ASX ANNOUNCEMENT

17 MARCH 2022

Alba Gold-Copper Porphyry Discovery, Southern Ecuador

Geophysical survey indicates high-grade Alba gold-copper porphyry continues to 1km deep

Plus, several more Alba-style exploration targets about to be drilled

Highlights

- **Combination of geophysics and drilling deliver a very large-scale target at Alba of known high gold-copper grades**
- **The geophysical survey results have also identified several nearby Alba-style targets which Sunstone is now preparing to drill**
- **In light of the survey results, Sunstone is increasing the number of rigs at Alba to three to accelerate drilling towards a Maiden Resource Estimate**
- **Sunstone is well funded with A$12m in cash and equities**
- **Drilling has produced exceptional results, including:**
  - **111m at 2.35g/t gold from 93m in BMDD012**
  - **264.7m at 0.49g/t gold and 0.13% copper, from 95m to end of hole in BMDD020**
  - **223.7m at 0.58g/t gold and 0.13% copper, from 107.6m in BMDD021**
  - **239.4m at 0.42g/t gold and 0.13% copper, from 82.5m to end of hole in BMDD022**
  - **222.4m at 0.37g/t gold and 0.13% copper from 76.4m in BMDD023**
  - **All holes include high grade gold-copper intervals, and locally very high-grade gold was intersected in BMDD012**
- **"We already know that Alba contains gold-copper grades equal to or better than many of the world's gold-copper porphyries. And now this geophysical survey indicates that it also has substantial scale, putting us on track to confirm it is a very significant discovery." - Sunstone Managing Director Malcom Norris.**
- **Malcolm Norris will deliver a live presentation on the Alba discovery today at 12.00 noon Sydney time. The presentation can be viewed at** https://www.bigmarker.com/read-corporate/Sunstone-Metals-Investor-Update

ASX ANNOUNCEMENT

Sunstone Metals (ASX: STM) is pleased to advise that a geophysical survey indicates that its high-grade Alba gold-copper porphyry discovery at the Bramaderos Project in southern Ecuador has substantial scale, with the mineralised system expected to continue to 1km deep.

Sunstone Managing Director Malcolm Norris said: "We already know that Alba hosts high grades by porphyry standards and now it appears to have immense scale, with the geophysical survey indicating the system continues from surface to more than 1km deep. Our drilling has only tested to about 350m below surface.

"The survey also identifies several Alba-style targets nearby, which we are already preparing to drill.

"With these results, and $12m in cash and equities, we are ideally-placed to create significant value for shareholders over coming months".

Wide and high-grade gold-copper intervals from holes BMDD012, 020, 021, 022, and 023 have been previously reported (see ASX announcements dated 18 Nov 2021, 20 Jan 2022, and 7 Mar 2022).

Results include broad intervals of:

- 111m at 2.35g/t gold from 93m in BMDD012
- 264.7m at 0.49g/t gold and 0.13% copper, from 95m to end of hole in BMDD020
- 223.7m at 0.58g/t gold and 0.13% copper, from 107.6m in BMDD021
- 239.4m at 0.42g/t gold and 0.13% copper, from 82.5m to end of hole in BMDD022
- 222.4m at 0.37g/t gold and 0.13% copper from 76.4m in BMDD023

But importantly also include high grade sub-intervals, close to surface of:

- 21.0m at 0.91g/t gold and 0.17% copper, from 203m in BMDD020
- 60.7m at 1.01g/t gold and 0.19% copper, from 136m in BMDD021
- An open interval in BMDD022 at the end of hole of 7.9m at 0.84g/t gold and 0.21% copper from 314m

Alba is a porphyry system partly overprinted by a lithocap, indicating much of the Alba system is likely preserved at depth with considerable vertical extent commencing from surface. This geological interpretation is supported by recently completed electrical geophysics (Spartan magneto-telluric survey) which maps a resistive domain that correlates well with the shallow high-grade gold-copper zone at Alba, and which extends to depths of greater than 1,000m.

Furthermore, conventional pole-dipole IP maps a chargeable domain in the shallow portions of the mineralised body, giving confidence that the system has a lateral extent of at least 250m.

