

**QUARTERLY ACTIVITY REPORT
FOR THE PERIOD ENDED 31 DECEMBER 2023**

Highlights:

- **Diamond and RC drilling was completed at the Llahuin Copper-Gold Porphyry Project testing multiple targets generated from soil geochemistry sampling programs and downdip zones from previous drilling programs**
- **The first round of drill results of the 2023/24 drilling program were encouraging, indicating substantial exploration upside in the scale of the Llahuin open pit style deposit**
- **Best intercepts from initial assays included:**
 - **156m at 0.51% CuEq from surface in 23LHRD027, including 82m at 0.67% CuEq from 46m and 26m at 0.75% CuEq from 48m**
 - **136m at 0.47% CuEq from 42m in 23LHRD028, including 32m at 0.66% CuEq from 100m**
- **Compilation and 3D modelling of the results are confirming the new structural interpretations, indicating that mineralisation is open to the West and South-East**

Southern Hemisphere Mining Limited (“Southern Hemisphere” or “the Company”) (ASX: SUH, FWB: NK4) reports the quarterly activity for the period ended 31 December 2023.



Figure 1 Drilling at the Llahuin Copper-Gold Porphyry Project - Chile

EXPLORATION ACTIVITIES

Llahuin Copper-Gold Porphyry Project 100%

The Company contracted DV Drilling from La Serena, Chile to complete a 2,700m diamond and RC drilling program at its Llahuin Copper-Gold Porphyry Project in Chile.

The drilling program at the Cerro de Oro deposit will test 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, not previously drilled.

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

[\(Refer ASX Announcement, dated 18 October 2023 – Drilling Commenced at Llahuin Copper-Gold Project, Chile\).](#)

