

# A Globally Significant *Australian* Graphite Project

Rapidly Progressing a  
Globally Significant  
Graphite Project



Presented to Paydirt's 2019 Battery  
Minerals Conference

*Perth, Western Australia, 12 March 2019*  
*David Christensen, Managing Director*



# Siviour Project Summary

## World-Class Project Credentials

- One of the world's largest graphite resources
- Flat-lying orientation underpins lowest quartile cost of production -- OPEX of US\$335/t\*
- Proximity to established infrastructure permits low start-up capital cost -- US\$29 million\*\*

## High Quality Graphite Product

Favourable flake size distribution and easily upgradable to high purity for lithium-ion battery and other high growth markets.

## The Best Location

- Located in Australia, one of the world's most stable jurisdictions.
- 7km from highway – simple transport to established port

\* OPEX at full production

\*\* CAPEX for start-up small-scale operation

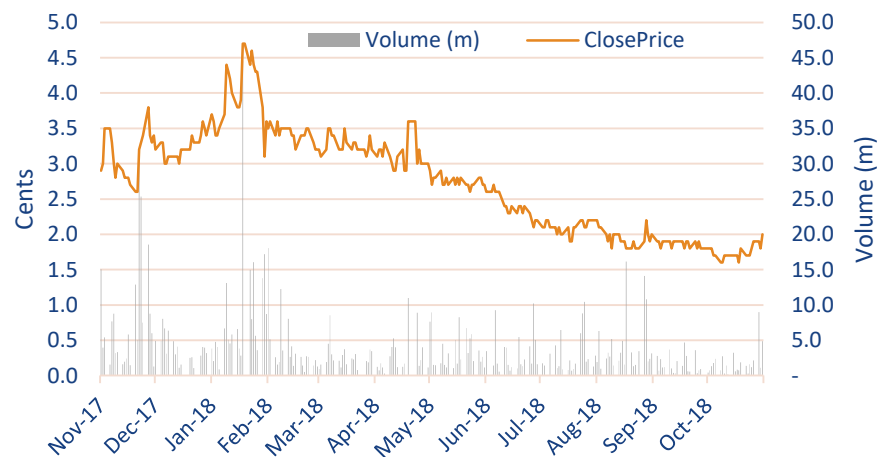


# Corporate Overview

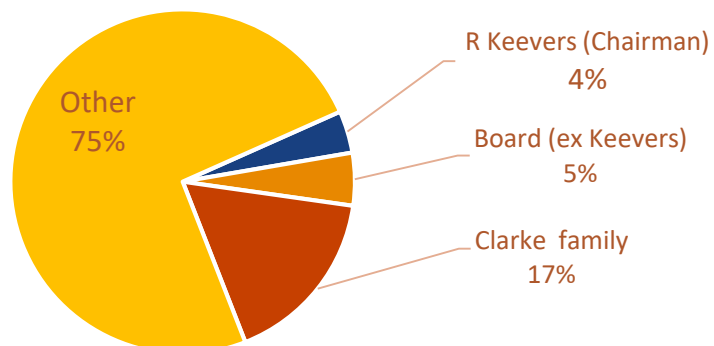
## Capital Structure

Shares on issue	1,153m
Performance rights	18m
Listed options	114.76m
Unlisted options	15m
Share price (6 Mar 19)	\$0.017
Market Cap (at \$0.017/sh)*	\$19.6m
<b>Cash*</b>	<b>\$5.2m</b>
Debt*	Nil
EV	\$14.4m

## Share Chart



## Shareholder Breakdown\*



## Board

Non-Executive Chairman	Richard Keevers
Managing Director	David Christensen
Non Executive Director	Geoffrey McConachy
Non Executive Director	Stephen Bizzell

\* As of 31 December 2018

# Why graphite in Australia?

## Renascor offers secure supply from Australia

### Low sovereign risk jurisdiction

- Secure, established regulatory framework increasingly important in graphite supply chain

### Established infrastructure

- Lower capital and operating costs and increased certainty of project delivery

### Supportive government

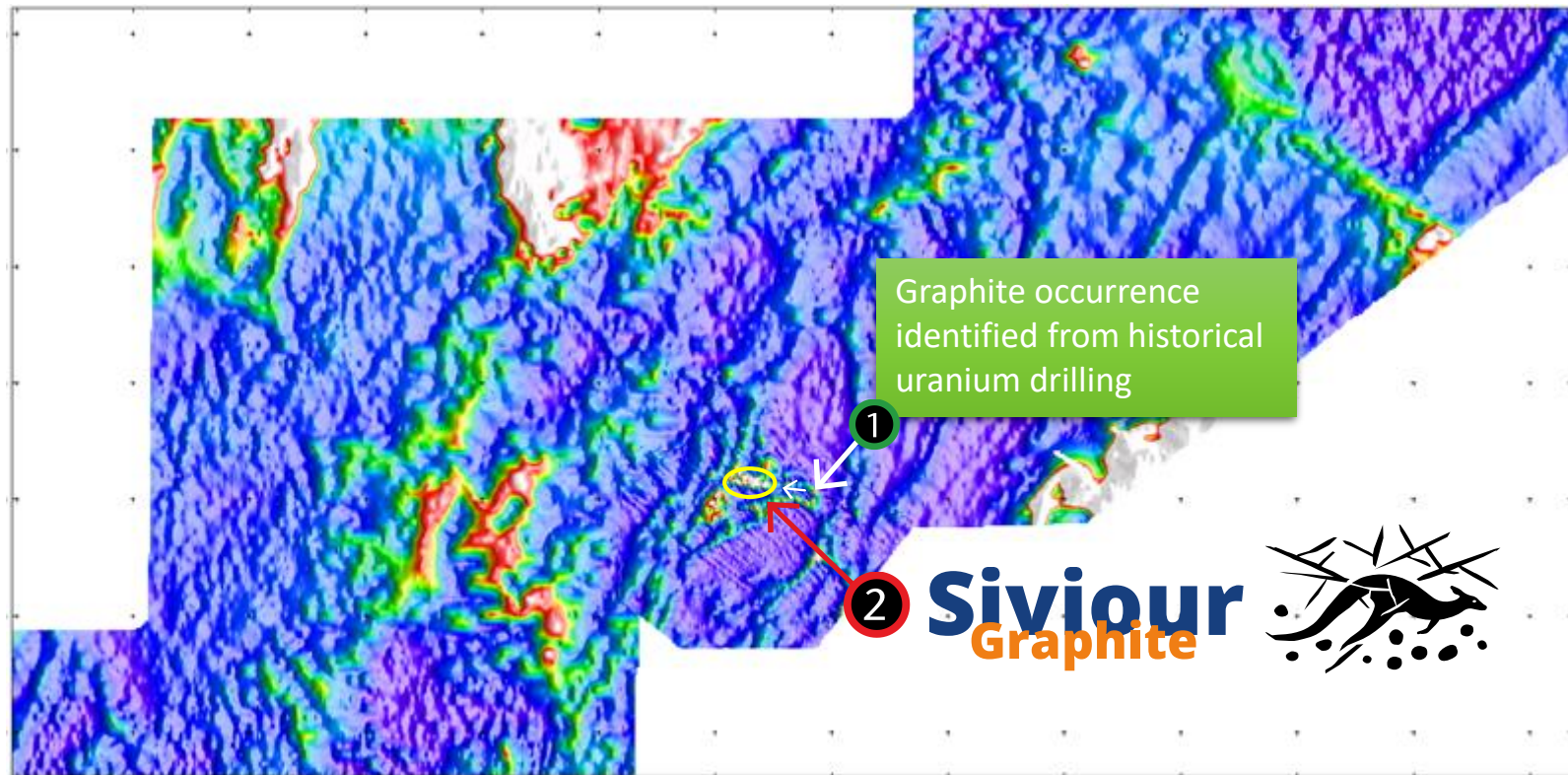
- Established, mine-friendly jurisdiction that has encouraged new mine developments