These patterns repeat in nearby targets. Additional similarly resistive domains are seen in the Spartan MT dataset near or coincident with other magnetic targets that have potential to be Alba-type analogues.

Sunstone has the flexibility across 2 projects, Bramaderos and El Palmar, to manage drill rig deployment to deliver optimal results. Given the recent results from Alba and the desire to rapidly expand drilling coverage Sunstone has elected to second one drill rig from El Palmar to Alba for a 2-month period. This 2-month period corresponds to the period for completion of a geophysical MT survey at El Palmar and to allow time for assay

results from El Palmar to be returned to assist with ongoing drill targeting. Multiple drill targets exist at El Palmar and are currently being scheduled based on drill hole assays, soil geochemical surveys (ongoing), and updates to the 3-D magnetic model.

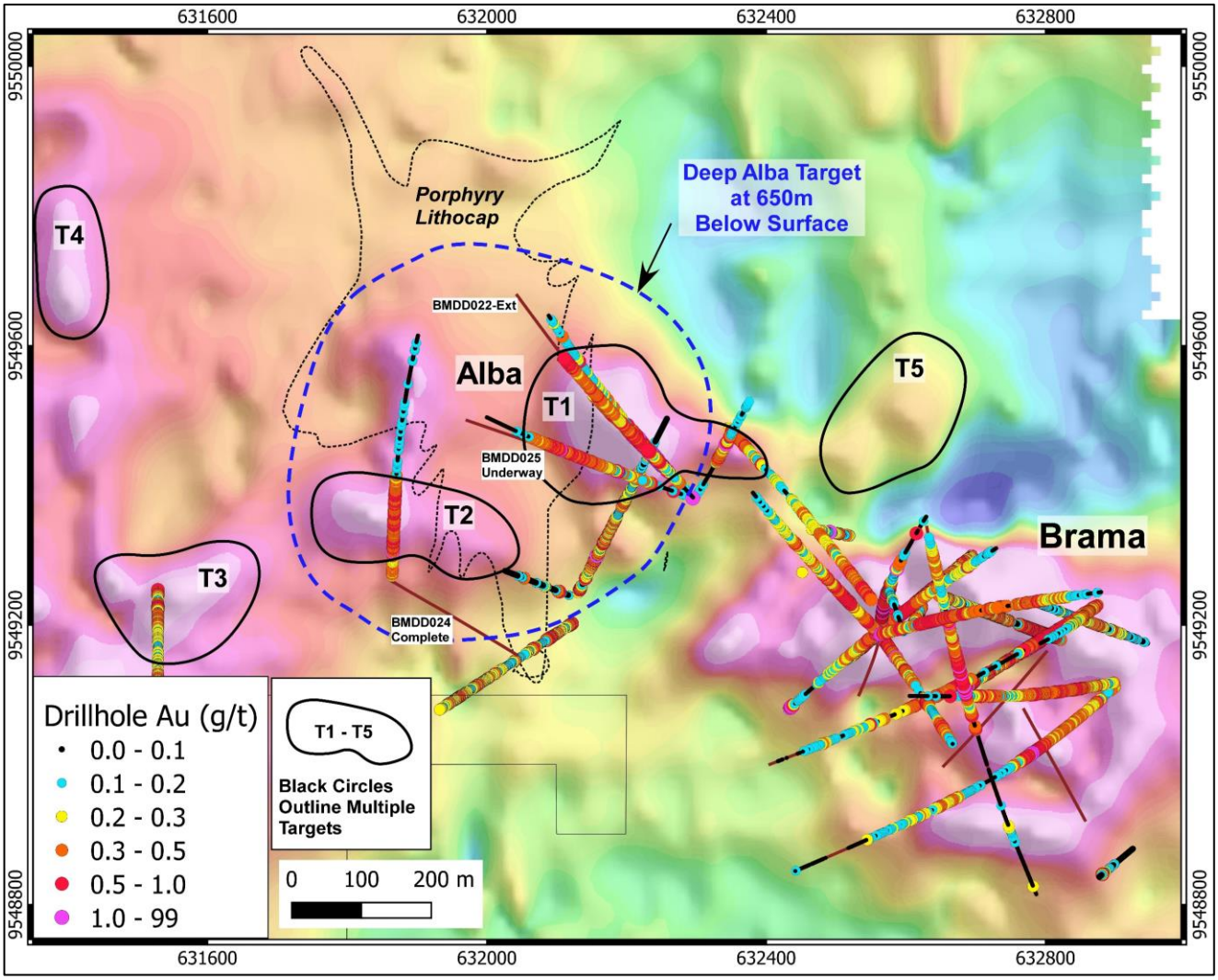

Figure 1: Alba target drill status plan showing the interpreted porphyry gold-copper target zones, T1 to T5, a possible deep magnetic target, and the adjacent Brama porphyry gold-copper system. Drill planning includes testing all targets within the next 3 months.

