SUNSTONE METALS

ASX ANNOUNCEMENT

23 AUGUST 2021

El Palmar copper-gold project, Ecuador

First hole completed at 708m after intersecting copper mineralised porphyry from surface

Second hole already underway

Sunstone Metals Ltd (ASX: STM) is pleased to announce that the first drill hole at the El Palmar copper-gold porphyry target in northern Ecuador, EPDD001, was completed at 708.5m and has intersected a copper mineralised porphyry system from surface (Figures 2 & 3).

Importantly, there appears to be a correlation between the presence of copper minerals and magnetite. This is considered highly promising because it supports the 3-D magnetic model, which highlights areas that are prospective for mineralisation (Figures 2 and 3).

The upper 550m of EPDD001 displayed copper mineralisation as fine-grained disseminated chalcopyrite and some bornite. The magnetic model suggested that the mineralisation may decrease beyond 550m in this area, which appears to be the case.

The upper 400m of drill core from EPDD001 is being prepared for submission to the assay laboratory. The remainder of EPDD001 will be prepared in coming days. Assays are expected in late September.

Detailed logging and core photography will be completed over the next few weeks and reported accordingly.

Hole EPDD002 has commenced from the same drill pad as EPDD001 and is being drilled to the NNE to also test the circular magnetic domain. EPDD002 will drill under the best mineralisation intersected in the historical Codelco hole EPD01 (Figure 2) that appeared to drill above the main magnetic target. A third hole is also planned from this same drill pad and will drill to the WNW targeting magnetic rocks at depth just north of the mineralised historical hole EPD02.

El Palmar is located in northern Ecuador (Figures 1 & 4) in the vicinity of the one-billion-tonne Llurimagua copper-molybdenum porphyry deposit and in the same regional structural belt that hosts the 2.6Bt Alpala copper-gold deposit within the Cascabel project (ASX announcement dated 12 August 2021).

Sunstone Managing Director Malcolm Norris said: “We are encouraged by what we see in EPDD001 and we look forward to receiving the assays.

“We have intersected a copper-bearing porphyry system and we have identified an apparent correlation between copper and the presence of magnetite, which supports the potential highlighted by our 3-D magnetic model. It also gives us the confidence to continue drilling while waiting for assay results.

“The 3-D magnetic model suggests a vertical extent of at least 800m so we have several drill holes ahead of us to get a good understanding of this system.

"We are also advancing the auger geochemistry program to cover other satellite anomalies to the main large magnetic target and bring these to drill testing status."

Drilling at the Bramaderos gold-copper project in southern Ecuador is ongoing and further results and plans for H2 2021 will be released shortly.

Sunstone has cash and equity investments of ~$22m, allowing the Company to significantly expand its exploration activities should results in the next couple of months justify.

Table 1: El Palmar drill hole specifications

Hole ID	Easting_PSAD56	Northing_PSAD56	RL	Dip	Azimuth GRID	EOH (m)
EPDD001	746,737	10,030,181	1,152	-70	348	708.5
EPDD002	746,737	10,030,181	1,152	-60	18	In progress

