

ASX Announcement

18 October 2023

Drilling Commenced at Llahuin Copper-Gold Project, Chile

Highlights:

- Southern Hemisphere Mining has entered into a drilling contract with DV Drilling in Chile for Diamond and RC drilling at its flagship Llahuin Copper-Gold Project
- > The drilling program will test multiple targets generated from the recent soil geochemistry sampling program and downdip zones from the previous drilling program
- > The Southern Porphyry copper-gold target will also be tested in the program
- > Recent rock chip sampling highlight grades of up to 7.28%Cu, 18.65g/t Au, 55g/t Ag

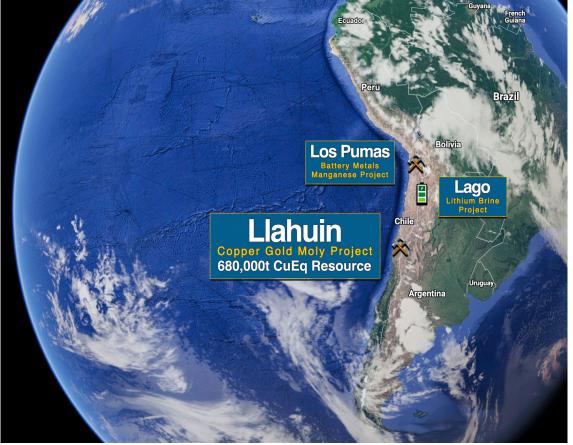


Figure 1 Southern Hemisphere Mining's Projects Location Map

ACN: 140 494 784 Suite 2, 20 Howard Street PERTH WA 6000 Ph: +61 8 6144 0590 www.shmining.com.au Southern Hemisphere Mining Limited ("Southern Hemisphere" or "the Company) (ASX: SUH, FWB: NK4) advises that DV Drilling from La Serena, Chile have been contracted to complete a 2,500m diamond and RC drilling program at its Llahuin Copper-Gold-Moly Project in Chile.

The rig has arrived at the Llahuin site and drilling has commenced at the Cerro de Oro deposit testing downdip extensions from the previous drilling program and the area between the Cerro de Oro and Ferrocarril sectors where recent soil geochemistry demonstrates a significant copper and gold anomaly.



Figure 2 Drill rig onsite at the Llahuin Project

A recent rock chip sampling program as part of mapping and refining drill targets returned a number of significant results as listed in Table 1 including, copper to 7.28%, gold to 18.65g/t and silver to 55g/t.

Regular updates will be provided during the drilling and as assay results are received from the ALS laboratory in La Serena with first results expected mid-November.

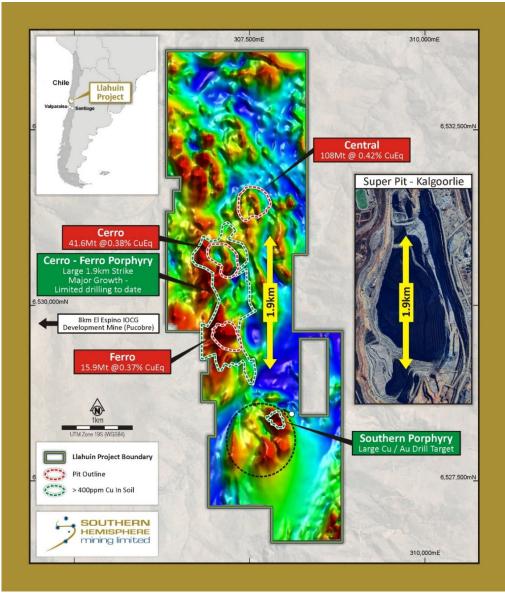


Figure 3 Cerro-Ferro deposits and geochem targets with comparative scale to the Kalgoorlie Super-Pit and the Southern Porphyry Copper-Gold target South

Approved by the Board for release.

CONTACTS:

For further information on this update or the Company generally, please visit our website at <u>www.shmining.com.au</u> or contact the Company :

<u>cosec@shmining.com.au</u> Telephone: +61 8 6144 0590

BACKGROUND INFORMATION ON SOUTHERN HEMISPHERE MINING:

Southern Hemisphere Mining Limited is an experienced minerals explorer in Chile, South America. Chile is the world's leading copperproducing country and one of the most prospective regions of the world for major new copper discoveries. The Company's projects include the Llahuin Porphyry Copper-Gold Project and the Los Pumas Manganese Project, both of which were discovered by the Company.

