

Friday, 16 June 2023 ASX Code : LEL

Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

SUMMARY

- Maiden JORC Mineral Resource at Corella Graphite Project in Queensland outlines impressive increase in the Company's Graphite Inventory.
- Corella's maiden Inferred Mineral Resource delivers 13.5Mt at 9.5% Total Graphitic Carbon (TGC) for 1.3Mt contained graphite (at a 5% TGC cut-off grade).
- Within the mineralisation envelope, there is included a higher grade Inferred Mineral Resource of **4.5Mt at 12.7% TGC** for 0.57Mt of contained graphite (at a 10% TGC cutoff grade).
- Significant upside exists as the resource remains open to the east and west and at depth.
- Lithium Energy's Total Graphite Inventory in Queensland has now doubled to 2.6Mt of contained graphite with the addition of the Corella Deposit to the Burke Deposit (comprising JORC Indicated and Inferred Total Mineral Resource of 9.1Mt at 14.4% TGC for 1.3Mt contained graphite).
- Programme of metallurgical test work will now be undertaken to assess Corella Graphite as potential additional feedstock for an expanded purified spherical graphite (PSG) production facility based in Queensland.

Lithium Energy Limited (ASX:LEL) (**Lithium Energy** or the **Company**) is pleased to announce an impressive Maiden JORC Mineral Resource estimate for its 100% owned Corella Graphite Project in Queensland (**Corella**).

The recently completed maiden resource definition drilling campaign¹ at the Corella Tenement has delivered a maiden JORC Inferred Mineral Resource Estimate (MRE) of 13.5Mt at 9.5%TGC (at a cut-off grade of 5%) for 1.3Mt of contained graphite.

Within the Corella mineralisation envelope, there is a higher grade JORC Inferred Mineral Resource of **4.5Mt at 12.7% TGC** for **0.57 Mt of contained graphite**.

The total Graphite Inventory of the Company (across the Burke and Corella Graphite Deposits) has now doubled to 2.6Mt of contained graphite.

¹ Comprising 16 RC holes (totalling ~1,569m); refer LEL ASX Announcement dated 2 June 2023: Significant High Grade Graphite Discovery at the Corella Project



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LITHIUM ENERGY LIMITED

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Executive Chairman, William Johnson:

The major increase in our graphite inventory contributed from the Corella Project adds significant value to the overall Burke Graphite Project. In particular, the additional resource provides the Company with the potential for expanded development options for our proposed vertically integrated battery anode material manufacturing facility based in Queensland. These potential options will be considered as part of the engineering studies currently being undertaken at Burke.

Corella Tenement - Maiden Mineral Resource Estimate (Corella Deposit)

Table 1: Corella June 2023 Mineral Resource Estimate (5% TGC Cut-off Grade)

	INFERRED MINERAL RESOURCE			
	Tonnage	TGC	Contained Graphite	
Туре	Mt	%	kt	
Weathered	4.5	9.7	440	
Primary	9.0	9.3	840	
Total	13.5	9.5	1,280	

Notes:

- Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
- The Statement of Estimates of Mineral Resources has been compiled by Mr. Shaun Searle who is a Director of Ashmore Advisory and a Member of the AIG. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).
- All Mineral Resources figures reported in the table above represent estimates at June, 2023. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results.
- Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).
- TGC = total graphitic carbon.

Corella Graphite Properties

- It is expected that the natural graphite sourced from Corella can be upgraded by standard flotation techniques to produce a concentrate suitable as feedstock to a purified spherical graphite (**PSG**) processing facility that is proposed by the Company to be constructed in Queensland.²
- This PSG product will be developed for sale into the Li-ion battery anode industry.
- Testwork is currently being planned to test the graphite's grade and recovery performance in the flotation process and the PSG processes in a similar manner to work previously conducted from the Burke Deposit which has indicated its suitability for use in the production of lithium ion batteries.
- The Company expects the Corella Graphite to form part of the overall vertically integrated pit to PSG product plan underpinned by the high-grade Burke Graphite material.
- The Corella Deposit is favourably located approximately ~120 kilometres south of the Burke Deposit (refer Figure 4), which comprises a high grade graphite JORC Indicated and Inferred Total Mineral Resource of 9.1Mt at 14.4% Total Graphitic Carbon (TGC) for a total of 1.3Mt contained graphite.³ and is located within a favourable distance and location from the proposed PSG manufacturing facility to be based in the Lansdown Eco-Industrial Precinct near Townsville in North Queensland.

² Refer LEL ASX Announcement dated 24 May 2023: Excellent Metallurgical Testwork Results at Burke Graphite Project Pave Way for Commencement of PFS

³ Refer LEL ASX Announcement dated 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence



- Is located in the relatively safe and mining friendly jurisdiction of Queensland, Australia with welldeveloped transport infrastructure and logistics nearby.
- Is potentially amenable to low-cost open-pit mining.

