

13 July 2015

The Manager  
ASX Announcements

## **Maiden graphite resource for second Lincoln deposit in SA's Eyre Peninsula lifts total inventory by >50% in this world-class province**

Graphite developer, Lincoln Minerals Limited (ASX:LML) ("Lincoln" or "the Company") is pleased to release a maiden Mineral Resource for the Company's second graphite deposit near Port Lincoln on South Australia's Eyre Peninsula.

Reported in accordance with JORC Code<sup>1</sup> 2012, the resource is for the historic Koppio graphite mine deposit wholly-owned by Lincoln on Exploration Licence EL 5065 and just to the south of the Company's flagship Kookaburra Gully graphite deposit for which the Company applied for a mining lease earlier this year. The Koppio Mineral Resource is based on, and fairly represents, information and supporting documentation prepared by the named competent persons.

### **Koppio highlights**

- Maiden JORC Code<sup>1</sup> 2012 Inferred Mineral Resource for the historic Koppio graphite mine.
- Inferred Mineral Resource for the Koppio graphite deposit of 1.85 million tonnes (Mt) grading 9.76% total graphitic carbon (TGC) with **180,733 tonnes of contained graphite** within the high-grade core (interpreted using a nominal cut-off grade of 5% TGC).
- Combined total Indicated and Inferred Mineral Resources for Kookaburra Gully and Koppio graphite deposits now stand at 4.03 million tonnes grading 12.35% TGC with **497,890 tonnes of contained graphite** (within the high-grade core, which is based on a nominal cut-off grade of 5% TGC).
- New resource has significantly increased the long-term inventory for Lincoln's proposed graphite mining and processing development on southern Eyre Peninsula.
- Significant potential still exists on an adjoining third graphite deposit, the undrilled Kookaburra Gully Extended Exploration Target for which Lincoln has been offered a PACE Discovery Drilling Grant by the SA Government.

### **Lincoln Minerals' Managing Director, Dr John Parker, stated that:**

*"The Mineral Resource at the historic Koppio graphite mine, when combined with the Company's high grade Kookaburra Gully Resource only 2.5km to the north, clearly indicates that this region of Eyre Peninsula is shaping up as a world-class graphite province. The new Koppio Mineral Resource, while slightly lower grade than Kookaburra Gully, represents a 52% increase on the Company's contained graphite resources in this region, which total just under 0.5 million tonnes.*

*In light of these results, which are consistent with the exploration target estimated for Koppio, EM imagery over the nearby third target, Kookaburra Gully Extended, outlines a very significant exploration target for follow up in collaboration with the South Australian Government PACE Discovery Drilling Grant which was offered to Lincoln in May this year."*

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<sup>1</sup> The terms Mineral Resource, Inferred and Indicated are as defined in the JORC Code, 2012

## BACKGROUND: Koppio Graphite Deposit – JORC Code 2012 Mineral Resource

The Koppio resource modelling, undertaken by OreWin Pty Ltd (OreWin), an independent mining and resource consultancy, was based on information compiled by Lincoln's geologists. Geochemical assay and density information from drill samples collected in 2014 were used to define the graphite mineralisation and geological domains. Two domains were defined using: (1) a nominal 5% TGC cut-off value; and (2) a nominal 2% TGC cut-off value. Domain 1 represents the high-grade core of the deposit, interpreted at a nominal 5% TGC cut-off, while Domain 2 is the 2%–5% halo surrounding Domain 1. Based on these domains, estimation parameters were defined, reviewed and enhanced to estimate the graphite Mineral Resource.

The Koppio Mineral Resource, reported in accordance with JORC Code, 2012 is set out below in Table 1. These tables show two alternative calculations (and production strategies) that Lincoln Minerals is currently developing. At a nominal 5% cut-off, the Inferred Mineral Resource is 1.85 Mt at 9.76% TGC. Total contained graphite for this Mineral Resource is 180,733 tonnes.