## Siviour Discovery

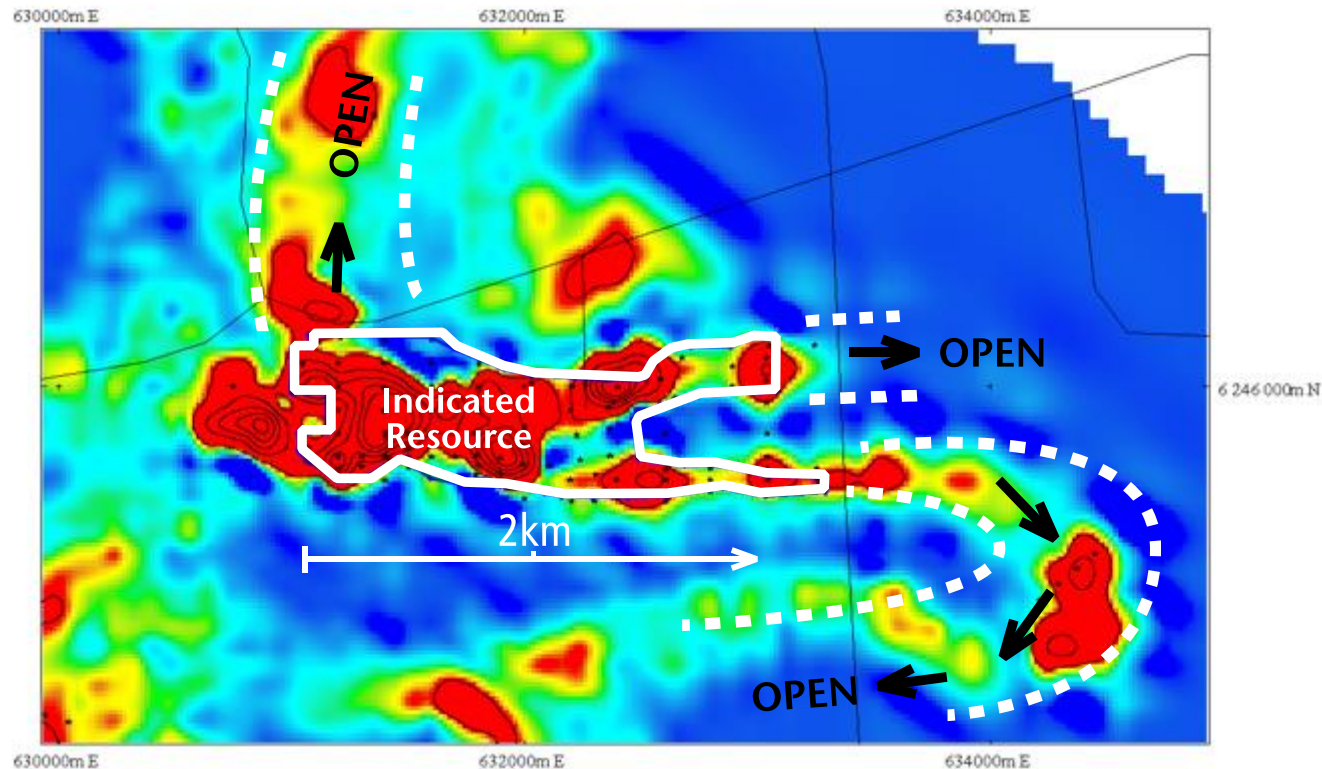
While nearly all previous graphite deposits in the region were identified through surface outcropping, Siviour was discovered from airborne geophysics



Cameco regional electromagnetic survey 2009

## Siviour Discovery

Detailed electromagnetic surveys have shown high correlation between Siviour resource and geophysical anomaly, allowing rapid identification of massive resource



Siviour Indicated Resource outline over 40m airborne EM depth slice highlighting conductivity continuity

# Siviour Graphite Project

One of world's largest high-grade flake graphite deposits.