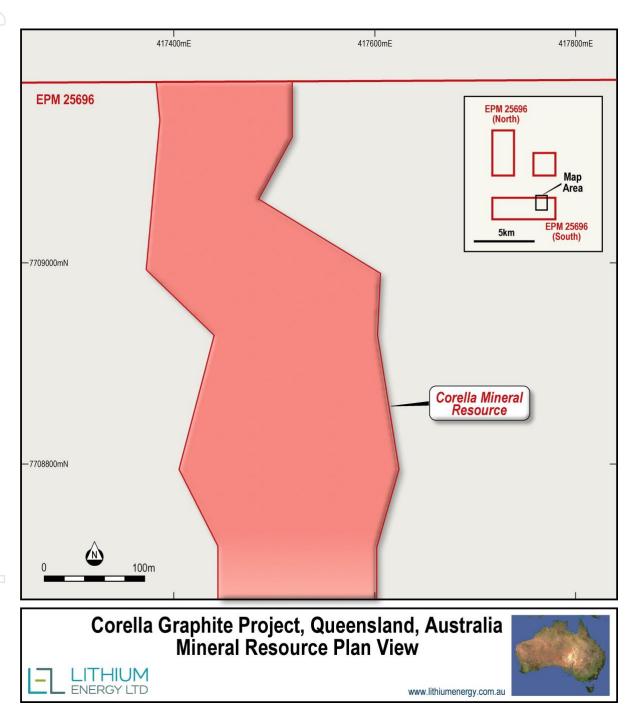


Figure 1: Corella JORC Inferred Mineral Resource - Plan View on Corella Tenement

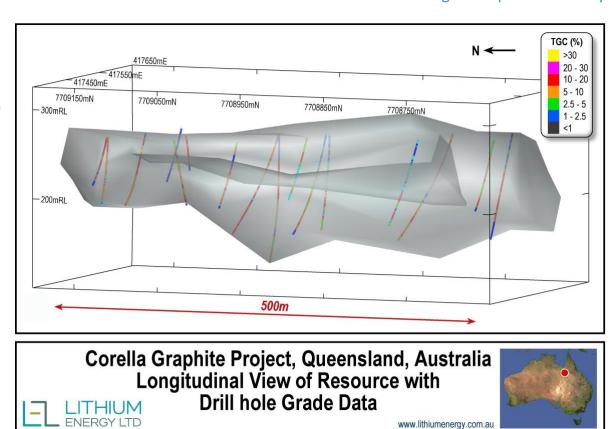


Figure 2: Corella JORC Inferred Mineral Resource – 3D Longitudinal View also Showing Drill Holes and %TGC Results

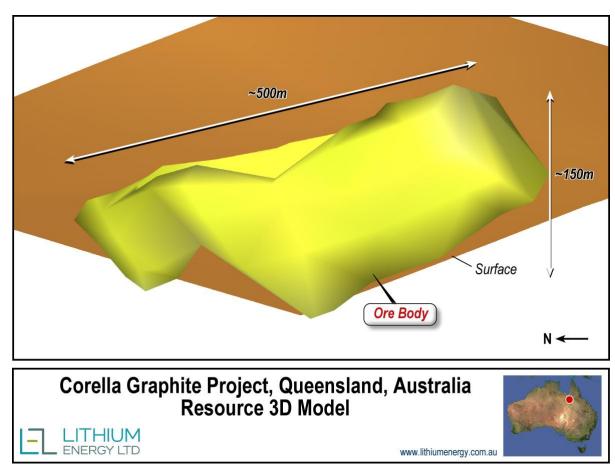


Figure 3: Corella JORC Inferred Mineral Resource – 3D Model View



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Burke and Corella Graphite Projects Background

Lithium Energy is developing 100% owned graphite projects on granted Exploration Permits for Minerals (EPM) located in the Cloncurry region in North Central Queensland, where there is access to well-developed transport infrastructure to an airport at Mt Isa (~122km) and a port in Townsville (~783km) (refer Figure 4):

- (1) The Burke Graphite Project comprises EPM 25443 (the **Burke Tenement** or **Burke**) (of ~6.58km²), located 125km north of Cloncurry adjacent to the Mt Dromedary Graphite Project held by Novonix Limited (ASX: NVX); and
- (2) The Corella Graphite Project comprises EPM 25696 (the **Corella Tenement** or **Corella**) (of ~19.74km²), located 40km west of Cloncurry near the Flinders Highway that links Mt Isa to Townsville. Corella is located ~120km south of Burke.

The Lansdown Eco-Industrial Precinct near Townsville in North Queensland, where the Company is investigating basing its proposed vertically integrated battery anode material manufacturing business, is emerging as an important location for the production of critical materials for battery technologies in Australia.