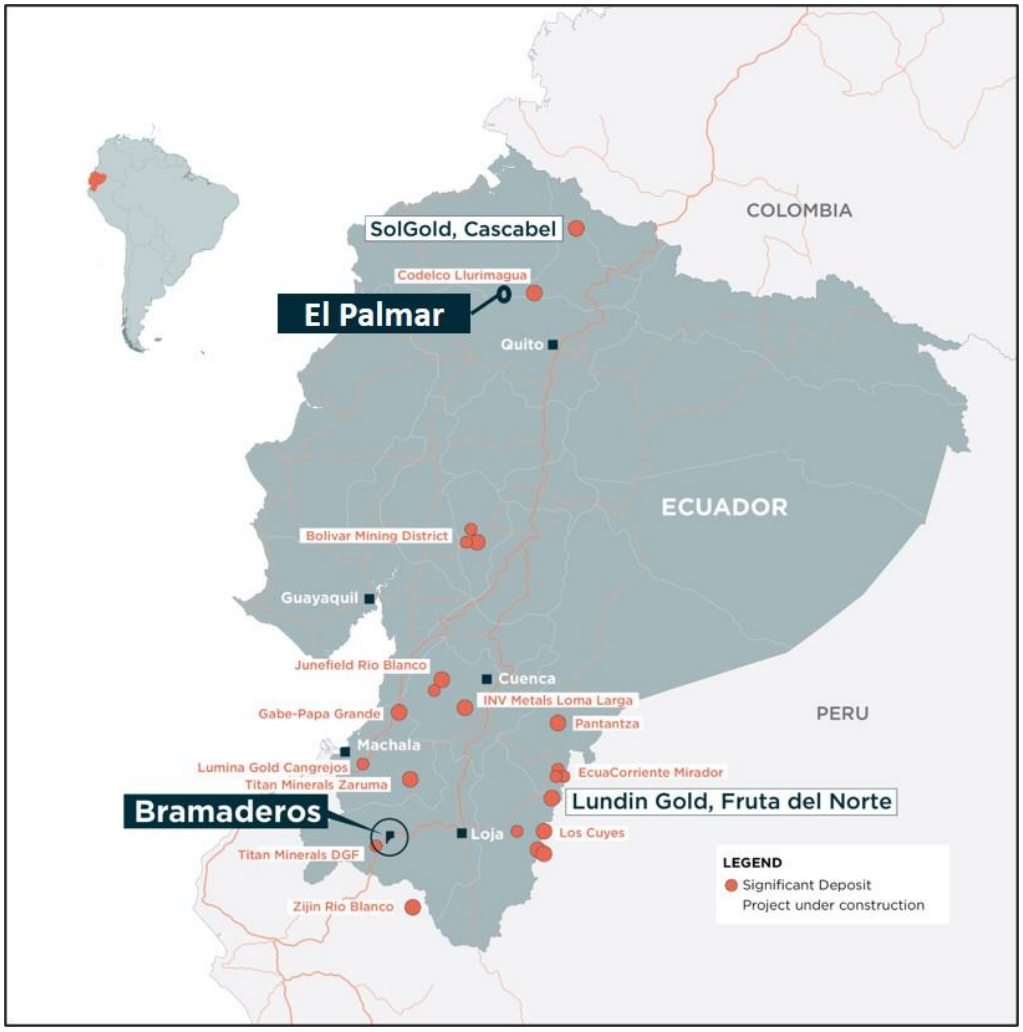

Figure 1: Location of the El Palmar project in northern Ecuador

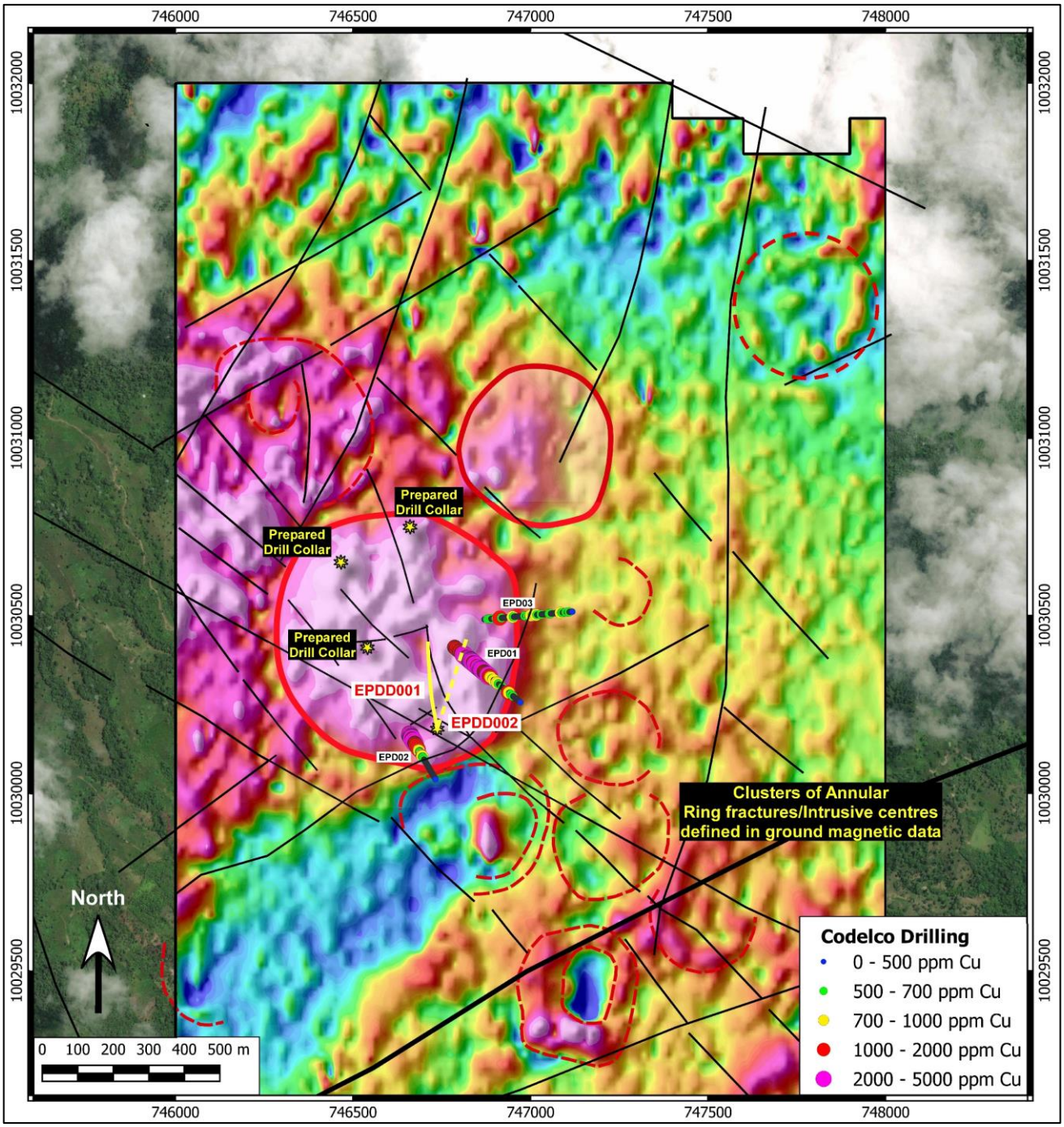

Figure 2: RTP magnetics image showing the circular magnetic anomaly being targeted with drilling. Sunstone drill holes EPDD001 and EPDD002 are shown in yellow. Also shown are three historical drill holes, which drilled away from the target area, and the prepared drill collars to allow for future drilling (see ASX announcement dated 12th August 2020 for details of historical drilling results).

