

# QUARTERLY REPORT

ASX: RNU

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**ASX CODE**  
RNU

Developing  
Australia's largest  
graphite deposit



## THE PERIOD ENDING 30 SEPTEMBER 2017

### Significant Events

- Staged development study shows that, in addition to offering impressive returns as a large-scale operation, Siviour offers a competitive pathway to production through a low start-up capital, staged development. Key findings include:
  - Initial stage-one annual production of 10,800 tonnes, before ramping up to 123,000 tonnes per annum in stage-two
  - Stage-one start-up capital of AU\$15.9 million, with estimated cash cost of production of AU\$589 and estimated basket sales price of AU\$1,222/t
  - Stage-two start-up capital of AU\$138 million, with estimated cash cost of production of AU\$452 and estimated basket sales price of AU\$1,347/t
- Pre-feasibility study in progress, with key work programs completed in the quarter including advances in mineral processing, advanced product testing, resource enhancement, community engagement and environmental and regulatory planning
- Airborne electromagnetic survey over Siviour confirms shallow, flat-lying orientation of mineralised body and identifies significant near-surface, flat-lying extensions along strike
- Renascor receives firm commitments from professional and sophisticated investors for a placement to raise approximately \$3 million (before costs) to advance the Siviour Graphite Project

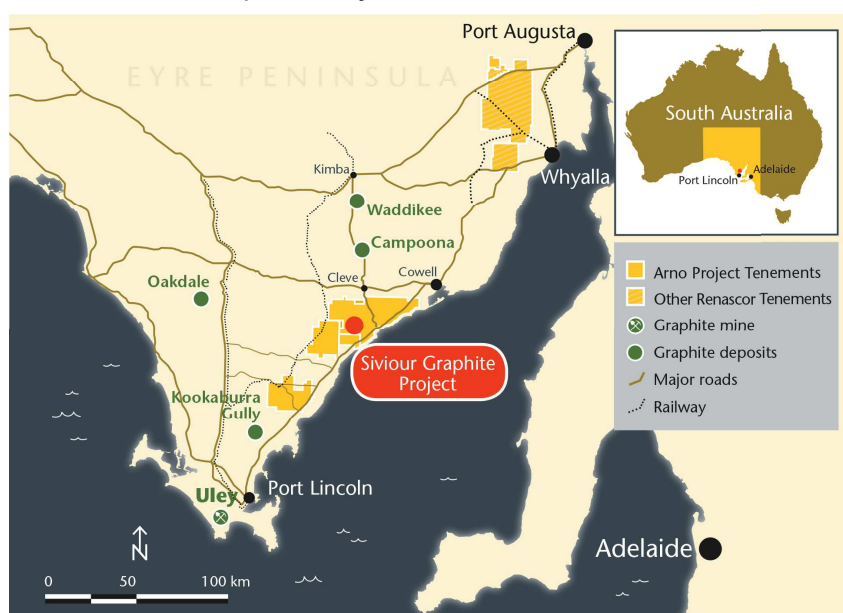


Figure 1. Siviour Graphite Deposit

## Key Outcomes of Staged Development Study

The staged development study is intended to offer a potential low up-front capital start-up option for the Siviour Graphite Project. Stage-one considers a higher-grade, small-scale operation for three years, before transitioning in the second stage to the larger production case contemplated in the Siviour Scoping Study (see Renascor's ASX announcement dated 23 May 2017) in year four.

A summary of the estimated key results of this study, and a comparison to the Siviour Scoping Study, is described below in Table 1. More complete details of the staged development study are available in Renascor's ASX announcement dated 27 October 2017.

