

# Quarterly Report

**FOR THE PERIOD ENDING 31 MARCH 2016**

## Significant Events

- Maiden JORC-compliant Mineral Resource estimate released for Siviour graphite deposit following drill program completed during the quarter
  - 16.8Mt @ 7.4% total graphitic carbon (TGC) for 1,243,200t of contained graphite
  - High-grade portion of 5.9Mt @ 10.0% TGC for 590,000t of contained graphite
  - Siviour is the largest reported graphite resource in Australia and remains open along-strike
  - Siviour is shallow, tabular and near flat-lying, with the bulk of graphite mineralisation commencing from 10m to 25m beneath the surface
- Petrological examination of high-grade samples from drill holes at Siviour has returned over 80% in the high-value super-jumbo (+500µm), jumbo (+300µm) and large (+180µm) categories
- Next-stage work program to include further drilling to expand Mineral Resource and commencement of comprehensive mineral processing test work, commencing with sighter test work to determine the appropriate parameters for flow-sheet determination
- As of 31 March 2016, Renascor had approximately \$495,000 cash on hand

## ARNO GRAPHITE PROJECT

During the recently completed quarter, Renascor completed its initial drill program at its Arno Graphite Project in South Australia. The program resulted in a maiden Mineral Resource estimate for Siviour of 16.8Mt @ 7.4% TGC for 1,243,200t of contained graphite, making Siviour the largest graphite deposit in Australia. Petrological examination of samples from Siviour indicates a large proportion of super-jumbo, jumbo and large flake graphite, suggesting ample scope to deliver a high-quality concentrate from Siviour. Renascor's focus for the current quarter will include further drilling to expand the resource at Siviour and commencing comprehensive mineral processing test work, including sighter test work to determine appropriate parameters for flow-sheet determination.



**Figure 1. Arno graphite project, showing location and nearby graphite deposits**



## Project overview

The Arno Graphite Project consists of four granted exploration licences, ELs 5618, 5204, 5496 and 5714, covering 1,372km<sup>2</sup> in the Eyre Peninsula, an established graphite region in South Australia located approximately 500km driving distance from Adelaide. The Uley graphite mine, owned by Valence Industries Limited (ASX: VXL), is located approximately 140km to the south, and the immediate area hosts several additional graphite deposits including the Waddikee and Campoona graphite deposits currently being developed by Archer Exploration Limited (ASX: AXE), the Kookaburra Gully graphite deposit being developed by Lincoln Minerals Limited (ASX: LML) and the Oakdale graphite deposit being developed by Oakdale Resources Limited (ASX: OAR). See Figure 1.

The area also benefits from significant infrastructure advantages, including established workforces in the nearby port cities of Whyalla (population 23,000), Port Lincoln (population 15,000) and Port Augusta (13,000), as well as established population centres of Arno Bay, Cleve, Cowell and Tumbly Bay. The licences are located within 10km of a major highway and within 20km of an operating railway servicing Port Lincoln. The project area is connected to South Australia's main power grid and is serviced by ports at Port Lincoln and Whyalla.

## Mineral Resource at Siviour

During the quarter, Renascor completed a 24-hole, 1550m reverse circulation drill program within the Arno Project Area, focusing on the Siviour prospect, resulting in an Indicated and Inferred Mineral Resources estimate for Siviour as shown below in table 1. A nominal cut-off grade of 3% TGC has been established for Siviour based on the potential mining methods and costs of open-cut mining operations that could be undertaken for mineralisation of this type.

Category	Tonnes of mineralisation (millions)	TGC	Contained graphite (tonnes)
Indicated	6.8	8.1%	550,800
Inferred	10.0	6.9%	690,000
<b>Total</b>	<b>16.8</b>	<b>7.4%</b>	<b>1,243,200</b>