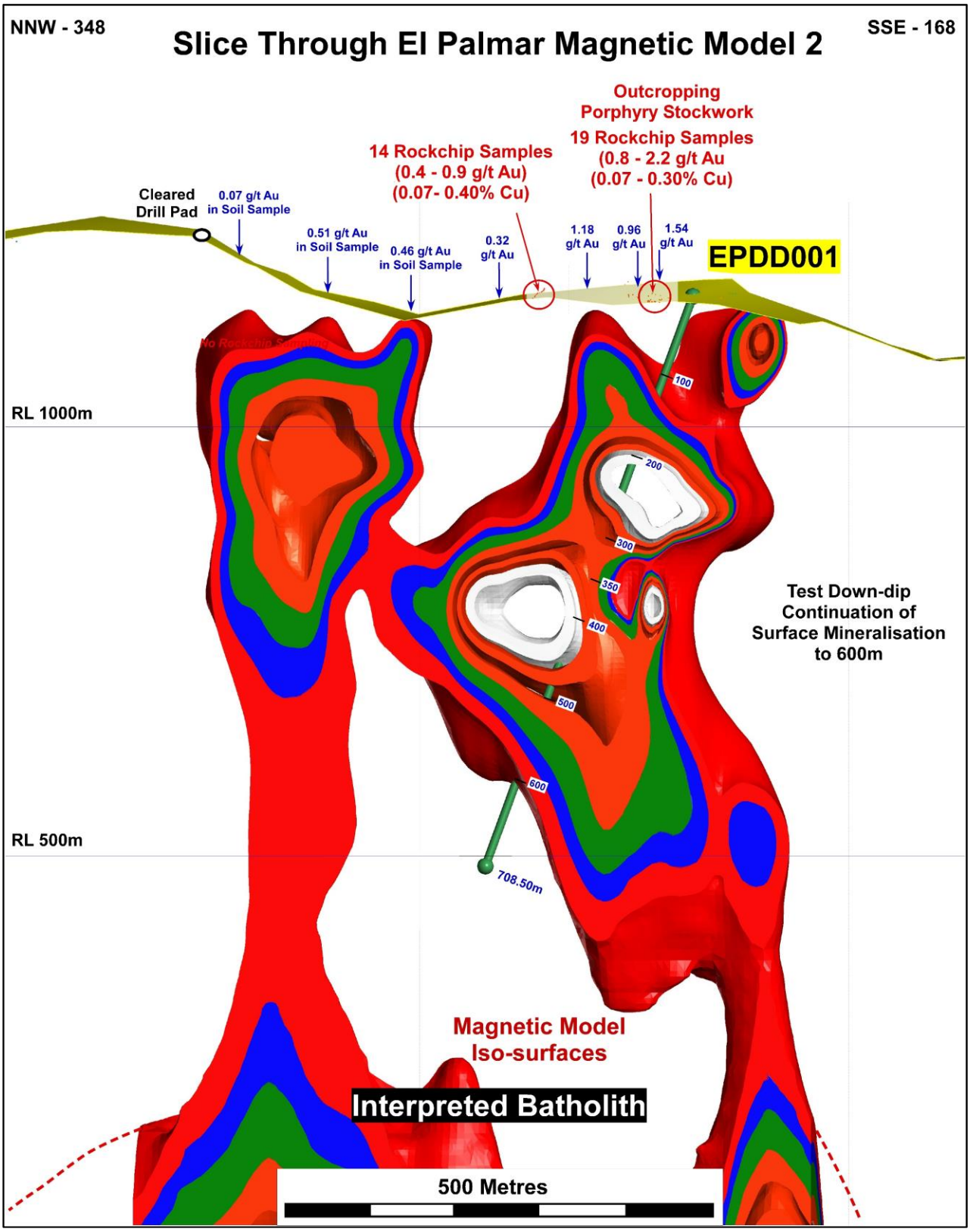

Figure 3: Slice through the El Palmar 3-D magnetic model showing the trace of drill hole EPDD001. End of hole depth is 708.5m (see ASX announcements dated 13th July 2021, and 4th August 2021 for details of soil sampling results).

