

11 SEPTEMBER 2023

# El Palmar gold-copper discovery, northern Ecuador

# Second hole at T3 target confirms discovery of strongly mineralised gold-copper porphyry system

Revised magnetic model shows the two holes drilled to date sit on the edge of a very large target

## **Key Points**

- Drill hole EPDD028, the second hole to test the large T3 target, has intersected a strongly mineralised porphyry gold-copper system at depth to the end of hole.
- Results from drill hole EPDD028 include:
  - 294.7m at 0.51g/t AuEq (0.34g/t gold and 0.11% copper) from 918m down-hole, to end of hole and open, including
    - Higher grade zone of 26m at 0.96g/t AuEq (0.68g/t gold and 0.18% copper)
       from 1,014m
  - Discrete higher grade intervals including 3.2m at 0.38% copper and 1.65g/t gold, from 1,077m within the higher-grade zone of 26m, demonstrates the ability of the system to deliver higher grades
- EPDD028 targeted the same porphyry system that was initially intersected in EPDD026. The
  mineralisation has now been outlined over at least 120m wide and remains open in all
  directions
- Updated magnetic modelling suggests a significant magnetic body in this area of ~700m width, with holes EPDD026 and 028 being drilled on the edge.
- The broader T3 target is roughly circular, comprises several magnetic bodies and soil geochemical targets, measures ~1.5km in diameter, and is part of a cluster of gold-copper porphyry systems, T1 to T5, which extend over 2.5km
- T3 is a large target and has only had 3 holes drilled into it, 2 of which are well mineralised and point to the very significant upside opportunity at El Palmar
- Importantly, the T3 target sits within the broad Toachi fault zone which is a key control on mineralisation at SolGold's 3Bt Alpala copper-gold porphyry deposit just 65km away and 15km away from Codelco's 1Bt Llurimagua copper-molybdenum deposit

The gold equivalent calculation formula is  $AuEq(g/t) = (Au \text{ grade } (g/t) \times (Au \text{ price per ounce}/31.10348) \times Au \text{ recovery}) + (Cu \text{ grade } (%) \times (Cu \text{ price per tonne}/100) \times Cu \text{ recovery}) + (Ag \text{ grade } (g/t) \times (Ag \text{ price per ounce}/31.10348) \times Ag \text{ recovery})) / (Au \text{ price per ounce}/31.10348 \times Au \text{ recovery}). The prices used were US$1,800/oz gold and US$9,500/t copper and US$22/oz silver. Recoveries are estimated at 89% for gold, 85% for copper, and 60% for silver based on metallurgical studies. In Sunstone's opinion all the elements included in the metal equivalents calculation have reasonable potential to be recovered and sold.$ 



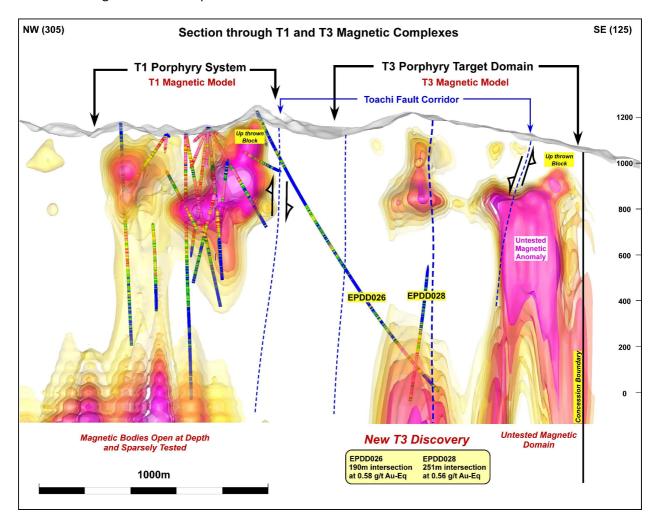
Sunstone Metals Ltd (ASX: STM) is pleased to announce that the second hole at the T3 porphyry target within its El Palmar project in northern Ecuador has intersected strong gold-copper porphyry mineralisation.

These latest results, combined with those from the first hole (EPDD026, see ASX announcement dated 20<sup>th</sup> June 2023) show T3 is emerging as a very large gold-copper porphyry system.