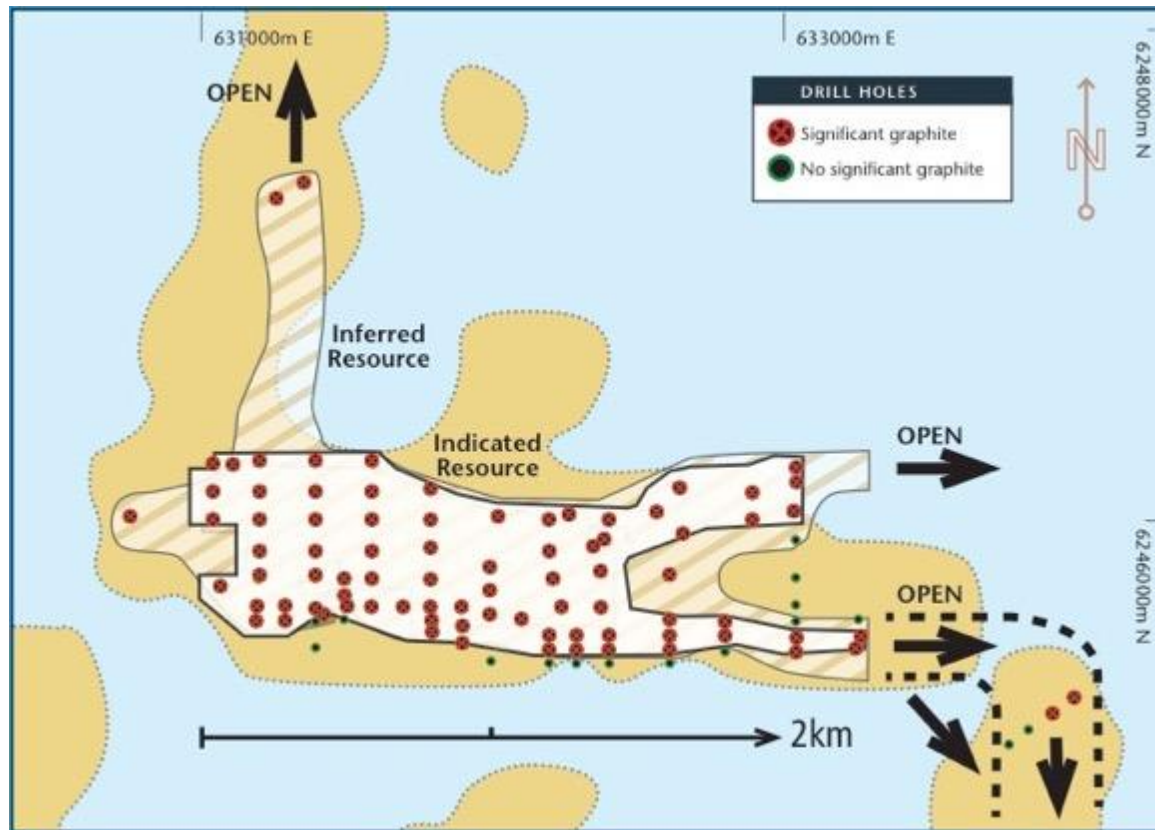
- Mineral Resource: 80.6 Mt at 7.9% TGC for 6.4 Mt of contained graphite.
- Ore Reserve: 45.2 Mt at 7.9% TGC for 3.6 Mt of contained graphite.





## Siviour Resource

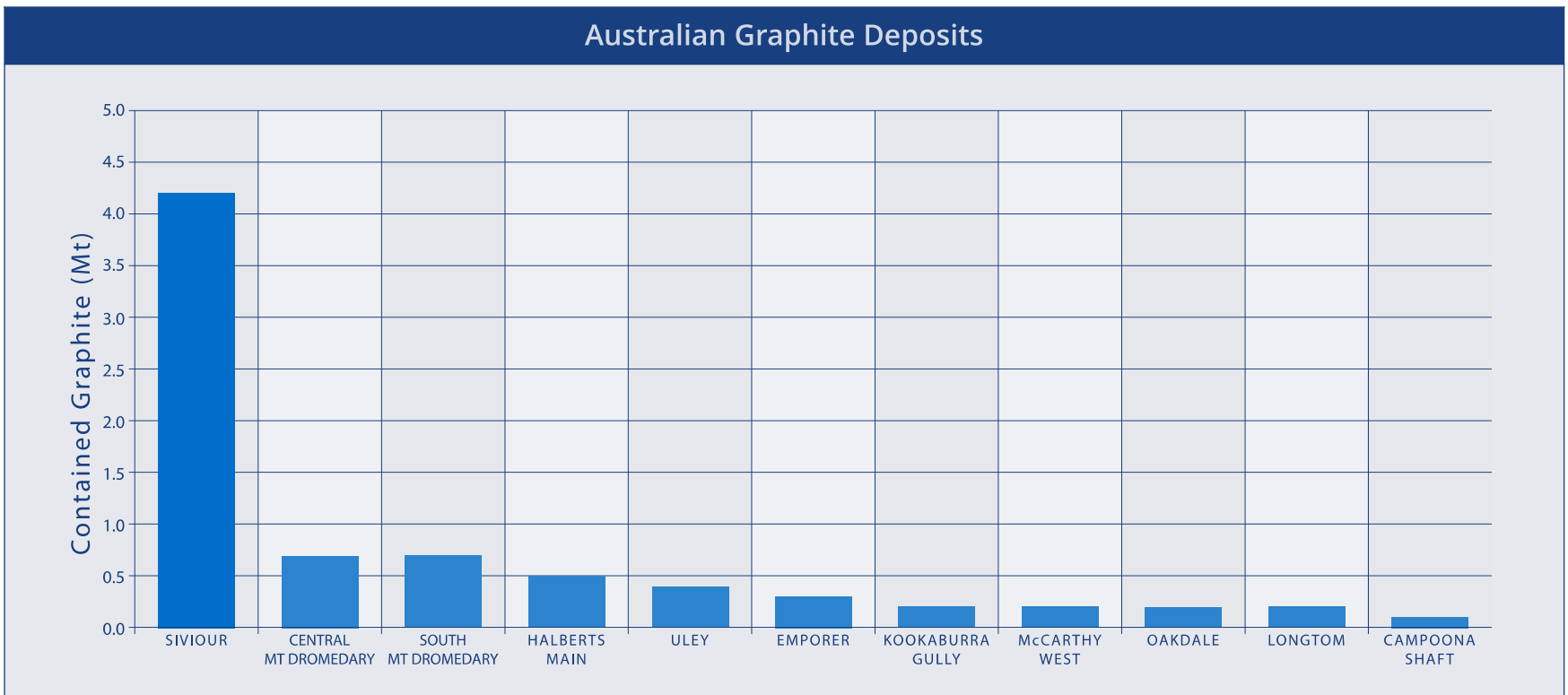
Siviour is one massive ore body, offering a consistent supply of high-quality graphite.