Note: Cut-off grade of 3% total graphitic carbon

**Table 1. Siviour Mineral Resource estimate as of 16 March 2016**

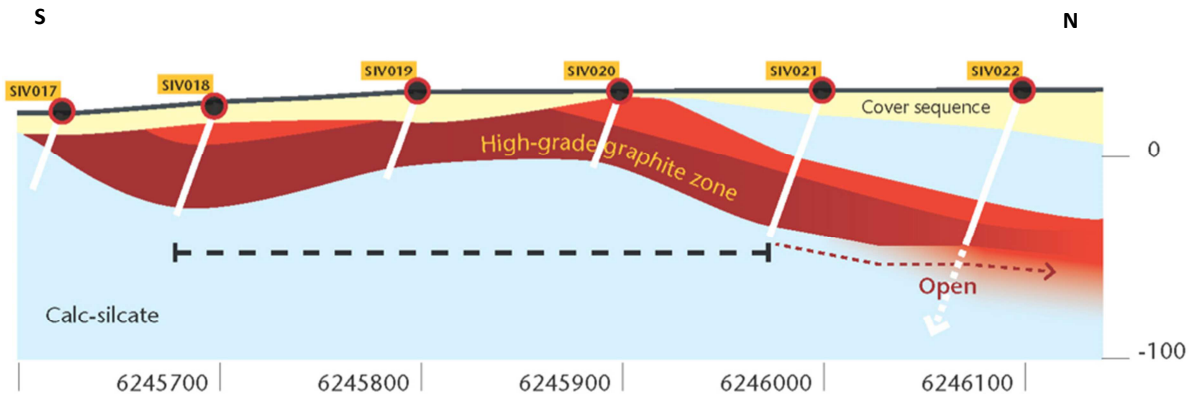
## Siviour Mineral Resource breakdown by cut-off grades

Table 2 below shows the Siviour total Mineral Resource at varying cut-offs. As noted below, Siviour contains a significant high-grade resource at an 8% cut-off: 5.9Mt @ 10.0% TGC for 590,000t of contained graphite.

Cut-off grade (TGC)	Tonnes of mineralisation (millions)	TGC
3%	16.8	7.4%
4%	15.9	7.6%
5%	14.5	7.9%
6%	11.4	8.5%
7%	8.5	9.2%
8%	5.9	10.0%
9%	3.8	10.8%
10%	2.5	11.5%

**Table 2. Siviour Mineral Resource by cut-off grade**





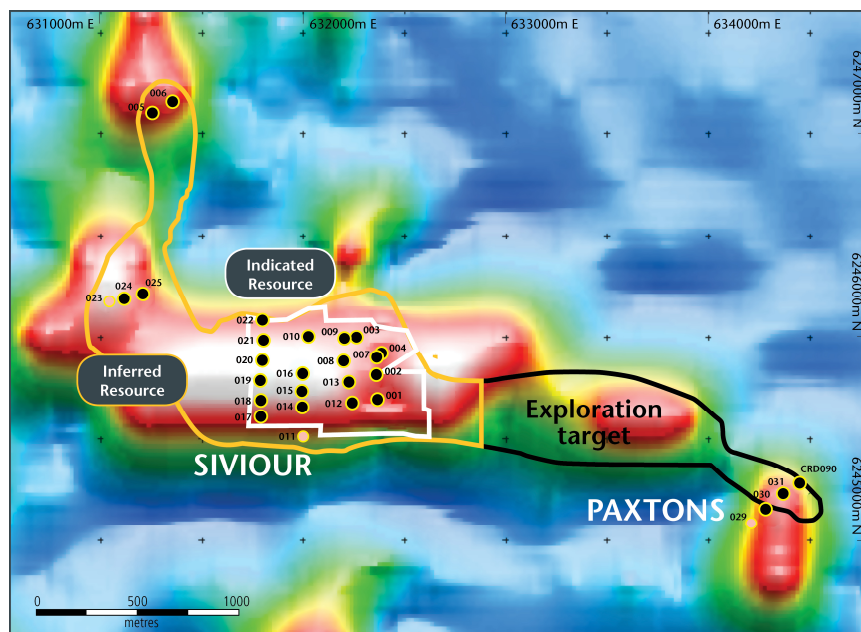
**Figure 2. Siviour prospect: Geological cross-section for north-south Section 631800E**

The Siviour deposit is shallow, tabular and near flat-lying, with most of the graphite mineralisation occurring beneath only 10m to 25m of cover. As shown in Figure 2, Section 631800E, the westernmost section drilled of the Indicated Resource, shows a thick, shallow graphite-mineralised zone that is near flat-lying over the southern and central portions of the prospect before dipping gently to the north.

**Exploration Target**

In addition to the Indicated and Inferred Mineral Resources, Siviour has an Exploration Target of an additional 12Mt to 15Mt at an average grade 7.0% to 7.5% TGC, equating to between 840,000t to 1,125,000t of contained graphite. The potential quantity and grade of the Exploration Target is conceptual in nature and there is insufficient data to establish a mineral resource; it is uncertain if further exploration will result in the estimation of a mineral resource over the area covered by the Exploration Target.