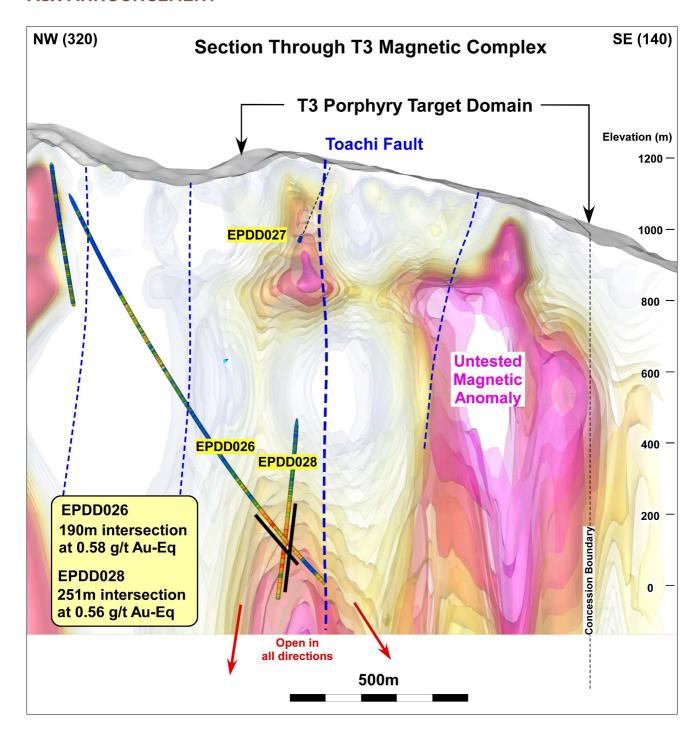
Sunstone Managing Director Malcolm Norris said: "This latest result shows clearly that T3 is a significant copper-gold porphyry discovery.

"This area is wide open. We will be targeting a mineralised body that is 500-700m diameter with a vertical extent exceeding 500m in the area of holes EPDD026 and 28. We also have several other targets within T3 that require drill testing. Together, these have the potential to deliver a very large gold-copper porphyry mineralised domain in an environment with many similarities to the 3Bt Alpala deposit nearby, which is located within the SolGold Cascabel concession.

"It is early days on the El Palmar concession but the potential here is huge. We see multiple porphyry systems, mineralisation extending from surface at T1 to depths exceeding 1,100m and grades locally exceeding 1g/t AuEq (or greater than 0.6g/t gold and greater than 0.2% copper). We believe we are onto a significant discovery at El Palmar that could deliver significant value uplift to Sunstone shareholders".



**Figure 1:** Northwest-Southeast section through the T1 and T3 targets showing the near surface mineralisation at T1, the deeper mineralisation at T3, and the untested magnetic anomalies at depth at T1, and in the SE portion of T3.



**Figure 2:** Northwest-Southeast section through the T3 target showing results from holes EPDD026 and 028 relative to the upper portions of a significant modelled magnetic body. The yellow to pink contours show a slice through the magnetic model with pink being more magnetic.

The latest hole (EPDD028) was drilled steeply at -82 degrees into the same magnetic anomaly intersected by hole EPDD026. This latest intersection extends mineralisation to the north-east and below that encountered by hole EPDD026, and remains open in all directions. Updated magnetic modelling suggests that this magnetic body could be up to ~700m diameter (Figures 1, 2 & 3).



Both holes EPDD026 and 028 are mineralised at end of hole, suggesting a vertical extent of mineralisation, from magnetic modelling, in excess of 250m (Figures 1 & 2).

Remodelling of magnetics has delivered a more robust model over the T3 area. The model has identified several magnetic anomalies that could relate to mineralised bodies and these will be drill tested. Some of these extend closer to surface than the anomaly drilled in EPDD026 and 028 and these shallower targets will be prioritised for testing (Figures 1, 2 & 3).

Hole EPDD027 (EOH 305m) was drilled into a shallow magnetic anomaly and intersected an unmineralised sequence of volcanic rocks, interpreted to be younger, that have a subtle magnetic signature.