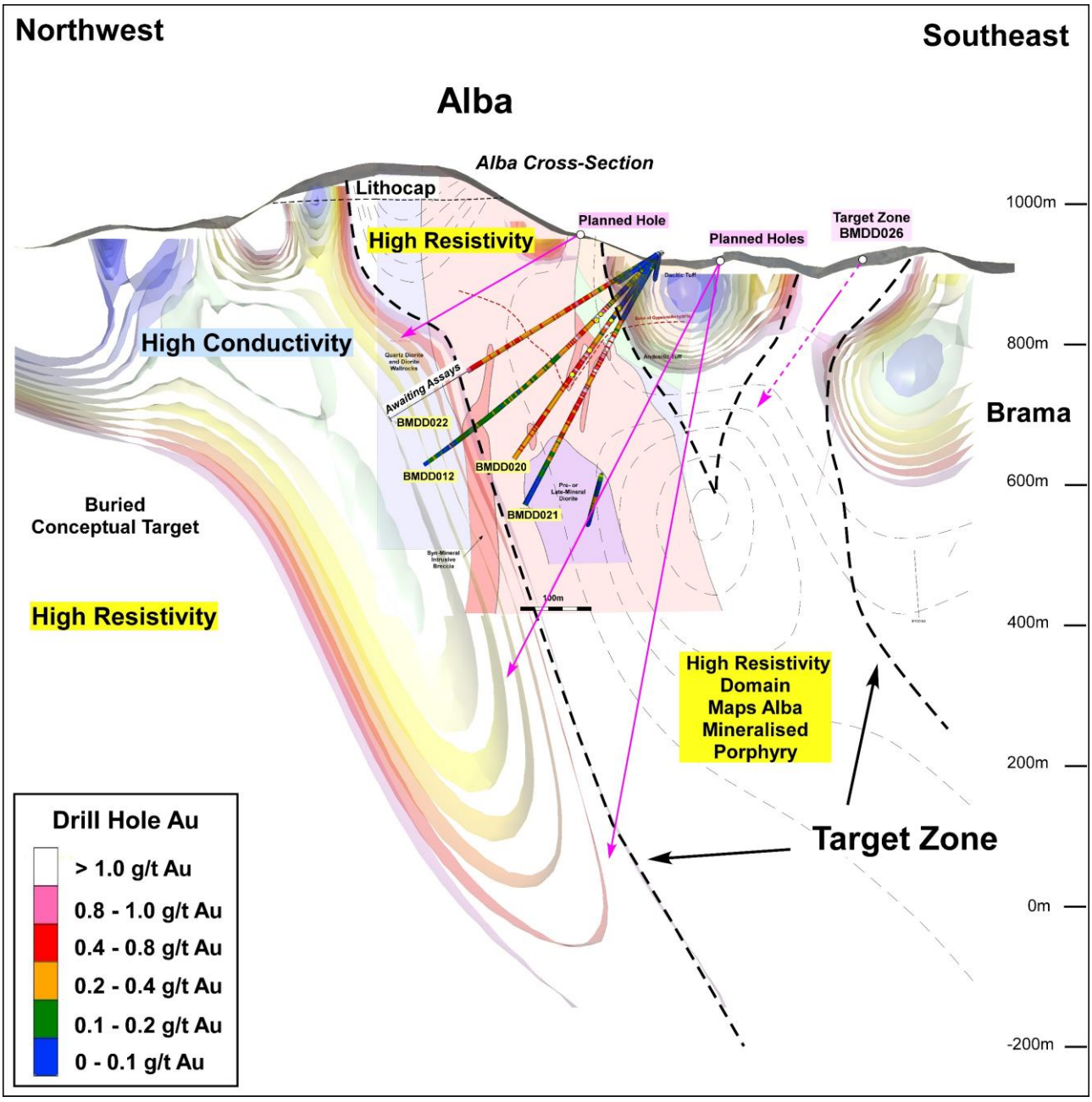

Figure 2: Alba cross section comprising a slice through the MT model and completed drill holes BMDD012, 20-22. The section clearly shows strong correlation between the distribution of gold-copper mineralisation at Alba and a high resistivity domain. That domain extends to considerable depth. Other high resistivity domains to the west and southwest of the Alba drilling will also be drill tested.

