



SOUTHERN HEMISPHERE DELIVERS 36% INCREASE IN LLAHUIN RESOURCE

INCLUDES 436,000 TONNES OF COPPER AND 459,000 OUNCES OF GOLD

Highlights:

- ❖ Significant upgrade to maiden JORC Mineral Resource for flagship Llahuin Copper Project, Chile achieved with only 5 months of additional drilling:
 - *144.9 Mt grading 0.40% Cu Equivalent ("Cu Equiv")* in Measured and Indicated category, containing 435,650 tonnes of copper and 459,180 ounces of gold, at same average Maiden Resource grade of 0.40% Cu Equiv;*
 - *88.9 Mt grading 0.42% Cu Equiv in the Measured Resource Category; and*
 - *Additional Inferred Resource of 16.7 Mt at 0.33% Cu Equiv.*
- ❖ Production flexibility obtained with delineation of a **higher-grade core** in the Llahuin Central Porphyry Zone, which has the potential to provide **higher grade feed during the initial stages of production**, enhancing the project's economics:
 - *51.0 Mt at 0.50% Cu Equiv, corresponding to more than 4 years higher grade feed, is available at 0.36% Cu Equiv cut off from the higher-grade core.*
- ❖ **Drilling continues at the Central Porphyry and other Llahuin Zones, Cerro de Oro and Ferrocarril**, which could significantly increase the overall resource inventory.
- ❖ **Scoping Study** underway for an operation targeting 45-50,000tpa of copper production plus gold credits to be delivered in the **December 2012 Quarter**.

Southern Hemisphere Mining Limited (ASX: SUH, TSXV: SH) ("Southern Hemisphere" or the "Company") is pleased to advise of a substantial increase in the resource inventory for its flagship **Llahuin Copper Project**, located 250km north of Santiago in central Chile, where recent drilling has also outlined a high-grade core with the potential to significantly enhance project economics.

This landmark resource upgrade supports the Company's plans to develop a substantial copper-gold operation at Llahuin, underpinning the progress of the Scoping Study which is targeting initial production of 45-50,000tpa of copper metal plus gold credits. This Scoping Study is scheduled to be delivered in the December 2012 Quarter.



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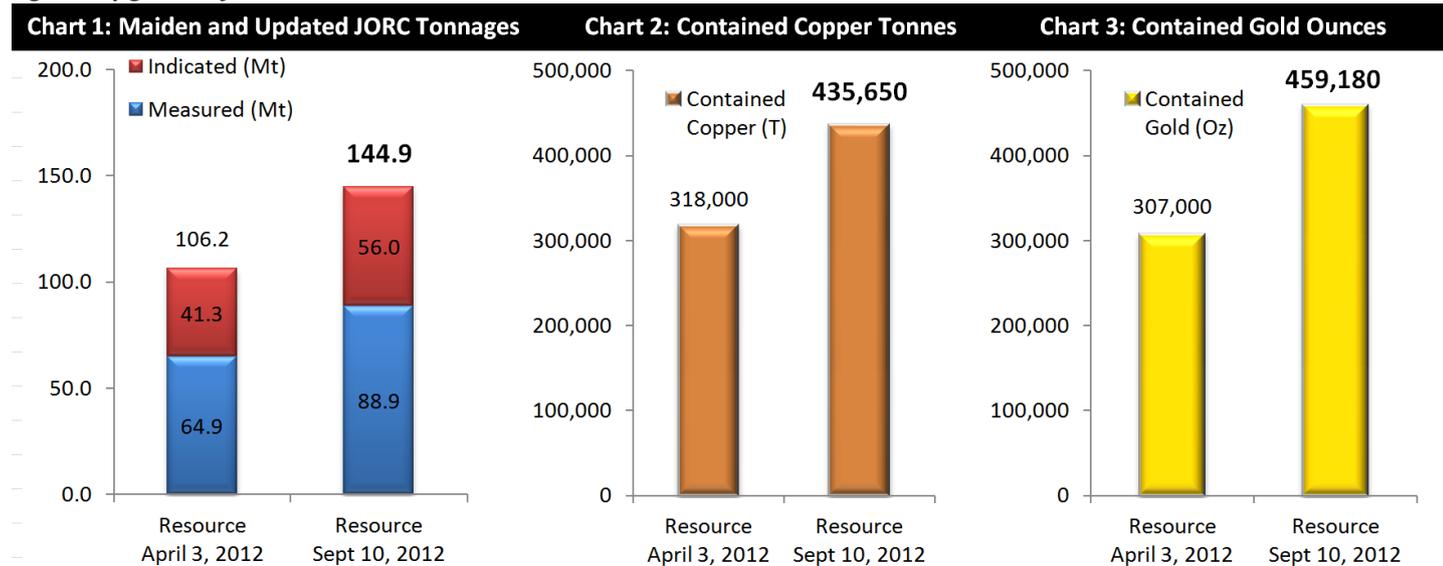
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The updated JORC and NI 43-101 Mineral Resource, which has been achieved within a total of fifteen months since the Company commenced initial exploration drilling, comprises a Measured and Indicated Resource of **144.9Mt grading 0.40% copper equivalent**.

