ha concession
- Adjacent to the Pan American Highway
- At ~900m asl
- Multiple targets within the concession all easily accessible
- The project is supported by good infrastructure (hydroelectric power, regional airport nearby)
- 88% of Ecuador's power is generated from hydro power stations

# Brama-Alba – initial Mineral Resource estimate

JORC Classification	Tonnage (Mt)	Au (g/t)	Cu (%)	Ag (g/t)	AuEq (g/t)	AuEq* (Mozs)
Indicated	9	0.38	0.09	1.1	0.53	0.2
Inferred	147	0.35	0.11	1.3	0.53	2.5
Total	156	0.35	0.11	1.3	0.53	2.7

- Due to the effect of rounding, the total may not represent the sum of all components

-- A reporting cut-off grade of 0.3 g/t AuEq was adopted.

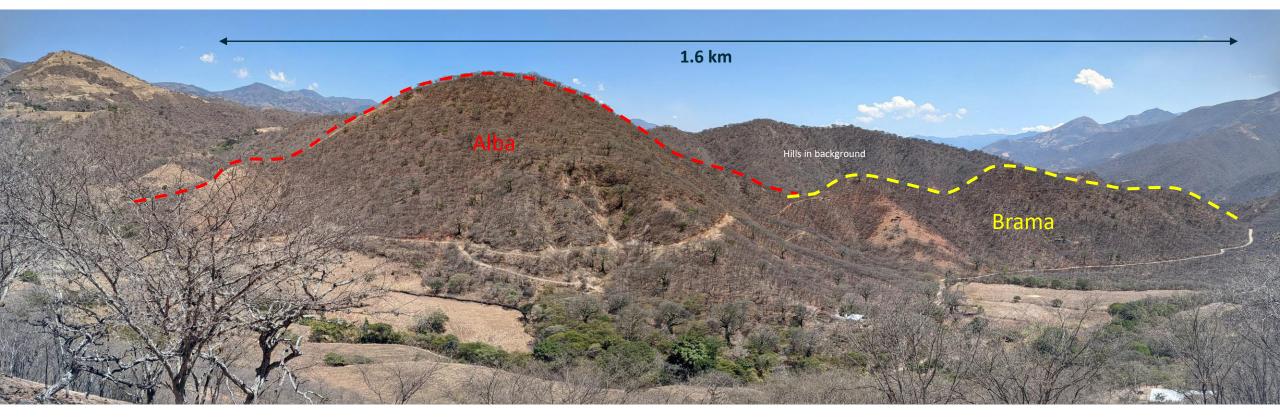
--- Metal equivalent recovery assumptions are supported by metallurgical test work.

- See ASX announcement dated 13<sup>th</sup> December 2022 for detail
- Initial MRE this is expected to grow; see discussion on Exploration Target and other targets
- Pit constrained, mineralisation from surface
- Positive metallurgy (flotation and leach) and potential for additional heap leach opportunity
- Brama-Alba porphyry systems only
- 2.7Mozs AuEq
  - 1.77Mozs gold
  - 169 kt copper
  - 6.5Mozs silver

\*The gold equivalent calculation formula is AuEq(g/t) = (Au grade x Au price x Au recov / 31.1035) + (Ag grade x Ag price x Ag recov / 31.1035) + (Cu grade x Cu price x Cu recov / 100)) / (Au price x Au recov / 31.1035). The prices used were US\$1,800/oz gold and US\$9,500/t copper and US\$22/oz silver. Recoveries are estimated at 89% for gold, 85% for copper, and 60% for silver based on metallurgical studies. In Sunstone's opinion all the elements included in the metal equivalents calculation have reasonable potential to be recovered and sold.