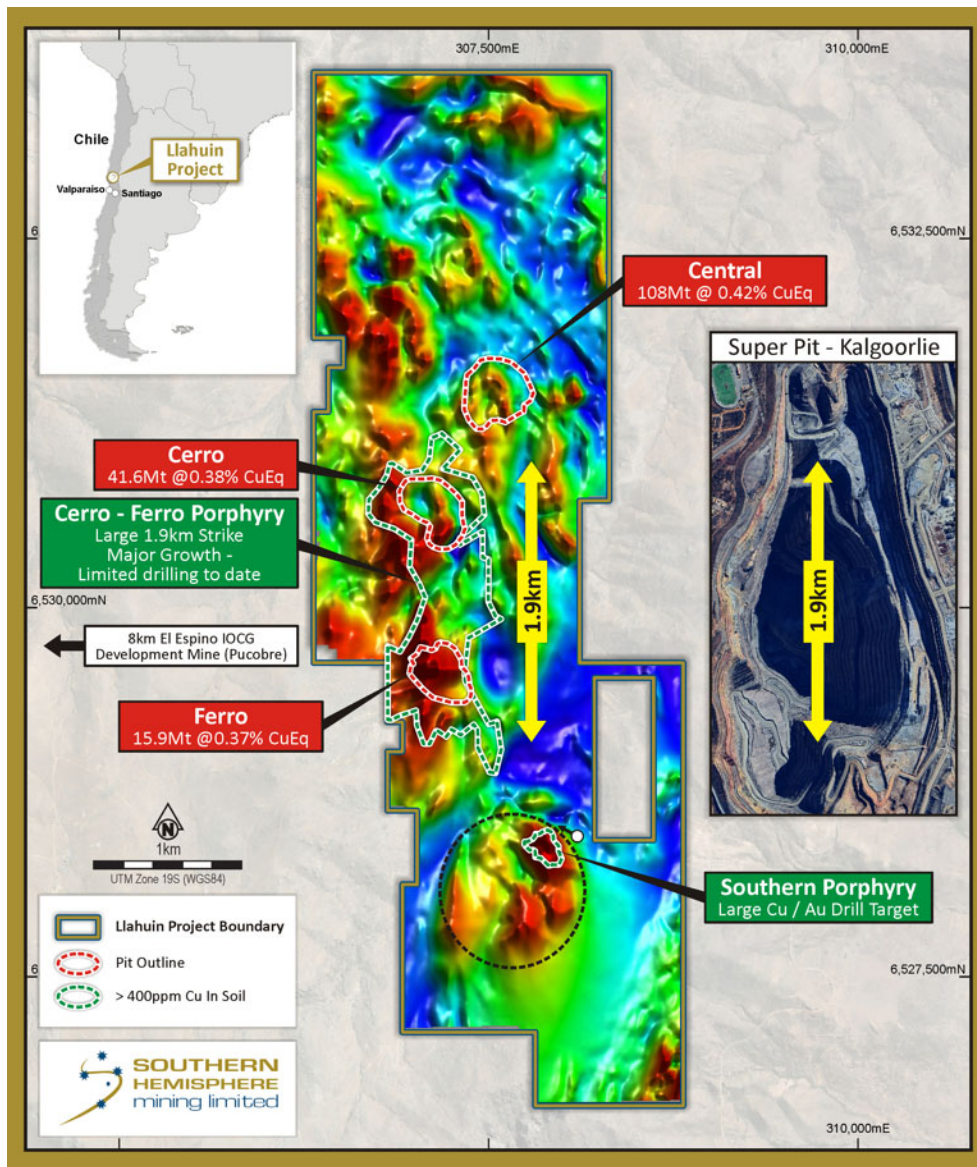


Figure 2 Project map showing the large growth target at Cerro-Ferro deposits link and comparative scale to the Kalgoorlie Super-Pit

Subsequent to the quarter end, the Company reported encouraging results from the expansion drilling at its Llahuin Copper-Gold Porphyry Project in central Chile.

Laboratory results for the first three holes of a 17-hole program mainly at the Cerro de Oro and Ferrocarril deposits targeting resource expansion along strike and at depth.

Encouraging results included:

- 156m at 0.51% CuEq, (0.41% Cu, 0.09ppm Au, and 63ppm Mo) from surface in 23LHRD027
- 136m at 0.47% CuEq, (0.27% Cu, 0.17ppm Au, and 167ppm Mo) from 42m in 23LHRD028
- 18m at 0.46% CuEq, (0.25% Cu, 0.24ppm Au, and 83ppm Mo) from 66m in 23LHRD033