# Australian Graphite Resources

The scale of the Siviour graphite resource is unique in Australia



Company reports showing Measured and Indicated Resources of selected Australian graphite deposits

## Development Summary

### Siviour can be developed sooner by a two-staged development

- Low capital, fast-start potential
- Staged approach allows Renascor to target initial off-take agreements while providing bulk samples of Siviour graphite
- Provides cash flow and establishes Renascor as a high quality graphite producer



**STAGE 1 – 2020**  
22,800 TONNES CONCENTRATE  
CAPEX : US\$29M  
OPEX:US \$577 PER TONNE  
**INITIAL OFF-TAKES AND BULK SAMPLES**

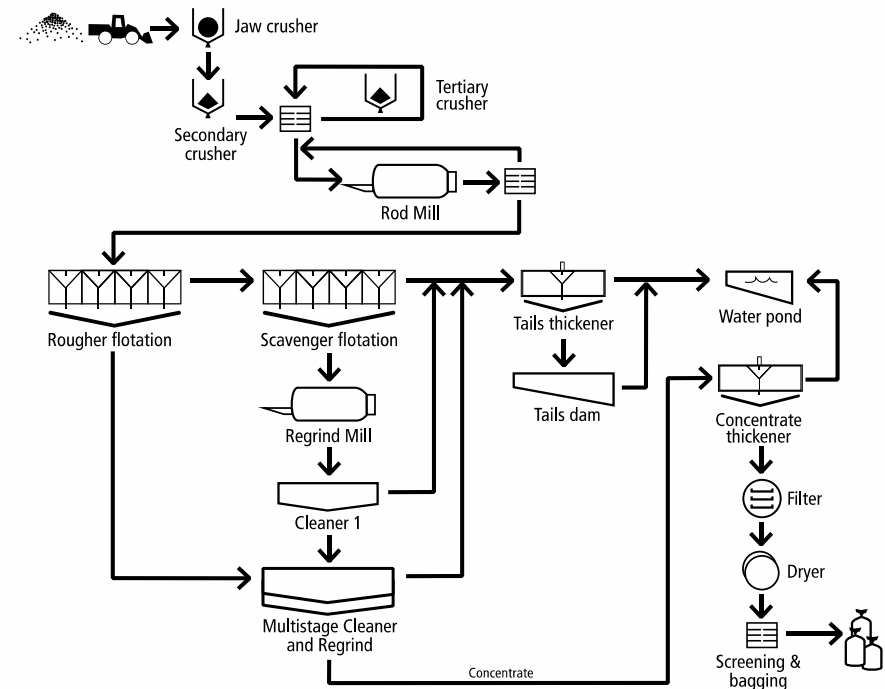


**STAGE 2 - 2023**  
156,000 TONNES CONCENTRATE  
CAPEX: US\$91M  
OPEX: US\$335 PER TONNE  
**FULL DEVELOPMENT**

# Metallurgy

Metallurgical testing has established ability to produce high quality graphite products at low OPEX using conventional (non-chemical, non-thermal) flowsheet.

Flake Category	Particle Size		Percentage	Annual Production
	Microns (µm)	Mesh		
Jumbo	>300	+48	6%	8,520t
Large	180 to 300	-48 to +80	20%	28,400t
Medium	150 to 180	-80 to +100	10%	14,200t
Small	75 to 150	-100 to +200	43%	61,060t
Fine	<75	-200	21%	29,820t





# Spherical Graphite

Independent tests confirm Siviour concentrates can be processed into up to 99.99% spherical graphite suitable for use in Lithium-ion battery anodes.

Parameter	Test 1	Test 2
Fixed Carbon	99.97%	99.99%
Ash content	0.03%	0.02%
D10 Size Fraction (-10% finer than this size)	9.8 µm	11.3 µm
D50 Size Fraction (-50% finer than this size)	16.3 µm	18.4 µm
D90 Size Fraction (-90% finer than this size)	27.5 µm	29.7 µm
Ratio D10 to D90 sizes	2.8	2.8
Tap Density (measure of density of spherical graphite powder settled in test cylinder)	0.93 g/cm <sup>3</sup>	0.95 g/cm <sup>3</sup>

Further test work to optimise product offering (size and purity) on-going

## Expandable Graphite

Independent tests confirm Siviour concentrates are suitable for expandable graphite in excess of the typical industry expansion coefficient requirements.

Expansion Coefficient for Siviour Graphite Concentrations			
Parameter	Siviour Samples		Industry Standard
	+50 mesh ( >300 µm )	+80 mesh ( >180 µm )	
Expansion Coefficient (ml/g)	320	275	230

Both samples were tested for expansion using sulfuric acid based interaction agents and by heating to 1,000°C.

Both samples of Siviour graphite concentrates expanded at rates in excess of the typical industry standard for high-quality expandable graphite created from Chinese flake graphite concentrates

