Siviour now among ten largest graphite deposits in the world

ASX: RNU

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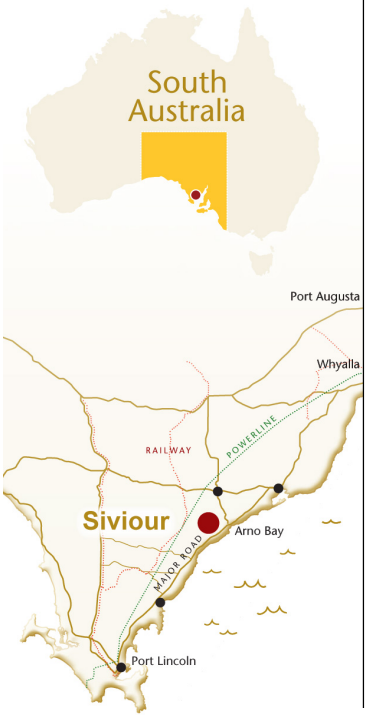
Developing Australia's largest graphite deposit



- Independent mining consultants Optiro have upgraded the JORC Mineral Resource for the **Australian Siviour Graphite Deposit.** Results include:
  - **Indicated Resources**: **51.8 million tonnes @ 8.1% total graphitic carbon** (TGC) for 4.2 million tonnes of contained graphite
  - **Total Resources (Indicated and Inferred): 80.6 million tonnes @ 7.9% TGC** for 6.4 million tonnes of contained graphite
  - **Higher-grade mineralisation of 30.1 million tonnes @ 10.0% TGC** for 3.0 million tonnes of contained graphite
- Since its discovery last year, Siviour has grown from Australia's largest reported graphite deposit to the **ninth largest reported graphite Indicated Resource in the world**
- The upgraded resource provides sufficient confidence in the size and quality of the Siviour resource to complete the Siviour Scoping Study and extract a bulk sample for pilot plant scale test work and customer product testing
- Further developmental milestones are expected in coming weeks with results of in-progress mineral processing tests and Scoping Study

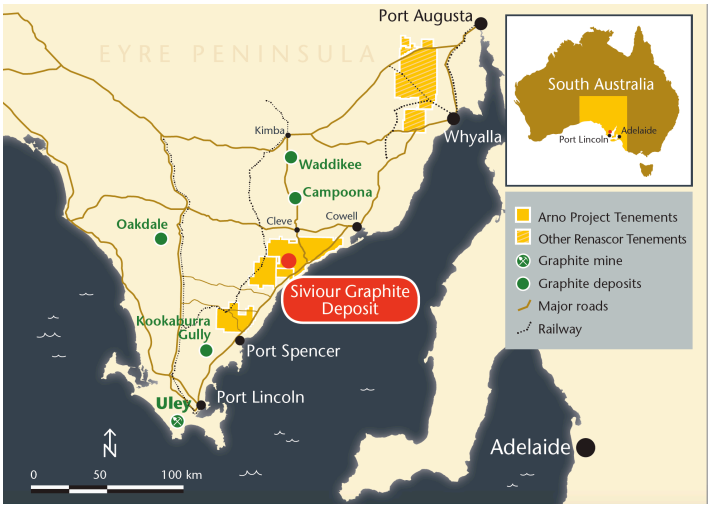


Figure 1. Siviour Graphite Deposit

Renascor Resources (ASX: RNU) is pleased to announce an upgrade to the JORC Mineral Resource for its Siviour Graphite Deposit (see Figure 1).

Commenting on the upgraded resource, Renascor Managing Director David Christensen stated:

"The resource upgrade is a key milestone in our goal of becoming a producer of high quality graphite to service expected increased demand, including from manufacturers of lithium-ion batteries and other high growth market segments."

"The revised resource confirms Sivour's globally significant scale, and given its favourable grades, continuity and nearness to surface, suggests Siviour may have potential competitive advantages in both size and mining costs."