At a nominal 2% TGC cut-off, the total Koppio Inferred Mineral Resource is 3.06 Mt at 7.16% TGC. Total contained graphite for this resource is 219,293 tonnes.

The new Mineral Resource underpins mining studies at the historic mine site going forward.

*Table 1. Koppio Mineral Resource*

Mineral Resource Classification	Lower Cut-off Grade (% TGC)	Tonnage (Mt)	Average Grade (% TGC)	Contained Graphite (tonnes)	Density (g/cc)
Inferred – Domain 1	5%	1.85	9.76	180,733	2.67
Inferred – Domain 2	2%	1.21	3.18	38,560	2.80
TOTAL (>2% TGC)		3.06	7.16	219,293	2.72

*Mt = million tonnes TGC = Total Graphitic Carbon*

## Resource Geology

The Koppio graphite deposit occurs within Palaeoproterozoic Hutchison Group metasediments on eastern Eyre Peninsula. High-grade metamorphism to Upper Amphibolite facies, and locally to Lower Granulite facies, has produced coarse-grained flake graphite within graphitic schist units. The graphite occurs in a number of steeply-dipping lenses with an aggregate thickness of about 10-30m in the central and southern parts of the deposit as interpreted from the historic mine workings, surface mapping carried out by Lincoln, and drillhole intercepts based on OreWin's interpretation. The aggregate thickness reduces to about 10m at the northern end of the deposit (160m north of the mine workings). The interpreted dip of the graphite units is about 60°–75° to the east-southeast but they are complexly folded.

The Mineral Resource at Koppio has a strike length of 575m and a depth extent of at least 100m below ground level at the site of the historic mine workings. **The current strike length is still open to the north and south of current drilling extents.**

The historic Koppio graphite mine was intermittently mined from the early 1900s to 1944 (*South Australian Department of Mines (now SA Department for State Development) Report Book 21/87, 1945*) and contains high-grade lenses of coarse flake graphite up to 32% TGC. Up to 100 tonnes of graphite was mined from Koppio during the 1940s and processed in Port Lincoln. However, it is not known what concentrate was produced and/or sold.

Previous petrological studies undertaken for Lincoln on samples from the old underground workings have shown that flake length is good and ranges up to 800 microns (µm). No detailed metallurgical tests have yet been undertaken on Koppio samples.

*Table 2. Petrological summary of flake size at Koppio*

Sample No.	Prospect	Visual estimate of graphite vol% abundance	Graphite flake length range 50µm to (µm)	Mean flake length (µm)	TGC % assay
KP-MS-01	Koppio	25-30	800	350	32.0
KP-MS-02	Koppio	12-15	800	350	14.7
KP-MS-03	Koppio	25	800	400	22.9

## Drilling, Sampling and Analysis Techniques

The Koppio Mineral Resource, which is reported in accordance with the JORC Code (2012), is based on drilling completed by Lincoln in April 2014. This included 20 aircore and slim-line reverse circulation (RC) drillholes for a total of 1,680.2 metres. Drilling at Koppio intersected varying grades and thicknesses, with all but one drill hole intersecting graphite mineralisation. The one drill hole failing to hit graphite was drilled as a scissor hole to the mine section but was positioned too far away from the mineralisation to intersect graphite at depth.

Some 726 samples were taken for TGC, carbon and sulphur analysis: 614 were drill samples, 32 original channel/grab samples from underground workings and 80 quality control and quality assurance (QA/QC) samples. Drill hole assay intercepts have been tabulated in Table 5 (below) based upon a nominal 2% TGC cut-off and further by a 5% TGC cut-off.

All samples were collected at 1m intervals and were dried, crushed (if necessary), pulverised, then analysed for carbon, sulphur and total graphitic carbon by TC001 and Grav4D methods respectively at Amdel Bureau Veritas' Adelaide laboratory. Densities (SG) of selected samples were determined by laboratory pycnometer density measurements and the archimedes method on core pieces.