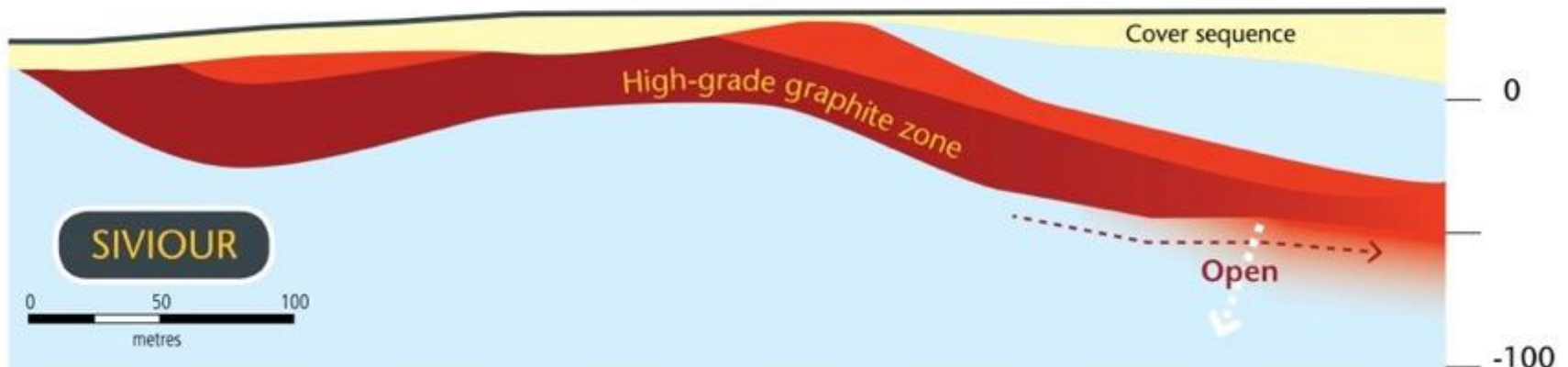
Expandable graphite is created by heating graphite to a temperature that causes exfoliation (expansion) of individual flakes of graphite.

Expandable graphite is increasingly sought-after for several applications including flame retardant building materials and textiles.

Graphite concentrates that expand at high rates selling at a significant premium to typical graphite concentrates.

## Near-surface, Flat-lying Ore Body

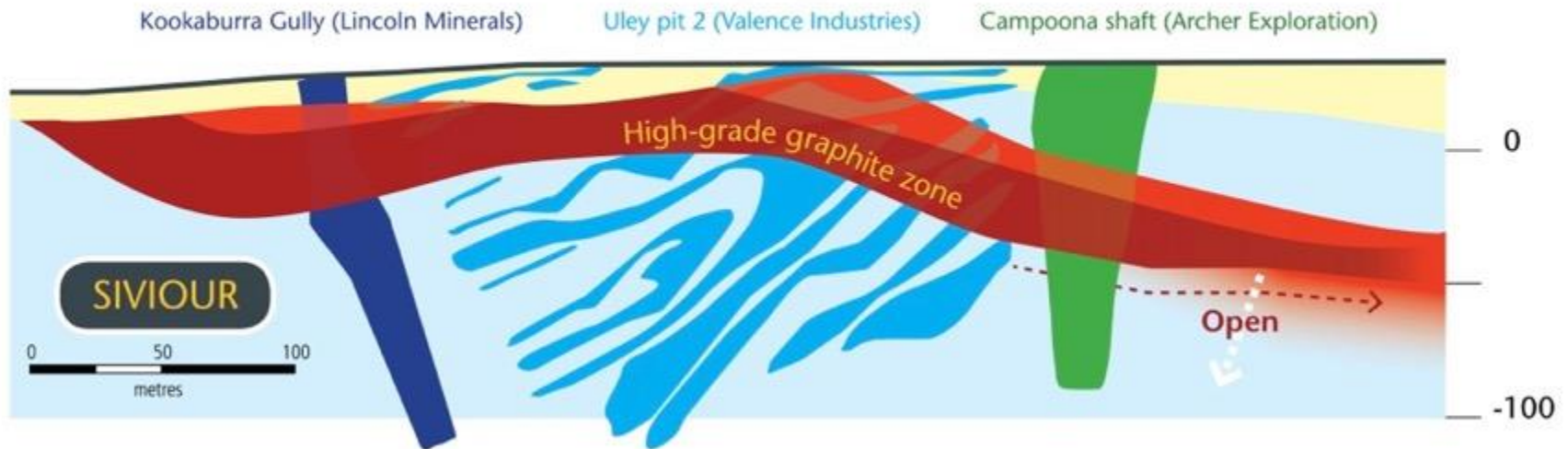
Sivour's low OPEX is due in large part to shallow, horizontal orientation of a single massive ore body that offers comparatively low mining costs





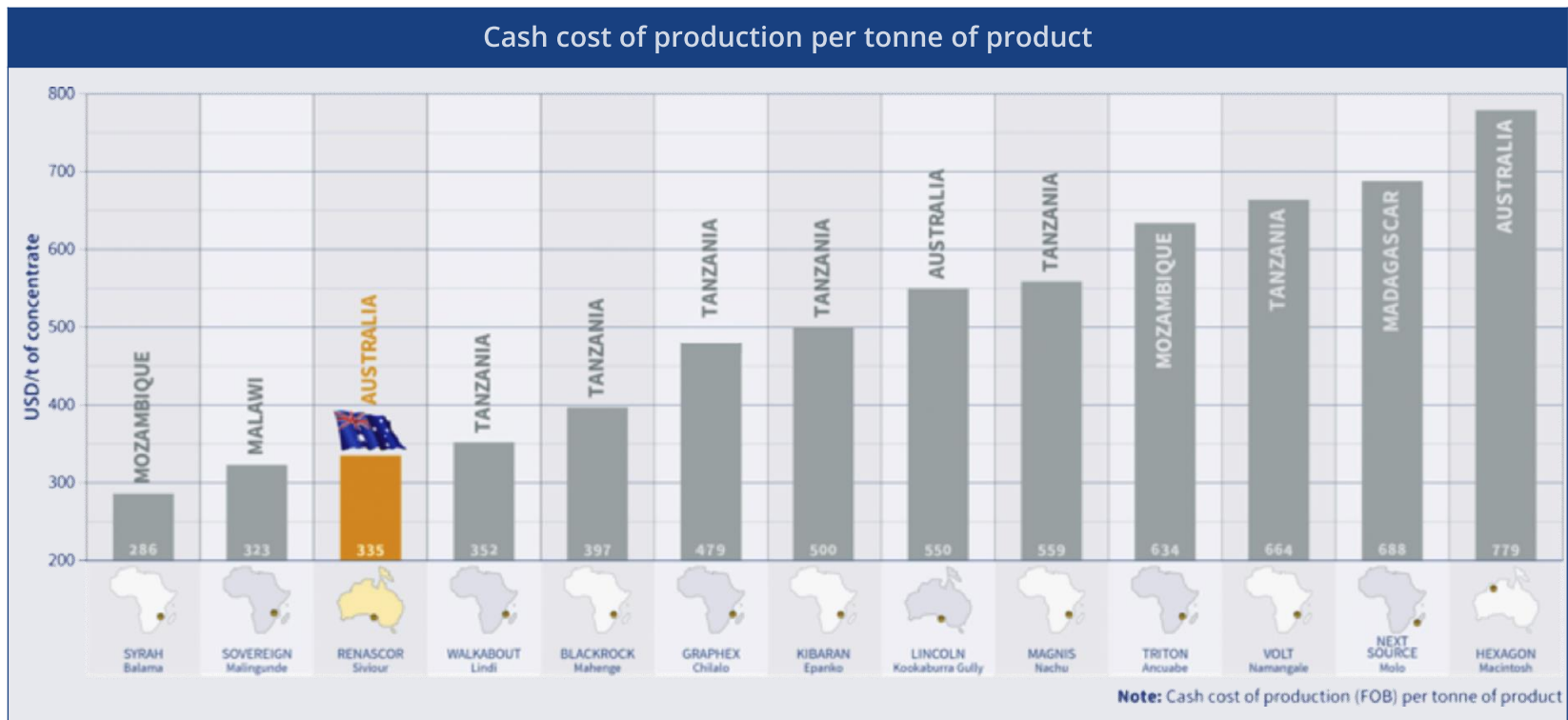
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## Low Cost with Safe Supply