"As we accelerate the development of Siviour, there is strong reason to believe that Siviour, located in the secure mining jurisdiction of South Australia, has the potential to compete with emerging large-scale graphite developments in Africa."

Category	Tonnes of mineralisation (millions)	TGC	Tonnes of contained graphite (millions
Indicated	51.8	8.1%	4.2
Inferred	28.8	7.6%	2.2
Total	80.6	7.9%	6.4

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

Table 1. Siviour Mineral Resource estimate as of 15 March 2017

Siviour in comparison to other graphite resources

As shown below in Figure 2, the Siviour Graphite Deposit is the largest reported JORC resource in Australia and now ranks as the ninth largest reported graphite Indicated Resource in the world.

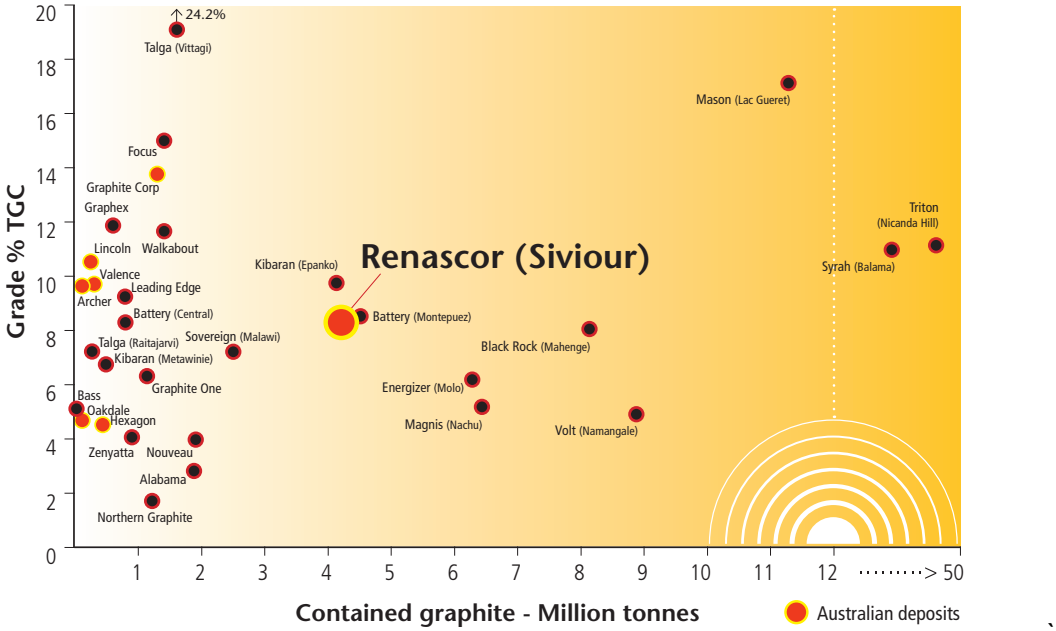


Figure 2. Scatter plot showing reported grade (%TGC) and total contained graphite as measured by the sum of Measured and Indicated Resources (Source: company reports)

Ongoing work

Renascor is continuing the development of the Siviour Graphite Deposit with multiple concurrent work programs underway, including:

- Mineral processing tests on representative core samples considered reasonably representative of what would be mined in Siviour's first ten years of mine life (subject to satisfactory completion of mining studies and obtaining requisite developmental financing)
- Preliminary mine scheduling
- Hydrological and baseline environmental and logistic studies
- Planning for the extraction of a bulk sample for rigorous pilot-plant scale test work and production of marketing samples for customer product testing
- Preparation of the Siviour Scoping Study

Renascor expects that initial results from metallurgical tests will be available later this month, with the Scoping Study to be finalised thereafter.

JORC Table 1 Summary

A summary of attached JORC Table 1 (see Appendix 2) is provided below with respect to the Mineral Resources pursuant to the requirements of ASX listing rule 5.8.1.

