RENASCOR RESOURCES

ASX: RNU

31 January 2022

Quarterly Activities Report
for the period ended 31 December 2021

Significant Events

- Commercial-scale testing of downstream milling equipment using Siviour Graphite Concentrates delivered **spherical graphite yields in excess of 65%** (versus the 50% yield adopted in Renascor's Battery Anode Material Study[1)].
  - These higher yields from the milling process offer the potential for Renascor to produce more Purified Spherical Graphite (PSG) and improve profit margins as a result of this increased proportion of PSG material being produced per unit of Graphite Concentrate feed.
- Locked cycle purification trials undertaken by leading German independent battery mineral consultancy group Dorfner ANZAPLAN **validated Renascor's eco-friendly purification process,** offering increased operational efficiencies for Renascor's planned PSG manufacturing facility.
  - The trials confirmed the ability to **exceed lithium-ion battery anode purity specifications**, with results of up to 99.99% Carbon (C) (versus anode industry standard of 99.95% C).
  - Renascor's purification process avoids the use of hydrofluoric acid (HF), which is generally used in Chinese PSG operations, and instead uses less environmentally harmful reagents to purify Renascor's Siviour natural flake graphite for use in lithium-ion battery anodes[2].
- Data generated from the milling and locked cycle purification trials has permitted the **commencement of engineering design works and final equipment selection** for the planned PSG manufacturing facility.
- The market for PSG, which is used in the production of anodes for lithium-ion batteries, is experiencing **substantial upward price improvement**, with Fastmarkets reporting a +40% increase in the price of PSG in the 12 months to November 2021[3].
- **Good progress with POSCO**, with confirmatory due diligence nearing completion in conjunction with negotiation of commercial terms for strategic cooperation and offtake of 20,000 to 30,000tpa of PSG from Renascor's planned Battery Anode Material operation in South Australia.
- **Offtake discussions with other parties are progressing well** and have included constructive negotiation on commercial terms with Renascor's other existing offtake partners[4], as well as preparation of further sample material for qualification by additional potential offtake partners.
- Renascor's cash position as of 31 December 2021 was approximately $15.4m.

Siviour
Battery Anode Material Project
Powering Clean Energy

ESG

HF-free

100% Australian-made

For personal use only

Renascor Resources Limited
ABN 90 135 531 341

Head office:
36 North Terrace
Kent Town SA 5067

Phone: + 61 8 8363 6989
Email: info@renascor.com.au
www.renascor.com.au

For personal use only

Siviour Battery Anode Material Project

Commercial-Scale Milling Trials

During the recently completed quarter, Renascor completed commercial-scale testing of downstream milling equipment for Renascor's planned vertically integrated graphite mine and battery anode material manufacturing operation in South Australia (the Siviour Project). The trials have confirmed spherical graphite yields in excess of 65% (versus the 50% yield adopted in Renascor's Battery Anode Material Study[5]).

Background

The production of Purified Spherical Graphite (PSG) requires that Graphite Concentrates are first mechanically shaped into a micronised spherical form before being purified for use in lithium-ion battery anodes. Customers generally require that a number of physical specification parameters, including product size, particle size distribution, tap density and surface area, must be achieved after the milling process for use in high quality anode material.

Milling Trials and Results

To prepare for engineering design works for its planned PSG manufacturing facility in South Australia, during the recently completed quarter, Renascor completed milling trials on commercial-scale milling equipment designed to micronise and spheronise Siviour Graphite Concentrates.

The trials tested multiple milling and spheronisation technologies, with trials undertaken in Asia, the United States and Europe, at both equipment manufacturers and laboratories with milling test facilities. The trials were supervised by Renascor's external engineering advisors Wave International.

A key objective of these mill trials was to maximise the amount of graphite that can be processed from Siviour Graphite Concentrates into a spherical form (Spherical Graphite) that meets the physical product specifications of Renascor's existing and potential additional offtake partners[6].

Spherical Graphite that meets these physical product specifications can be purified to battery-grade and sold as PSG. Achieving higher yields from the milling process results in the production of higher amounts of PSG and greater profitability with more high value material being produced per unit of concentrate feed.