In addition to the area included in the Exploration Target, Siviour remains largely open, in particular to the north of the Inferred Resource and to the south at Paxtons, suggesting additional scope to expand the current resource through follow-up drilling.

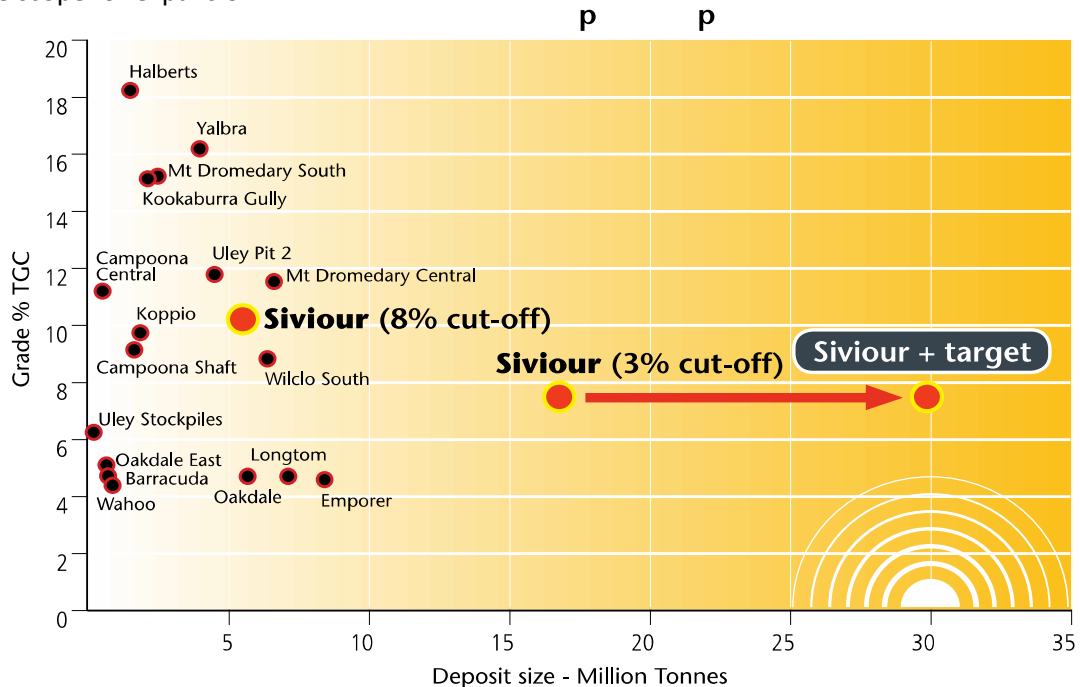


**Figure 3. Electromagnetic image showing Indicated and Inferred Resources, Exploration Target and drill hole locations**



### Siviour in comparison to other graphite resources in Australia

As shown below in Figure 4, the Siviour deposit is the largest reported JORC resource in Australia, with ample scope for expansion.



**Figure 4. Scatter plot showing grade (%TGC) and tonnage of Siviour (at 3% and 8% cut-off grades) with the exploration target estimate and reported resources for Australian graphite deposits**

### Graphite flake size and mineral processing test work

In addition to establishing Siviour as a premium graphite resource in terms of its size and grade, initial testing undertaken during the quarter has identified an abundance of coarse flake graphite from petrographic analysis of drill samples, with over 80% in the high-value super-jumbo (+500µm), jumbo (+300µm) and large (+180µm) categories. Nine high-grade samples from four reverse circulation holes at Siviour were examined by Pontifex and Associates during the quarter. Photomicrographs prepared from these samples (see Figure 5) have returned flake graphite with lengths of up to 1,600µm and over 60% of graphite flakes recording lengths of over 500µm. Complete results are described below in table 3.

Drill hole	Depth (m)	Total graphitic carbon <sup>1</sup>	Graphite flake length range (microns)	Flake length > 200 microns	Flake length > 500 microns
Siv001	63	16.9%	100 to 1,600	82.5%	65%
Siv001	68	9.1%	100 to 1,000	82.5%	60%
Siv001	73	10.6%	100 to 1,000	87.5%	70%
Siv002	82	15.1%	100 to 1,200	75%	65%
Siv002	92	10.1%	100 to 1,000	80%	60%
Siv002	97	4.3%	100 to 600	75%	50%
Siv004	56	12.3%	50 to 1,400	85%	80%
Siv004	72	10.8%	100 to 800	75%	65%
Siv014	18	17.2%	10 to 1,500	85%	40%

**Table 3. Summary of graphite flake analysis from drill chips at Siviour prospect**





The abundance of coarse flake graphite identified in petrographic analysis of Siviour drill samples suggests that the graphite-mineralised zones at Siviour have the potential to produce significant quantities of premium-priced coarse-flake graphite in concentrate. While it is expected that the proportion of coarse flake graphite will be diminished in mineral processing, Renascor is encouraged by the high proportion of coarse-flake graphite in the high-grade drill samples at Siviour.