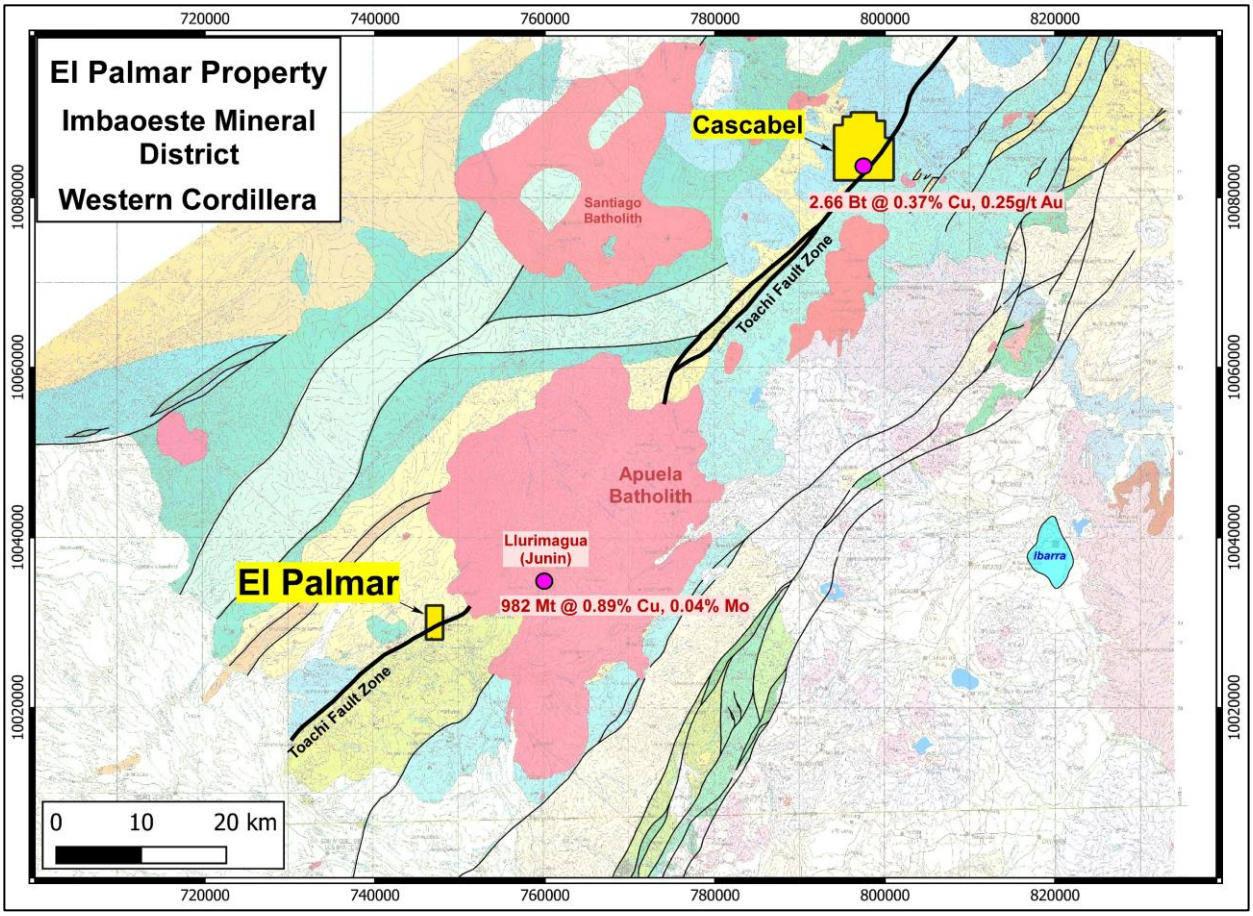

Figure 4: Location of the El Palmar project relative to the Llurimagua and Alpala (Cascabel) deposits, and the Toachi fault system.

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 the highly prospective 800ha El Palmar copper-gold porphyry project in Ecuador will be acquired through a Staged Acquisition Agreement, which will ultimately deliver 100 per cent ownership to Sunstone.
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.
4. **The Finland Lithium Project** includes the Kietyönmäki lithium prospect. Drilling by Sunstone has delivered 24.2m at 1.4% Li2O in a spodumene-bearing pegmatite. The project is a JV with Nortec Minerals. As announced on 5 May 2021, a Letter of Intent has been signed to sell the Finland Lithium Project.

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 historical results announced here are from rock chip samples and drill core from El Palmar. The drill core sampling was carried out using half core, generally at 1.5 to 2m intervals. • New results are based on visual observation of drill core.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Historical rock samples were taken randomly with focus on those exhibiting alteration and mineralisation. Trench samples from within a hand dug trench and hand cut channel samples were continuously sampled for representivity. • 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, rock chip and channel sampling points have been guided by geological mapping. The rock chip and drill samples from El Palmar 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 El Palmar target area was drilled during historical exploration in 2012. 3 diamond drill holes were completed in areas marginal to the main Sunstone target area
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Diamond core recovery data for the El Palmar historical drilling was good from visual review of drill core.
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Historical core recovery at El Palmar was good.
	• *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, trench samples and rock chips were logged for lithology, weathering, structure, mineralogy, mineralisation, colour, and other features. Recent logging and sampling for the El Palmar project 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 historical drill holes are being re-logged in full.
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 from the upper zones of the El Palmar historical drilling.
	• *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.*	• Standard rock chip samples and channel samples. Samples were dried in the laboratory.