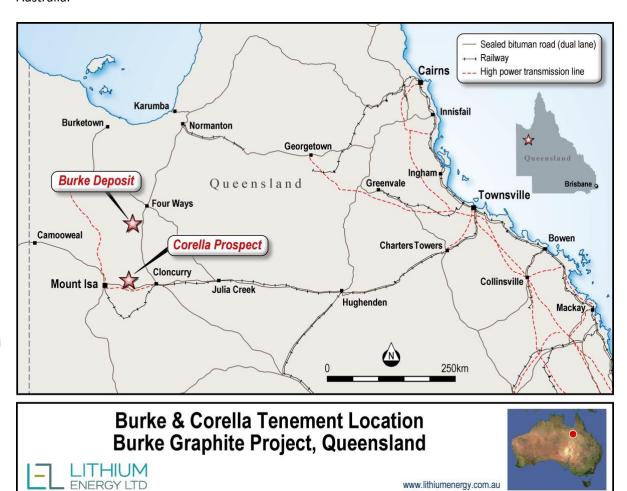


Figure 4: Burke and Corella Graphite Project Tenement Locations in North Central Queensland



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There is a JORC Indicated and Inferred Mineral Resource delineated on the Burke Tenement, as follows (**Burke Deposit**):

- Total Mineral Resource of 9.1Mt at 14.4% Total Graphitic Carbon (TGC) for a total of 1.3Mt contained graphite (at a 5% TGC cut-off grade), comprising:
 - Indicated Mineral Resource of 4.5Mt at 14.7% TGC for 670kt of contained graphite; and
 - Inferred Mineral Resource of 4.5Mt at 14.2% TGC for 640kt of contained graphite.
- Within the mineralisation envelope there is included a higher grade Total Mineral Resource of 7.1Mt at 16.2% TGC for 1.1Mt of contained graphite (at a 10% TGC cut-off grade).⁴

Table 2: Mineral Resource Estimate for Burke Tenement (the Burke Deposit)

Mineral Resource Category	Weathering State	Resource (Mt)	Total Graphitic Carbon (TGC) (%)	Contained Graphite (kt)
	Weathered	0.2	12.5	30
Indicated Mineral Resource	Primary	4.3	14.8	640
	Sub-total	4.5	14.7	670
	Weathered	0.1	8.1	10
Inferred Mineral Resource	Primary	4.4	14.4	630
	Sub-total	4.5	14.2	640
	Weathered	0.3	11.1	40
Total Indicated and Inferred	Primary	8.7	14.6	1,270
Mineral Resource	Total	9.1	14.4	1,310

Notes:

- Mineral Resource estimates are constrained by the mineralisation solids and reported above a cut-off grade of 5% TGC; Mineral Resources reported on a dry in-situ basis; Totals may differ due to rounding.
- Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results.
- For further details, refer to LEL ASX Announcement dated 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence".

Geology and Geological Interpretation

The Corella Graphite Project (Lithium Energy: 100%) is located in the Cloncurry region in North Central Queensland, where there is access to well developed transport infrastructure with local airports at Mt Isa, and Cloncurry, and railway lines from Cloncurry directly to the port in Townsville.

The Corella Tenement covers a sequence of mapped graphitic schists within the Corella Formation, which have also been intruded by gabbro dykes and sills, with subsequent metamorphism to amphibolite grade during the Isan Orogeny 1,600-1,580Ma. The geology of the Corella Tenement area is dominated by the Tommy Creek Block. The Tommy Creek Block is a small fault-bounded triangular 20 by 30km area near the middle of the Mount Isa Orogen. No basement is exposed; the oldest rocks are at east edge of domain, the Bulonga Volcanics (1,762 +/- 5Ma; previously assigned to Tommy Creek Microgranite and then Tommy Creek beds). These are overlain by the Corella Formation, and this is intruded by the Tommy Creek Microgranite (in its original intrusive sense). Both these units are unconformably overlain by the Milo beds (carbonaceous sandstone, siltstone, and volcaniclastics), with dates ranging from 1,629 +/- 8 Ma (silicic lavas or sills) to 1,610 +/- 6 Ma (schist from un-named volcaniclastic unit). The domain is affected by the Early (1,600-1,580 ma), Middle (1,570-1,550Ma), Mid (1,550-1,540 Ma) and Late (1,530-1,500 Ma) Isan Orogenies.

⁴ Refer Mineral Resource estimates at different %TGC cut-off grades reported in Table 2 of LEL ASX Announcement dated 5 April 2023: Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence



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Units within the Milo beds have locally been described as Graphitic Schists and slates. The proposed metallurgical test work programme to be conducted on graphite from the Corella Deposit will target "flake" graphite within the graphitic schists.

The style of mineralisation is crystalline graphite within graphitic schists. It is expected the graphitic schists will contain fine flake with in-situ individual flake lengths being typically less than 300 microns. The majority of the size is expected to be less than 150 microns in length. Flake product size will be influenced by the concentrator upgrade processes which will be determined in the planned metallurgical testwork programme.