Llahuin Copper/Gold/Moly Project: Total Measured and Indicated Resources - JORC (2004) Compliant. As announced to the market on 18 August 2013.

Resource (at 0.28% Cu Equiv cut-off)	Tonnes Millions	Cu %	Au g/t	Мо %	Cu Equiv*
Measured	112	0.31	0.12	0.008	0.42
Indicated	37	0.23	0.14	0.007	0.37
Measured plus Indicated	149	0.29	0.12	0.008	0.41
Inferred	20	0.20	0.19	0.005	0.36
Total M+I+I	169	0.28	0.128	0.008	0.40

Note: *Copper Equivalent ("Cu Equiv"): The copper equivalent calculations represent the total metal value for each metal, multiplied by the conversion factor, summed and expressed in equivalent copper percentage. These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result. It is the Company's opinion that elements considered have a reasonable potential to be recovered as evidenced in similar multi-commodity natured mines. Copper equivalent conversion factors and long-term price assumptions used are stated below:

Notes on copper recovery from historical test work

- "Recoveries of copper vary between 75% Cu and 91% Cu with the weighted average of the results being 84% Cu, which is a typically acceptable commercial level";
- "Recoveries of gold vary between 41% Au and 57% Au, which is in line with expectations given the relatively low gold grades within the deposit"; and
- "Flotation concentrates produced during testing contained the resource weighted average copper grade of 28% Cu and 4.9g/t Au. They also
 contained low levels of deleterious materials in the concentrate. Given that these tests were designed to set parameters and were not
 optimized, the results indicated good flotation process characteristics".
 - Copper Equivalent Formula= Cu % + Au (g/t) x 0.72662 + Mo % x 4.412 Price Assumptions- Cu (\$3.40/lb), Au (\$1,700/oz), Mo (\$15/lb)

Los Pumas Manganese Project: Total Measured and Indicated Resources - JORC (2012) Compliant. As announced to the market on 3 May 2023.

Resource (at 2.5% Mn cut-off)	Tonnes	Mn %	Al%	Fe2O3%	К%	Р%	SiO2%	SG%
Indicated	23,324,038	6.21	5.71	2.78	2.98	0.05	57.07	2.15
Inferred	6,940,715	6.34	5.85	3.05	2.83	0.05	54.61	2.14
Indicated plus Inferred	30,264,753	6.24	5.74	2.84	2.95	0.05	56.50	2.15

Total JORC Resources for the Los Pumas Manganese Project at a 2.5% Mn cut-off.

Metallurgical studies have demonstrated greater than 38% Mn concentrates are achievable by DMS with low impurities and high silica product.

In relation to the above resources, the Company confirms that it is not aware of any new information or data that materially affects the information in the announcements, and all material assumptions and technical parameters in the announcements underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

COMPETENT PERSON / QUALIFIED PERSON STATEMENT:

The information in this report that relates to copper and gold exploration results for the Company's Projects is based on information compiled by Mr Adam Anderson, who is a Member of The Australasian Institute of Mining and Metallurgy and The Australian Institute of Geoscientists. Mr Anderson 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". Mr Anderson is a consultant for the Company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information, please refer to the Technical Reports and News Releases on the Company's website at www.shmining.com.au.