At surface within the T3 target minor high-level quartz veining has locally been identified in outcrop, but the majority of the area, particularly in the northern portion of T3 is covered by up to at least 35m of young volcanic cover. Grid-based auger soil sampling that has penetrated below areas of thinner cover (<10m) has returned coincident arsenic (Figure 3, and Figure 4 left hand panel) and antimony anomalies over the southern and western sectors of the T3 magnetic complex. These two elements are typically elevated in the altered lithocaps over the top and margins of porphyry copper systems. This supports the concept of a very large target area.

These latest results from T3, combined with the known porphyry mineralisation at T1, T2, T5 and the still to be tested T4 target, clearly demonstrate a district with multiple close-spaced and mineralised porphyry centres (Figure 4).

This scenario of clustered deposits is very similar to the giant Cobre Panama porphyry copper system in Panama where seven porphyry centres contribute to its overall mineral resources (~4.4Bt at 0.35% copper and 0.06g/t gold at 0.15% copper COG; www.firstquantum.com).

Drill Hole	Target Area	EOH (m)	From (m)	To (m)	Interval (m)	Au (g/t)	Cu (%)	Mo (ppm)	Ag (g/t)	AuEq (g/t)	CuEq (%)
EPDD026	T2-T3	1,464.40	2.00	6.00	4.00	0.25	0.01	9.2	0.5	0.28	0.18
			67.00	87.00	20.00	0.40	0.01	16.1	0.2	0.42	0.27
			132.70	134.70	2.00	0.93	0.00	17.5	0.1	0.94	0.60
			191.80	224.00	32.20	0.24	0.02	8.5	0.1	0.27	0.17
			242.00	252.00	10.00	0.23	0.02	5.2	0.3	0.26	0.17
			463.40	1365.00	901.60	0.15	0.05	4.5	0.3	0.23	0.14
		incl.	1109.00	1119.00	10.00	0.33	0.10	18.2	0.5	0.49	0.31
		and	1171.00	1361.00	190.00	0.40	0.11	2.2	0.7	0.58	0.37
		incl.	1192.30	1254.40	62.10	0.57	0.15	2.9	1.0	0.82	0.52
		incl.	1236.00	1247.90	11.90	0.97	0.28	2.1	2.0	1.42	0.91
		and	1287.40	1321.00	33.60	0.57	0.15	1.6	1.0	0.82	0.52
		incl.	1307.00	1311.00	4.00	1.22	0.29	3.2	1.9	1.70	1.08
		and	1430.00	1454.00	24.00	0.16	0.07	3.3	1.3	0.29	0.18
EPDD027	Т3	305.00	no signific	cant results	5						
EPDD028	Т3	1,212.68	918.00	1212.68	294.68	0.34	0.11	6.1	0.9	0.51	0.33
		incl.	936.00	1186.90	250.90	0.37	0.12	5.8	0.9	0.56	0.36
		incl.	996.00	1124.00	128.00	0.52	0.15	5.3	1.0	0.76	0.49



incl.	1014.00	1040.00	26.00	0.68	0.18	4.4	1.0	0.96	0.61
and	1077.00	1088.00	11.00	0.99	0.28	8.3	2.1	1.45	0.92
and	1156.00	1186.90	30.90	0.35	0.11	7.8	1.6	0.53	0.34

**Table 1:** Significant intersections from holes EPDD026 and EPDD028. Copper equivalent is included here to enable comparison with other porphyry copper-gold deposits that are commonly reported in CuEq (e.g. Alpala and Tandayama-America below).

\*The gold equivalent calculation formula is AuEq(g/t) = ((Au grade (g/t) x (Au price per ounce/31.10348) x Au recovery) + ((Cu grade (%) x (Cu price per tonne/100) x Cu recovery) + (Ag grade (g/t) x (Ag price per ounce/31.10348) x Ag recovery)) / ((Au price per ounce/31.10348) x Au recovery). 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.

\*The copper equivalent calculation formula is CuEq(%) = ((Au grade (g/t) x (Au price per ounce/31.10348) x Au recovery) + ((Cu grade (%) x (Cu price per tonne/100) x Cu recovery) + (Ag grade (g/t) x (Ag price per ounce/31.10348) x Ag recovery)) / ((Cu price per tonne/100) x Cu recovery). 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.