- Geology – interpretation was undertaken based on a combination of the observed geology and analyses of graphite mineralisation within Mesoproterozoic sediments of the Hutchison Group.
- Drilling method – the drilling method used is reverse circulation (RC) using both 100mm and 140mm face sampling hammers and Triple Tube HQ3 diamond core holes.
- Resource Classification – classified based on confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (slope of the regression and kriging efficiency) as criteria. The mineralisation is defined by 95 reverse circulation drill holes for a total of 6,185 m and 16 diamond drill holes for a total of 798.4 m. The results from metallurgical test work at Siviour have been considered for Mineral Resource classification. As a general rule, drill spacing of 200m by 100m or less resulted in an Indicated classification and areas with broader spacing are classified as Inferred.
- Sample analysis method – all samples were sent to Bureau Veritas laboratory in Adelaide for preparation and for Total Graphitic Carbon (TGC) analyses. A portion of the sample was dissolved in weak acid to liberate carbonate carbon. The residue was then dried at 420°C driving off organic carbon and then analysed by its sulphur-carbon analyser to give TGC. Duplicate analysis and analysis of Certified Reference Material (standards) was completed and no issues identified with sampling reliability.
- Estimation methodology – resources estimation was undertaken using ordinary kriging. The search ellipse was oriented within the plane of mineralisation.
- Cut-off parameters – the Mineral Resource is reported above a 3% TGC cut-off grade.
- Sampling – one-metre drill chip samples were collected throughout the RC drill programme in sequentially numbered bags. Core samples from diamond drill holes were collected based on geology, varying in thickness from 0.2m to 2.6m intervals.
- Sub-sampling - analysis was undertaken at Bureau Veritas laboratory with the sample split to less than 3kg through linear splitter. Pulverising was completed using LM5, 90% passing 75µm in preparation for analysis.
- Mining modifying parameters - planned extraction is by open pit mining and mining factors such as dilution and ore loss have not been applied.
- Metallurgical methods - no metallurgical assumptions have been built into the resource models. Data from mineralogy and preliminary metallurgical test work has been considered for Mineral Resource classification. Mineralogical examination of samples indicates that the majority (~85%) of the graphite at Siviour is interstitial and is expected to be relatively easily liberated during processing to create a graphite concentrate. Preliminary results of metallurgical test work on core samples from diamond drill hole 16SIVDD035 confirm results from the previous test work at the adjacent Paxtons prospect. Bureau Veritas is currently conducting comprehensive metallurgical tests on a composite sample taken from 14 diamond drill holes. While the test work is not yet complete, the results to date demonstrate the ability to produce, from the composite sample being tested, concentrates using conventional metallurgy techniques that result in a marketable graphite product.

Competent Person's Statement – Mineral Resource

The information in this report which relates to Mineral Resources is based upon information compiled by Mrs Christine Standing who is a Member of the Australasian Institute of Mining and a Member of the Australian Institute of Geoscientists. Mrs Standing is an employee of Optiro Pty Ltd and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity undertaken 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. Mrs Standing consents to the inclusion in the report of a summary based upon her 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.*

Background information

Siviour is part of Renascor's Arno Graphite Project. Renascor has the right to acquire the project through an option agreement between Renascor's wholly-owned subsidiary Eyre Peninsula Minerals Pty Ltd (EPM) and Ausmin Development Pty Ltd (Ausmin). EPM's option to acquire the project is exercisable upon completing a feasibility study in relation to the commercial development of graphite by issuing to the owners of Ausmin a 22% equity interest in a listed vehicle holding the project. See RNU ASX release dated 1 September 2016.

FOR FURTHER INFORMATION, PLEASE CONTACT:

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Appendix 1

Siviour Mineral Resources Estimate

The Siviour Mineral Resource model was prepared by Optiro Pty Ltd (Optiro), an independent and internationally recognised mining consultancy group.