**O**METALS

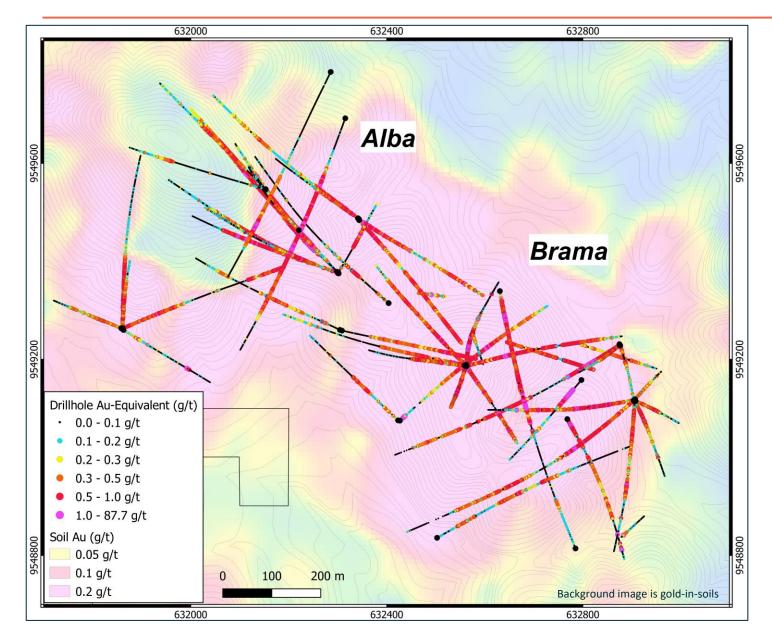
# Brama-Alba – mineralisation from surface



- View looking NE; December 2022
- 1.2km long mineralised system so far
- Outcropping gold-copper
- Development would initially mine a hill very low strip ratio
- Higher grade domains close to surface
- Many opportunities to grow resource, and define higher grades



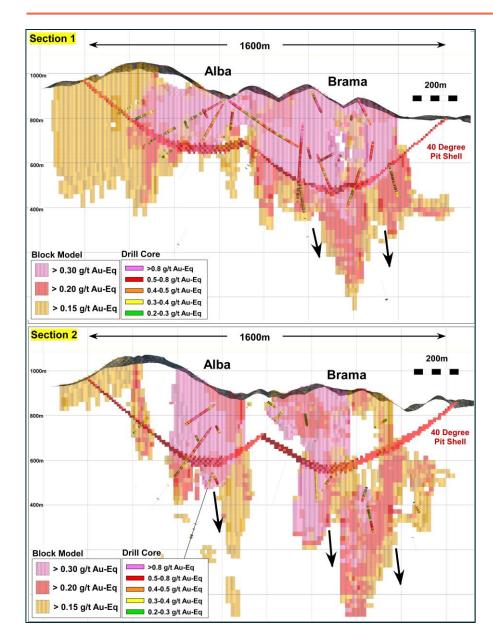
# Brama-Alba – mineralisation from surface

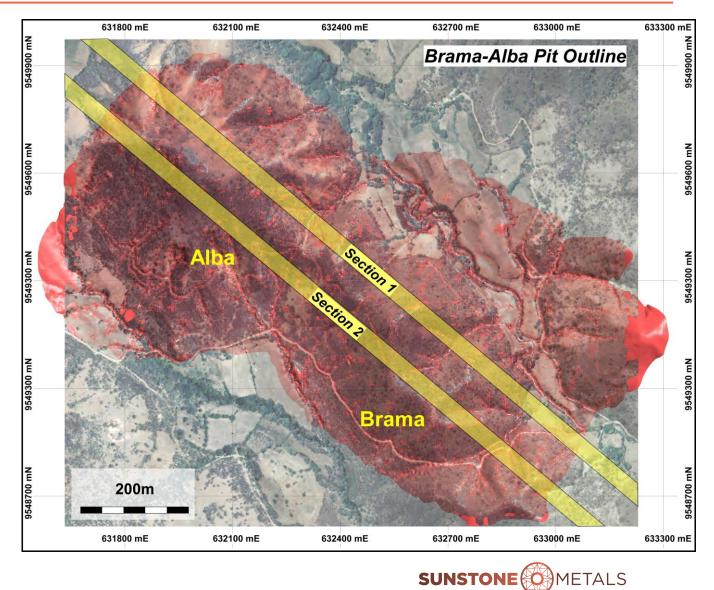


- Large porphyry system, with some higher-grade domains
- Mineralisation from surface, this is an outcropping gold-copper (+minor silver, molybdenum) porphyry
- MRE is based on data from 53 drill holes for 27,338m, and on 3,064 linear meters of trenching in 13 trenches
- Initial MRE drilling has not 'closed off' the orebody
- Extensions to mineralisation in MRE at Brama-Alba included in Exploration Target