This represents a **36 per cent increase** in resource tonnage, a **37 per cent increase** in contained copper and a **50 per cent increase** in contained gold compared with the Maiden JORC and NI 43-101 Mineral Resource estimate completed in April this year (106.2 Mt grading 0.40% Cu Equiv for 318,000t of copper and 307,000oz of gold).

The rapid growth of the Llahuin Copper Project Mineral Resource since April 2012 is shown below:

Fig 1 – Upgrade of Maiden Resource Estimate



The drill results, which underpin this resource determination, provide for a flexible approach to production scheduling. Recent drilling at the Llahuin Central Porphyry Zone has delineated a high-grade core, currently showing **51 Mt at 0.50% Cu Equiv**, which will be easily accessible and has the potential to provide higher grade feed during the early stages of production.

This would significantly enhance the financial robustness of the Project and represents an important strategic development for production scheduling and economics. Deep drilling is currently underway targeting potential extensions to this high-grade core.

Southern Hemisphere’s Managing Director, Mr Trevor Tennant, said the rapid expansion of the Mineral Resource inventory at Llahuin was testament to the effectiveness and focus of its drilling programs, as well as the quality and potential of the Project as the foundation for a potential mine development.

“Our target is a mine with an annual throughput of 12 million tonnes which would require the identification of 180 million tonnes of mill feed.”

“The next steps for this project will be to further expand the resource in the Cerro de Oro Zone and newly discovered Ferrocarril Zone with ongoing drilling, to test for extensions to the high-grade core at the Central Porphyry Zone and to complete the Scoping Study during the December Quarter. We believe we have a very significant copper-gold project on our hands at Llahuin and we are looking forward to progressing it to the next level.”



The Llahuin Mineral Resource upgrade statement, which was independently prepared by Andes Mining Services, is based on a total of 154 drill holes, including 22,445m of Reverse Circulation drilling and 11,367m of Diamond Core drilling and is confined to three zones within the Llahuin Project area: the Central Porphyry Zone, the Cerro de Oro Zone and the newly discovered Ferrocarril Zone.

A cut-off grade of 0.28% Cu Equiv was selected to report the resource as it is considered to have a reasonable likelihood of being economic.