Category	Tonnes of mineralisation (millions)	TGC	Tonnes of contained graphite (millions)
Indicated	51.8	8.1%	4.2
Inferred	28.8	7.6%	2.2
Total	80.6	7.9%	6.4

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

Table 1. Siviour Mineral Resource estimate as of 15 March 2017

The summary table below displays the Indicated and Inferred Mineral Resources for Siviour. 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.

Siviour resource breakdown by cut-off grades

Table 2 below shows the Siviour total Mineral Resource at varying cut-off grades and the corresponding grade and total contained tonnes of graphite.

Cut-off grade (TGC)	Tonnes of mineralisation (millions)	TGC	Tonnes of contained graphite (millions)
3%	**80.6**	**7.9%**	**6.4**
4%	78.2	8.1%	6.3
5%	73.6	8.3%	6.1
6%	65.8	8.6%	5.7
7%	55.1	9.0%	5.0
8%	40.5	9.6%	3.9
8.6%	30.1	10.0%	3.0
9%	23.8	10.3%	2.5
10%	12.1	11.2%	1.4

Table 2. Siviour Mineral Resource by cut-off grade

The Siviour Mineral Resources are based on 95 reverse circulation holes for a total of 6,185m and 16 diamond holes totalling 798.4m.

Recent drilling and resource modelling continues to confirm the general horizontal orientation of the Siviour mineralised body. The average width of mineralisation is 21m, and most of the graphite mineralisation occurs beneath 10m to 25m of surface cover.

Within the Siviour Indicated Resource area, the thick, shallow graphite-mineralised body is near flat-lying over the southern and central portions of the prospect before dipping to the north (See Figure 1).