Appendix 1 Rock chip Location Data and Results

Sample_ID	Zone	East	North	RL	Au g/t	Ag g/t	Cu%
23LHR000259	CERRO DE ORO	306632.7	6531076	1462	3.72	1	0.033
23LHR000260	CERRO DE ORO	306633.7	6531093	1471	0.264	1	0.054
23LHR000261	CERRO DE ORO	306641.7	6531123	1466	0.218	<1	0.044
23LHR000262	CERRO DE ORO	306766.9	6531185	1447	6.58	3	0.084
23LHR000263	CERRO DE ORO	306763.9	6531181	1444	1.075	5	0.085
23LHR000267	CERRO DE ORO	306686.3	6530622	1495	0.39	1	0.257
23LHR000268	CERRO DE ORO	306685.8	6530582	1504	0.488	2	1.13
23LHR000269	CERRO DE ORO	306685.9	6530581	1502	0.41	<1	5.775
23LHR000270	CERRO DE ORO	306686.6	6530579	1502	0.497	2	5.187
23LHR000271	CERRO DE ORO	306575.1	6530448	1573	0.635	<1	0.571
23LHR000272	CERRO DE ORO	306597.7	6530385	1539	0.473	2	0.11
23LHR000273	CERRO DE ORO	306575.9	6530297	1542	1.065	<1	3.742
23LHR000274	CERRO DE ORO	306575.9	6530297	1542	0.112	2	2.128
23LHR000275	CERRO DE ORO	306455.9	6530160	1573	1.51	4	7.284
23LHR000276	CERRO DE ORO	306455.9	6530160	1573	0.666	55	5.305
23LHR000277	CERRO DE ORO	306457.8	6530151	1582	0.566	15	2.868
23LHR000282	SOUTHERN PORPHYRY	307981.1	6528371	1565	0.161	<1	0.022
23LHR000284	SOUTHERN PORPHYRY	308003.1	6528382	1576	0.424	1	0.03
23LHR000285	SOUTHERN PORPHYRY	308017.6	6528393	1577	0.815	1	0.027
23LHR000288	LLAHUIN	307795.2	6531913	1401	<0.005	1	0.934
23LHR000289	LLAHUIN	307789.2	6531903	1379	0.005	3	0.193
23LHR000290	LLAHUIN	307883.4	6532095	1453	0.355	5	2.986
23LHR000291	LLAHUIN	308060	6532261	1509	0.997	1	1.578
23LHR000292	LLAHUIN	308093.6	6532306	1510	0.01	3	0.341
23LHR000294	CERRO DE ORO	306884.8	6531468	1371	0.997	2	0.009
23LHR000296	CERRO DE ORO	306886.6	6531464	1372	1.73	1	0.231
23LHR000297	CERRO DE ORO	306874.1	6531438	1371	18.65	1	0.102
23LHR000299	CERRO DE ORO	306876.2	6531441	1378	7.56	2	0.085

Llahuin Recent Gold± Copper ± Silver Rock Chip Significant Results

Sample ID	Zone	East	North	RL
23LHR000255	CERRO DE ORO	306881.9	6531177	1413
23LHR000256	CERRO DE ORO	306879.6	6531178	1413
23LHR000257	CERRO DE ORO	306881.2	6531176	1412
23LHR000258	CERRO DE ORO	306879.7	6531173	1416
23LHR000259	CERRO DE ORO	306632.7	6531076	1462
23LHR000260	CERRO DE ORO	306633.7	6531093	1471
23LHR000261	CERRO DE ORO	306641.7	6531123	1466
23LHR000262	CERRO DE ORO	306766.9	6531185	1447
23LHR000263	CERRO DE ORO	306763.9	6531181	1444
23LHR000264	CERRO DE ORO	306597.4	6530989	1433
23LHR000265	CERRO DE ORO	306597.2	6530995	1433