Sampling and Sub-Sampling Techniques

The March/April 2023 resource definition drilling programme at Corella comprised 16 Reverse Circulation (**RC**) holes totalling 1,569 metres. The assay results confirm high-grade graphite mineralisation across multiple intersections at Corella – refer to the Company's ASX Announcement dated 2 June 2023 entitled "Significant High Grade Graphite Discovery at the Corella Project".

Holes were sampled at 1m intervals with a rig mounted combined cyclone and sample splitter unit. The cyclone collected a 75% bulk sample in a big calico bag and a 25% sample in a small calico bag. RC drilling was 5 ¼ inch in diameter.

Drilling Techniques

DDH1 Drilling undertook the RC drilling programme and supplied a UDR650 multi-purpose track mounted rig. A larger diameter RC hammer was used to drill an initial pre-collar of 4m in the soil-colluvium profile, which was then cased off using PVC pipe to avoid unconsolidated material falling behind the drill rods.

Classification Criteria

The Corella Mineral Resource was classified as based on data quality, sample spacing, and lode continuity. In consideration that the mineralisation is defined by RC drilling; bulk densities are assumed, rather than measured and drill spacing ranges from 50m section spacing up to 150m section spacing. Based upon this, the Corella Deposit meets the criteria for an Inferred Mineral Resource.

Sample Analysis Method

One-metre intervals of quarter-split drill core and RC drill chips were submitted into Intertek sample preparation laboratory in Townsville. Geochemical analysis was subsequently performed at Intertek laboratory in Perth. Samples were analysed for TGC (%) by Intertek method C73/CSA and for TC (%) by Intertek method CSA01. Sulphur was assayed on drill core by Intertek method FP1/OM.

Estimation Methodology

The mineralisation was constrained by wireframes prepared using a nominal 2.5% TGC cut-off grade, plus geological logging. Following a review of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of high grade cuts was not warranted.

The block model parent block dimensions used were 25m NS by 10m EW by 5m vertical with sub-cells of 6.25m by 2.5m by 1.25m. The parent block size dimension was selected on the results obtained from KNA that suggested this was the optimal block size for the dataset. The Mineral Resource block model was created and estimated in Surpac using Ordinary Kriging ("OK") grade interpolation.



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An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Up to three passes were used for the mineralisation. First pass had a range of 75m, with a minimum of 10 samples. For the second pass, the range was extended to 150m, with a minimum of 6 samples. For the third pass, the range was extended to 250m, with a minimum of 2 samples. A maximum of 20 samples was used for all passes, with a maximum of 4 samples per hole.

Density measurements have not yet been obtained from the deposit, therefore bulk densities applied in the Company's nearby Burke Graphite Project/Deposit were applied in the Corella block model. Values for the mineralisation assigned in the block were 2.25t/m³ for oxide, 2.40t/m³ for transitional and 2.55t/m³ for fresh material. Average waste densities were assigned based on lithology and weathering from the Burke measurements.

Cut-off Grade

The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above at a cut-off grade of 5% TGC. The Mineral Resource estimate at various TGC cut-off grades are shown in Table 3.

Table 3 - Corella Graphite Project Mineral Resource Estimate

Grade	Incre	mental R	esource	Cut-off	Cumu	lative Re	esource
Range	Tonnage	TGC	Contained	Grade	Tonnage	TGC	Contained
TGC%	t	%	Graphite (t)	TGC%	t	%	Graphite (t)
1.5 -> 2.0	3,188	1.92	61	1.5	13,888,370	9.31	1,293,557
2.0 -> 2.5	9,375	2.33	218	2.0	13,885,182	9.32	1,293,495
2.5 -> 3.0	8,657	2.78	241	2.5	13,875,807	9.32	1,293,277
3.0 -> 3.5	41,977	3.28	1,375	3.0	13,867,150	9.32	1,293,036
3.5 -> 4.0	49,368	3.71	1,831	3.5	13,825,173	9.34	1,291,661
4.0 -> 4.5	106,983	4.28	4,580	4.0	13,775,805	9.36	1,289,829
4.5 -> 5.0	211,714	4.77	10,089	4.5	13,668,822	9.40	1,285,250
5.0 -> 6.0	832,485	5.56	46,283	5.0	13,457,108	9.48	1,275,161
6.0 -> 7.0	1,517,596	6.51	98,812	6.0	12,624,623	9.73	1,228,878
7.0 -> 8.0	2,179,430	7.53	164,168	7.0	11,107,027	10.17	1,130,067
8.0 -> 9.0	2,438,104	8.49	206,888	8.0	8,927,597	10.82	965,899
9.0 -> 10.0	2,013,205	9.48	190,811	9.0	6,489,493	11.70	759,011
10.0 -> 11.0	1,446,199	10.47	151,408	10.0	4,476,288	12.69	568,200
11.0 -> 12.0	981,155	11.47	112,534	11.0	3,030,089	13.76	416,791
12.0 -> 13.0	625,693	12.48	78,059	12.0	2,048,934	14.85	304,257
13.0 -> 14.0	512,938	13.48	69,162	13.0	1,423,241	15.89	226,198
14.0 -> 15.0	295,345	14.46	42,702	14.0	910,303	17.25	157,036
15.0 -> 16.0	150,756	15.46	23,301	15.0	614,958	18.59	114,334
16.0 -> 17.0	124,365	16.41	20,410	16.0	464,202	19.61	91,033
17.0 -> 18.0	80,458	17.46	14,051	17.0	339,837	20.78	70,623
18.0 -> 19.0	44,897	18.52	8,313	18.0	259,379	21.81	56,572
19.0 -> 20.0	47,818	19.45	9,302	19.0	214,482	22.50	48,260
20.0 -> 22.5	70,907	21.30	15,100	20.0	166,664	23.38	38,958
22.5 -> 25.0	47,045	23.48	11,047	22.5	95,757	24.91	23,858
25.0 -> 27.5	42,712	26.10	11,147	25.0	48,712	26.30	12,811
27.5 -> 30.0	6,000	27.72	1,663	27.5	6,000	27.72	1,663