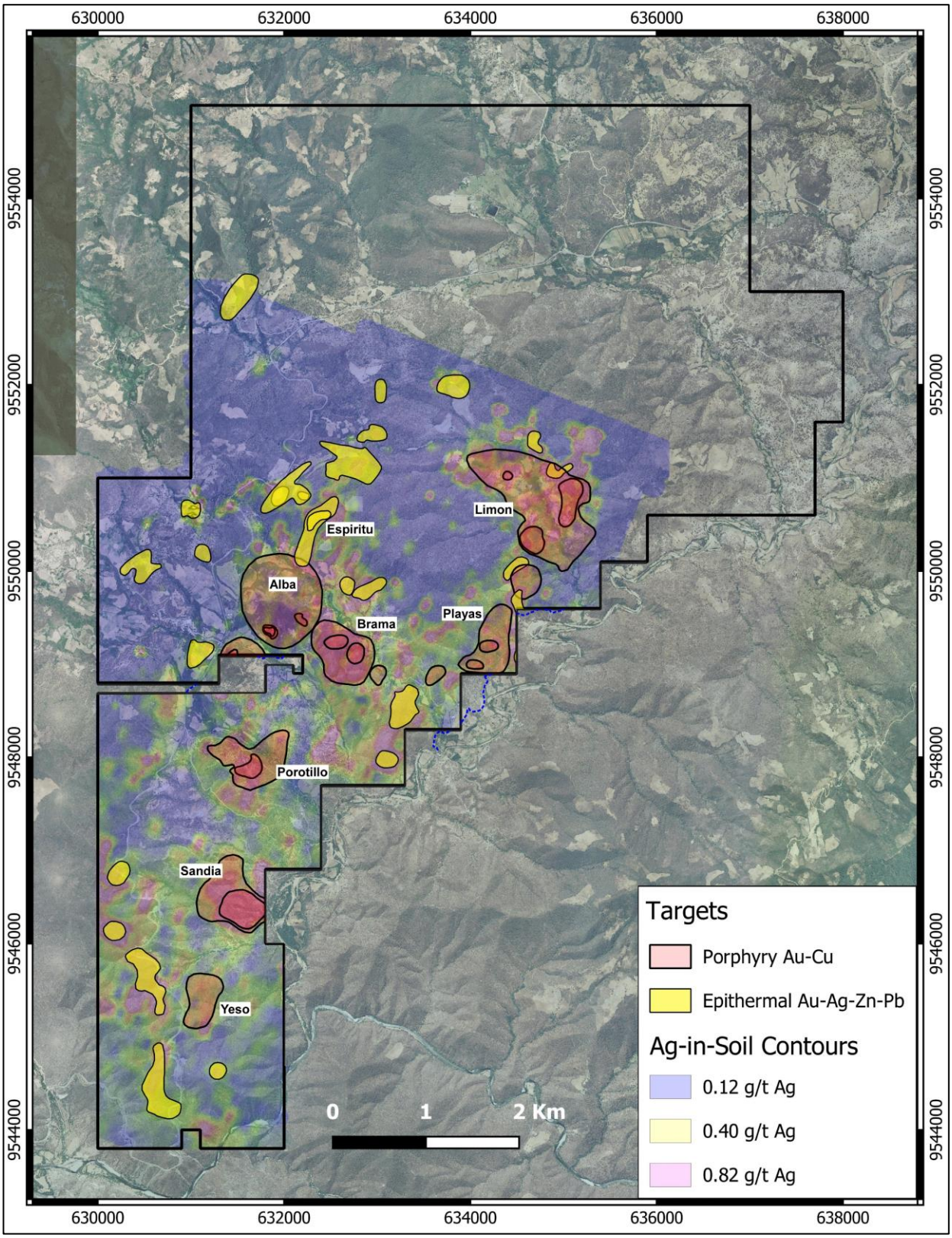

Figure 3: Bramaderos project and Alba epithermal gold and gold-copper porphyry target location. Other porphyry gold-copper targets are also labelled.