Sample ID	Zone	East	North	RL
23LHR000266	CERRO DE ORO	306665	6530756	1455
23LHR000267	CERRO DE ORO	306686.3	6530622	1495
23LHR000268	CERRO DE ORO	306685.8	6530582	1504
23LHR000269	CERRO DE ORO	306685.9	6530581	1502
23LHR000270	CERRO DE ORO	306686.6	6530579	1502
23LHR000271	CERRO DE ORO	306575.1	6530448	1573
23LHR000272	CERRO DE ORO	306597.7	6530385	1539
23LHR000273	CERRO DE ORO	306575.9	6530297	1542
23LHR000274	CERRO DE ORO	306575.9	6530297	1542
23LHR000275	CERRO DE ORO	306455.9	6530160	1573
23LHR000276	CERRO DE ORO	306455.9	6530160	1573
23LHR000277	CERRO DE ORO	306457.8	6530151	1582
23LHR000278	SOUTHERN PORPHYRY	307748.1	6528540	1504
23LHR000279	SOUTHERN PORPHYRY	307821.7	6528507	1521
23LHR000280	SOUTHERN PORPHYRY	307851.6	6528434	1542
23LHR000281	SOUTHERN PORPHYRY	307891.1	6528399	1542
23LHR000282	SOUTHERN PORPHYRY	307981.1	6528371	1565
23LHR000283	SOUTHERN PORPHYRY	307989.7	6528372	1576
23LHR000284	SOUTHERN PORPHYRY	308003.1	6528382	1576
23LHR000285	SOUTHERN PORPHYRY	308017.6	6528393	1577
23LHR000286	SOUTHERN PORPHYRY	307708.5	6528556	1502
23LHR000287	SOUTHERN PORPHYRY	307712.3	6528558	1497
23LHR000288	LLAHUIN	307795.2	6531913	1401
23LHR000289	LLAHUIN	307789.2	6531903	1379
23LHR000290	LLAHUIN	307883.4	6532095	1453
23LHR000291	LLAHUIN	308060	6532261	1509
23LHR000292	LLAHUIN	308093.6	6532306	1510
23LHR000293	LLAHUIN	308191.3	6532391	1552
23LHR000294	CERRO DE ORO	306884.8	6531468	1371
23LHR000295	CERRO DE ORO	306886.4	6531467	1370
23LHR000296	CERRO DE ORO	306886.6	6531464	1372
23LHR000297	CERRO DE ORO	306874.1	6531438	1371
23LHR000298	CERRO DE ORO	306873.2	6531439	1378
23LHR000299	CERRO DE ORO	306876.2	6531441	1378
23LHR000300	CERRO DE ORO	306887.2	6531438	1375
23LHR000301	CERRO DE ORO	306884.8	6531438	1373
23LHR000302	CERRO DE ORO	306883.9	6531439	1375

riteria JORC Code explanation	Commentary
 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	 Riffle split RC samples were collected for each metre of drilling to obtain 1m samples from which approx. 4kg was split and sent to the ALS laboratory in Chile. The 4kg sample is crushed to -2mm from which a 1kg sample is split and pulverized to 85% passing -75µm and a 30g charge is taken for standard fire assay with AAS finish. Any multi-element assays are done using Multi-Element Ultra Trace method combining a four-acid digestion with ICP-MS instrumentation. A four-acid digest is performed on 0.25g of sample to quantitatively dissolve most geological materials. Elements and detection limits are presented below. Drillcore is cut in half with a diamond saw and half the core is sampled on a metre by metre basis. Historical RC samples are collected at 1m intervals from RC-LLA-001 to RC-LLA-014 and then 2m intervals in RC holes numerically thereafter. Historical RC drilling samples were collected on a 2m basis and split to around 3kg using a single tier riffle splitter and sent to ALS Chile for sample preparation and analysis. Samples are dried at 70 degrees Celsius for up to 24hrs then the entire sample is crushed to -2mm and a 1kg sample is split and pulverized to 80% passing 150mesh. A 400 gram pulp is split off and a 30gram charge taken for Fire Assay and Cu and Mc with all assays by AAS. The AAS analytical procedures are ISO 9001:2008 certified and are in accordance with ISO/IEC 17025 Samples of the historical drillcore recently sampled were half HQ core samples on a one metre basis and were submitted to ALS in La Serena. Samples are dried at 70 degrees Celsius for up to 24hrs then the entire samyle is split and pulverized to 80% passing 150mesh. A 400 gram tharge taken for Fire Assay and multi element assays using ICPMS and OES. Soils were collected by clearing topsoil then digging to the "B-Horizon" is collected and passed through a -1mm sieve to collect approximately 600grams into a paper Geochem sample bag. A reference sample of approximately 100grams is put into labell

Criteria JORC Code explanation

Drilling

techniques

Commentary

-75µm and a 30gram charge is taken for fire assay then dissolved in a 4acid digest with gold read by Atomic Absorption (Au-AA23). Silver and copper were analysed by AA technique. The first 210 samples were analysed for copper at the ALS La Serena laboratory and in house using an Olympus Vanta "M series" Pxrf. Results were compared between the laboratory and the Pxrf and showed an R² value of 0.999. After sample 210 the Cu assays are done solely using the Pxrf machine.