While mineral processing test work has not yet been undertaken on the high-grade graphite zones at Siviour, preliminary flotation tests from the adjacent Paxtons prospect have produced favourable graphite recoveries and purity of concentrates, including producing flake graphite in the super-jumbo (+500 $\mu$ m) category. Flotation and gravity tests were performed in 2014 on samples from a historical core hole (CRA090) drilled on the eastern margin of Paxtons. The hole, which was drilled to test for uranium and not originally assayed for graphite, intersected 24m of graphitic mineralisation, which subsequent assaying has shown included 12.4m @ 8.34% TGC from 67.7m. ALS Metallurgy performed bench flotation and gravity tests over a 2.5kg core sample from CRA090, obtaining carbon (graphite) recovery of 87% and producing 93% purity of concentrates with flake size of up to 600 $\mu$ m.

As part of its next-stage work program, Renascor expects to obtain representative samples from the Siviour high-grade graphite zones and undertake comprehensive mineral processing work.



**Figure 5. Photomicrograph of graphite flakes from Siv014 (17m to 18m)**

### ***Next steps***

Renascor plans to commission a scoping study on the viability of establishing commercial production of the Siviour Mineral Resources. In connection with this study, during the current quarter, Renascor expects to undertake further exploration drilling to expand the Mineral Resources into the Exploration Target area and the areas immediately north of the Inferred Resource and adjacent to the Paxtons prospect. Additionally, Renascor expects to undertake comprehensive mineral processing test work, commencing with sighter test work to determine the appropriate parameters for flow-sheet determination. Renascor expects to complete the scoping study during the third quarter of this year.



## OTHER PROJECTS

Additional exploration and evaluation activities undertaken during the quarter included work on the following projects:

- **Munglinup Project.** The Munglinup Project, in the Albany-Fraser Range province of Western Australia, contains several prospective conductive anomalies that Renascor considers targets for graphite deposits similar in style to the adjacent Halbert's graphite deposit (1.9Mt @ 19.2% total contained graphite), currently being developed by unlisted Gold Terrace Pty Ltd. Renascor has identified two targets, the Shiraz and Pinot prospects, that is considers high priority graphite targets for next-stage drilling. During the quarter, Renascor evaluated the wider project area for similar targets for graphite, as well as additional targets for nickel sulphide and lithium.
- **Eastern Eyre Project.** The Eastern Eyre Project is located in South Australia's Eyre Peninsula, in the southern portion of the Olympic Dam copper belt. Renascor has previously identified several prospects targeting large-scale copper mineralisation within its project area, including within the Angle Dam fault structure, where Renascor's previous drilling has included intersections of high-grade copper within massive sulphides. During the quarter, Renascor evaluated the wider project area for similar targets for high-grade copper, targeting untested gravity, magnetic and geophysical anomalies.

## CORPORATE

Set forth below is a brief summary of key corporate information.

- Renascor issued notices of termination to two unlisted proprietary limited companies, terminating agreements to sell two tenements, EL 5584 (previously EL 4399) and EL 5585 (previously EL 4394) located in the Curnamona province of South Australia. Renascor remains in discussions with a related unlisted proprietary limited company in respect of an adjacent tenement, EL 5228.
- On 26 February 2016, Renascor issued 18,000,000 fully paid Ordinary Shares as consideration for the completion of the acquisition of Sol Jar Properties Pty Ltd as announced on 26 October 2015 ("Sol Jar Acquisition"). Shareholder approval for the Sol Jar Acquisition was given at the Annual General Meeting held on 26 November 2015.
- Renascor issued 2,340,914 shares to non-executive directors on 11 April 2016 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 Company.
- During the quarter, one tenement lapsed in New South Wales. Refer to Table 1 (attached) for tenement information (Listing Rule 5.3.3).
- As of 31 December 2015, Renascor had approximately \$495,000 cash on hand. Please refer to Renascor's Quarterly Cashflow Report for the period ending 31 March 2016 for further information.