Parameter	Two-stage option				Siviour Scoping Study	
	Stage-one (years 1 to 3)		Stage-two (year 4 to 23)			
Currency <sup>1</sup>	AU\$	US\$	AU\$	US\$	AU\$	US\$
Annual production	10,800t		123,000t		123,000t	
Plant throughput	100,000tpa		1,650,000tpa		1,650,000tpa	
Average feed grade	11.1% TGC		8.1% TGC		8.1% TGC	
Cash cost of production (per tonne)	AU\$589	US\$459	AU\$452	US\$353	AU\$450	US\$333
Basket price (per tonne) <sup>2</sup>	AU\$1,222	US\$953	AU\$1,347	US\$1,051	AU\$1,420	US\$1,051
Life of mine	23 years				20 years	
Development capital	AU\$15.9m	US\$12.4m	AU\$138m <sup>3</sup>	US\$108	AU\$144m	US\$107m
Payback of development capital (from first production)	3.1		1.8		1.7	
NPV <sub>10</sub> (after tax) (life of mine)	AU\$370m or US\$288m <sup>4</sup>				AU\$551m	US\$408m
IRR (after tax) (life of mine)	46%				59%	

**Table 1. Summary of key results**

<sup>1</sup> Stage-one and stage-two adopt an exchange rate of AU\$1.00 = US\$0.78. The Siviour Scoping Study adopted a rate of AU\$1.00 = US\$0.74.

<sup>2</sup> Product prices for both stage-one and stage-two are based on pricing assumptions adopted in the Siviour Scoping Study for each flake size category. See Appendix 1 of Renascor's ASX announcement dated 27 October 2017.

<sup>3</sup> Reflects pre-production capital cost for stage-two, less approximately \$6m in net profit over three years of stage-one production.

<sup>4</sup> NPV<sub>10</sub> for stage-two reflects lower net present value based on additional three years of discounting due to deferred start-up. Stage-two NPV<sub>10</sub> would be approximately equal to Siviour Scoping Study NPV<sub>10</sub> if there were no deferral.

## Key Financial Results of Staged Development Study

### Capital costs

Estimated pre-production capital costs for stage-one and stage-two are provided in Table 2.

Category	Stage-one		Stage-two	
	AU\$ (m)	US\$ (m)	AU\$ (m)	US\$ (m)
Process Plant	8.5	6.6	87.9	68.6
Site Infrastructure	2.5	1.9	16.7	13.0
EPCM	1.0	0.8	15.3	11.9
Contingency	1.1	0.8	5.1	4.0
Owners' costs	1.1	0.9	15.7	12.2
Other	1.8	1.4	3.1	2.4
<b>Total</b>	<b>15.9</b>	<b>12.4</b>	<b>143.9</b>	<b>112.2</b>

Table 2. Pre-production capital cost estimate summary

### Operating Costs

Estimated annual cash operating costs for stage-one and stage-two are provided in Table 3.

Category	Stage-one		Stage-two	
	AU\$/t (m)	US\$/t (m)	AU\$/t (m)	US\$/t (m)
Mining and technical services	126	98	118	92
Processing and power	350	273	225	176
General and administration	23	18	19	15
Product logistics FOB	90	70	90	70
<b>Total</b>	<b>589</b>	<b>459</b>	<b>452</b>	<b>353</b>

Table 3. Operating cost estimate summary

### Next Steps

As part of its Siviour Pre-Feasibility Study (currently underway), Renascor is further evaluating both the staged approach, as well as an immediate large-scale option, with start-up production scale to be determined after the completion of the pre-feasibility study and further consideration from potential offtake and finance partners.



## Siviour Pre-Feasibility Study

During the recently completed quarter, Renascor completed several work programs supporting the Siviour Pre-Feasibility Study, including:

- **Mineral processing.** Renascor has modified the flowsheet design parameters to achieve improved graphite concentrate recoveries. The changes to the improved flow sheet are not expected to materially change the capital and operating cost estimates used in the Siviour Scoping Study. Testwork of six core samples using the modified flowsheet has resulted in similar purity and flake size distribution results as estimated in the Siviour Scoping Study, with corresponding improvements in recovery. Further metallurgical work programs currently underway include additional variability tests using the improved flowsheet design, as well as optimisation tests focused on ore pre-treatment, grinding and flotation to improve overall purities and recovery of coarse graphite concentrates.
- **Advanced products.** Renascor has commenced test programs designed to assess the viability of Siviour concentrates to be further processed for use in advanced graphite products. Preliminary results indicate that Siviour concentrates are within industry-accepted standards for processing into expandable and spherical graphite. Testwork currently in progress includes further spherical graphite characterization and coin cell tests.
- **Resource.** Renascor's assessment of the Siviour Mineral Resource suggests that additional drilling will not be necessary to upgrade the status of a majority of the Siviour Indicated Resource to Reserve status pursuant to the Joint Ore Reporting Code, 2012 edition (the JORC Code).
- **Environmental.** Renascor has completed initial environmental reviews and site inspections in respect of climate, geology, ecology, relief and drainage, air, water and noise quality social conditions, infrastructure and Aboriginal and European heritage. No significant impediments to the development of the project have been identified. Renascor has commenced the collection of baseline environmental data and has commenced water monitoring programs.
- **Community engagement.** Renascor has adopted a community engagement plan and has commenced discussions with key stakeholders, including land-owners, local Council and community groups. Activities undertaken during the recent quarter have included presentations to the Eyre Peninsula Mineral & Energy Resources Community Development Taskforce and at the General Maintenance Upper Spencer Gulf Conference. Further community meetings are planned for the current quarter.
- **Regulatory.** Renascor has commenced preparation of a mine lease application for Siviour, as well as commencing related discussions with the South Australia Department of State Development and local and regional government representatives. Preparation of the mine lease application and continuing discussions with the regulatory authorities will continue in the current quarter, with a final application expected to be lodged next quarter.
- **Marketing.** Following the successful completion of the Siviour Scoping Study, Renascor has had discussions with potential offtake partners primarily in China, Japan, Europe and United States. Renascor recently transported a bulk sample to Canada for the preparation of marketing samples from Siviour concentrates for purposes of testing by potential customers. Renascor expects to meet with potential offtake partners, marketing agents and

potential project financiers from China, Japan and the United States in the current quarter.

- **Spherical graphite study.** Renascor has commenced a scoping study to investigate the viability of producing spherical graphite from graphite concentrates to be produced at Siviour. The study will consider options to micronise, spherodise and purify Siviour graphite concentrates for use in lithium-ion battery anodes. Results of the spherical scoping study are expected this quarter.

In addition to the above work programs during the recently completed quarter, Renascor commenced work on advanced mining, geotechnical, hydrogeological and environmental studies and tendered proposals for completion of detailed engineering works. Work on the foregoing will continue in the current quarter, with the Siviour Pre-Feasibility Study expected to be completed next quarter. Subject to satisfactory completion of the Pre-feasibility study, a definitive feasibility study is expected to be completed in the third quarter of next year.

### **South Australian Government Grant**

During the recently completed quarter, Renascor was awarded a grant by South Australian State Government under the Future Jobs Fund, a government-sponsored program to support the development of globally competitive industries and industrial capabilities within South Australia.

The co-funded grant provides \$25,000 to develop a business case supporting the construction of graphite concentrate and downstream processing facilities for the Siviour Graphite Deposit.