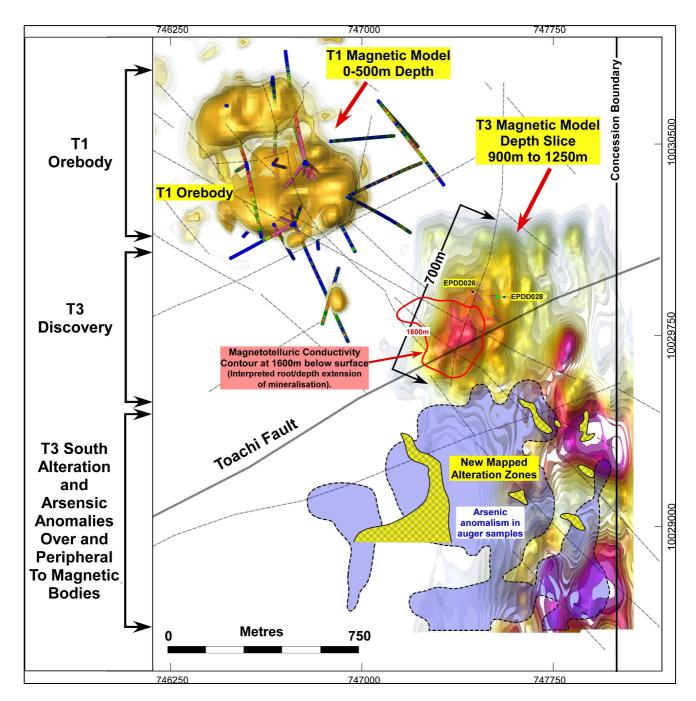
The T3 target is centred on the regionally-significant Toachi Fault zone and its intersection with orthogonal structures – a scenario strongly similar to the Alpala and Tandayama-America copper-gold porphyry deposits, within SolGold's Cascabel project, located 65km to the north-east (Figure 5). Age dating of the rocks associated with mineralisation at El Palmar T1 has confirmed that they are the same geological age as Alpala and are hosted within the northern section of the Eocene volcanic arc.

The 2.66 billion tonne Alpala copper-gold deposit grades 0.25g/t gold and 0.37% copper (0.53% CuEq), and the 0.53 billion tonne Tandayama-America deposit grades 0.19g/t gold and 0.24% copper (0.36% CuEq) (Figure 5; see also <a href="https://www.solgold.com.au">www.solgold.com.au</a> for details). Also in the vicinity is the 1 billion tonne Llurimagua copper-molybdenum porphyry deposit grading 0.89% copper and 0.04% molybdenum (1.0% CuEq).

The clustering of deposits that are being discovered on the El Palmar property within the Eocene belt gives us strong cause to believe that the El Palmar deposits will be regionally significant.

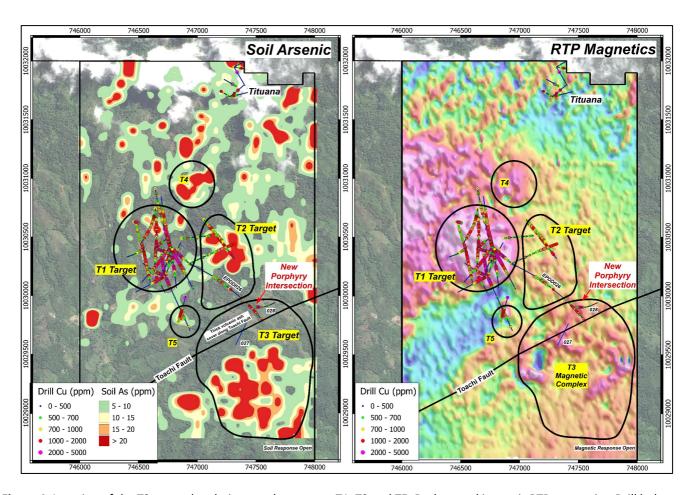
Sunstone is also active at its southern Ecuador Bramaderos project (Figure 6) where drilling is in progress at the Limon gold-silver target where high grade mineralisation has been drilled from surface to depths of 300m and is open in all directions (see ASX announcements dated 15<sup>th</sup> August 2023, 3<sup>rd</sup> July 2023, and 29<sup>th</sup> March 2023).