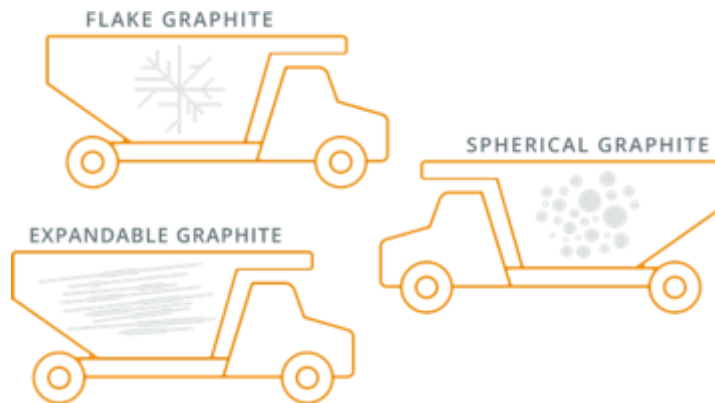
Lowest quartile operating costs globally in mining friendly Australia.



Company reports showing projected cost of production from feasibility studies

## Mine to Market

- Simple, safe and reliable transport from our Australian graphite resource.
- Road transport from Arno Bay to Port Adelaide.
- Initial mining planned for Q4, 2019, with production in Q1 2020.
- Possibility to further process in-country and value add to spherical grade and/or expandable graphite.



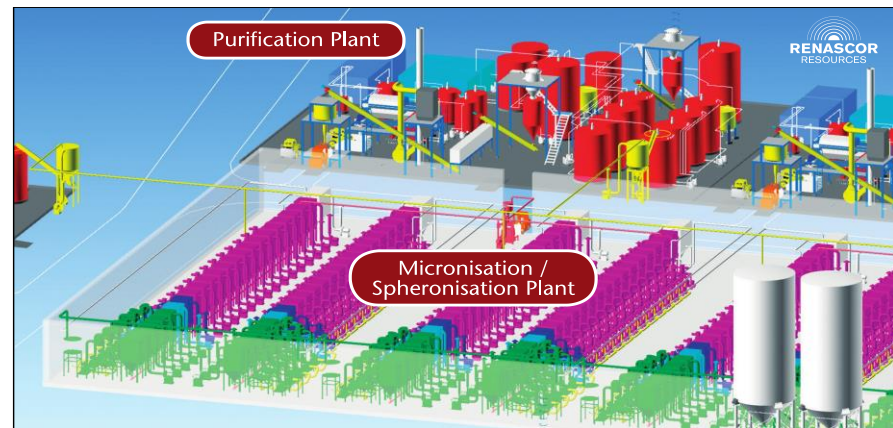
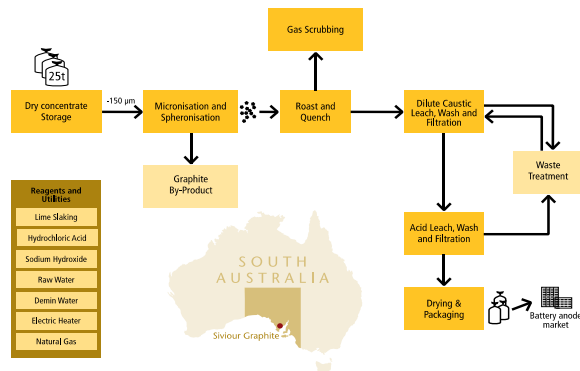
*Port to Asia in 20 days*



## Advanced manufacturing

- Spherical graphite PFS shows potential for valued-added production of spherical graphite.
- Direct exposure to lithium-ion battery supply chain.
- Leverages off of key comparative advantages of Siviour mine: low-cost and low-sovereign risk.

Annual production of spherical graphite	29,085t	
Life of mine/project	30 years	
Capital cost of spherical operation	AU\$89.9m	US\$67.4m
Total capital (concentrate and spherical)	AU\$221.5m	US\$166.0m
NPV <sub>10</sub> (after tax) of spherical operation	AU\$487m	US\$365m
NPV <sub>10</sub> (after tax) of integrated operation	AU\$889m	US\$667m
IRR (after tax) of integrated operation	53%	
Average spherical graphite cash operating cost (net of by-product credit)	AU\$1,883/t	US\$1,412/t
Projected spherical graphite sales price	AU\$4,800/t	US\$3,600/t