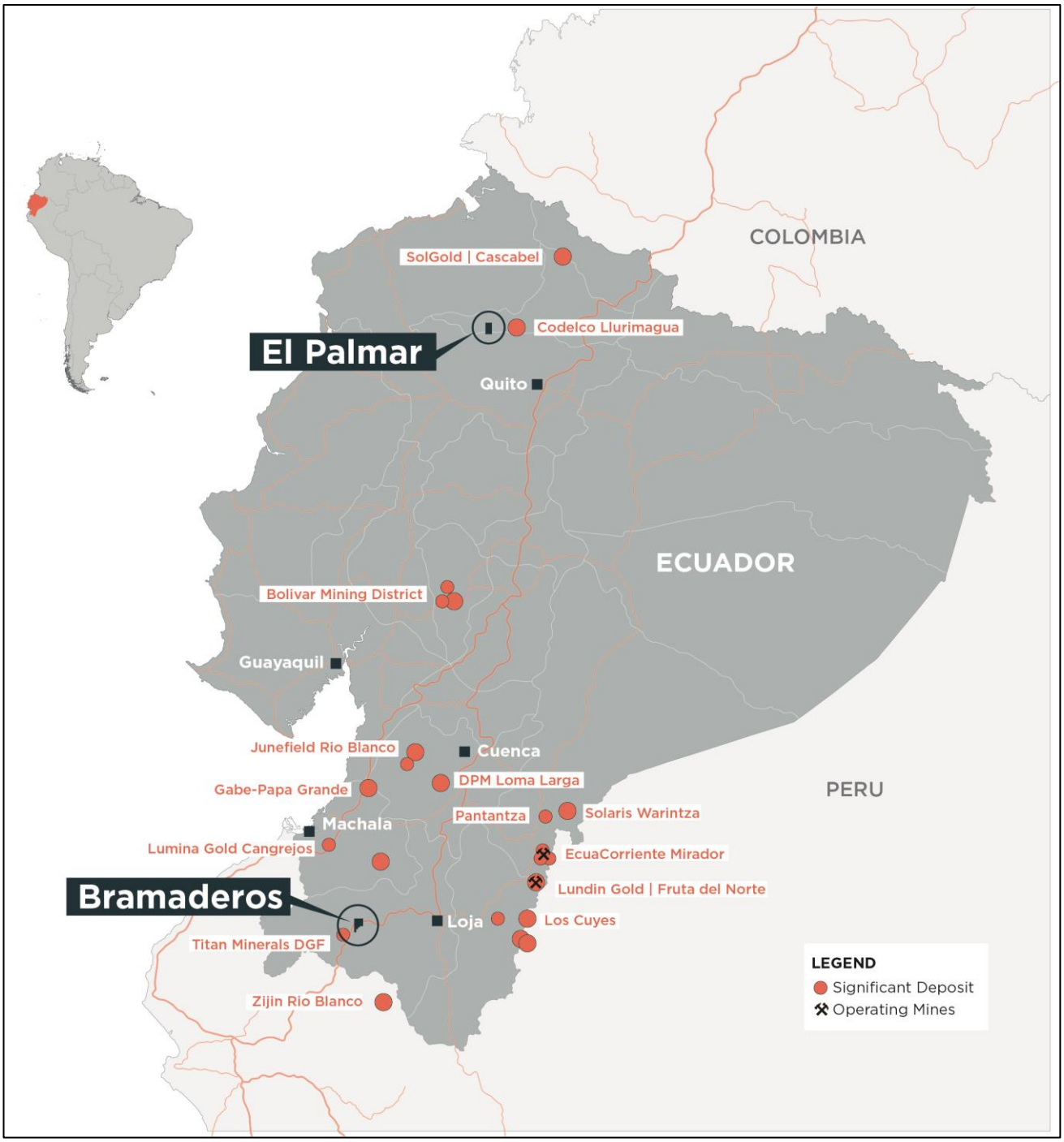

Figure 4: Location of Sunstone's Bramaderos and El Palmar projects, Ecuador

Drill Hole Number	Easting_ PSAD56	Northing _PSAD56	RL (m)	Dip (degrees)	Azimuth (PSAD56 Grid) (degrees)	EOH (m)
BMDD012	632297	9549381	930	-45	314	452.32
BMDD013	632297	9549381	930	-55	032	299.58
BMDD020	632297	9549381	930	-54	318	359.73
BMDD021	632297	9549381	930	-62	318	407.64
BMDD022	632297	9549381	930	-30	316	321.91 (extended to 453.12m
BMDD023	632297	9549381	930	-30	291	379.66

Table 2: Alba drill hole location details

For further information, please visit www.sunstonemetals.com.au

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About Sunstone Metals

Sunstone has an advanced portfolio of exploration and development projects in Ecuador and Scandinavia. The portfolio comprises:

1. **The Bramaderos Gold-Copper Project** where Sunstone owns an 87.5% interest with TSXV listed Cornerstone Capital Resources holding 12.5% (see ASX announcement dated 10th April 2017, 28th August 2019, and 7 January 2020). The Bramaderos gold-copper project is located in Loja province, southern Ecuador, and is highly prospective for the discovery of large porphyry gold-copper systems, and high-grade epithermal gold systems. Historical exploration results from drilling at Bramaderos together with recent exploration by Sunstone and joint venture partner Cornerstone Capital Resources (TSXV:CGP) indicate multiple fertile mineralised systems with significant discovery potential.
2. **The El Palmar Copper-Gold Project** where Sunstone holds 51% and is completing the process to increase its interest in the project to 70%, of the highly prospective 800ha El Palmar gold-copper porphyry project in Ecuador. Sunstone can acquire 100% through a Staged Acquisition Agreement. The El Palmar gold-copper project is located in Imbabura province, northern Ecuador, within the same geological belt that includes the giant Alpala and Llurimagua porphyry copper-gold and copper-molybdenum deposits.
3. **Sunstone has a large equity interest** in Stockholm listed Copperstone Resources (COPP-B.ST) following the sale of the Viscaria Copper project to Copperstone in 2019.

Competent Persons Statement

The information in this report that relates to exploration 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.

Mr Malcolm Norris, Managing Director of Sunstone Metals Ltd., has authorised this announcement to be lodged with the ASX.