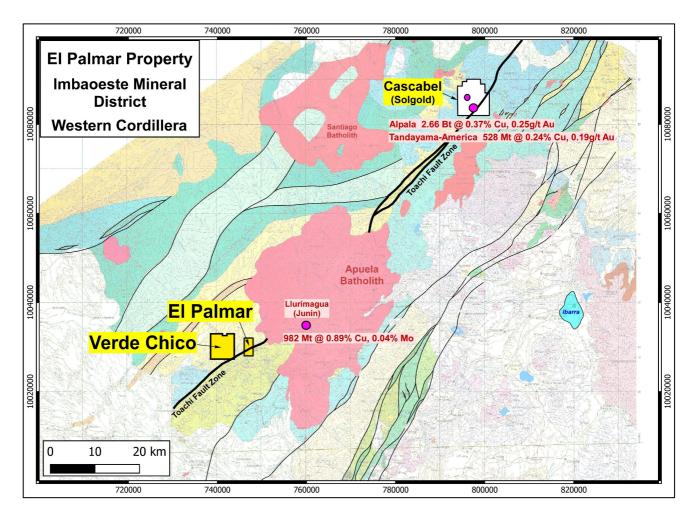
**Figure 3:** Plan of the T3 target at ~800m below surface. The broader T3 magnetic complex is approximately 1.5km in extent N-S, and has a 1km width based on magnetics and soil geochemical anomalies. The target has only 3 drill holes drilled to date of which 2 have intersected significant gold-copper mineralisation.





**Figure 4:** Location of the T3 anomaly relative to other targets T1, T2 and T5. Background image is RTP magnetics. Drill holes EPDD026 and EPDD028 are shown in the NE portion of the broader T3 target.





**Figure 5:** Location of the El Palmar project relative to the giant Llurimagua (Codelco-Enami), Alpala and Tandayama-America (Cascabel project, SolGold) porphyry deposits, and the Toachi fault system.



**Figure 6:** Location of the El Palmar project in northern Ecuador, the Verde Chico project nearby, and the Bramaderos Project in southern Ecuador.

Drill Hole ID	Easting (m)	Northing (m)	Dip (degrees)	Azimuth (UTM) (PSAD56 Grid) (degrees)	EOH (m)
EPDD026	746936	10030272	-65	115	1,464.4
EPDD027	747334	10029589	-50	25	305.0
EPDD028	747663	10029939	-82	248	1212.7

**Table 1:** Drill hole details for the T3 target at the El Palmar Project.



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

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#### **About Sunstone Metals**

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

1. The Bramaderos Gold-Copper Project where Sunstone owns an 87.5% interest, and SolGold Canada, Inc. (formerly Cornerstone Capital Resources) a subsidiary of SolGold, holding 12.5% (loan carried through to start of commercial production) (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. The Bramaderos concession is host to multiple fertile mineralised systems with significant discovery potential.

The Brama-Alba deposit, within the Bramaderos concession contains an initial Mineral Resource estimate of 156Mt at 0.53g/t AuEq for 2.7Moz gold-equivalent\*. In addition to this is the Bramaderos project Exploration Target of between 3.3Moz and 8.6Moz AuEq within 255 to 360Mt at a grade between 0.40 and 0.74g/t AuEq (see ASX release dated December 13, 2022).

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

The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement for the Mineral Resource estimate and Exploration Target referred to above and, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource for the target area reported. It is uncertain if further exploration will result in the estimation of a Mineral Resource.

\*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.

2. The El Palmar Copper-Gold Project where Sunstone holds 70% of the highly prospective 800ha El Palmar gold-copper porphyry project in Ecuador. Sunstone can acquire 100% through a Staged Acquisition Agreement. A Staged Acquisition Agreement to acquire the nearby Verde Chico Project has also been signed. The El Palmar and Verde Chico gold-copper projects are located in Imbabura province, northern Ecuador, within the same geological belt that includes the giant Alpala, Tandayama-America and Llurimagua porphyry copper-gold and copper-molybdenum deposits.