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Mining and Metallurgical Methods and Parameters

It is assumed that the Corella Deposit can be mined using open pit techniques.

The Corella Deposit comprises natural flake graphite which is assumed to be able to be processed by standard flotation, spheronisation and purification technologies to international benchmark product categories with a planned metallurgical testwork programme to test these assumptions and define the PSG product quality of the Corella flake graphite.

AUTHORISED FOR RELEASE - FOR FURTHER INFORMATION:

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ABOUT LITHIUM ENERGY LIMITED (ASX:LEL)

Lithium Energy Limited is an ASX listed battery minerals company which is developing its flagship Solaroz Lithium Brine Project in Argentina and the Burke Graphite Project in Queensland. The Solaroz Lithium Project (LEL:90%) comprises 12,000 hectares of highly prospective lithium mineral concessions located strategically within the Salar de Olaroz Basin in South America's "Lithium Triangle" in north-west Argentina. The Solaroz Lithium Project is directly adjacent to or principally surrounded by mineral concessions being developed into production by Allkem Limited (ASX/TSX:AKE) and Lithium Americas Corporation (TSX/NYSE:LAC). The Burke Graphite Project (LEL:100%) contains a high grade graphite deposit and presents an opportunity to participate in the anticipated growth in demand for graphite and graphite related products.

JORC CODE (2012) COMPETENT PERSON STATEMENTS

- (a) The information in this document that relates to the June 2023 Mineral Resources Estimate for the Corella Tenement (EPM 25696) (Corella Graphite Project) is based on information compiled by Mr Shaun Searle, who is a Member of the Australasian Institute of Geoscientists (AIG). Mr Searle is an employee of Ashmore Advisory Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Searle has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code)). Mr Searle consents to the inclusion in this document of the matters based on this information in the form and context in which it appears.
- (b) The information in this document that relates to Mineral Resources in relation to the Burke Tenement (EPM 25443) (Burke Graphite Project) is extracted from the following ASX market announcement made by Lithium Energy dated:
 - 5 April 2023 entitled "Burke Graphite Mineral Resource Upgrade Delivers Significant Increases in Size and Confidence".

The information in the original announcement is based on, and fairly represents, information and supporting documentation prepared and compiled by Mr Shaun Searle, who is a Member of AIG. Mr Searle is an employee of Ashmore Advisory Pty Ltd, an independent consultant to Lithium Energy Limited. Mr Searle has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (referred to above).



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The Competent Persons) named below have been previously engaged by Strike Resources Limited (ASX:SRK) (**Strike**), the former parent company of Lithium Energy Limited (and subsidiaries) that hold the interests in the Burke Graphite Project. Lithium Energy Limited was spun out of Strike into a new ASX listing in May 2021.

- (c) The information in this document that relates to other Exploration Results in relation to the Burke and Corella Graphite Projects is extracted from the following ASX market announcements released by:
 - (i) Lithium Energy dated:
 - 2 June 2023 entitled "Significant High Grade Graphite Discovery at the Corella Project"
 - (ii) Strike dated:
 - 26 June 2018 entitled "Burke Graphite Project New Target Area Identified from Ground Electro-Magnetic Surveys".
 - 21 April 2017 entitled "Jumbo Flake Graphite Confirmed at Burke Graphite Project, Queensland".

The information in the original announcements is based on, and fairly represents, information and supporting documentation prepared and compiled by Mr Peter Smith (BSc (Geophysics) (Sydney) AIG ASEG). Mr Smith is a Member of AIG, a consultant to Strike and also a Director of Lithium Energy Limited (since 18 March 2021). Mr Smith has the requisite experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements (referred to above). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements (referred to above).