TABLE 1 – Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	• The results announced here are from drilling samples and a recently completed Spartan magneto-telluric geophysical survey and conventional pole-dipole IP survey. The drill core sampling was carried out using half core, generally at 1-2m intervals.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Core recovery was good, and core aligned prior to splitting.
	• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Diamond drilling. The drill samples from Alba were dried, crushed to 70% passing 2mm, Split 1000g and pulverised to 85% passing 75microns. A 20g portion of this sample was used for multi-element analysis (IMS-230) and a 30g sample for Fire Assay Au (FAS-111).
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• The Alba target area is now undergoing Phase 1 exploration. • Current drilling by Sunstone is diamond core drilling and has drilled to various depths up to 540m. The diamond core was drilled delivering either HTW (70.9mm) or NTW (56mm) core. Drill core is oriented using a Reflex ACT II tool for bottom of hole.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Diamond core recovery data for the Alba drilling was measured for each drill run and captured in a digital logging software package. The data has been reviewed and core recovery was approximately 100% throughout.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Core recovery at Alba was good, no extra measures were taken to maximise sample recovery.
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No relationship between sample recovery and grade has been established.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• Drill samples were logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features. Logging and sampling were carried out according to Sunstone's internal protocols and QAQC procedures which comply with industry standards.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.*	• Drill samples are logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features.
	• *The total length and percentage of the relevant intersections logged.*	• The drill holes are logged in full, from start to finish of the excavation.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Half core was used to provide the samples that were submitted for assay. Quarter core samples were taken ~1 in every 28 samples for duplicate sampling. The remaining core is left in the core trays.
	• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	• N/A.