#### **Competent Persons Statement**

The information in this report that relates to exploration targets and 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



# — ASX ANNOUNCEMENT —

## TABLE 1 – Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample</li> </ul>	<ul> <li>The drill core sampling was carried out using half core, generally at 1 to 2m intervals.</li> <li>New results are based on visual assessment of drill core.</li> <li>Core recovery was good, and core aligned prior to</li> </ul>
	representivity and the appropriate calibration of any measurement tools or systems used.	splitting and sampling.
	• 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 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 areas have been drilled with diamond core.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond core recovery data for the El Palmar drilling program was good.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	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 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.
	<ul> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	• The drill holes have been logged in full. Drill hole lengths are included in the text of the announcement.
Sub-sampling techniques and	• 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 El Palmar drilling.
sample preparation	• If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	This announcement relates to drill core logging.
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul> <li>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).</li> </ul>
		• Surface rocks at El Palmar are historical and were collected by 3 different companies. GOEX S.A. samples were analysed at Bureau Veritas Laboratories



# — ASX ANNOUNCEMENT —

Criteria	JORC Code explanation	Commentary
		<ul> <li>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)</li> <li>The sample preparation for the current phase of drilling is carried out according to industry standard practices using highly appropriate sample preparation techniques.</li> </ul>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul> <li>Sunstone used an industry standard QAQC programme involving Certified Reference Materials "standards" and blank samples, which were introduced in the assay batches.</li> <li>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.</li> <li>The check or duplicate assay results are reported along</li> </ul>
	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.	<ul> <li>The check of duplicate assay results are reported along with the sample assay values in the final analysis report.</li> <li>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).</li> <li>Once assay results are received the results from duplicate samples are compared with the corresponding routine sample to ascertain whether the sampling is representative.</li> </ul>
	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.	<ul> <li>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.</li> <li>This analysis technique is considered suitable for this style of mineralisation.</li> </ul>
	• 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.	• A handheld pXRF 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 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.	<ul> <li>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.</li> <li>The check sampling results are monitored, and performance issues are communicated to the laboratory if necessary.</li> </ul>
	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.



Criteria	JORC Code explanation	Commentary
Verification of	The use of twinned holes.	Twin holes have not been drilled in these areas.
sampling and assaying	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 diamond drill holes from the El Palmar targets, and with sample length generally ranging between 0.5-2m.
uistribution	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 to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul> <li>Drilling orientations were appropriate for the interpreted geology providing representative samples.</li> <li>Trench orientations and rock chip locations were appropriate for the interpreted geology providing representative samples.</li> </ul>
	• 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.	<ul> <li>Sunstone sampling procedures indicate individual samples were given due attention.</li> <li>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.</li> <li>MS Analytical is an internationally accredited laboratory that has all its internal procedures heavily scrutinised in order to maintain their accreditation. MS</li> </ul>



Criteria	JORC Code explanation	Commentary
		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.	<ul> <li>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.</li> <li>All historical data has been validated to the best degree possible and migrated into a database.</li> </ul>

## 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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>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.</li> <li>Sunstone and GOEX have entered into a Staged Acquisition Agreement where Sunstone may earn up to 100% based on defined milestones.</li> <li>The El Palmar exploration concession was granted in 2003 and is held 100% by GOEX.</li> <li>Sunstone owns 70% of GOEX</li> </ul>
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).
Geology	Deposit type, geological setting and style of mineralisation.	The deposit style being explored for includes intrusion- related and stockwork hosted porphyry gold-copper systems plus epithermal gold-silver-polymetallic veins. The setting at El Palmar is a volcanic arc setting of Eocene 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.  If the exclusion of this information is justified on the	<ul> <li>Details of the samples discussed in this announcement are in the body of the text.</li> <li>See Figures 1-4 for the location of previous drilling at El Palmar.</li> </ul>
	• 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.



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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.	<ul> <li>Weighted averages were calculated over reported intervals according to sample length.</li> <li>No grade cut-offs were applied.</li> </ul>
	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.	Aggregating of intervals represent broad intervals consistent with porphyry gold-copper mineralised systems.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalents are presented with the calculation formula, and assumptions of metal prices and recoveries are included in the text. Preliminary metallurgy from El Palmar is delivering results similar to those reported from Bramaderos. Both projects are gold rich porphyry gold-copper deposits.
Relationship between mineralisation	• 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.
widths and intercept lengths	• 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 1-4 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 1-4 above shows 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.	Figure 1-4 above shows 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.
	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 1-4 which show areas for further exploration.