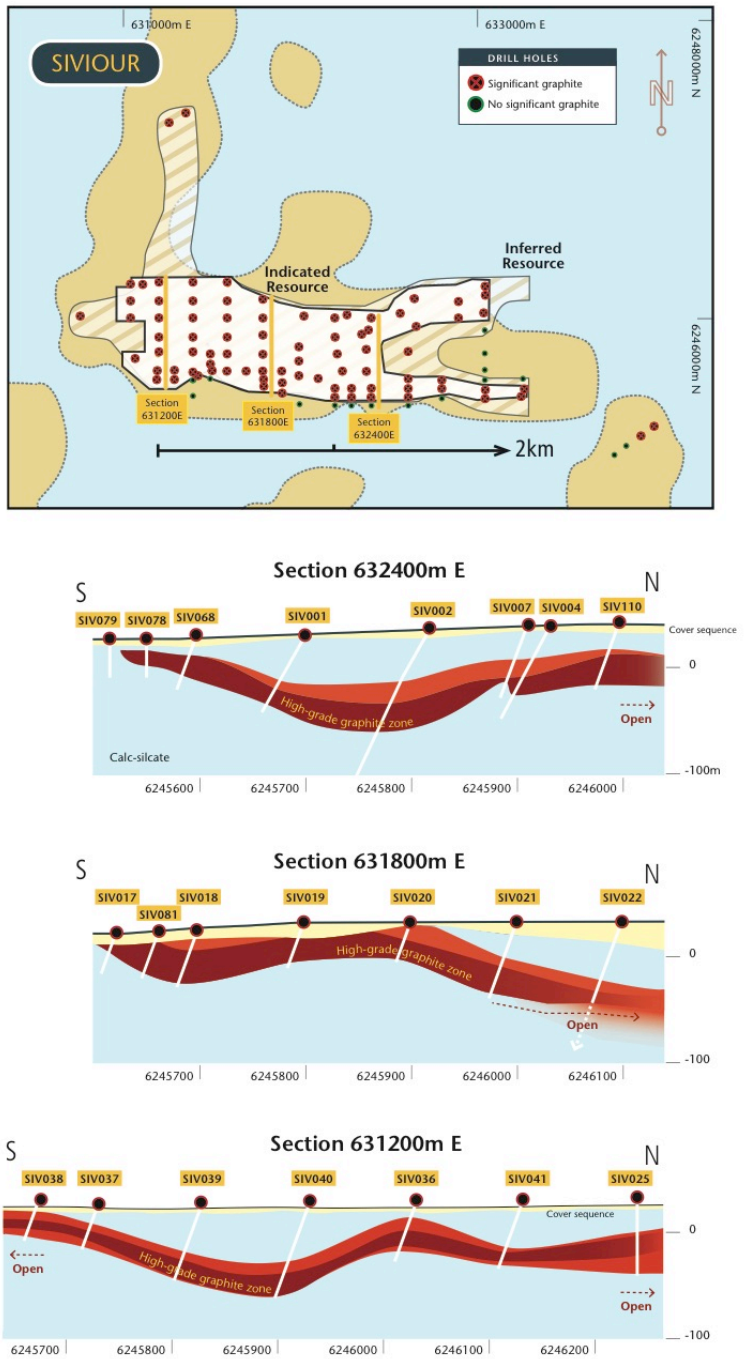

Figure 1. Siviour -- Plan view showing Indicated and Inferred Resources over electromagnetic conductive zones and cross-sections with TGC assay results (5%TGC cut-off in dark red and 3% TGC cut-off in light red) over north-south Sections 631200E, 631800E and 632400E

Appendix 2

JORC Table 1

The table below summaries the assessment and reporting criteria used for the Siviour Mineral Resource estimate and reflects the guidelines in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012).

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	**1. Reverse Circulation** • RC drill samples were collected at one-metre intervals. • Approximately 60% of samples were not submitted for assay due to the visual non-mineralised nature of the material collected. All graphitic intervals were submitted for analyses. • Duplicate and standards analysis were completed and no issues identified with sampling reliability. • All samples were sent to Bureau Veritas laboratory in Adelaide for preparation and for Total Graphitic Carbon (TGC) analyses. • All samples were pulverised using an LM5 mill, 90% passing 75µm. • Sampling was guided by Renascor Resources Limited's protocols and QA/QC procedures. **2. Diamond Drilling** • Drill samples in this program were collected based on geology, varying in thickness from 0.2 m to 1.2 m intervals. • Core samples were quarter split Triple Tube HQ3 core and sent for laboratory geochemical analysis at Bureau Veritas, South Australia. • Duplicate samples in this program were collected after each 25 samples and standards were inserted into the sample stream at the end of every hole.

Criteria	JORC Code explanation	Commentary
		• Sampling was guided by Renascor Resources Limited's protocols and QA/QC procedures.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC using 100 mm face sampling hammers. • Diamond drilling was undertaken by a drilling contractor (Coughlan Drilling) with a McCulloch DR800 drill rig, using triple tube with a HQ3 drill bit (61mm core diameter). Core was orientated down hole using a Reflex digital orientation system.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• One-metre drill chip samples, weighing approximately 3 kg were collected throughout the RC drill programme in sequentially numbered bags. Samples were generally collected from the 12.5% rifle splitter attached to the drill rig however in some instances samples were collected by spear technique. • Every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole. • Diamond core recovery was routinely recorded and within the reported mineralised zones from the four DD holes core recovery averaged 96%.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Primary data was captured into spreadsheet format by the supervising geologist, and subsequently loaded into the Renascor Resources Limited's database. • No adjustments have been made to any assay data. • The Specific Gravity data was collected using Archimedes Principle water displacement device of core samples on metre intervals down the hole. Check analysis were made by Bureau Veritas, South Australia. • Core was orientated using the