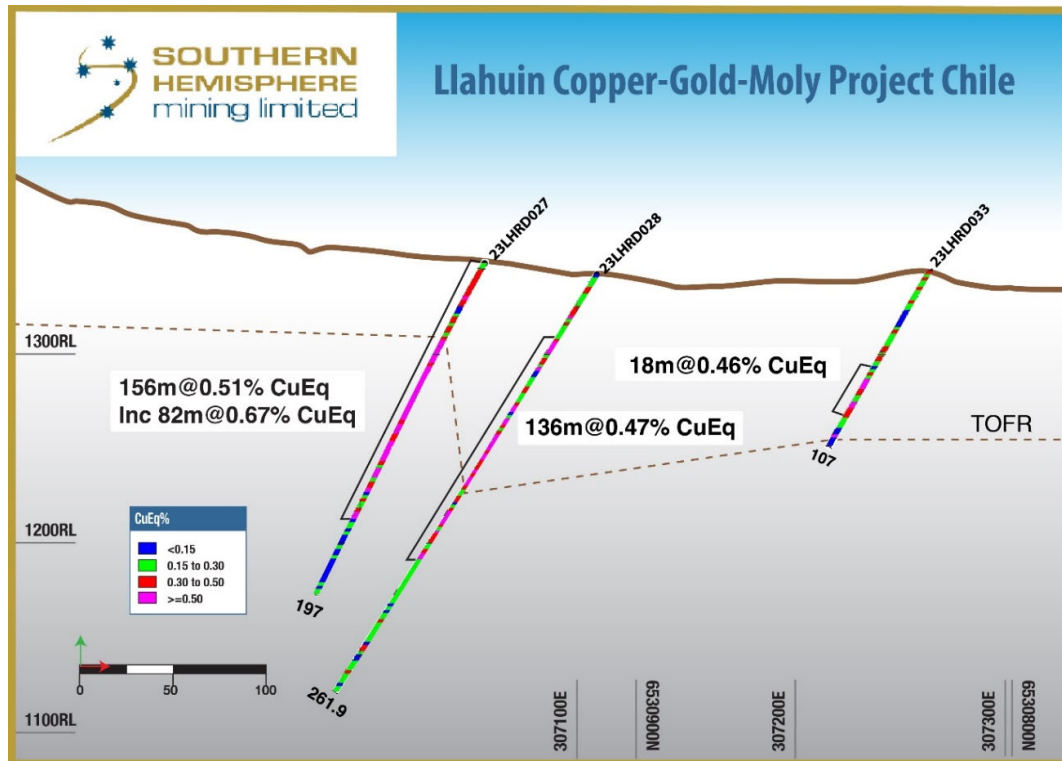


Figure 3 Cross section through 23LHRD027, 23LHRD028, and 23LHRD033, showing reported intercepts.

Background Work and Ongoing Programs

Systematic programs of surface geochemistry, surface mapping, structural interpretation, and historical hole re-logging and multi-element assaying were used to plan the current drilling program. This lead-up work has proved critical in identifying zones for substantial expansion and drill locations.

A new 3D model incorporating the latest drilling and geological interpretation is under construction. This work involves implicit modelling of grade and geological domains, followed by constrained manual interpretation. The resulting models will generate a revised Mineral Resource Estimate (MRE) (currently 169mt at 0.4%CuEq) on completion of exploration drilling for a 20+ year mine life estimate.

Terraspec data is also being systematically collected over Central Porphyry to aid identification of alteration assemblages associated with the deposit. If successful at Central Porphyry, this program will be expanded to the other deposits at Llahuin and assist vectoring towards higher grade feeder zones at depth feeding the known deposits. Magnetic susceptibility readings are also being taken at regular intervals on all drill core to be used to constrain a new magnetic inversion model utilising the new drone magnetics data to be completed in second quarter of 2024.

Field mapping and surface sampling programs are ongoing at Southern Porphyry, extending north to the southern extent of Ferrocarril. This program aims to define the nature and extent of the mineralising systems, particularly at Southern Porphyry, which is a very large greenfield opportunity. Southern Porphyry extends the strike length of the known mineralising system at Llahuin to approximately 3.7km. Further updates on this large target will be reported as the various stages of technical work are completed.

[\(Refer ASX Announcement, dated 15 January 2024 – SUH Drills 156m @ 0.51% Copper Equivalent At Llahuin\).](#)