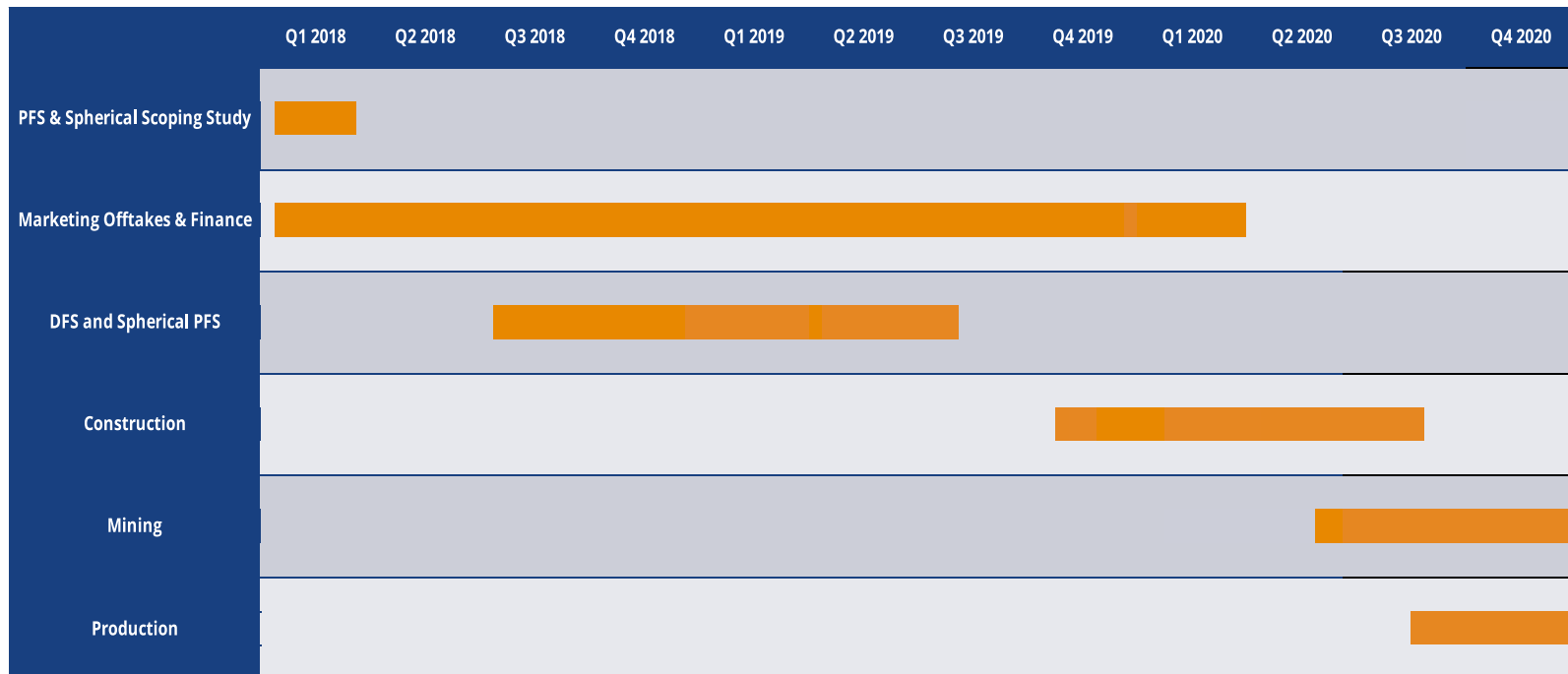
## Strategic Engineering Partnership with Royal IHC

- Landmark agreement with international ECP contractor, Royal IHC to accelerate development of Siviour
- \$1 million committed by Royal IHC to undertake early project works, including metallurgical test work and detailed engineering and design work
- Royal IHC will collaborate with Australian engineering firm, Wave International to assist in completion of the Siviour DFS
- Royal IHC to assist Renascor with obtaining project finance to fund development
- Intention for Royal IHC to become IPC contractor for development of Siviour



## Sivour Timelines

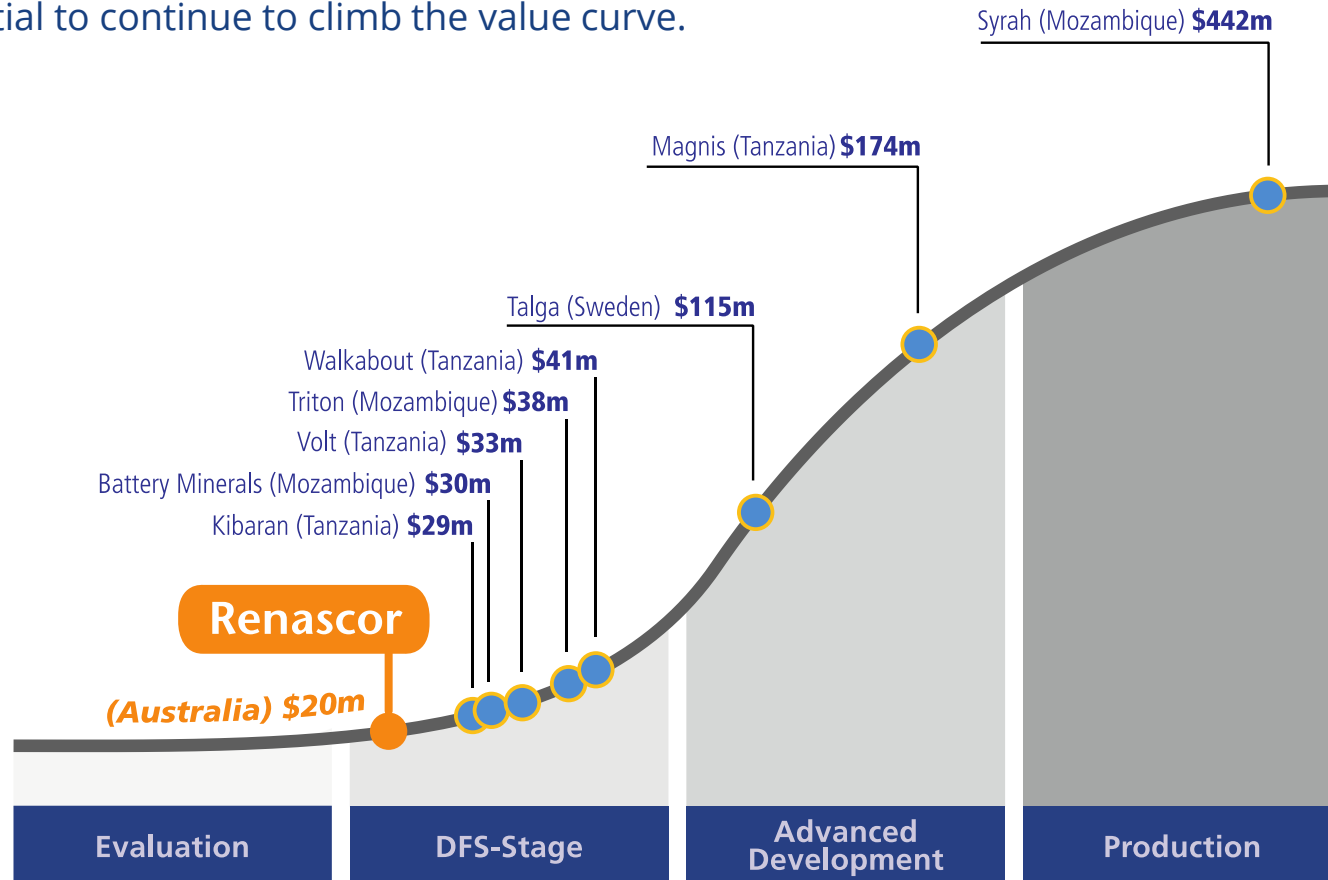
- Definitive Feasibility Study (DFS) and Spherical PFS underway.
- Mine lease expected by Q1 2019.
- Mine Construction (pending financing) planned as early as Q4 2019.
- First production as early as 2020.