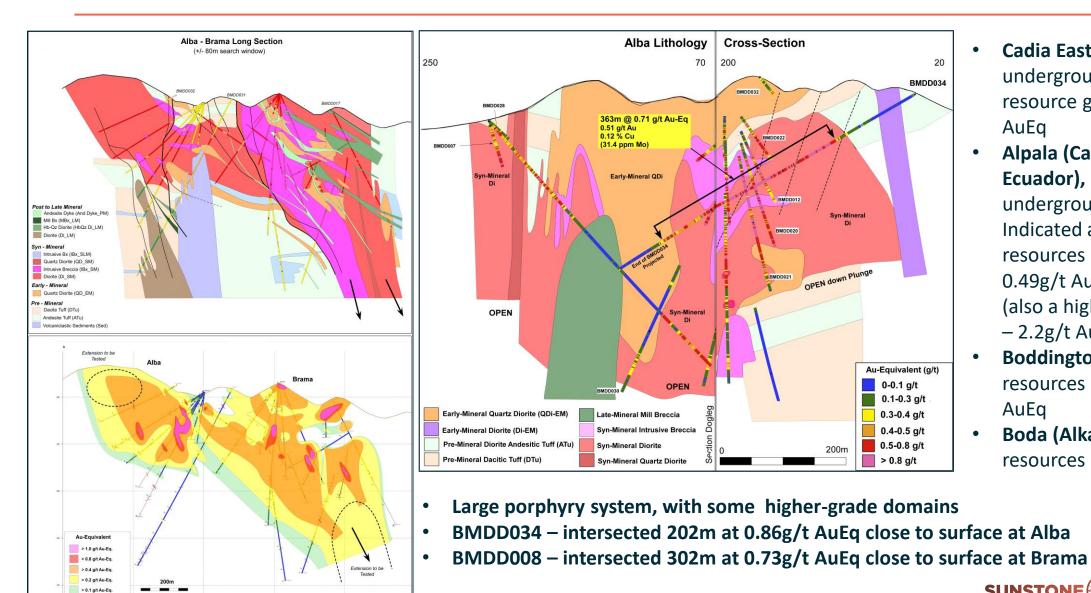


# Brama-Alba – mineralisation from surface





# Brama-Alba – higher grade domains



- Cadia East (Newcrest, NSW) underground Indicated resource grades 0.78g/t AuEq
- Alpala (Cascabel, SolGold, Ecuador), planned underground development, Indicated and Inferred resources grade 0.59 and 0.49g/t AuEq respectively (also a high-grade core at 1.2 -2.2g/t AuEq)
- **Boddington (Newmont, WA)** resources M&I grades 0.7g/t AuEq
- Boda (Alkane, NSW) resources 0.48g/t AuEq

**SUNSTONE** METALS

# Brama-Alba – initial Exploration Target

Exploration Target	Min. Tonnage (Mt)	Max. Tonnage (Mt)	Metal Content Min. AuEq (Mozs)	Metal Content Max. AuEq (Mozs)
Brama-Alba (excluding				
MRE areas)	70	100	0.79	2.57
Melonal	150	200	1.93	4.50
Limon	35	60	0.56	1.54
TOTAL	255	360	3.30	8.60

Exploration Target	Min. Tonnage (Mt)	Max. Tonnage (Mt)	Min. Grade Au (g/t)	Min. Grade Cu (%)	Min. Grade AuEq (g/t)
Brama-Alba (excluding					
MRE areas)	70	100	0.20	0.10	0.35
Melonal	150	200	0.25	0.10	0.40
Limon	35	60	0.33	0.10	0.50
TOTAL	255	360			0.40