Drilling in the project area was based on drill hole spacing of 25–40m along drill lines generally spaced approximately 40m apart but up to 80m apart in the northern part of the deposit (Figure 2). The Inferred Mineral Resource encompasses all areas in which drilling has a nominal drill density which, when considered along with the interpreted geological continuity, provided sufficient confidence to classify material within this domain as Inferred.

## Estimation Methodology

Geological interpretations have been completed as 3-D solid wireframe models. The orebody model is represented by a full 3-D array of cells (a block model). Parent cell sizes are 2.5 m x 5 m x 2.5 m (E x N x RL). Estimation of C, TGC and S has been undertaken using the inverse distance interpolation method, to the power of two (ID2). A 'no grade capping' strategy was considered appropriate based on statistical analysis. Samples within the mineralised domain that have not been assayed are set to 0% TGC to ensure that their presence dilutes the grade - this is to counter any inflation of the volume that occurs as a result of their inclusion within the mineralised zones. Estimates were verified using an alternative calculation method and by cross-verifying the wireframe volumes (refer to JORC Code Table 1 below for further details). The mineralisation interpretation was based on a nominal 5% TGC (high-grade core) and 2% TGC (lower grade halo) cut-off.

## Graphite Rights

The graphite rights on Exploration Licence EL 5065 and Mineral Claims MC 4372 and MC 4373 are held by Australian Graphite Pty Ltd (AGL), a 100% wholly-owned subsidiary of Lincoln. On those tenements, under agreements with Centrex Metals Limited and its subsidiary South Australian Iron Ore Group Pty Ltd, Lincoln and AGL jointly have the rights to all minerals except iron.

Dr A John Parker

Managing Director

## Competent Persons' Report

*Information in this report that relates to exploration activity, exploration results and exploration targets was compiled by Dr A John Parker who is a Member of the Australasian Institute of Geoscientists and Managing Director of Lincoln Minerals Limited and Mr Dwayne Povey who is a member of the Australasian Institute of Mining and Metallurgy and Chief Geologist for Lincoln Minerals. Dr Parker and Mr Povey have sufficient experience relevant to the styles of mineralisation and to the activities which are being reported to qualify as a Competent Person as defined by the JORC Code, 2012. Dr Parker and Mr Povey consent to the release of the information compiled in this report in the form and context in which it appears.*

*Information in this report that relates to Mineral Resources was compiled by Ms Sharron Sylvester who is a Member of the Australasian Institute of Geoscientists (RPGEO 10125) and a full-time employee of OreWin Pty Ltd. Ms Sylvester has sufficient experience relevant to the styles of mineralisation and to the activities which are being reported to qualify as a Competent Person as defined by the JORC Code, 2012 and consents to the release of the information compiled in this report in the form and context in which it appears.*

Table 3. Total combined Mineral Resources for Koppio and Kookaburra Gully

Mineral Resource Classification	Cutoff Grade (% TGC)	Tonnage (Mt)	Average Grade (% TGC)	Contained Graphite (tonnes)	Density (g/cc)
<b>Koppio</b>					
High-grade Core (Domain 1) – Inferred	5%	1.85	9.76	180,733	2.67
Low-grade Halo (Domain 2) – Inferred	2%	1.21	3.18	38,560	2.80
<b>Kookaburra Gully</b>					
High-grade Core (Domain 1) - Indicated	5%	1.45	13.74	199,193	2.56
Low-grade Halo (Domain 2) – Indicated	2%	0.62	3.04	18,984	2.54
High-grade Core (Domain 1) – Inferred	5%	0.73	16.17	117,964	2.50
Low-grade Halo (Domain 2) – Inferred	2%	0.40	2.91	11,538	2.54
TOTAL (>2% TGC)		6.26	9.05	566,972	2.63