Criteria	JORC Code explanation	Commentary
		Reflex orientation tool, marked into 1 m intervals, core recovery and geotechnical data – Rock Quality Designation were recorded. • Core was photographed, both dry and wet.
Sub-sampling techniques and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**1. RC Drill Chips** • All samples were marked with unique sequential numbering as a check against sample loss or omission. • At the Bureau Veritas laboratory sample preparation involved the original sample being dried at 105° for up to 24 hours on submission to laboratory. • Sample is split to less than 3 kg through linear splitter and excess retained. • Pulverising was completed using LM5, 90% passing 75 µm in preparation for analysis using the Bureau Veritas network. **2. DD Core** • HQ3 diameter core is cut in half to preserve the orientation mark. • Graphite intervals are sampled using ¼ HQ3 diameter core. • Every twenty five samples a duplicate sample is collected using ¼ HQ3 diameter core and submitted for check analysis. • All the samples are marked with unique sequential numbering as a check against sample loss or omission. • Samples were crushed and pulverised using LM5, 90% passing 75 µm in preparation for analysis using the Bureau Veritas network.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *Nature of quality control*	• All samples were sent to Bureau Veritas laboratory in Adelaide for preparation and for Total Graphitic Carbon (TGC) analyses and the DD core for additional multi element analysis using a mixed acid digest.

Criteria	JORC Code explanation	Commentary
	procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• Sampling was guided by Renascor Resources Limited's protocols and QA/QC procedures. • Duplicate analysis was completed and no issues identified with sampling reliability. • A portion of the sample is dissolved in weak acid to liberate carbonate carbon. • The residue is then dried at 420°C driving off organic carbon and then analysed by its sulphur-carbon analyser to give Total Graphitic Carbon (TGC). • Bureau Veritas Minerals has adopted the ISO 9001 Quality Management Systems. All Bureau Veritas laboratories work to documented procedures in accordance with this standard.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• QA/QC protocols were adopted for the drill programs. • Duplicate analysis was completed and no issues identified with sampling representatively. • There are three DD holes that twinned earlier RC holes. • Field duplicates and standards were not submitted by Renascor with the November 2016 diamond drill samples. Renascor intended to submit these and procedures are in place to ensure QAQC samples are submitted in future. • Field duplicates and standards were inserted at a rate of 4% and 3%, respectively, for the 2017 RC drilling program. Field duplicates results are good and there is excellent correlation of assayed sample results against industry standards. • Results from standards indicate good accuracy for data <20% TGC and a bias to higher grades for TGC >20%.

Criteria	JORC Code explanation	Commentary
		This would affect less than 1% of the data. • No adjustments have been applied to the results.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All drill holes were pegged using a hand-held GPS. Upon completion, all RC and DD hole collar locations were picked up using a Trimble DGPS. • The collar coordinates were entered into the drillhole database. • The degree of accuracy of drillhole collar location and RL is estimated to be within 0.1m for DGPS and 5m error level for the hand-held GPS. • The grid system for the project was Geocentric Datum of Australia (GDA) 94, Zone 53.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Holes were drilled on sections on either 100m or 200m spacing. • Geological interpretation and mineralisation continuity analysis indicates that data spacing is sufficient for definition of a Mineral Resource. • 86% of the samples were taken over a 1 m interval of 1 m. • DD core sampling was based on geological boundaries with a general maximum limit of 1 m thickness and a minimum of 0.2 m thickness for assay samples.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Interpretation of the relationship between the drilling orientation and the orientation of key mineralised structures indicates that mineralisation is likely to be perpendicular to strike continuity. • The orientation of drilling is not expected to introduce sampling bias.

Criteria	JORC Code explanation	Commentary
Sample security	• *The measures taken to ensure sample security.*	• Unique sample number was retained during the whole process. • Samples were delivered to Bureau Veritas Minerals as they were collected.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• All data collected was subject to internal review.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• All drilling was entirely within Exploration Licence EL5618 (formerly EL4430) granted on 29 January 2015 for a two-year term expiring in 2017. EL5618 is 100% owned by Ausmin Development Pty Ltd and in good standing with no known impediments. • The drilling was carried out on agricultural freehold land.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Several companies have carried out historic exploration over many years, but without any focus on graphite prospectivity. Cameco Ltd, as part of a uranium exploration program, acquired EM data across the tenement in 2006 and 2007. Cameco drilled hole CRD0090, without testing for graphite. • During 2014, Eyre Peninsula Minerals Pty Ltd carried graphite-focused exploration and drilled a further six RC holes and one diamond core hole reporting graphite intersections in all holes.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Mineralisation within Meso-proterozoic sediments of the Hutchison Group. Graphite is hosted by graphitic pelitic schists.
Drillhole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all*	• Exploration results are not being reported for the Mineral Resources area.