Exploration Target	Min. Tonnage (Mt)	Max. Tonnage (Mt)	Max. Grade Au (g/t)	Max. Grade Cu (%)	Max. Grade AuEq (g/t)
Brama-Alba (excluding					
MRE areas)	70	100	0.60	0.12	0.80
Melonal	150	200	0.50	0.12	0.70
Limon	35	60	0.60	0.12	0.80
TOTAL	255	360			0.74

- Due to the effect of rounding, the total may not represent the sum of all components

- See ASX announcement dated 13<sup>th</sup> December 2022 for full details

## 3.3 to 8.6Mozs AuEq

## Comprising 2.1 to 6.6Mozs gold 255 to 432kt of copper 10.7 to 15.1Mozs silver

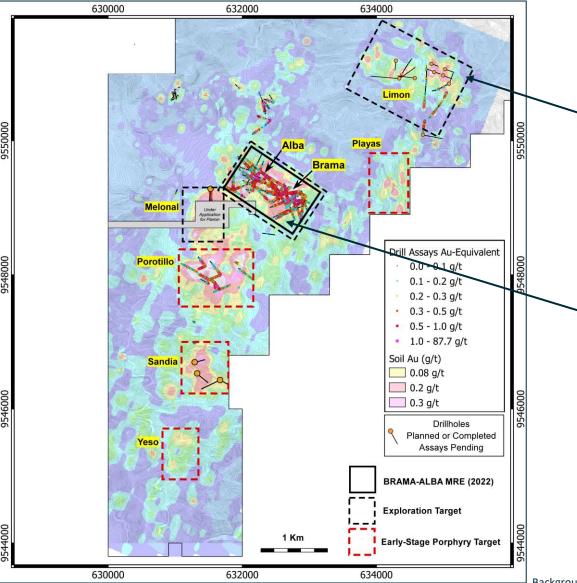
## Within 255 to 360Mt of mineralised rock

## Our aim is to grow the Bramaderos inventory to 10Mozs AuEq with further drilling

And to increase the grade, particularly to define domains of higher grade near surface mineralisation for the 'front end' of an operation



# Bramaderos – rich with targets



## **PORPHYRY OPPORTUNITIES**

LIMON - Outcropping gold-copper porphyry and high-sulphidation epithermal

97.6m at 0.71g/t gold and 0.23% copper in trench Sunstone drilling (4 holes) in 2019-20 delivered 13.3m at 0.11 gold and 0.43% copper in shallow High Sulphidation epithermal, and 40.5m at 0.1g/t gold, 0.12% copper, 19ppm moly in porphyry 'halo' Drilling 2022-23; included in Exploration Target

PLAYAS – Outcropping gold-copper porphyry Drilling 2023

BRAMA-ALBA – Outcropping gold-copper porphyry >1.2km x 400m Initial MRE and extensions within the Exploration Target

MELONAL drilling 2022-23; included in Exploration Target

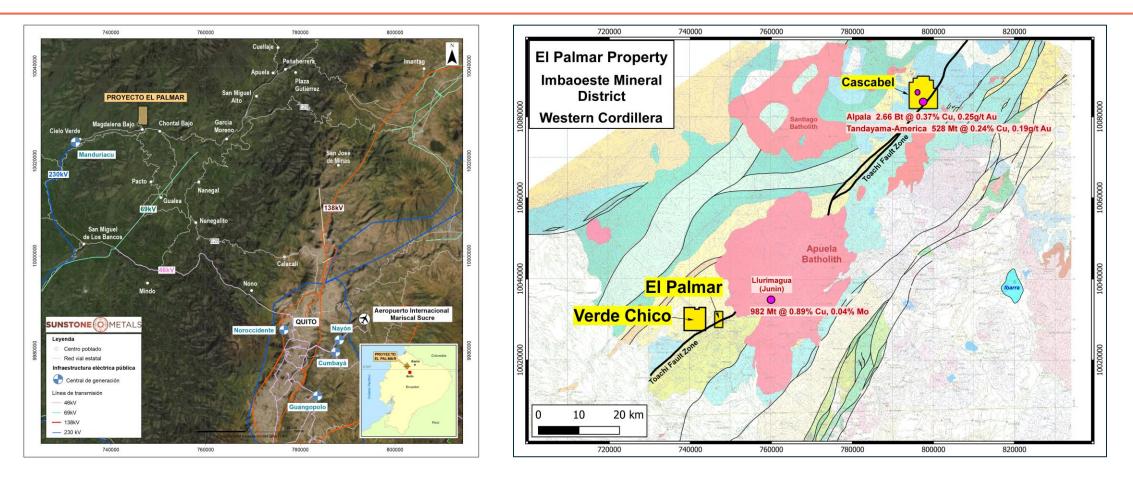
POROTILLO – Porphyry gold-copper system with historical drill hole CURI-05 drilled 24m at 1.2g/t gold Drilling 2023