Criteria	JORC Code explanation	Commentary
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Drill core samples from Alba were sent to the LAC y Asociados Cia. Ltda. Sample Preparation Facility in Cuenca, Ecuador for sample preparation. The standard sample preparation for drill core samples (Code PRP-910) is: Drying the sample, crushing to size fraction 70% <2mm and splitting the sample to a 250g portion by riffle or Boyd rotary splitter. The 250g sample is then pulverised to >85% passing 75 microns and then split into two 50g pulp samples. Then one of the pulp samples was sent to the MS Analytical Laboratory in Vancouver (Unit 1, 20120 102nd Avenue, Langley, BC V1M 4B4, Canada) for gold and base metal analysis. • The sample preparation is carried out according to industry standard practices using highly appropriate sample preparation techniques.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Sunstone used an industry standard QAQC programme involving Certified Reference Materials "standards" and blank samples, which were introduced in the assay batches. • Standards (Certified Reference Materials) or analytical blanks were submitted at a rate of 1 in 28 samples. Field duplicates were also taken at a rate of approximately 1 in 28 samples. • The check or duplicate assay results are reported along with the sample assay values in the final analysis report.
	• *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.*	• For diamond core, the routine sample procedure is to always take the half/quarter core to the right of the orientation line (looking down hole) or the cut line (in cases where the orientation line was not reliable). • Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Sample sizes are considered to be appropriate for the style of sampling undertaken and the grainsize of the material, and correctly represent the style and type of mineralisation at the exploration stage.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• Sunstone uses a fire assay gold technique for Au assays (FAS-111) and a four acid multi element technique (IMS-230) for a suite of 48 elements. FAS-111 involves Au by Fire Assay on a 30-gram aliquot, fusion and atomic absorption spectroscopy (AAS) at trace levels. IMS-20 is considered a near total 4 acid technique using a 20g aliquot followed by multi-element analysis by ICP-AES/MS at ultra-trace levels. • This analysis technique is considered suitable for this style of mineralisation.
	• *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	• Detailed geological logging, are used as a guide to areas of potential mineralisation and samples from these areas are sent for laboratory analysis as described above.
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e.*	• Standards, blanks and duplicates are inserted ~1/28 samples. The values of the standards range from low to high grade and are considered appropriate to

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>lack of bias) and precision have been established.</td><td>monitor performance of values near cut-off and near the mean grade of the deposit.
• The check sampling results are monitored, and performance issues are communicated to the laboratory if necessary.</td></tr>
<tr><td rowspan="4">Verification of sampling and assaying</td><td>• The verification of significant intersections by either independent or alternative company personnel.</td><td>• Procedure checks have been completed by the Competent Person for exploration results for this announcement.</td></tr>
<tr><td>• The use of twinned holes.</td><td>• Twin holes have not been drilled in these areas.</td></tr>
<tr><td>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</td><td>• Sunstone sampling data were imported and validated using Excel.</td></tr>
<tr><td>• Discuss any adjustment to assay data.</td><td>• Assay data were not adjusted. Core loss intervals are assigned assay values of zero where present.</td></tr>
<tr><td rowspan="3">Location of data points</td><td>• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</td><td>• Sample co-ordinates are located by GPS and for trench samples measured along the length of the trench.</td></tr>
<tr><td>• Specification of the grid system used.</td><td>• Ecuador projection parameters:
<table><tr><th>Parameter</th><th>Value</th></tr><tr><td>Reference Ellipsoid</td><td>International 1924</td></tr><tr><td>Semi Major Axis</td><td></td></tr><tr><td>Inverse Flattening (1/f)</td><td></td></tr><tr><td>Type of Projection</td><td>UTM Zone -17S (Datum PSAD56)</td></tr><tr><td>Central Meridian:</td><td>-81.0000</td></tr><tr><td>Latitude of Origin</td><td>0.0000</td></tr><tr><td>Scale on Central Meridian</td><td>0.9996</td></tr><tr><td>False Northing</td><td>10000000</td></tr><tr><td>False Easting</td><td>500000</td></tr></table></td></tr>
<tr><td>• Quality and adequacy of topographic control.</td><td>• The topographic control was compared against published maps and satellite imagery and found to be good quality.</td></tr>
<tr><td rowspan="3">Data spacing and distribution</td><td>• Data spacing for reporting of Exploration Results.</td><td>• The drill core samples were collected from one diamond drill hole from the Alba target, and with sample length generally ranging between 0.5 – 2.0m.</td></tr>
<tr><td>• Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</td><td>• The data from these samples does not contribute to any resource estimate nor implies any grade continuity.</td></tr>
<tr><td>• Whether sample compositing has been applied.</td><td>• No sample compositing was done.</td></tr>
<tr><td rowspan="2">Orientation of data in relation to geological structure</td><td>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</td><td>• Drilling orientations were appropriate for the interpreted geology providing representative samples.</td></tr>
<tr><td>• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</td><td>• No sampling bias is expected at this stage.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Sunstone sampling procedures indicate individual samples were given due attention. • Sample security was managed through sealed individual samples and sealed bags of multiple samples for secure delivery to the laboratory by permanent staff of the joint venture. • MS Analytical is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation. MS Analytical is accredited to ISO/IEC 17025 2005 Accredited Methods.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sunstone's sampling techniques and data have been audited multiple times by independent mining consultants during various project assessments. These audits have concluded that the sampling techniques and data management are to industry standards. • All historical data has been validated to the best degree possible and migrated into a database.