For purposes of the Battery Anode Material Study, completed in July 2020[7], Renascor relied upon preliminary equipment trials using up to 60kg samples of Siviour Graphite Concentrates and a projected yield of 50%, which is in line with global industry norms.

The recent trials were conducted on a larger-scale of up to 750kg of Siviour Graphite Concentrates per trial, using Siviour Graphite Concentrates produced from Renascor's recently completed large-scale pilot flotation program[8].

The results of the program confirmed yields in excess of 65%, consisting of both a primary Spherical Graphite that meets a standard size specification (d50 = 16 microns), as well as finer secondary Spherical Graphite products (d50 ≤ 10 microns). In both cases, the physical product specifications have been achieved.

Renascor expects that the primary PSG product (d50 = 16 microns) will account for the majority of PSG manufactured from Siviour, with the product expected to be used in high-volume lithium-ion battery anode applications (e.g., electric vehicles).

Finer PSG products (d50 ≤ 10 microns), which have traditionally been used for high performance and other speciality lithium-ion battery anode applications, are expected to account for the balance of PSG manufactured from Siviour, with the balance between the products to be determined after more detailed negotiations with Renascor's existing and future potential offtake partners.

For personal use only

Achieving these higher yields from the milling process offers the potential for Renascor to produce more PSG and improve profit margins due to the increased proportion of PSG material being produced per unit of Graphite Concentrate feed.

Data generated from the equipment trials will be used for engineering design works and final equipment selection for Renascor's planned PSG facility in South Australia.

Locked Cycle Purification Trials

During the recently completed quarter, Renascor completed locked cycle purification trials that validated Renascor's HF-free eco-friendly purification process, offering increased operational efficiencies for Renascor's planned PSG manufacturing facility.

Background

To purify Siviour Graphite Concentrates to battery-grade, Renascor has developed an eco-friendly purification process with Dorfner ANZAPLAN that avoids the use of hydrofluoric acid (HF), which is generally used in Chinese PSG operations. Instead, Renascor will use less environmentally harmful reagents to purify Siviour graphite for use in lithium-ion battery anodes.

In August 2021, Renascor completed bench-scale optimisation trials with battery mineral consultancy group Dorfner ANZAPLAN[9].

Dorfner ANZAPLAN is a leading consultancy and engineering company with particular experience in battery minerals. Dorfner ANZAPLAN's graphite expertise includes testing, developing, piloting and adapting mineral processing parameters to purify graphite concentrates to lithium-ion battery grade levels of +99.95% C.

The bench scale trials used sulfuric acid as one of the primary leaching reagents after the caustic bake, replacing hydrochloric acid, which was adopted as part of Renascor's Battery Anode Material Study[10]. The earlier bench-scale trials consistently met or exceeded lithium-ion battery anode purity specifications, with results of up to 99.99% Carbon (C) (versus anode industry standard of 99.95% C). Further, these results were achieved with a decreased consumption of sulfuric acid, as compared to previous trials using hydrochloric acid.

Locked Cycle Trials and Results

To enable detailed engineering works for its purification circuit, during the recently completed quarter, Renascor completed locked cycle purification tests adopting the flowsheet parameters used in the recent trials. The locked cycle tests differ from the previous bench scale tests by more closely approximating processing conditions by including recycle streams in a closed circuit and permitting a more accurate calculation of mass-water balance and other process design criteria necessary for completing engineering designs.

The locked cycle tests were undertaken by Dorfner ANZAPLAN, in collaboration with Renascor's external engineering advisors Wave International.

A total of six cycles were completed on spheronised samples of Siviour Graphite Concentrates using Renascor's HF-free flowsheet in which graphite is first roasted at low temperature with a caustic solution, followed by multi-stage leaching to achieve the required purity.

The results confirmed that optimised purification circuit using caustic and sulfuric acids can meet or exceed lithium-ion battery anode purity specifications, with results of up to 99.99% C, with no impurities detected above acceptable anode customer specifications.

The revised reagent regime is expected to offer environmental benefits, as the use of sulfuric acid, rather than hydrochloric acid, will result in less chemical, energy and water consumption during the leaching and water treatment phases.