REPORTABLE ELEMENTS AND RANGES

		od Code -AA23		Analyte Au		Unit ppm		Low	er Limit 0.005		per Limit 10	.0
	ME-MS6	1 Analytes	and Reporti	ing Ranges								
	Analyte	Units	Lower Limit	Upper Limit	Analyte		Lower Limit	Upper Limit	Analyte			Jpper Limit
	Ag	ppm	0.01	100	Al	%	0.01	50	As	ppm	0.2	10000
	Ba	ppm	10	10000	Be	ppm	0.05	1000	Bi	ppm	0.01	10000
	Ca	%	0.01	50	Cd	ppm	0.02	1000	Ce	ppm	0.01	500
	Со	ppm		10000	Cr	ppm	1	10000	Cs	ppm	0.05	500
	Cu	ppm	0.2	10000	Fe	%	0.01	50	Ga	ppm		10000
	Ge	ppm	0.05	500	Hf	ppm	0.1	500	In		0.005	500
	K	%	0.01	10 50	La Mn	ppm	0.5	10000	Li Mo	ppm		10000 10000
	Mg Na	%	0.01	10	Nb	ppm ppm	0.1	500	Ni	ppm ppm		10000
	Р	ppm	10	10000	Pb	ppm	0.5	10000	Rb	ppm	n 0.1	10000
	Re	ppm	0.002	50	S	%	0.01	1(Sb	ppm	n 0.05	10000
	Sc	ppm	0.1	10000	Se	ppm	1	1000	Sn	ppm	n 0.2	500
	Sr	ppm	0.2	10000	Ta	ppm	0.05	500	Te	ppm	n 0.05	500
	Th	ppm	0.01	10000	Ti	%	0.005	10	TI	ppm	n 0.02	10000
	U	ppm	0.1	10000	٧	ppm	1	10000	W	ppm	n 0.1	10000
	Y	ppm	0.1	500	Zn	ppm	2	10000	Zr	ppm	n 0.5	500
culation, open-hole hammer, rotary air	Recer	t RC d	drilling	g was	compl	eted ι	using	a Schr	amm	685 R(C drilliı	ng rig usir
nic, etc) and details (eg core diameter, triple	a face	e sam	pling l	hamm	ner wit	h a 5.	25ino	ch diar	neter	bit by	R Mur	ioz drillin
diamond tails, face-sampling bit or other	Histor	ical D	rilling	g acro	ss the	Llahu	in Pr	oject	area h	ias be	en cor	npleted k
and if so, by what method, etc).			-					•				Geosupp

Criteria	JORC Code explanation	Commentary
		and R Muñoz Ltd for both RC drilling and diamond drilling. Historical diamond drilling was HQ core size and was not orientated.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 Recent RC Samples were weighed and weights recorded to ensure recovery is acceptable. RC driller lifts off between each metre to ensure sample separation between each metre. There doesn't appear to be a relationship between sample recovery and grade as sample recovery is excellent. A booster and auxiliary compressor were utilized to keep all RC samples dry. Historical RC drilling encountered water table ie wet samples between 20 to 100m depth. The water table is generally encountered between 20m and 100m from surface. Where the water table is encountered, a rotary splitter is used to assist with RC sample quality. Approximately sixty percent (60%) of the RC samples are reported to be wet. This issue has been partially remediated by using diamond drilling in preference to RC drilling for all further historical resource definition drilling. AMS concluded no significant bias in using the wet RC drill holes. Historical RC and DC drilling and data collection methods applied by SHM have been reviewed by AMS during successive site visits for the historical drilling.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 The samples were geologically logged on site. Logging was both qualitative and quantative in nature for both recent drilling and historical drilling. All drillcore and RC drillholes were logged in entirety. All core was photographed and the photographs catalogued. Soil data capture sheets are handwritten recoding the GPS location, sample number, the GPS point number, Depth of sample and colour.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to 	 RC samples were collected into a green plastic bag which is then riffle split into a numbered calico bag for each metre of drilling. The majority of the RC samples were dry as holes were stopped if the RC drilling went wet. If significant groundwater was encountered an auxiliary compressor and booster were utilized to keep the sample dry. Field duplicates were not collected but can be split later to confirm results.