Fig 2 – Measured, Indicated and Inferred resources:

TOTAL MEASURED RESOURCES						
Cu Equiv % Cutoff	Tonnes million	Cu %	Au g/t	Mo %	Cu Equiv %	
0.20	119.9	0.30	0.08	0.006	0.38	
0.24	105.8	0.31	0.08	0.006	0.40	
0.28	88.9	0.33	0.09	0.006	0.42	
0.32	68.6	0.36	0.10	0.006	0.46	

TOTAL INDICATED RESOURCES						
Cu Equiv % Cutoff	Tonnes million	Cu %	Au g/t	Mo %	Cu Equiv %	
0.20	130.6	0.21	0.08	0.004	0.29	
0.24	86.6	0.23	0.10	0.004	0.32	
0.28	56.0	0.25	0.11	0.005	0.35	
0.32	35.2	0.27	0.13	0.005	0.39	

TOTAL MEASURED AND INDICATED RESOURCES						
Cu Equiv % Cutoff	Tonnes million	Cu %	Au g/t	Mo %	Cu Equiv %	
0.20	250.5	0.25	0.08	0.005	0.33	
0.24	192.4	0.28	0.09	0.005	0.36	
0.28	144.9	0.30	0.10	0.006	0.40	
0.32	103.8	0.33	0.11	0.006	0.44	

TOTAL INFERRERED RESOURCES						
Cu Equiv % Cutoff	Tonnes million	Cu %	Au g/t	Mo %	Cu Equiv %	
0.20	56.0	0.21	0.06	0.003	0.26	
0.24	33.7	0.24	0.05	0.003	0.29	
0.28	16.7	0.27	0.06	0.004	0.33	
0.32	6.9	0.31	0.06	0.005	0.37	

Fig 3 – Zone tonnage at 0.28% Cu Equiv cut off included in resource estimate- Grades shown are Cu Equiv %

Zone	Measured (Mt)	Indicated (Mt)	Total Measured & Indicated (Mt)	Inferred (Mt)
Central Porphyry	88.9 @ 0.42%	35.6 @ 0.35%	124.5 @ 0.40%	10.3 @ 0.32%
Cerro de Oro		20.4 @ 0.36%	20.4 @ 0.36%	2.5 @ 0.30%
Ferrocarril				3.9 @ 0.35%
Total	88.9 @ 0.42%	56.0 @ 0.35%	144.9 @ 0.40%	16.7 @ 0.33%