Lithium Energy's ASX Announcements may be viewed and downloaded from the Company's website: www.lithiumenergy.com.au or the ASX website: www.asx.com.au under ASX code "LEL".

Strike's ASX Announcements may be viewed and downloaded from the Company's website: www.strikeresources.com.au or the ASX website: www.asx.com.au under ASX code "SRK".

FORWARD LOOKING STATEMENTS

This document contains "forward-looking statements" and "forward-looking information", including statements and forecasts which include without limitation, expectations regarding future performance, costs, production levels or rates, mineral reserves and resources, the financial position of Lithium Energy, industry growth and other trend projections. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "is expecting", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might", or "will" be taken, occur or be achieved. Such information is based on assumptions and judgements of management regarding future events and results. The purpose of forward-looking information is to provide the audience with information about management's expectations and plans. Readers are cautioned that forward-looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lithium Energy and/or its subsidiaries to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include, among others, changes in market conditions, future prices of minerals/commodities, the actual results of current production, development and/or exploration activities, changes in project parameters as plans continue to be refined, variations in grade or recovery rates, plant and/or equipment failure and the possibility of cost overruns.

Forward-looking information and statements are based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date such statements are made, but which may prove to be incorrect. Lithium Energy believes that the assumptions and expectations reflected in such forward-looking statements and information are reasonable. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Lithium Energy does not undertake to update any forward-looking information or statements, except in accordance with applicable securities laws.



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JORC CODE (2012 EDITION) CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA FOR EXPLORATION RESULTS

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	Sampling Methodology — Reverse Circulation: sampling of the RC drilling was done via a Cyclone with splitter unit attached to the drill rig, with samples taken every 1m. Samples were analysed for %TGC by Intertek method C73/CSA and for %TC by Intertek method CSA01. Sulphur was assayed on drill core by Intertek method FP1/OM.
Drilling techniques	Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	 Reverse Circulation: DDH1 Drilling undertook the reverse circulation (RC) drilling programme and supplied a UDR650 multi-purpose track mounted rig. A larger diameter RC hammer was used to drill an initial pre-collar of 4m in the soil-colluvium profile, which was then cased off using PVC pipe to avoid unconsolidated material falling behind the drill rods. A combined Cyclone and Sample Splitter unit was fitted to the side of the drill rig. The Cyclone collected a 75% bulk sample in a big calico bag and a 25% sample in a small calico bag.
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. 	RC Drilling: Recovery from the Graphitic Schist zone was >95%. No relationship exists between sample recovery and grade.
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 	Logging – Reverse Circulation Drilling: Geological logging of reverse circulation drill chips was routinely undertaken for each 1-metre interval using similar procedures to core logging (described above).



Criteria	JORC Code Explanation	Commentary
	 in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Visual record samples were collected from the large bulk sample and contents placed into a 20-compartment plastic tray. Each chip tray was photographed using a high-resolution digital camera. The logging is of a detailed nature and of sufficient detail to support the current reporting of a Mineral Resource.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. 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. 	 One-metre intervals of quarter-split drill core and RC drill chips were submitted into an Intertek sample preparation laboratory in Townsville, Queensland. Geochemical analysis was subsequently performed at an Intertek laboratory in Perth, Western Australia. Samples were analysed for %TGC by Intertek method C73/CSA and for %TC by Intertek method CSA01. Sulphur was assayed on drill core by Intertek method FP1/OM. No work has been completed to determine if sample size is appropriate to the grain size of the material being sampled, with grain size of the graphite being determined post drilling by combination of metallurgical analysis.
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. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 Geochemical Analysis: One-metre intervals of Quarter-Split Drill Core and RC Drill Chips were submitted into Intertek sample preparation laboratory in Townsville. Geochemical analysis was subsequently performed at Intertek laboratory in Perth. The laboratory inserted its own standards, Certified Reference Material (CRM) plus blanks and completed its own QAQC. Whilst company standards, duplicates and blanks were routinely inserted every 10th sample. No geophysical methods or hand-held XRF units have been used for determination of grades in the Mineral Resource.
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. 	 The QA/QC protocols adopted for Corella Graphite drilling programme involved routinely inserting a Certified Graphite Reference Standard (two different Standards used), duplicates or Blank sample into the tag book number sequence every 25 samples. The QA/QC sample density is considered to be more than adequate and is very robust. Additional QA/QC controls were also provided by internal laboratory repeats and standards. Laboratory performance and all reported analytical results was statistically evaluated using QA/QC monitoring software. All Certified Reference Materials reported within one Standard Deviation of the Certified value. No adjustments have been made to the assay data.



Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

Criteria	JORC Code Explanation	Commentary
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. 	Differential Positioning System (DGPS) instrument, in the MGA Zone 54 projection, was utilised for the drill collar location. Downhole surveys were routinely collected every 30m, using a Reflex Gyro after completion of the hole, with surveying carried out both going into the hole (inside of rods), and also coming out of the hole. Results were averaged to determine the final drillhole deviation information.
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. 	 Data was routinely collected on a continuous one-metre interval basis. Samples were collected at one-metre intervals down each hole. Samples were composited to 1m intervals prior to estimation.
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. 	Drill Hole Orientation: Drill holes were designed to intersect graphite mineralisation at perpendicular to strike observed in outcrop. No orientation based sampling bias has been identified in the data.
Sample security	The measures taken to ensure sample security.	 All samples were collected by company consultants, retaining chain of custody until delivery to laboratory.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Shaun Searle of Ashmore reviewed drilling and sampling procedures during the 2023 site visit and found that all procedures and practices conform to industry standards.

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 license to operate in the area. 	Exploration Permit for Minerals (EPM) No. 25696 (Corella Tenement) was granted by the Queensland Government Department of Mines and Energy on 2 April 2015 to Burke Minerals Pty Ltd (BMPL) for an initial period of five years, which was renewed for a further 5 years (expiring on 1 April 2025). Lithium Energy Limited (ASX:LEL) (LEL) is the ultimate parent company of BMPL. The tenement is in good standing with no known impediments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The 'Corella' area was the subject of significant exploration during the 1970s to 1990s. Surface geochemical sampling was the common exploration method, although airborne electro magnetics (EM) was also employed. The main phases of work completed over the current Corella Tenement area are documented in the table below. So far as the Company is aware, none of the previous exploration targeted graphite mineralisation.



Criteria	JORC Code Explanation	Com	mentary		
		Year	Company	Activities	EPM
		1975	Jododex	Soil sampling, stream sediment	EPM1323
		1976	Carpentaria Exploration Co	sampling, drilling Soil sampling	EPM1269
		1984	Pty Ltd CRA	Stream sediment sampling, RAB	EPM3368, 3967
		1989	WMC	drilling Stream sediment sampling	EPM5544, 6896
		1992		Stream sediment and soil sampling, drilling, airborne EM	
		1997	Eagle Mining	Stream sediment sampling	
			Selwyn Mines Mt Isa Mines	Soil sampling Rock chipping, soil sampling	EPM10553 EPM12561
Geology Drill hole	Deposit type, geological setting and style of mineralisation. A summany of all information material to the		of mapped ge Corella Forma intruded by ge subsequent amphibolite grandle for the geology of is dominated. The Tommy Cobounded trians the middle of basement is eat east edge Volcanics (1, assigned to and then Tomoverlain by the is intruded Microgranite sense). Bounconformable (carbonaceous volcaniclastics 1,629 +/- 8 Ma +/- 6 Ma volcaniclastics by the Early (1,570-1,550M and Late (1,53) Units within the been described slates. The styliflake" graph schists.	f the Corella Teneral by the Tommy Creek Block is a sugular 20 by 30km the Mount Isa Coxposed; the oldess of domain, the Tommy Creek Mony Creek Mony Creek Beds). The Corella Formatic by the Tommic (in its original the these under the sugue of the Tommic (schist from the theology of the Tommic (schist from the theology of the Tommic (schist from the theology of the	within the also been sills, with m to in Orogeny ment area reek Block. mall faultarea near progen. No trocks are e Bulonga previously icrogranite. These are on, and this my Creek intrusive mits are Milo beds stone, and aging from is) to 1,610 un-named is affected in all, Middle 1,540 Ma) Orogenies. In a country chists and in sought is graphitic
Drill hole information	 A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole 	•	database ha	information in t s been utilised of the Corella	d in the



Criteria	JORC Code Explanation	Commentary
	collar • dip and azimuth of the hole • down hole length and interception depth • hole length • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
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. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Exploration results are not being reported. Not applicable as a Mineral Resource is being reported. No metal equivalent values are being reported.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole 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 (e.g. 'down hole length, true width not known'). 	Intercept widths are down hole widths.
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 drill hole collar locations and appropriate sectional views.	Relevant diagrams have been included within the Mineral Resource report main body of text.
Balanced Reporting	 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. 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. 	 All hole collars were surveyed in MGA94 Zone 54 grid using differential GPS. All RC holes were down-hole surveyed with a Reflex Gyro tool. Exploration results are not being reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological 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.	 Results were estimated from drill hole assay data, with geological logging used to aid interpretation of mineralised contact positions. Geological observations are included in the report. Multi-element assay suites have been analysed.



Maiden Corella Graphite Mineral Resource Delivers Doubling of Graphite Inventory

Criteria	JORC Code Explanation	Commentary
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Follow up drilling, metallurgical test work, and mining studies are planned. There is potential for possible extensions in the strike (to the south) and down dip position to the current mineralisation. Drill spacing is currently considered adequate for the current level of interrogation of the project.