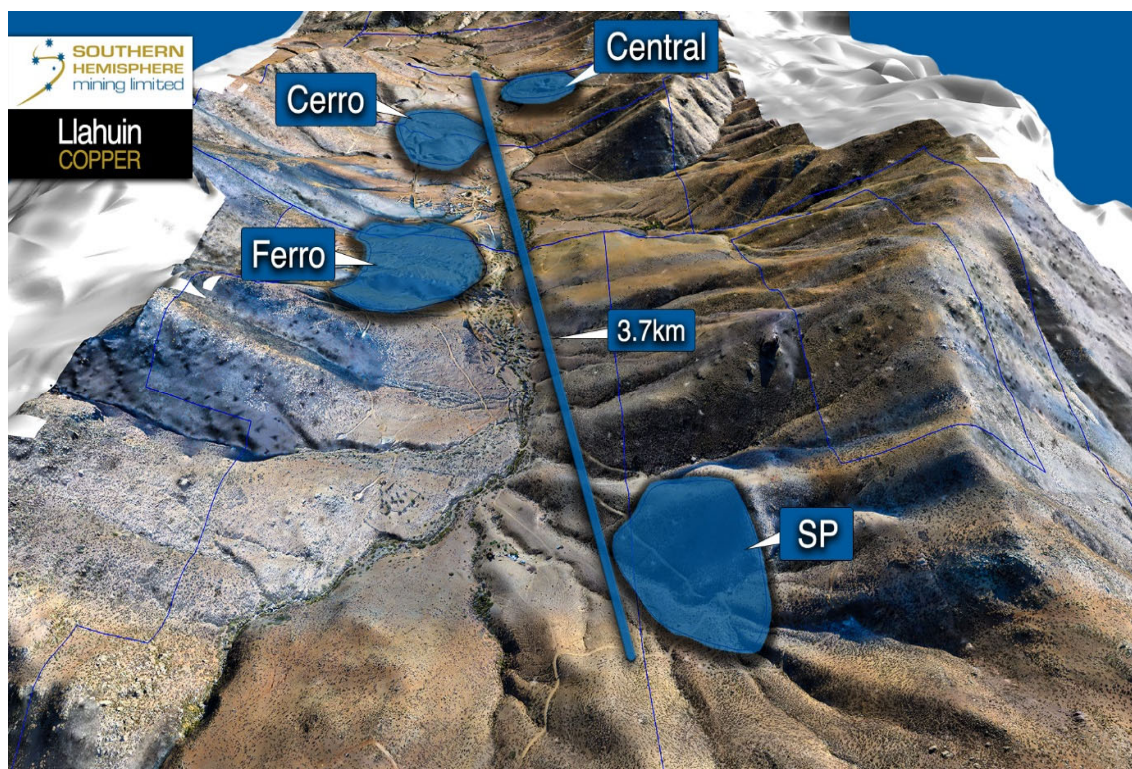


Figure 4 3D view looking northwest from Southern Porphyry to Central Porphyry, showing the scale of the Llahuin mineralising system.

Los Pumas Battery Metals Manganese Project 100%

The Company continued discussions during the quarter to advance development of the Los Pumas Battery Metals Manganese Project, near excellent infrastructure in Arcia in Northern Chile.

The Los Pumas Project is the flagship project to convert high-quality manganese mineral resources into High-Purity Manganese Sulphate Monohydrate (“HPMSM”) to supply the Electric Vehicle (“EV”) and battery energy storage markets. Other advancing projects and technologies in lithium, manganese and cobalt are key areas for business growth as the Los Pumas Project moves through the feasibility stage.

[\(Refer ASX Announcement, dated 5 July 2023 – Intention to Demerge Battery Minerals Asset\).](#)

Lago Lithium Brine Project 100%

The Company's main focus has been the expansion drilling at Llahuin, therefore no exploration activities took place during the quarter under review on the strategically obtained Lago Lithium Brine Project, located in the renowned lithium-rich Atacama region of Chile and covering an area of approximately 27km². The Salar de Atacama is widely recognised for its exceptional lithium deposits operated by the world's largest lithium brine producers, SQM and Albemarle.

[\(Refer ASX Announcement, dated 10 July 2023 – Application for the Lago Lithium Brine Concessions in Chile\).](#)