Criteria	JORC Code explanation	Commentary
	Material drill holes: • easting and northing of the drillhole collar • elevation or RL (elevation above sea level in metres) of the drillhole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	• Exploration results are not being reported for the Mineral Resources area. • Metal equivalent values have not been used. • A nominal 3% Total Graphitic Carbon lower cut-off has been applied in the determination of significant intercepts.
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.*	• Drill holes intersected mineralisation at near perpendicular to the strike orientation of the host lithologies. • Twenty-nine of the thirty four drill holes in the January 2017 programme were vertical and five holes were orientated at -70° on a bearing of 180°. • Exploration results are not being reported for the Mineral Resources area.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.*	• Relevant diagrams have been included within the Mineral Resource report main body of text. • Exploration results are not being reported for the Mineral Resources area.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Exploration results are not being reported for the Mineral Resources area.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological*	• Exploration results are not being reported for the Mineral Resources area. • Metallurgical samples were

Criteria	JORC Code explanation	Commentary
	observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	collected from ¼ HQ drill core from graphite rich intervals from drillhole 16SIVRCDD035
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Follow-up drill RC and diamond core drill testing to further confirm extensions of graphite mineralisation and establish to mineral recovery and graphite product quality characteristics.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Primary data was captured into spreadsheet format by the supervising geologist, and subsequently loaded into the Renascor Resources Limited's database. • Additional data validation, by Optiro, included checking for out of range assay data and overlapping or missing intervals.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	• A site visit to the Siviour deposit was undertaken by Optiro (Mr J Froud) during November 2016 to inspect the diamond drilling, sampling and logging and to inspect the drill core.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Confidence in the geological interpretation of the deposit is moderate. The spatial extent and geometry of the graphitic horizon is supported by geophysical interpretation (electromagnetic). The geological confidence has been considered for classification of the resource. • Mineralisation hosted within a sequence of micro-gneiss, metasediments and schists. • The mineralisation is generally tabular, oriented east-west and forms an undulating surface that dips shallowly to the southwest, in the southern area, and more steeply to the north in the northern

Criteria	JORC Code explanation	Commentary
		area. In the west the strike of the mineralisation has been interpreted, from geophysical data, to swing sharply towards the north and in the east is partially dislocated by a fault zone although, again from geophysical data, is anticipated to extend further to the east to Siviour East and Paxtons. • Geological interpretation was completed on a sectional basis, from which geological surfaces were interpolated for mineralisation the top and base of the mineralisation. A small horizon, located above the mineralised horizon was interpreted using an enclosed wireframe. These interpretations were used to constrain the grade estimation. • There are no alternative detailed interpretations of geology. • The main mineralisation domains were defined using grade constraints in conjunction with geophysical data. A nominal cut-off grade of 3% TGC was used to define boundaries between mineralised and weakly-mineralised or un-mineralised domains.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The main zone of mineralisation extends over 2.6 km east-west and 1.6 km north-south. The horizontal width ranges from 550 m within the central area, at the Siviour Prospect, to 125 m south of Buckies. • The mineralised horizon has an average thickness of 21 m (range of 3 m to 53 m) and the depth to the top of the mineralised horizon ranges from 4 m to 122 m with an average depth of 43 m. • Drilling has closed the deposit to the south: it remains open to the east, west and north.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade*	• Drillhole sample data was flagged from interpretations of the top and base of the mineralised horizon. • Sample data was composited to a 1 m downhole length.