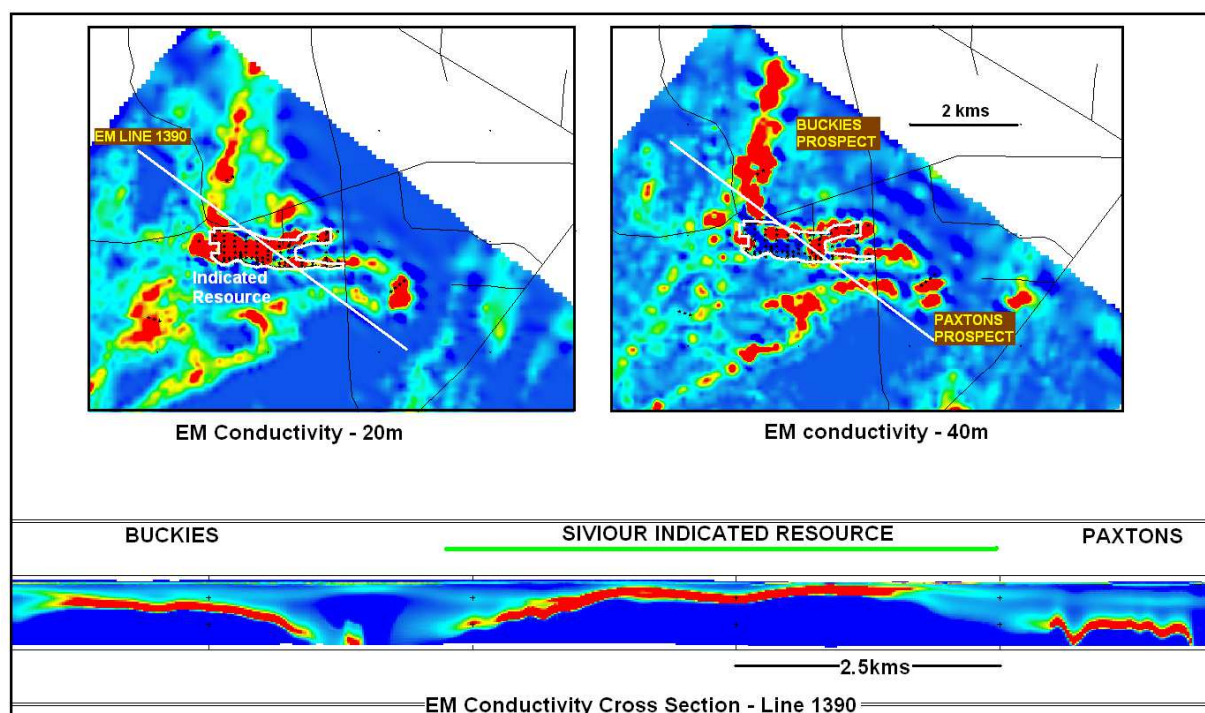
This is the second grant Renascor has received this year from the South Australian Government for Siviour, following a \$100,000 grant for mineral process test work.

### **Electromagnetic Survey**

During the recently completed quarter, Renascor completed interpretation of an airborne electromagnetic (EM) survey conducted in the quarter of 2017 over areas within and adjacent to the Siviour Indicated Resource.

Survey data was collected using the Xcite helicopter EM system over flight lines following a northwest-southeast pattern. Flight-line spacing consisted of 100m-spacing over the Siviour Indicated Resource and areas immediately adjacent to it, and a series of 200m- and 400m-spacing across areas extending into areas further from the immediate Indicated Resource zone.

Analysis of the EM data has confirmed the general shallow, flat-lying orientation of the Siviour mineralised body, as well as identifying significant near-surface, horizontal extensions along strike.



**Figure 2. Comparison of EM conductivity depth images and cross section for EM line 1390**

As illustrated in the EM depth slices shown in Figure 2, at an interpreted depth of approximately 20m (top left image), there is strong correlation between conductivity and the Siviour Indicated Resource. In this area, graphite mineralisation commences from approximately 5m to 10m and includes intersections of graphite mineralisation of over 30m.

As shown in the EM cross-section for flight line 1390 (Figure 2, bottom image), the EM data confirms the near-surface, flat-lying orientation of graphite mineralisation over the Indicated Resource and suggests this geometry continues into conductive anomalies in the Buckies and Paxton areas, adjacent to the current Indicated Resource.

At a depth slice of 40m (Figure 3, top right image), larger areas of comparable conductivity are evident to the north of Siviour (at the Buckies prospect) and to the southeast (at the Paxtons prospect). Previous drilling within these prospect areas intersected some of the widest graphite intersections within the project area, suggesting the potential for significant extensions to the current Indicated Resources with a similarly favourable near-surface, flat-lying orientation.

The results of the recent EM survey are being incorporated in advanced mine planning studies and are expected to further contribute to establishing an efficient, low-cost mining operation at Siviour. The EM results are also being used to define potential resource extensions and to optimize life-of-mine throughput and concentrate production options consistent with product sales opportunities.