Criteria	JORC Code explanation	Commentary
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Historical drill core samples from El Palmar (drilled by Codelco) were analysed by ACME Labs in Vancouver. Samples were crushed and split with 250 grams pulverized to 200 mesh (Method - R200-250). Analysis on drill core was undertaken on a sample split (Method - VAN split pulp). • Surface rocks at El Palmar are historical and were collected by 3 different companies. GOEX S.A. samples were analysed at Bureau Veritas Laboratories in Peru. Lowell Mineral Exploration rocks were analysed by ALS Minerals, with sample preparation involving fine crushing 70% passing 2mm (Method CRU-31), crushed sample split (Method SPL-21) and pulverise 1000g to 85% passing 75um (Method PUL-32). Codelco surface rock samples were analysed by ACME Labs in Vancouver. Samples were crushed and split with 250 grams pulverized to 200 mesh (Method - R200-250) • 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,*	• A handheld "Niton" XRF instrument is used on site for verification of anomalous metal values and to assist with the geological logging and mineral identification. No specific data from this instrument

Criteria	JORC Code explanation	Commentary
	etc.	are referenced in this announcement.
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• 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 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.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• Procedure checks have been completed by the Competent Person for exploration results for this announcement.
	• *The use of twinned holes.*	• Twin holes have not been drilled in these areas.
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Sunstone sampling data were imported and validated using Excel.
	• *Discuss any adjustment to assay data.*	• Assay data were not adjusted. Core loss intervals are assigned assay values of zero where present.
Location of data points	• *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.*	• Sample co-ordinates are located by GPS and for trench samples measured along the length of the trench.
	• *Specification of the grid system used.*	• Ecuador projection parameters: **Parameter** / **Value** Reference Ellipsoid: International 1924 Semi Major Axis: Inverse Flattening (1/f): Type of Projection: UTM Zone -17S (Datum PSAD56) Central Meridian: -81.0000 Latitude of Origin: 0.0000 Scale on Central Meridian: 0.9996 False Northing: 10000000 False Easting: 500000
	• *Quality and adequacy of topographic control.*	• The topographic control was compared against published maps and satellite imagery and found to be good quality.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• The drill core samples reported were collected from three historical diamond drill holes from the El Palmar targets, and with sample length generally ranging between 0.3-2m.
	• *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.*	• The data from these samples does not contribute to any resource estimate nor implies any grade continuity.
	• *Whether sample compositing has been applied.*	• No sample compositing was done.
Orientation of data in relation	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	• Drilling orientations were appropriate for the interpreted geology providing representative samples. • Trench orientations and rock chip locations were appropriate for the interpreted geology providing

Criteria	JORC Code explanation	Commentary
to geological structure		representative samples.
	• *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.*	• No sampling bias is expected at this stage.
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 El Palmar property is located in Imbabura province and is held by an Ecuadorian registered company 'Goex'. Due diligence to date show that there are no wilderness areas or national parks or areas of environmental significance within or adjoining the concession area. There are no native title interests. • Sunstone and Goex have entered into a Staged Acquisition Agreement where Sunstone may earn up to 100% based on defined milestones.
	• *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 El Palmar exploration concession was granted in 2003 and is held 100% by Goex.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The historic exploration at El Palmar was completed by various groups over the period 1990's, 2007-2008, 2011-2012 and GOEX (2012 to 2020). 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, some local soil sampling, channel sampling and limited diamond drilling (3 holes).

Criteria	JORC Code explanation	Commentary
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 El Palmar is a volcanic arc setting of Miocene age intrusions.
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 2&3 for the location of surface sampling, drilling, and trenching activities at El Palmar.
	• *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.*	• The geometry of the mineralisation relative to the drill holes is not completely known at this stage of exploration. .
	• *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 2&3 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 2&3 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 2&3 above show various datasets that are being used to identify target areas and to guide current and future drilling.

Criteria	JORC Code explanation	Commentary
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.
	• *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 2&3 which show areas for further exploration.