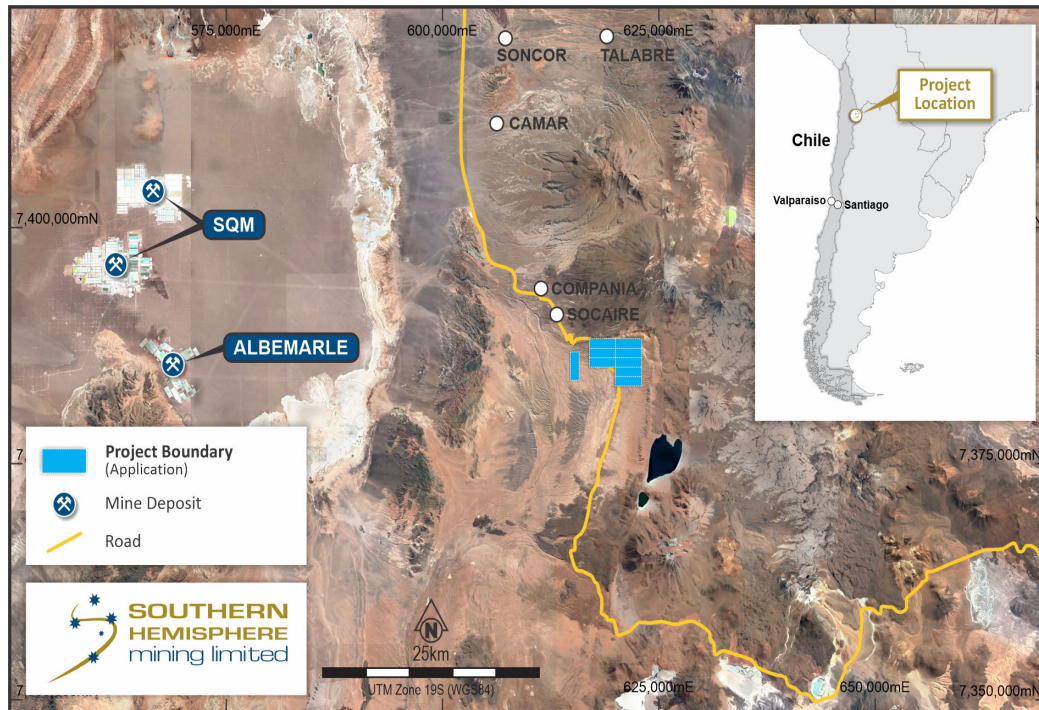


Figure 5 Location of the nine new lithium brine concessions

CORPORATE ACTIVITIES

The Company presented at the prestigious Latin Rocks Conference in Santiago, Chile and as a result of the technical progress of the Llahuin Project, the Company was very well received and as a result has been invited to present at the Chilean Mine Ministry seminar scheduled for March 4 at the Delta in Toronto, Canada during the Prospectors & Developers Association of Canada (PDAC) conference.

The Company will also host booth #3242 at PDAC, where we welcome all interested participants.

Subsequent to the end of the quarter, the Company sent out a notification letter of the expiry of listed options to all optionholders. 142,545,263 Listed Options (ASX: SUHO) will expiry on Friday, 16 February 2024 unless exercised at the price of \$0.10 per option.

The Company's VAT tax consultant in Chile is filing a VAT refund. Accumulated VAT returns are indicatively A\$3.5m and subject to review and approval of government taxation authorities with payment of approved amounts by the 3rd or 4th quarter.

Payments to related parties during the quarter totalled \$82,231 which included directors fees, superannuation, consulting fees, reimbursements, office lease and equipment rental.

Approved by the Board of Directors

CONTACTS:

For further information on this announcement or the Company generally, please visit our website at www.shmining.com.au or contact the Company.

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Ph 08 6144 0590

BACKGROUND INFORMATION ON SOUTHERN HEMISPHERE MINING LIMITED:

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 Battery Metals 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*
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 testwork

- "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 (\$3.20/lb), Au (\$1,700/oz), Mo (\$12.50/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.