SANDIA – Outcropping gold-copper porphyry Drilling 2022-23

YESO – Outcropping gold-copper porphyry Drilling 2023



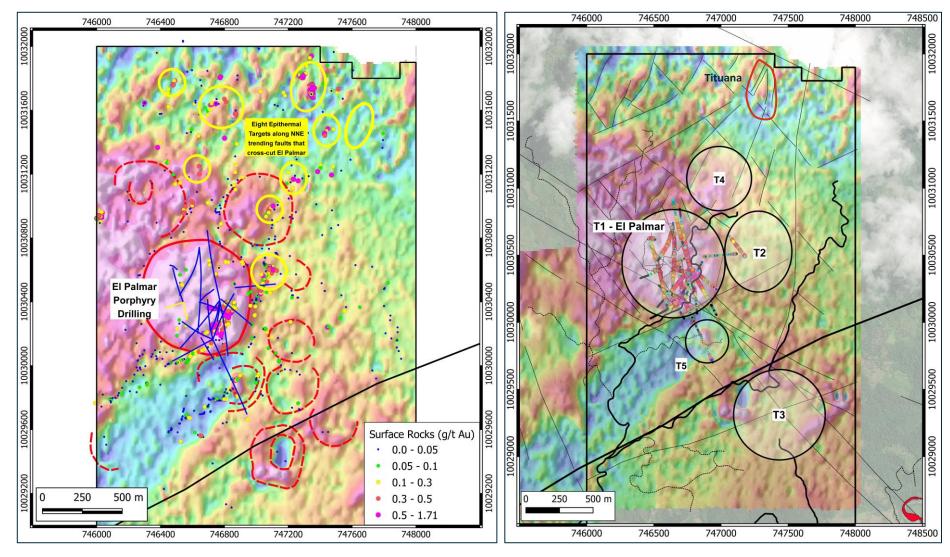
# El Palmar, northern Ecuador



- Highly prospective belt of rocks related to the Toachi Fault Zone
- To date includes the >2.7Bt Alpala copper-gold porphyry deposit at Cascabel, the >0.53Bt Tandayama-America copper-gold porphyry deposit at Cascabel, and the >1Bt Llurimagua copper-moly porphyry deposit
- Together with orthogonal structural control delivers target zones for porphyry mineralisation



# El Palmar; multiple targets



- Mineralisation from surface
- At T1, gold-copper porphyry system with wide intervals (>400m) at >0.4g/t gold and 0.15% copper and including intervals of 100m – 170m of >0.7g/t gold and 0.2% copper (see ASX announcements 25<sup>th</sup> May 2022 and 7<sup>th</sup> October 2021)
- Currently drilling at T2
- Soil sampling and geological mapping is ongoing
- In total 1.5km long cluster of porphyry targets identified to date
- Plus, several epithermal targets
- 2023 drilling plans include T5, T1, T4, and Tituana



# What's ahead

✓ 2023 – advance targets and drill at both El Palmar and Bramaderos

## ✓ Bramaderos

- Brama-Alba drilling ongoing for growth to the **initial Mineral Resource estimate**
- Drill to convert Exploration Target to mineral resources
- Deliver additional discoveries at Sandia, Playas, Melonal, Limon, Porotillo
- Drill to define higher grades (e.g., Limon)