Mt = million tonnes TGC = Total Graphitic Carbon

Lincoln is not aware of any new information or data that materially affects the information included in the relevant market announcement regarding the estimates of Mineral Resources for the Kookaburra Gully deposit (Lincoln's ASX announcement, 19 December 2013), that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

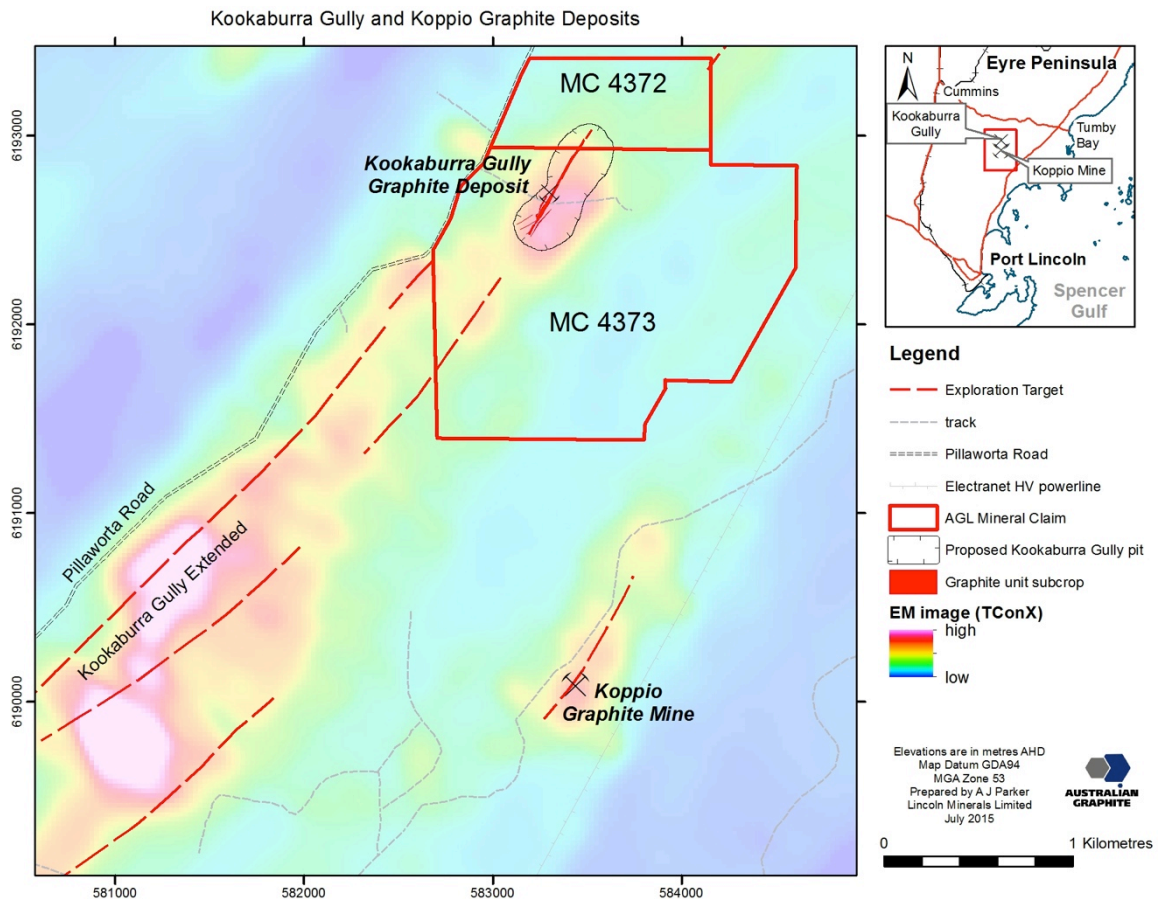


Figure 1: Location of the historic Koppio graphite mine with respect to Kookaburra Gully and Kookaburra Gully region EM exploration targets