Criteria	JORC Code explanation	Commentary
	values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	• Data has a low coefficient of variation and a top-cut grade was not applied. • The Mineral Resource was estimated in March 2016 and in October 2016. Classification and validation of the current model against this is consistent with the infill and extensional drilling. • TGC mineralisation continuity was interpreted from variogram analyses to have a horizontal range of 260 m (east-west) by 155 m (north-south). • Drillhole spacing at Siviour Prospect (where Indicated Resources have been defined) is at a spacing of 100 m to 200 m along strike and on-section spacing ranges from 40 m to 100 m. • Inferred mineralisation has been interpreted from an EM anomaly and a line of drilling at Buckies, 850 m along strike to the north. • The maximum extrapolation distance is 50 m along strike and 70 m across strike. • Grade estimation was into parent blocks of 25 mE by 50 mN on 2 m benches. Block size was selected based on kriging neighbourhood analysis. • Estimation was carried out using ordinary kriging at the parent block scale. • The search ellipses were oriented within the plane of the mineralisation. • Three estimation passes were used; the first search was based upon the variogram ranges in the three principal directions; the second search was two times the initial search and the third search was six times the initial search, with reduced sample numbers required for estimation. • Around 90% of the block grades were estimated in the first pass. • The estimated TGC block model grades were visually validated against the input drillhole data, comparisons were carried out

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		against the drillhole data and by northing, easting and elevation slices.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnes have been estimated on a dry basis. • Moisture content has not been tested.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource is reported above a 3% TGC cut-off grade to reflect current commodity prices and open pit mining methods.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous.*	• Planned extraction is by open pit mining. • Mining factors such as dilution and ore loss have not been applied.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous.*	• No metallurgical assumptions have been built into the resource models. • The results from metallurgical testwork have been considered for Mineral Resource classification. • Mineralogical examination of samples from Siviour indicates that the majority (~85%) of the graphite is interstitial and is expected to be relatively easily liberated during processing to create a graphite concentrate. • During September 2016, ALS Metallurgical performed preliminary metallurgical tests on samples from diamond drillhole 16SIVDD035. These tests mimic the test sequence originally undertaken on core from diamond drillhole CRD090 at Paxtons and the results confirm the ability to produce concentrates with conventional metallurgy techniques that result in a marketable graphite product. • Additional testwork on a

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		representative composite sample of the graphite mineralisation at Siviour is being conducted by Bureau Veritas. Results to date demonstrate the ability to produce, from the composite sample being tested, concentrates with conventional metallurgy techniques that results in a marketable graphite product.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation.*	• No assumptions have been made regarding waste and process residue. • Environmental studies will be undertaken if the project progresses to a pre-feasibility level.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density was measured for 242 core samples from diamond holes. Two outliers were excluded (of 1.54 t/m^3 and 4.43 t/m^3). The density data has a range of 1.61 to 3.19 t/m^3. • Analysis of this data indicated that there is no relationship with TGC grade or depth. • A lithological model was developed to capture material with higher density and material with lower density. Bulk densities of 2.0 t/m^3 and 2.2 t/m^3 were assigned to the material where the dominant lithology was consistent with a lower density and a bulk density of 2.6 t/m^3 was assigned to material with a dominant lithology consistent with a higher density. A density of 1.9 t/m^3 was assigned to the cover sediments and near surface clay horizon.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values,*	• Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (slope of the regression and kriging efficiency) as criteria. • The results from metallurgical

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	quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	testwork have been considered for Mineral Resource classification. Metallurgical testwork data at Siviour confirms data obtained from the adjacent Paxtons prospect. • In Optiro's opinion there are reasonable prospects for eventual economic extraction. • Measured Mineral Resources - none defined. • Indicated Mineral Resources have been defined in areas where drill spacing is 200 m by 100 m or less and where grade variance is moderate. • Inferred Mineral Resources have been defined in areas where extension of mineralisation is supported by limited drilling and interpretation of geophysical data. • The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The resource estimate has been peer reviewed by Optiro staff.
Discussion of relative accuracy/confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation.*	• The assigned classification of Indicated and Inferred reflects the Competent Person's assessment of the accuracy and confidence levels in the Mineral Resource estimate. • The confidence levels reflect production volumes on an annual basis.