Further trials utilising regenerated caustic reagents are on-going to test the potential to further

For personal use only

decrease reagent consumption, offering the potential for improved efficiencies in the operation of the planned PSG facility.

Data generated from the locked cycle purification tests will now permit the commencement of engineering works for the planned PSG facility.

Purified Spherical Graphite Price

The price of PSG has recently been experiencing upward, with the price reporting group Fastmarkets recently reporting a 40% increase in the price of Purified Spherical Graphite over the 12 months to November 2021 to between US$3,100 and US$3,300 per tonne[11].

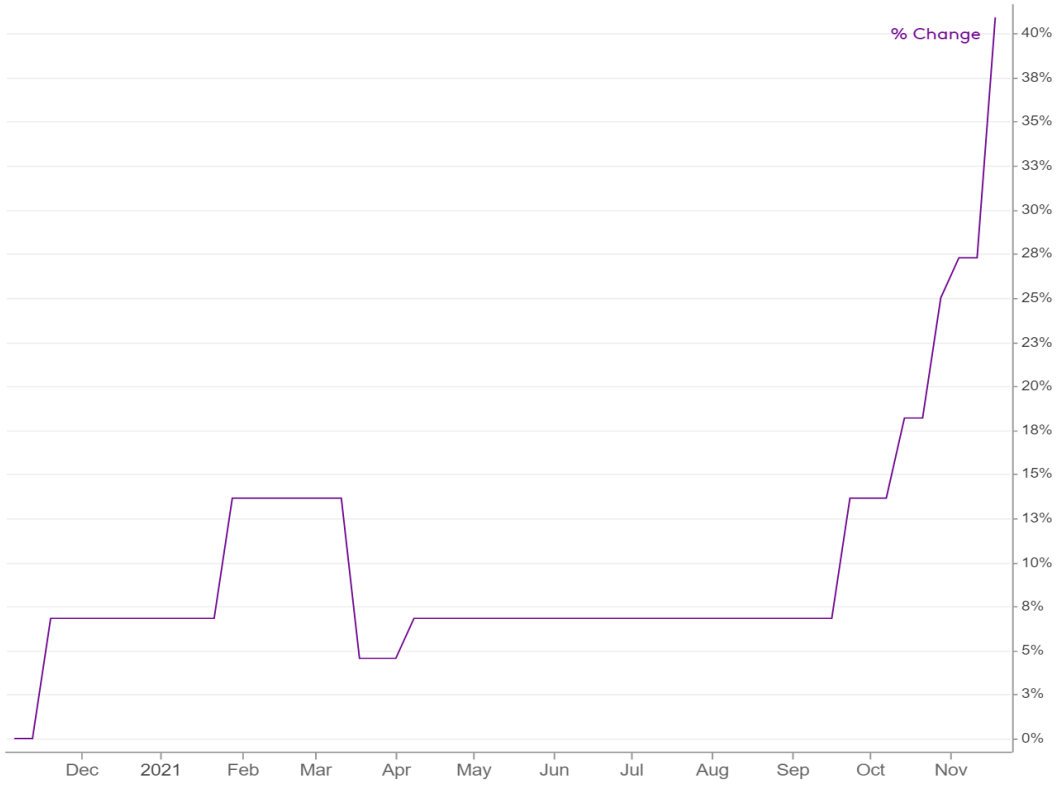

Figure 1: Relative change in pricing for Purified Spherical Graphite (15 micron, FOB China)[12]

Offtake and Product Qualification

During the recently completed quarter, Renascor continued to advance discussions with existing and potential offtake partners.

In total, Renascor has executed and announced offtake MOUs covering up to 60,000tpa of PSG. Renascor's currently proposed Stage 1 PSG production capacity is approximately 30,000tpa. The existing offtake agreements are comprised of:

- Up to 30,000tpa of PSG to South Korean conglomerate POSCO. POSCO, one of South Korea's largest conglomerates, is the largest anode manufacturer outside of China, with production capacity of 44,500tpa and a further 83,500tpa in construction[13]; and
- Up to 10,000tpa of PSG to each of Japan-based trading company Hanwa Co. Ltd.(**Hanwa**) and Chinese anode companies Shanxi Minguang New Material Technology Co. Ltd (**Minguang**) and Jiangxi Zhengtuo New Energy Technology Co. Ltd (**Zeto**)[14].