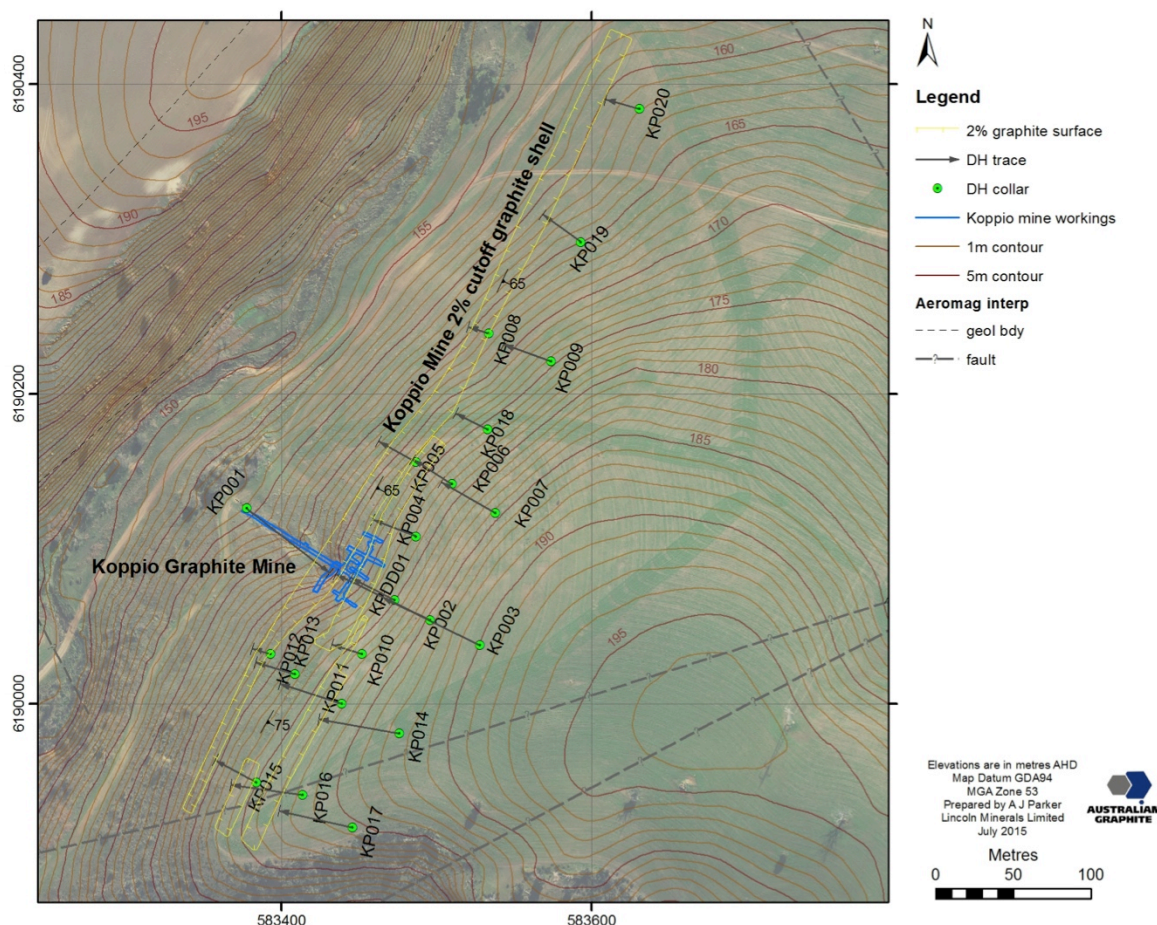


Figure 2: Location of Koppio drill holes and the historic Koppio graphite mine

## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Drillholes were drilled by slimline aircore (AC) and / or reverse circulation (RC) totalling 20 holes for 1,680.2 m (57% RC).</li> <li>Drillholes were drilled at 60°–70° towards west–north–west depending on overall drill rig slope with the exception of KP001 which was a scissor hole drilled towards south–east. Drillhole spacing was 25–40 m along lines on 40–80 m spaced drill lines.</li> <li>Mineralisation is hosted within a graphitic schist.</li> <li>726 assay samples were collected of which 614 were drill samples, 32 grab samples from underground workings and 80 QA/QC samples: a rate of approximately 11.5%. Up to six certified total graphitic carbon and carbon standards, blanks, and field duplicates were used in two samples batches.</li> <li>Samples were predominantly collected at 1 m intervals with lesser mineralised zones composited to 2 m and 4 m (23 two metre composites and 4 four metre composites). Sub-samples of bulk composite samples were passed through an air-operated, three-tier riffle splitter to produce a 3–5 kg analytical sample. Six percent (39 samples) contained moisture and were scoop speared to ensure sample quality and representivity.</li> <li>Three petrological samples were collected by hammer/chip sampling within the mine workings.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>20 drillholes for 1,680.2m with (57% RC). AC drill bits are face sampling 85 mm diameter bits, RC face sampling drill bit is 115 mm in diameter.</li> <li>Drill rods are 3 m in length.</li> </ul>

Criteria	Commentary
Drill sample recovery	<ul style="list-style-type: none"> <li>AC and RC recovery is considered to be acceptable.</li> <li>After each one metre interval the driller would pause to ensure the sample stream was cleared, and after each rod (3 m) the hole was cleared before sample collection recommenced.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>All field data is manually recorded, and initially visually inspected for errors. Data is then plotted in GIS to visually inspect the field results including drillhole locations, survey information, geology and assay intervals.</li> <li>All AC and RC cuttings / chips were logged at 1 m intervals and representative keepsake chip trays made. All chip trays have been photographed.</li> <li>Observed down hole drillhole graphite intercepts were recorded at the time of drilling and updated after assays were received.