Criteria	JORC Code explanation	Commentary
	 maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Historical DC samples are taken on 2m intervals. In some places, this sample interval overlaps lithological contacts, although contacts are hard to determine in places due to pervasive alteration. Drill core has not been orientated for structural measurements. The core is cut lengthways with a diamond saw and half-core is sent for assay. The half-core is bagged every 2m and sent for preparation, while the remaining half-core is returned to the labelled cardboard core box. A cardboard lid is placed on the box, and it is stored in a newly constructed weatherproof storage facility (warehouse) for future reference There is no relationship between the sample size and the grain size of the material being sampled
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. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 The assay technique utilized is "industry Standard" fire assay with AAS finish for gold which is a total digestion technique. For the Recent Drilling appropriate industry standard CRM' s and blanks were inserted into the sample stream at a rate of 1:10 samples for both standards and blanks. This is considered above industry standard for the recent drilling and there is no apparent bias of any significance. Historical drilling - Blanks and field duplicates are inserted at irregular intervals, at a range of between 1:20 and 1:50. A total of 1,738 laboratory standards have been analysed in a large variety of Cu and Au grade ranges, and there is no apparent bias of any significance (AMS June 2013) A total of 462 blanks have been inserted into the sample stream (RC and DDH). Soil samples are analysed by a handheld Olympus Vanta "M series" Pxrf instrument using a 90 second read time for all samples using the three beam method. No calibration factors have been used with the Pxrf. The Olympus supplied standard and blank is read approximately every 20 samples and this data is entered into an appropriate spreadsheet. No obvious problems are apparent in the QAQC data for the Pxrf.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	 The company's exploration manager (QP) has made a site visit and inspected the sampling methods and finds them up to industry standard for the recent drilling. Prior to March 2012, DDH was performed predominantly as tails at the termination of some of the RC holes. DDH performed from April 2012 has

Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	 been from the surface with a total of 4 diamond drill holes twinned to pre- existing RC drill holes. Twin hole drilling was completed across the Central Porphyry and Cerro De Oro zones. AMS concluded that there is insufficient data to make a definitive comparison, and that the twins are sufficiently far enough apart to explain some of the grade differences. No new drilling has been twinned yet. Logging is completed into standardized excel spreadsheets which can then be loaded into an access front end customized database for all sample types. There have been no adjustments to the assay data. Historical sampling and assaying techniques were independently verified by Mr. Bradley Ackroyd of Andes Mining Services who undertook a site visit to the Llahuin Copper-Gold Project between 5 th and 8 th of May 2013. He inspected the drill sites, drill core and chips, logging, sample collection and storage procedures as well as the office set-up and core processing facilities. Mr. Ackroyd also observed all the available surface exposures of the deposit across the Llahuin project area. In addition, Mr. Ackroyd undertook a short review of the quality control and assurance procedures employed at the project site.
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. Specification of the grid system used. Quality and adequacy of topographic control. 	The precision of the standard hand held GPS units is poor in this region of Chile so a licensed surveyor was employed to pick up the new drillhole locations and the topography. The survey was performed by Mr. Luciano Alfaro Sanders using a total station instrument. The collars picked up to within 0.1m accuracy. This accuracy was not able to be checked, however the relative positions of the drill holes has been confirmed during the site visits. Soil samples are located using a Garmin GPS78 handheld unit which is typically accurate to 3m. Sample locations are also checked by comparing the GPS location to the Orthophoto where possible. A GPS location point is recorded in the GPS for every sample location and also in a handwritten data capture sheet. The GPX file is then downloaded from the GPS and visually checked for spatial accuracy in appropriate spatial software either QGIS or Micromine.