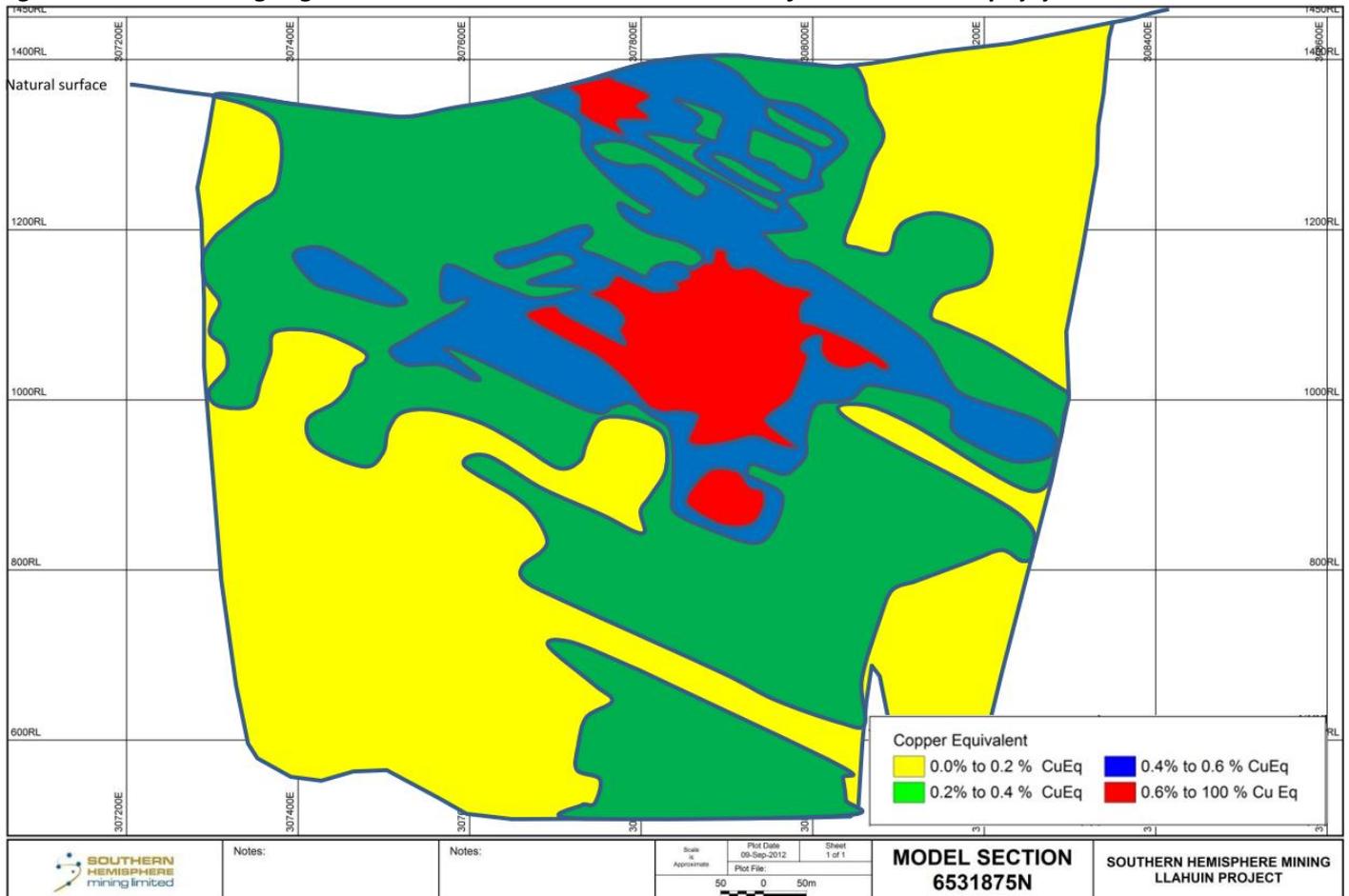
Higher Grade Core

The Resource Estimate shows that the higher grade core area contains 51.0 Mt at 0.50% Cu Equiv with a 0.36% Cu Equiv cut off. This area would be easy to access as it is near to surface and has no pre-strip requirement. Additional drilling is planned to test for further extensions to this core area.

Fig 4 – Higher Grade Core Resource – Central Porphyry Zone

HIGHER GRADE CORE RESOURCES (MEASURED CATEGORY)					
Cu Equiv Cutoff	Tonnes million	Cu %	Au g/t	Mo %	Cu Equiv %
0.34	59.2	0.37	0.11	0.007	0.48
0.36	51.0	0.38	0.12	0.007	0.50
0.38	44.0	0.40	0.13	0.007	0.53

Fig 5 – Section showing Higher Grade Core and mineralisation to surface– Central Porphyry Zone



Geology

Refer to the 18 July 2011 ASX and TSXV News Release for Llahuin Copper Project geological information.



Resource Drilling Programme

Drilling commenced at the Llahuin Copper Project in June 2011 and as at 17 August 2012 a total of 22,445m of reverse circulation drilling (“RC”) in 124 holes and 11,367m of diamond drilling in 30 holes (“DDH”) has been completed. In addition a further 14 RC holes for a depth of 1,898m were drilled at satellite projects.

Fig 6 – Drilling Summary

Area	RC Holes	RC Metres	DD Holes	DDH Metres
Central Porphyry Zone	68	12,362	27	10,515
Cerro de Oro Zone	36	6,682	3	852
Ferrocarril Zone	14	2,486		
North of Llahuin	6	915		

All drill hole locations for the Llahuin resource drilling programs are available on the Company’s website at www.shmining.com.au.

Fig 7 – Location Map showing the Llahuin Central Porphyry Zone, Cerro de Oro Zone and Ferrocarril Zone



Fig 8 – Llahuin Valley looking north from Cerro de Oro Zone



Compliance

The independent Canadian National Instrument 43-101 (“NI 43-101”) compliant resource estimate and statement for the Llahuin Copper Project was completed by Mr Ian Dreyer, Principal Geologist of Andes Mining Services SAC, based in Lima, Peru. Mr Dreyer has visited the project area and conducted independent resource determinations in compliance with NI 43-101.