## ✓ El Palmar

- Continue to drill and **expand main mineralised area** beyond 500 x 300m, and to depth
- Deliver additional discoveries through:
  - Drill satellite porphyry targets T2 to T5
  - Drill at epithermal targets Tituana target first, then several others
- Advance early-stage exploration at Verde Chico



# Ecuador

- Support for responsible mining
- Responsible mining and exploration contributing significantly to FDI, taxes, employment, infrastructure, communities, environmental studies and management
- Investment Protection Agreements signed on several projects

### **Two Large Modern Operating Mines**

#### Fruta del Norte

Lundin Gold (TSX:LUG) - Ecuador's first modern underground gold mine 2021 produced 430,000 ozs gold at 10g/t Recently released their 3-year outlook with gold production rising to 465,000-515,000 ounces in 2025 at AISC of \$800-870

#### <u>Mirador</u>

EcuaCorriente – producing copper-gold concentrate from open pit for export to smelters in China 673Mt at 0.58% copper and 0.19g/t gold

### Several Advanced Projects and Large Exploration Projects

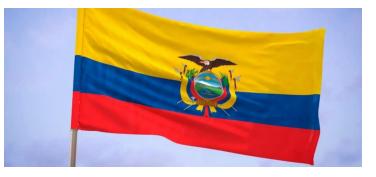
### **Cascabel**

SolGold 85%/ Cornerstone 15% (SolGold and Cornerstone have announced that they will merge) Alpala deposit - 2,663 Mt @ 0.37% copper and 0.25g/t gold in the Measured and Indicated categories Top of main orebody ~500m below surface

Tandayama-America – 263 Mt @ 0.23% copper and 0.19 g/t gold in Indicated and Inferred in open pit

#### <u>Warintza</u>

Solaris (TSX.V:SLS); 7km x 5km area containing cluster of porphyry systems Warintza Central deposit - 579Mt at 0.47% copper (and 0.03% Mo and 0.05g/t gold) in Indicated category, and 887Mt at 0.39% copper in Inferred category – April 2022



Capital	Quito
Population	17,612,000
Form Of Government	Multiparty republic with one legislative house (National Assembly)
Official Language	Spanish
Total Area (Sq Km)	256,700
Length	650km (~Sydney to Cobar, or ~Perth to Kalgoorlie)
Monetary Unit	US \$
Density: Persons Per Sq Km	68.6
<b>Urban-Rural Population</b>	Urban: 63% • Rural: 37%
Literacy Rate	Male: (2016) 95.4% • Female: (2016) 93.3%
Gross National Income Per Capita (US\$)	5,530
Mining Exports in 2021 (US\$)	2.1 billion (+541% vs 2019)
Exports Top 4 in order	Oil, Prawns, Bananas, Metals



## **Competent Persons Statement**

#### **Competent Persons Statement**

The information in this report that relates to Mineral Resources is based on information compiled by Mr Aaron Meakin. Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Aaron Meakin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Aaron Meakin consents to the disclosure of the information in this report in the form and context in which it appears.

#### **Exploration Target Competent Person**

The information in this report that relates to exploration results and exploration targets and results is based upon information reviewed by Dr. Bruce Rohrlach who is a member of the Australasian Institute of Mining and Metallurgy. Dr. Rohrlach is a full-time employee of Sunstone Metals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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". Dr. Rohrlach consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

### See ASX announcements

13<sup>th</sup> December 2022 – Bramaderos MRE and Exploration Target
27<sup>th</sup> October 2022 – AGM Presentation
20<sup>th</sup> October 2022 – Bramaderos
30<sup>th</sup> August 2022 – Bramaderos
21<sup>st</sup> July 2022 – Corporate Presentation
19<sup>th</sup> July 2022 – Bramaderos
1<sup>st</sup> June 2022 – Bramaderos
1<sup>st</sup> June 2022 – Bramaderos
18<sup>th</sup> November 2021 – Bramaderos (Alba)