Tenement List

Project	Tenement	Interest Acquired during the Qtr	Interest Disposed of during the Qtr	Interest Held at the end of the Qtr
Llahuin	AMAPOLA 1 1 AL 20	-	-	100%
Llahuin	AMAPOLA 2 1 AL 20	-	-	100%
Llahuin	AMAPOLA 3 1 AL 20	-	-	100%
Llahuin	AMAPOLA 4 1 AL 20 - RED 1/18	-	-	100%
Llahuin	AMAPOLA I 1 AL 300 RED 1/228	-	-	100%
Llahuin	AMAPOLA II 1 AL 300 RED 1/256	-	-	100%
Llahuin	AMAPOLA 5	-	-	100%
Llahuin*	AMAPOLA 6 1 AL 4	100%	-	100%
Los Pumas	AWAHOU 1 AL 20	-	-	100%
Los Pumas	EMANUEL 1 AL 20	-	-	100%
Los Pumas	PUTRE I AL 20	-	-	100%
Los Pumas	PUTRE II AL 20	-	-	100%
Los Pumas	LLUTA I 1 AL 60 RED 1/54	-	-	100%
Los Pumas	LLUTA II 1 AL 300 RED 1/285	-	-	100%
Los Pumas	PUTRE 6, 1 AL 20 RED 1/11	-	-	100%
Los Pumas*	PUTRE 5	100%	-	100%
Lago*	SOCAIRE 1	100%	-	100%
Lago*	SOCAIRE 2	100%	-	100%
Lago*	SOCAIRE 3	100%	-	100%
Lago*	SOCAIRE 4	100%	-	100%
Lago*	SOCAIRE 5	100%	-	100%
Lago*	SOCAIRE 6	100%	-	100%
Lago*	SOCAIRE 7	100%	-	100%
Lago*	SOCAIRE 8	100%	-	100%
Lago*	SOCAIRE 9	100%	-	100%
Colina	COLINA2 1 AL 30	-	-	100%
Colina*	COLINA A03, 1 AL 100	-	-	100%
Colina*	COLINA A07, 1 AL 100	-	-	100%
Colina*	COLINA A08, 1 AL 100	-	-	100%
Colina*	COLINA A09, 1 AL 100	-	-	100%
Colina*	COLINA A11, 1 AL 100	-	-	100%
Colina*	COLINA A12, 1 AL 100	-	-	100%
Colina	COLINA A14	-	-	100%
Colina	COLINA A15	-	-	100%
Colina	COLINA A16	-	-	100%
Colina	COLINA B01	-	-	100%
Colina	COLINA B02	-	-	100%
Colina	COLINA B03	-	-	100%
Colina	COLINA B04	-	-	100%
Colina	COLINA B05	-	-	100%
Colina	COLINA B06	-	-	100%
Colina	COLINA B07	-	-	100%
Colina	COLINA B10	-	-	100%
Colina	COLINA B13	-	-	100%

* Applications in progress

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

SOUTHERN HEMISPHERE MINING LIMITED

ABN

17 140 494 784

Quarter ended ("current quarter")

31 DECEMBER 2023

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(707)	(1,072)
(b) development	-	-
(c) production	-	-
(d) staff costs	(67)	(144)
(e) administration and corporate costs	(200)	(320)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	-
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(974)	(1,536)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) exploration & evaluation	-	-
(e) investments	-	-
(f) other non-current assets	-	-

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2 Proceeds from the disposal of:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) other non-current assets	-	-
2.3 Cash flows from loans to other entities	-	-
2.4 Dividends received (see note 3)	-	-
2.5 Other (provide details if material)	-	-
2.6 Net cash from / (used in) investing activities	-	-

3. Cash flows from financing activities		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	-	2,185
3.2 Proceeds from issue of convertible debt securities	-	-
3.3 Proceeds from exercise of options	-	-
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(83)	(134)
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	-	-
3.8 Dividends paid	-	-
3.9 Other (provide details if material)	-	-
3.10 Net cash from / (used in) financing activities	(83)	2,051

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	2,185	612
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(974)	(1,536)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4 Net cash from / (used in) financing activities (item 3.10 above)	(83)	2,051

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	29	30
4.6	Cash and cash equivalents at end of period	1,157	1,157

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts		Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,142	2,170
5.2	Call deposits	15	15
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	1,157	2,185

6. Payments to related parties of the entity and their associates		Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	82
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments..

7. Financing facilities <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(974)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(974)
8.4 Cash and cash equivalents at quarter end (item 4.6)	1,157
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	1,157
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	1,19
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Yes	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Yes, the Board is reviewing alternatives. The Company has been able to demonstrate a record of securing funds as and when required and is confident that it will be able to continue to do so.	
8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
Yes, the Company will continue to align operational activity and expenditure with cash reserves available to the Company.	
In addition, the Company's VAT tax consultant in Chile is filing a VAT refund. Accumulated VAT returns are indicatively A\$3.5m and subject to review and approval of government taxation authorities with payment of approval amounts by the 3 rd or 4 th quarter.	
<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2024

Authorised by: By the Board
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.