For personal use only

Discussions with POSCO regarding a Strategic Cooperation and Offtake Agreement[15] are progressing well, in line with the MOU announced 25 August 2021. During the recently completed quarter, POSCO commenced confirmatory due diligence to further assess the Siviour Project and the parties have had constructive negotiation on commercial terms for strategic cooperation and offtake of 20,000 to 30,000tpa of PSG.

Both Minguang New Material and Zeto have advanced the Siviour PSG product through the initial product qualification[16] process, and samples have been sent to both POSCO and Hanwa for further testing to support progression to binding offtake.

In addition to negotiations with existing offtake partners, Renascor continues to receive a significant volume of inbound enquiries from other leading anode and battery companies. As result, Renascor is undertaking detailed planning to assess the feasibility of expanding its production capacity, including an increase to its Stage 1 production plans and / or an additional Stage 2 PSG production.

During the recently completed quarter, Renascor commenced an additional sample preparation program to produce additional sample material for for customer qualification.

Corporate Events

On 30 November 2021, Renascor convened its Annual General Meeting, approving all resolutions under consideration.

During the recently completed quarter, Renascor received $67,000 in relation to the exercise of options (RNUOB).

As of 31 December 2021, Renascor had approximately $15.4m cash on hand.

Notes in relation to Appendix 5B

Payments to related parties and their associates during the recently completed quarter and outlined in Section 6 of Appendix 5B to this quarterly activities report were $145,000 These payments are related to salaries, superannuation and service and consultancy fees paid to directors and director-related entities during the quarter.

The Company had exploration and evaluation costs of $13,000 and development asset costs of $481,000 during the quarter relating principally to the Siviour project as detailed above.

Competent Person's Statements

Exploration Results

The results reported herein, insofar as they relate to exploration activities and exploration results, are based on information provided to and reviewed by Mr G.W. McConachy (Fellow of the Australasian Institute of Mining and Metallurgy) who is a director of the Company. Mr McConachy has sufficient experience relevant to the style of mineralisation and type of deposits being considered to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr McConachy consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

This report may contain forward-looking statements. Any forward-looking statements reflect management's current beliefs based on information currently available to management and are based on what management believes to be reasonable assumptions. It should be noted that a number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

Renascor confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and

technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Renascor 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.

Sample material used for test work discussed in this announcement relating to the equipment trials and locked-cycle tests was sourced from Renascor's Siviour Graphite Deposit that was processed into Graphite Concentrates as part of pilot flotation trial. See Renascor ASX announcement dated 31 August 2021, which outlines drill hole data and sample section criteria.

This ASX announcement has been approved by Renascor's Board of Directors and authorised for release by Renascor's Managing Director David Christensen.

For further information, please contact:

David Christensen
Managing Director

+61 8 8363 6989

info@renascor.com.au

For personal use only

For personal use only

Appendix 1

Summary of tenements for quarter ended 31 December 2021

(ASX Listing Rule 5.3.3)

Project Name	Tenement	Area km²	Registered holder/Applicant	District	Company Interest
Willouran	EL 6170	259	Renascor Resources Limited (Renascor)	South Australia	100%
Flat Hill	EL 6549	283	Renascor	South Australia	100%
Witchelina	EL 6403	316	Renascor	South Australia	100%
Iron Baron	EL 6698	253	Renascor	South Australia	100%
Old Wartaka	EL 6191	14	Renascor	South Australia	100%
Carnding	EL 6687	35	Renascor	South Australia	100%
Malbooma Railway	EL 6585	32	Renascor	South Australia	100%
Outalpa	EL 6450	159	Astra Resources Pty Ltd (Astra) *	South Australia	100%*
Cutana	EL 6451	157	Astra*	South Australia	100%*
Malbrom	EL 6197	81	Ausmin Development Pty Ltd (Ausmin) *	South Australia	100%*
Lipson Cove	EL 6423	329	Ausmin*	South Australia	100%*
Verran	EL 6469	690	Ausmin*	South Australia	100%*
Malbrom West	EL 6668	270	Ausmin*	South Australia	100%*
Dutton Bay	EL 6032	31	Ausmin*	South Australia	100%*
Siviour	ML 6495	16	Ausmin*	South Australia	100%*

* Astra and Ausmin are 100%-owned subsidiaries of Renascor.