## Re-rating Potential

Renascor has quickly advanced the development of Siviour since its discovery in 2016 and has potential to continue to climb the value curve.



Market capitalisations as of 6 March 2019

## Near-term Value Drivers

### Strong upcoming news flow expected to include:

- **Offtake.** With completion of PFS and dispatch of customer samples, potential for additional offtake developments in 2019.
- **Project improvements.** Upcoming metallurgical and technological programs and reserve-definition drilling offer potential to improve PFS project economics.
- **Regulatory.** Mining lease application lodged in 2018; public consultation and responses complete. Decision from Department of Energy and Mining expected soon.
- **Spherical graphite.** Completion of Spherical PFS offers potential for improved project economics and more direct involvement in lithium-ion battery supply chain.
- **Project finance and DFS.** As the Siviour DFS advances towards completion (expected in Q2 2019), focus will turn to project finance.

## Summary

### **Siviour is a new discovery of a world-class graphite deposit**

- One massive ore body offers consistent high-quality supply
- Globally competitive: Low OPEX and CAPEX
- Fully-funded to Decision to Mine
- Mining-friendly Australia



### Forward Looking Statements

This Presentation may include statements that could be deemed "forward-looking" statements. Although Renascor Resources Limited (the "Company") believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results or developments may differ materially from those expected in the forward-looking statements or may not take place at all.

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### Competent Persons Statement

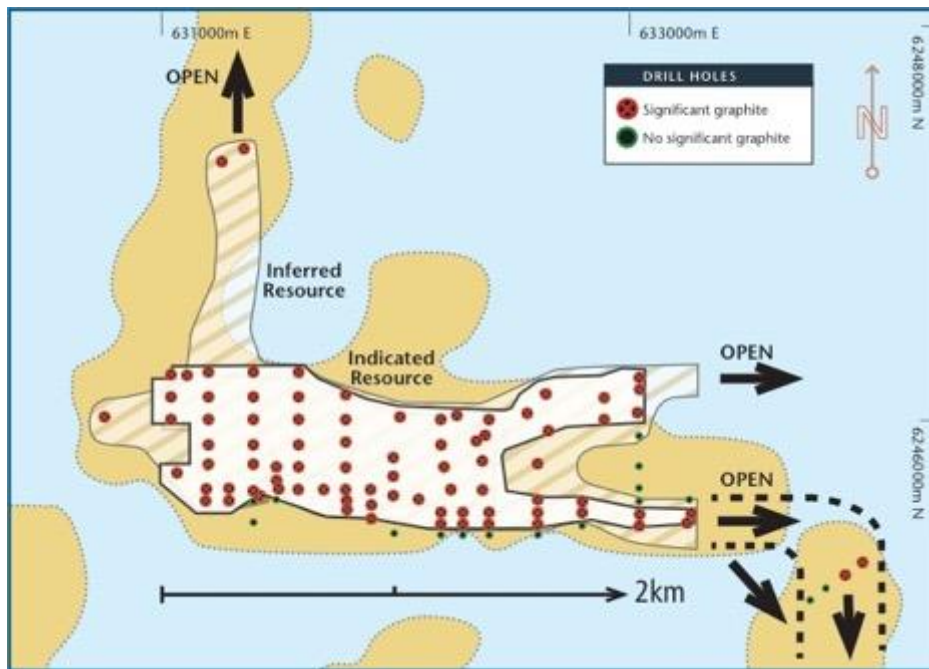
The results reported herein, insofar as they relate to exploration activities and exploration results, are based on information provided to and reviewed by Mr G.W. McConachy (Fellow of the Australasian Institute of Mining and Metallurgy) who is a director of the Company. Mr McConachy has sufficient experience 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.

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.



## Appendix 1: Resource Summary

Siviour is one massive ore body, offering consistent supply of high-quality graphite.



Resource category	Mineralisation (Mt)	TGC	Contained graphite (Mt)
Indicated	51.8	8.1%	4.2
Inferred	21.8	7.6%	2.2
Total	80.6	7.9%	6.4

Reserve category	Ore (Mt)	TGC	Contained graphite (Mt)
Proven	--	--	--
Probable	45.2	7.9%	3.6
Total	45.2	7.9%	3.6

The background of the slide is a photograph of an industrial facility, likely a steel mill. A large, glowing yellow-orange molten metal ladle is the central focus, surrounded by industrial structures and scaffolding. The image is overlaid with a series of white, curved, concentric lines that sweep across the frame from the top left towards the bottom right.

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