## **COMPETENT PERSON STATEMENT**

*The results reported herein, insofar as they relate to exploration results, are based on information compiled 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 his information in the form and context in which it appears.*

## **BACKGROUND INFORMATION**

Renascor Resources is an Australian-based company focused on the discovery and development of economically viable mineral deposits. Renascor has an extensive tenement portfolio, holding interests in projects in key mineral provinces of South Australia, the Northern Territory and Western Australia, including significant graphite projects near Arno Bay, South Australia and at Munglinup, Western Australia.

For further information, please contact:

Mr David Christensen    Mr Angelo Gaudio  
Managing Director        Company Secretary

+61 8 8363 6989  
[info@renascor.com.au](mailto:info@renascor.com.au)



**Table 1: Summary of tenements for quarter ended 31 March 2016 (ASX Listing Rule 5.3.3)**

Location	Project Name	Tenement No.	Tenement Name	Registered Owner <sup>1</sup>	% Interest	Status as at 31 March 2016
<b>Tenements held during quarter ended 31 December 2015:</b>						
South Australia	Eastern Eyre	EL 4721	Iron Baron	Renascor	100	Current
South Australia	Eastern Eyre	EL 5012	Cultana	Renascor	100	Current
South Australia	Eastern Eyre	EL 5236	Old Wartaka	Renascor	100	Current
South Australia	Eastern Eyre	EL 5401	Lincoln Gap Area	Currie <sup>2</sup>	0 <sup>2</sup>	Current
South Australia	Eastern Eyre	EL 5400	Mt Whyalla Area	Currie <sup>2</sup>	0 <sup>2</sup>	Current
South Australia	Gawler Craton	EL 4675	Gairdner	Renascor	100	Current
South Australia	Gawler Craton	EL 4836	Lake Harris	Renascor	100	Current
South Australia	Warrior	EL 4570	Warrior	Renascor	100	Current
South Australia	Warrior	EL 4707	Carnding	Renascor	100	Current
South Australia	Farina	EL 4822	Willouran	Renascor	100	Current
South Australia	Farina	EL 5586	Callana Area	Renascor	100	Current
South Australia	Olary	EL 5385	Cutana (Prev. EL 4394)	Astra	100	Current
South Australia	Olary	EL 5384	Outalpa (Prev. EL 4399)	Astra	100	Current
South Australia	Olary	EL 5228	Wompinie	Renascor	100	Current
South Australia	Frome Basin	EL 5322	Lake Callabonna	Renascor	100	Current
South Australia	Arno Graphite	EL5204	Malbrom - Areas A, B, C & D	Ausmin <sup>3</sup>	0 <sup>3</sup>	Current
South Australia	Arno Graphite	EL5495	Lipson Cove	Ausmin <sup>3</sup>	0 <sup>3</sup>	Current
South Australia	Arno Graphite	EL5618	Verran	Ausmin <sup>3</sup>	0 <sup>3</sup>	Current
South Australia	Arno Graphite	ELA2015/00107	Malbrom West	Ausmin <sup>3</sup>	0 <sup>3</sup>	Application
Wesern Australia	Munglinup Graphite	E74/517	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Wesern Australia	Munglinup Graphite	E74/518	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Wesern Australia	Munglinup Graphite	E74/523	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Wesern Australia	Munglinup Graphite	E74/531	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Wesern Australia	Munglinup Graphite	E74/538	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Wesern Australia	Munglinup Graphite	E74/544	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Wesern Australia	Munglinup Graphite	E74/545	Munglinup	Sol Jar <sup>4</sup>	100 <sup>4</sup>	Current
Northern Territory	Naglia Basin	ELA27517	NirripiNth	Kurilpa	100	Application
Northern Territory	Naglia Basin	ELA27518	NirripiWest	Kurilpa	100	Application
<b>Tenements disposed, surrendered or lapsed during quarter ended 31 March 2016:</b>						
New South Wales	Plumbago	EL7915	Plumbago	Sol Jar <sup>4</sup>	0 <sup>4</sup>	Lapsed

**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  
 Currie: Currie Resources Pty Ltd  
 Ausmin: Ausmin Development Pty Ltd

**Note 2**

Agreement - option to acquire 100%

**Note 3**

Agreement - option to acquire Ausmin Development Pty Ltd

**Note 4**

During February 2016 Renascor completed the acquisition of Sol Jar Property Pty Ltd

