

ASX Announcement

10 October 2024

Drilling underway at Llahuin Copper-Gold-Moly Project, Chile

Highlights:

- **RC Drilling has commenced with two holes completed at the new South Ferro Target defined by soil sampling**
- **The program is targeting extensional copper resources ahead of H1 2025 JORC Resource upgrade**
- **Follow up of previously untested copper-moly soil anomalies after recent heavy rains have better exposed prospective porphyry rocks NE of Ferro with over 200m diameter with channel and rock sampling currently in progress**
- **High definition geophysical surveys over the entire project to better refine deeper targets at Cerro and Southern Porphyry and potentially provide new targets, currently being assessed. Including gravity, Magneto-Telluric (MT) and reprocessing historical Induced Polarisation (IP) data**

Southern Hemisphere Mining Limited (“Southern Hemisphere” or “the Company”) (ASX: SUH, FWB: NK4) reports a substantial drilling and exploration campaign has commenced at its Llahuin Copper-Gold-Moly Project in central Chile.



Figure 1. Southern Hemisphere team on location at Ferro extensional drilling.

RC Drilling Summary

Drillholes 24LHRC044 and 24LHRC045 completed at 86m and 116m respectively with 24LHRC045 extended 31m beyond planned depth as copper mineralisation noted by pXRF continued. The drilling is following up a new area south of Ferro defined by soil sampling and follow up of mineralisation intersected in 23LHRC042 with 48m @ 0.48% CuEq% from surface. (Refer ASX Announcement: [Drilling to Commence at Llahuin Copper-Gold Project, Chile on 19 September 2024](#))

Llahuin Extension

Field exploration following up untested soil anomalies, after recent heavy rains have better exposed prospective porphyry rock NE of the Ferro deposit, over a large ~200m+ diameter area. Channel and rock sampling is in progress. The area is shown in the map below.

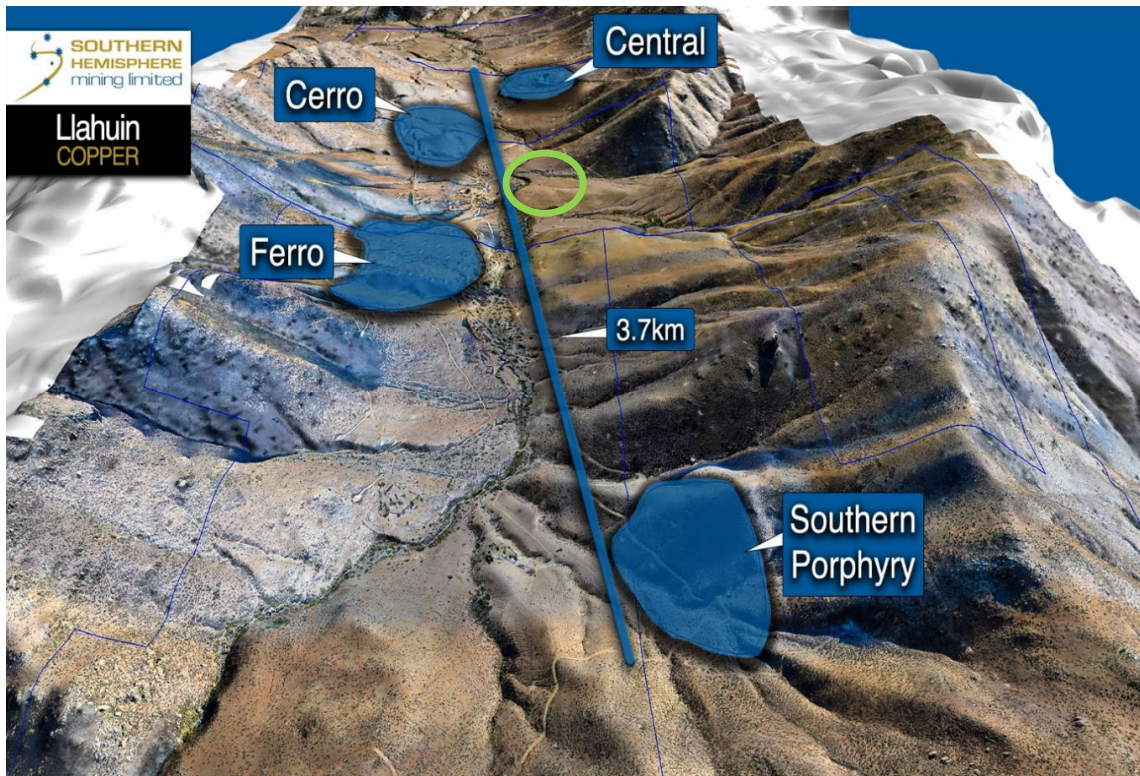


Figure 2. 3D view looking northeast from Southern Porphyry (SP) to Central Porphyry, showing the scale of the Llahuin mineralising system and the newly identified porphyry zone in the green outline (colluvium covered up to 5m deep).



Figure 3. Examples of new areas of potential NE of Ferro uncovered by recent heavy rains.



Figure 4. Stockworked veined porphyry in a creek wall covered by heavy colluvium (large rocks and transported soil).

Curiosity and Cerro Deeps Targets

Further analysis of these deep targets with a highly experienced independent consultant onsite has suggested using further geophysical surveys to improve the hole targeting for the large Curiosity and Cerro Deeps Targets. These are under evaluation for quote tendering and timing.

The survey will assist with the Cerro Deeps Target as the Cerro resource is already in the vicinity and it is likely to be connected, may improve that target as well as validate the Curiosity Target. Potential new targets may well be derived from the work, as the whole project will be included in the planned survey(s).

The Cerro Deeps Target is planned to be the first one drilled given the higher level of confidence and being a large extensional resource addition if successful. Given that this drilling will cost approx. \$1m for the Curiosity Target and circa \$500k for the Cerro Deeps Target the additional recommendations are well worth taking on board.



Figure 5. Ferro extensional drilling upcoming target.

Further results will be reported in due course.

Approved by the Board for release.

CONTACTS:

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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 copper-producing 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-Moly 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	Mo %	Cu Equiv*
<i>Measured</i>	112	0.31	0.12	0.008	0.42
<i>Indicated</i>	37	0.23	0.14	0.007	0.37
Measured plus Indicated	149	0.29	0.12	0.008	0.41
<i>Inferred</i>	20	0.20	0.19	0.005	0.36
<i>Total M+I+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 optimised, 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%	K%	P%	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.

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.