## **CORPORATE EVENTS**

### **Capital Raising**

During the recently completed quarter, Renascor received firm commitments from professional and sophisticated investors for a placement (the “Placement”) to raise approximately \$3 million (before costs) to advance the Siviour Graphite Project.

The Placement consists of the issue of up to approximately 179.5 million fully paid ordinary shares in the Company at a price of \$0.017 per share, in two tranches:

- Tranche 1 was completed on 27 September 2017 with the issue of 120,698,060 shares raising \$2,051,867 million. Tranche 1 was completed without shareholder approval utilising the Company’s existing placement capacity under Listing Rules 7.1 and 7.1A.
- Tranche 2 consists of up to approximately 58.8 million shares to raise \$1 million. Tranche 2 shares will be issued to entities associated with Directors of the Company and other professional and sophisticated investors, and will be subject to shareholder approval at the Company’s annual shareholder meeting to be held on 20 November 2017. A notice of meeting was dispatched to shareholders on 18 October 2017.

All shares issued under the Placement include one attaching option for every two new shares issued. The options, which are also subject to shareholder approval at the upcoming annual shareholder meeting, will have an exercise price of \$0.03, will be exercisable any time prior to 31 October 2019, and are expected to be quoted on ASX, subject to satisfying ASX criteria.

Bizzell Capital Partners (and entity associated with Stephen Bizzell, a director of the Company) and Hartleys Limited acted as Joint Lead Managers to the Placement.

### **Amendment to Ausmin Agreement**

During the recently completed quarter, Renascor, through its wholly-owned subsidiary Eyre Peninsula Minerals (EPM), entered into an agreement to amend the terms of its option to acquire 100% of Ausmin Development Pty Ltd (Ausmin), an unlisted company whose sole material assets are the mineral rights to the project tenements that comprise the Arno Project. The Arno Project tenements include the Siviour Graphite Project.

The option to acquire Ausmin can be exercised after meeting certain vesting conditions (discussed below) in exchange for a 22% equity interest in a listed vehicle holding the project. Subject to meeting the vesting conditions, the option can be exercised at any time prior to 30 September 2018, and can be extended to December 2019 and to December 2020 by payment of \$150,000 and \$250,000, respectively.

Previously, the option vested upon the completion of a definitive feasibility study in relation to the commercial development of graphite on the project tenements. Pursuant to the amendment, the feasibility study condition has been replaced with an alternative vesting provision that permits the exercise of the option upon the incurrence of \$2.5 million in expenditure on the project. Expenditure is to be calculated from 1 July 2017.

The amended option agreement creates a clear standard for meeting the vesting conditions to acquire the Siviour Graphite Project. In addition, as the amended vesting condition applies to all expenditure on the project, it provides added incentive for Renascor to undertake additional value-added activities that are not directly related to the completion of a feasibility study.

### **Other Corporate Events**

- During the recently completed quarter, Renascor surrendered nine tenements considered non-core: EL5012 (Eastern Eyre Project), EL5733 (Warrior Project), EL5322 (Frome Basin), and E74/517, E74/518, E74,523, E74/531, E74/544 and E74/545 (Munglinup Project).
- On 3 October 2017, Renascor issued 2,574,404 shares to non-executive directors on pursuant to the Non-Executive Directors Share Plan (the NEDSP), as approved by shareholders at the Annual general meeting held on 26 November 2015. Under the NEDSP, non-executive directors receive up to 50% of their compensation in shares in the Renascor.
- As of 30 September 2017, Renascor had approximately \$2.8 million cash on hand, which includes \$2,051,867 million (before costs) raised in Tranche 1 of the Placement. Renascor expects to receive additional funds of approximately \$1 million (before costs) in connection with Tranche 2 of the Placement. Please refer to Renascor's Quarterly Cashflow Report for the period ending 30 September 2017.