[1] See Renascor ASX announcement dated 1 July 2020.
[2] See Renascor ASX announcements dated 28 November 2018, 12 August 2019, 22 February 2021 and 28 May 2021.
[3] https://www.fastmarkets.com/commodity-price/graphite-spherical-99-95-c-15-microns-fob-china-mb-gra-0036.
[4] Renascor has entered into four non-binding memoranda of understanding for up to 60,000tpa of PSG, comprised of up to 30,000tpa to South Korean conglomerate POSCO and up to 10,000tpa to each of Japan-based trading company Hanwa Co. Ltd. and Chinese anode companies Shanxi Minguang New Material Technology Co. Ltd and Jiangxi Zhengtuo New Energy Technology Co. Ltd. See Renascor ASX announcements dated 25 August 2021, 25 March 2021, 11 February 2021 and 29 September 2020.
[5] See Renascor ASX announcement dated 1 July 2020.
[6] Renascor has entered into four non-binding memoranda of understanding for up to 60,000tpa of PSG, comprised of up to 30,000tpa to South Korean conglomerate POSCO and up to 10,000tpa to each of Japan-based trading company Hanwa Co. Ltd. and Chinese anode companies Shanxi Minguang New Material Technology Co. Ltd and Jiangxi Zhengtuo New Energy Technology Co. Ltd. See Renascor ASX announcements dated 25 August 2021, 25 March 2021, 11 February 2021 and 29 September 2020.
[7] See Renascor ASX announcement dated 1 July 2020.
[8] See Renascor ASX announcement dated 31 August 2021.
[9] See Renascor ASX announcement dated 1 July 2020.
[10] See Renascor ASX announcement dated 1 July 2020.
[11] https://www.fastmarkets.com/commodity-price/graphite-spherical-99-95-c-15-microns-fob-china-mb-gra-0036 and https://www.indmin.com/Article/4017117/Flake-amorphous-and-spherical-graphite-prices-surge-on-high-costs-and-solid-demand.html Pricing refers to a 15 micron, 99.95% product, a product specification that is comparable to a standard specification from Renascor's existing offtake partners. Note also that the most recent reported price refers to a price range (between US$3,100 and US$3,300).
[12] https://www.fastmarkets.com/commodity-price/graphite-spherical-99-95-c-15-microns-fob-china-mb-gra-0036.
[13] See Renascor ASX announcement dated 25 August 2021.
[14] See Renascor ASX announcements dated 25 March 2021, 11 February 2021 and 29 September 2020.
[15] See Renascor ASX announcement dated 25 August 2021.
[16] See Renascor ASX announcement dated 11 February 2021.

Appendix 5B

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

For personal use only

Name of entity

RENASCOR RESOURCES LIMITED

ABN	Quarter ended ("current quarter")
90 135 531 341	31 December 2021

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	50	50
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(96)	(170)
	(e) administration and corporate costs	(226)	(443)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	3
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**	**(271)**	**(560)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	(2)
	(d) exploration & evaluation	(13)	(30)
	(e) investments	-	-
	(f) other non-current assets (Development Asset)	(481)	(1502)

For personal use only

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**	**(494)**	**(1,534)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	67	223
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
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**	**67**	**223**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	16,101	17,274
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(271)	(560)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(494)	(1,534)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	67	223

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	-	-
4.6	**Cash and cash equivalents at end of period**	**15,403**	**15,403**

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	15,403	16,101
5.2	Call deposits	-	-
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)**	**15,403**	**16,101**

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	67
6.2	Aggregate amount of payments to related parties and their associates included in item 2	78

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.

For personal use only

For personal use only

7.	**Financing facilities** *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.*	**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.		

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(271)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(13)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(284)
8.4	Cash and cash equivalents at quarter end (item 4.6)	15,403
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	15,403
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	54

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.

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?

Answer: N/A

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?

Answer: N/A

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?
Answer: N/A	

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.

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 2022

Authorised by: The Board of Renascor Resources Ltd

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.

For personal use only