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. 	 The data base has been systematically audited by LEL geologists. All drilling data has been verified as part of a continuous validation procedure. Once a drill hole is imported into the data base a report of the collar, down-hole survey, geology, and assay data are produced. This is then checked by a LEL geologist, and any corrections are completed by the data base manager.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 A site visit was conducted by Shaun Searle of Ashmore during January 2023. Shaun inspected the deposit area and subcrop. During this time, notes and photos were taken. Discussions were held with site personnel regarding drilling and sampling procedures at the nearby Burke Graphite Project. No major issues were encountered. A site visit was conducted, therefore not applicable.
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. 	 The confidence in the geological interpretation is considered to be good and is based on visual confirmation in the open pit and within drill hole intersections. Geochemistry and geological logging has been used to assist identification of lithology and mineralisation. The Project is hosted by a mapped graphitic schist as a sub unit of the Corella Formation, within the Mary Kathleen Group and is of Proterozoic age. The style of mineralisation is 'flake' graphite within graphitic schists. Infill drilling has supported and refined the model and the current interpretation is considered robust. Observations from host rocks at surface; as well as infill drilling, confirm the geometry of the mineralisation. Infill drilling has confirmed geological and grade continuity.
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 Corella Mineral Resource area extends over a north-south strike length of 515m (from 7,708,665mN – 7,709,180mN), has a maximum width of 210m (417,410mE – 417,620mE) and includes the 150m vertical interval from 270mRL to 120mRL.



Criteria	JORC Code Explanation	Commentary		
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade 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 (eg 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 drill hole data, and use of reconciliation data if available. 	 Using parameters derived from modelled variograms, Ordinary Kriging ("OK") was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed suitable for the Corella Mineral Resource due to the geological control on mineralisation. The extrapolation of the lodes along strike and down-dip has been limited to 50m. Zones of extrapolation are classified as Inferred Mineral Resource. TGC, TC, Fe, S, Al and Si were interpolated into the block model. Further studies are required to determine deleterious elements. The parent block dimensions used were 25m NS by 10m EW by 5m vertical with sub-cells of 6.25m by 2.5m by 1.25m. The parent block size dimension was selected on the results obtained from Kriging Neighbourhood Analysis that suggested this was the optimal block size for the dataset. An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Up to three passes were used for each domain. First pass had a range of 75m, with a minimum of 10 samples. For the second pass, the range was extended to 150m, with a minimum of 6 samples. For the third pass, the range was extended to 250m, with a minimum of 4 samples per hole. No assumptions were made on selective mining units. Correlation analysis was conducted on the domains. The mineralisation was constrained by wireframes prepared using a nominal 2.5% TGC cut-off grade, plus geological logging. Statistical analysis was carried out on data from three domains on 1m composite data. Following a review of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of high grade cuts was not warranted. Validation of the model included detailed visual validation, comparison of composite grades and block mo		
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages and grades were estimated on a dry in situ basis.		



Criteria	JORC Code Explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a cut-off grade of 5% TGC. Further geological, geotechnical, engineering and metallurgical studies are recommended to further define the graphite mineralisation.
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. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	Ashmore has assumed that the deposit could be mined using open pit mining techniques.
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. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 It is expected that the natural graphite can be upgraded by standard flotation techniques to produce a concentrate suitable as feedstock to a purified spherical graphite (PSG) processing facility. It is anticipated that the graphite will be processed to produce a PSG product for sale into the Li ion battery anode industry. Testwork is currently being planned to test the graphite's grade and recovery performance in the floatation process and the purified spherical graphite processes. The Company expects the Corella graphite to form part of the overall vertically integrated pit to PSG product plan which includes the Burke Graphite material.
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. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No assumptions have been made regarding environmental factors. The Company will work to mitigate environmental impacts as a result of any future mining or mineral processing.



Criteria	JORC Code Explanation	Commentary
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. 	 Density measurements have not yet been obtained from the Corella deposit, therefore bulk densities applied in LEL's nearby Burke Graphite Project were applied in the Corella block model. It is assumed there are minimal void spaces in the rocks within the deposit. Bulk densities for the mineralisation assigned in the block model were 2.25t/m³ for oxide, 2.40t/m³ for transitional and 2.55t/m³ for fresh material. Average waste densities were assigned based on lithology and weathering from the Burke measurements.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Corella Mineral Resource was classified as based on data quality, sample spacing, and lode continuity. In consideration that the mineralisation is defined by RC drilling; bulk densities are assumed, rather than measured and drill spacing ranges from 50m section spacing up to 150m section spacing, the Corella deposit meets the criteria for Inferred Mineral Resource. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and results of the estimate.



Criteria	JORC Code Explanation	Commentary
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. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. 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. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	 The geometry and continuity has been adequately interpreted to reflect the applied level of Inferred Mineral Resource. The data quality is good and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses. The Mineral Resource statement relates to global estimates of tonnes and grade.