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 The recent drillhole spacing is approx. 20 to 40m spaced holes in various locations. Drilling was completed within an existing resource and scout type drilling was completed in previously undrilled areas. Historical drilling was completed at The Central Porphyry, Cerro de Oro and Ferrocarril zones have been drilled on a nominal spacing of 50m by 50m in the upper portions and 100m x 100m in the lower portions of the deposits. No sample compositing has been applied in the recent drilling and 2m composites were taken in part of the historical drilling. Soil samples were collected on a nominal 200m line spacing with 50m sample spacing along lines. Infill soils are collected on a nominal 100m line spacing and 25m sample spacing. The sample line spacing was designed using the Central Porphyry surface footprint as a guide. No sample compositing has been used.
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. 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. 	 The drilling was done perpendicular to the interpreted strike of the mineralisation to reduce sampling bias. Soil samples are collected across the interpreted strike of the geology ie on east-west orientated lines.
Sample security	The measures taken to ensure sample security.	 Samples were collected by a qualified consulting geologist and the samples were delivered to the lab by a company employee. Competent Person Reg No 0336. Soil samples are placed into sealed plastic bags for transport by either company personnel or courier. The large plastic bags are stapled shut and the laboratory is aware to inform us if they have been opened during transport by the courier but no issues have arisen from this procedure,
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 Andes Mining Services completed an external audit and review in 2013 of the historical drilling and sampling procedures. No external audit or review has been conducted on the recent sampling procedures, partly due to COVID travel restrictions.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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. 	 The Llahuin Project is 100% owned by SUH. The security of tenure is considered excellent as the licence is 100% owned by SUH.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Previous drilling on the licence before SUH has been done to industry standard as per AMS report (SUH press release 19th August 2013).
Geology	• Deposit type, geological setting and style of mineralisation.	• Exploration is targeting porphyry Cu-Au style-gold style mineralization hosted in Miocene intrusives (diorite).
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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	• Appendix 1
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 No data aggregation methods have been used. A copper equivalent was reported using the following metal prices Cu \$3.20, Au \$1700/oz, Ag \$20/oz and Mo \$30/kg.
Relationship between	These relationships are particularly important in the reporting of	Exploration drilling was targeting near surface material in a porphyry

Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	 Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	Cu-Au system. Therefore the mineralised widths are much greater than the drillhole depths for the Central Porphyry. Drilling at Cerro De Oro is partly infilling historical drilling so therefore downhole widths have been reported and true widths are not established yet as the historical drilling appears to be too widely spaced. Drilling in all areas has been conducted perpendicular to the regional trend observed in outcrop.
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. 	 Appropriate maps have been included in the release.
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. 	 A range of grades were included in the release.
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. 	 A drone magnetics survey was completed over the project area in 2021 by GFDas UAV Geosciences Santiago Chile. Survey specifications provided below. Company: GFDAS Drones and Mining Line direction: 90°-270° Line separation: 25m Tie line Direction: 0-360 Tie lines separation: 250m Flight Height: around 25m AGL following topography (according to operational safety conditions) Registration Platform Mag: DJI M300 Drone Registration Platform Topo/ortho: DJI Phantom RTK Pro Drone Geoidal Model: EGM08 Flight speed: 5-10m/s Mobile sampling: Fluxgate magnetometer, 25 Hz Resolution: Digital Elevation Model 1 m and Resolution: Orthophoto with 20 cm/pixel Base sampling: Geometrics magnetometer sampling 30s. Positioning: Phantom 4 RTK
		Survey Module:

Criteria	JORC Code explanation	Commentary
		The flight module uses a VTOL drone, powered by rechargeable electric batteries and a positioning system with three GPS antennas. The registration module was miniaturized, simplified and made of low weight components suitable for lifting by the drone. These correspond to the magnetometer, acquirer and analogue-digital converter.
		Magnetic Survey: The data was corrected for Diurnal variances, micro levelled with the use of the tie lines by GFDAS Drones and Mining. They also applied the Reduction to the Pole process on the data (inclination -32.3° and 0.4° declination) that was supplied to our company.
		Topographic flight plan: Due to the strong differences in the elevations of the terrain, it was flown from different points within the north-south polygons with differentiated flight height, to achieve a pixel resolution as requested. These flight heights had a range between 350 m and 460 m (AGL flight height). The overlaps of flight lines were between 75% and 80%, this was done depending on the flight height and detail required.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Additional soil sampling is planned for the Llahuin Project. Additional rock chip sampling is planned. Re-logging of historical drillcore is in progress Sulfide mapping of the pulps is also planned to assist with the new geological model currently in development