**Competent Person's Statement – Metallurgical Results**

*The results reported herein, insofar as they relate to metallurgical test work results, are based on information provided to and reviewed by Mr Simon Hall, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to the Company. Mr Hall has sufficient experience relevant to the mineralogy and type of deposit under consideration and the typical beneficiation thereof. Mr Hall consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.*

**Competent Person's Statement – 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. A number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

**FOR FURTHER INFORMATION, PLEASE CONTACT:**

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**Angelo Gaudio**  
Company Secretary

**Table 1: Summary of tenements for quarter ended 30 September 2017 (ASX Listing Rule 5.3.3)**

Location	Project Name	Tenement No.	Tenement Name	Registered Owner <sup>1</sup>	% Interest	Status as at 30 Sep 2017
<b>Tenements held during quarter ended 30 September 2017:</b>						
South Australia	Eastern Eyre	EL 5822	Iron Baron	Renascor	100	Current
South Australia	Eastern Eyre	EL 5236	Old Wartaka	Renascor	100	Current
South Australia	Gawler Craton	EL 5859	Gairdner	Renascor	100	Current
South Australia	Gawler Craton	EL 5927	Lake Harri	Renascor	100	Current
South Australia	Warrior	EL 5856	Carnding	Renascor	100	Current
South Australia	Farina	EL 4822	Willouran	Renascor	100	Under Renewal
South Australia	Farina	EL 5586	Callana Area	Renascor	100	Current
South Australia	Olary	EL 5385	Cutana	Astra	100	Current
South Australia	Olary	EL 5384	Outalpa	Astra	100	Current
South Australia	Olary	EL 5228	Wompinie	Renascor	100	Current
South Australia	Arno Graphite	EL 5204	Malbrom - Areas A, B, C & D	Ausmin <sup>3</sup>	0 <sup>2</sup>	Current
South Australia	Arno Graphite	EL 5495	Lipson Cove	Ausmin <sup>3</sup>	0 <sup>2</sup>	Current
South Australia	Arno Graphite	EL 5618	Verran	Ausmin <sup>3</sup>	0 <sup>2</sup>	Current
South Australia	Arno Graphite	EL 5714	Malbrom West	Ausmin <sup>3</sup>	0 <sup>2</sup>	Current
Wesern Australia	Munglinup Graphite	E74/538	Munglinup	Sol Jar	100	Current
Northern Territory	Ngalia Basin	ELA27517	NirripiNth	Kurilpa	100	Application
Northern Territory	Ngalia Basin	ELA27518	NirripiWest	Kurilpa	100	Application
<b>Tenements disposed, surrendered or lapsed during quarter ended 30 September 2017:</b>						
South Australia	Eastern Eyre	EL 5012	Cultana	Renascor	0	Surrendered
South Australia	Warrior	EL 5733	Warrior	Renascor	0	Surrendered
South Australia	Frome Basin	EL 5322	Lake Callabonna	Renascor	0	Surrendered
Wesern Australia	Munglinup Graphite	E74/517	Munglinup	Sol Jar	0	Surrendered
Wesern Australia	Munglinup Graphite	E74/518	Munglinup	Sol Jar	0	Surrendered
Wesern Australia	Munglinup Graphite	E74/523	Munglinup	Sol Jar	0	Surrendered
Wesern Australia	Munglinup Graphite	E74/531	Munglinup	Sol Jar	0	Surrendered
Wesern Australia	Munglinup Graphite	E74/544	Munglinup	Sol Jar	0	Surrendered
Wesern Australia	Munglinup Graphite	E74/545	Munglinup	Sol Jar	0	Surrendered

**Note 1**

Renascor: Renascor Resources Limited  
 Kurilpa: Kurilpa Uranium Pty Ltd, a wholly owned subsidiary of Renascor Resources Limited  
 Astra: Astra Resources Pty Ltd, a wholly owned subsidiary of Renascor Resources Limited  
 Sol Jar: Sol Jar Property Pty Ltd, a wholly owned subsidiary of Renascor Resources Limited  
 EPM: Eyre Peninsula Minerals Pty Ltd, a wholly owned subsidiary of Renascor Resources Limited  
 Ausmin: Ausmin Development Pty Ltd

**Note 2**

Agreement with EPM - option to acquire 100%

**Note 3**

Agreement with EPM - option to acquire Ausmin Development Pty Ltd