TABLE 1 – Section 2: Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	• The Bramaderos Exploration Concession is located in the Loja Province of southern Ecuador. The concession was granted to La Plata Minerales S.A. ("PLAMIN") in January 2017. PLAMIN is a subsidiary of Sunstone Metals Ltd. The concession is subject to a Joint Venture between Cornerstone Capital Resources Inc. (12.5%) and Sunstone Metals Ltd. (87.5%). There are no declared wilderness areas or national parks within or adjoining the concession area. There are no established native title interests.
	• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Bramaderos Exploration Concession was granted to La Plata Minerales S.A. ("PLAMIN") in January 2017. PLAMIN is now a subsidiary of Sunstone Metals Ltd. The Bramaderos Concession is subject to a Joint Venture between Sunstone Metals and Cornerstone. Sunstone has an 87.5% interest in the JV.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The historic exploration at Bramaderos was completed by various groups over the period 1970-1984, 2001-2002 and 2004-2007. Most of the readily available historic data has been acquired and compiled into databases and a GIS project. Exploration by other parties has included stream sediment surveys, geological mapping, rock chip sampling (888 samples) and grid-based soil sampling (1324 samples), trenching and channel sampling (17 trenches), ground magnetic surveys (31 line kilometres), electrical IP surveys and diamond drilling (10426m).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit style being explored for includes intrusion-related and stockwork hosted porphyry Au-Cu systems plus epithermal gold-silver-polymetallic veins. The setting at Alba is a volcanic arc setting of Cretaceous age intrusions.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* *a. easting and northing of the drill hole collar* *b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* *c. dip and azimuth of the hole* *d. down hole length and interception depth* *e. hole length.*	• Details of the samples discussed in this announcement are in the body of the text. • See Figures 1-2 for the location of drilling at Alba, and nearby areas.
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Information included in announcement.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	• Weighted averages were calculated over reported intervals according to sample length. • No grade cut-offs were applied.
	• *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*	• No aggregating of intervals undertaken at this stage.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Metal equivalents are not presented.
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.*	• Figures 1-2 show the interpreted strike orientation of the mineralised lodes based on mapping and interpretation of detailed magnetic data.
	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• True widths of mineralised lodes are not known at this stage.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See Figures 1-2 for maps showing distribution of samples.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Figures 1-2 above show the current interpretations of geology.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported) including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Figures 1-2 above show various datasets that are being used to identify target areas and to guide current and future drilling.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• The planned exploration program is outlined in the announcement.

Criteria	JORC Code explanation	Commentary
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• See Figures 1-3 which show areas for further exploration.