In summary, Mr Dreyer states that the Llahuin Resource has been estimated by Ordinary Kriging within a 0.10% Cu grade shell and a 0.10 g/t Au grade shell, as these are natural breaks in the grade population. Mineralisation occurs in all lithologies except the Eastern Diorite. There is a clear trend of grade alignment along pre-existing layering within the Volcanic Sequence and this is supported by well structured variography.

The model has been estimated into 5m (X) x 10m (Y) x 4m (Z) parent cells utilising 2m composites. A minimum of 2 composites and a maximum of 16 composites are required to populate a cell with an estimate. There has been no capping of grades.

The Cerro de Oro Zone, although outcropping and drilled systematically, has been classified as Indicated as this zone requires more detailed logging, mapping, and drilling to elevate it to Measured status.

The Central Porphyry Zone is classified as Measured where drilled on a 50x50m grid, which is the core of the deposit. Indicated Resource is for drilling on a wider spacing than 50x50m and up to 100x100m. The majority of the Inferred Resource has been projected a further 100m at depth on the basis of recent deep diamond drill hole results.

The full NI 43-101 Technical Report for the resource statement will be lodged on SEDAR and posted on Southern Hemispheres website at www.shmining.com.au within 45 days of this News Release.



***Copper Equivalent (or “Cu Equiv” or “Cu Equivalent”)**

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:

Copper Equivalent Formula= $Cu \% + Au (g/t) \times 0.72662 + Mo \% \times 4.412$

Price Assumptions- Cu (US\$3.40/lb), Au (US\$1,700/oz), Mo (US\$15/lb)

Sampling and Analysis Procedures

5kg samples were taken from each two metre interval. The samples are derived from riffle splitting each intercept. The samples were sent to Andes Analytical Assay Ltda (Chile) in Santiago for sample preparation and analysis. Duplicate samples were taken on a 1 in 20 basis. The cores from DDH holes were halved and each 2m interval of halved core submitted for analysis. Analysis was undertaken using fire assay (for gold analysis) with an atomic absorption spectrometry finish. Andes Analytical Assay Ltda (Chile) is an independent full service commercial laboratory accredited under ISO 9001:2008. Standard samples and repeat analyses were used by the laboratory to provide checks on the assay results.

-ENDS-

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Neither the TSXV nor its Regulation Services Provider (as that term is defined in the policies of the TSXV) accepts responsibility for the adequacy or accuracy of this News Release. This News Release has been prepared by management and no regulatory authority has approved or disapproved the information contained herein.

Competent Person / Qualified Person Statement

Mr Trevor Tennant, Managing Director of Southern Hemisphere Mining Limited, is a Fellow of the Australasian Institute of Mining and Metallurgy, is a ‘Competent Person’ as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ and is a ‘Qualified Person’ under National Instrument 43-101 - ‘Standards of Disclosure for Mineral Projects’.

Mr Tennant has reviewed the design and conduct of this resource drilling campaign, supervised the preparation of the technical information in this release and has the relevant experience and competence of the subject matter.

Mr Tennant consents to the inclusion of exploration results and other such information in this News Release in the form and context in which it appears.

About Southern Hemisphere Mining Limited

Southern Hemisphere Mining Limited is listed on the Australian Stock Exchange (ASX Code “**SUH**”) and the Toronto Stock Exchange –Venture (TSXV Code “**SH**”). Southern Hemisphere has accumulated a diverse portfolio of assets in **Chile, South America**. The Company’s focus is the **100% owned Llahuin Copper Project** where the objective is to build a bulk tonnage **Copper/Gold operation**. The Company also holds the **100% owned Chitigua Project**, a 172 km² property located on the prestigious Western Fault which hosts Chile’s largest copper porphyry deposits.

Further details on Southern Hemisphere can be found at www.shmining.com.au