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>All analytical samples were three-tier riffle split. Six percent (39 samples) contained moisture and these samples were scoop speared to maximise representivity and sample quality.</li> <li>The riffle splitter was air vibrated and air cleaned after each sample passed.</li> <li>A field duplicate was taken at a rate of approximately 1 in 20 samples, exactly mirroring the original sample.</li> <li>Unique sample identification numbers were given to all samples to ensure laboratory integrity and placement of QA/QC samples throughout the batch.</li> <li>Samples are dried, crushed to 3 mm (if required), and then pulverised to 75 micron. Grind checks are undertaken at a rate of 1 in 20.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>Total combustion using a LECO carbon–sulphur analyser, determines carbon.</li> <li>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 a sulphur–carbon analyser to give total graphitic or elemental carbon (TGC).</li> <li>Standards, duplicates and blanks were inserted randomly throughout each batch.</li> <li>Field duplicates show a 99% correlation.</li> <li>Standards and blanks show no bias and good precision.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>No twinned holes have been drilled at this stage of project.</li> <li>OreWin Pty Ltd (OreWin) has worked on the resource and inspected drill samples, but no independent verification of sampling or assaying has been undertaken to date. It is expected that this will be undertaken in subsequent stages of assessment.</li> <li>Data validation and documentation are recorded in Datamine macros to satisfy audit trails.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>All drillhole and mine survey information were surveyed with differential GPS with the exception of KOPPIO_DD1 which was surveyed with a hand held GPS. Drillhole locations are listed below in Table 4.</li> <li>All survey information is in Datum GDA 94 Map Projection UTM Zone 53 South.</li> <li>A LIDAR survey has been completed over the project area producing an accuracy of <math>\pm 25</math> cm contour surface.</li> <li>The locations of the three petrological samples (Table 4) are <math>\pm 1</math> m but based on the mine survey that was produced from 3D laser scanning.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Refer to attached plans.</li> <li>Drillholes were drilled on west–north–west to east–southeast traverses initially spaced 80m apart and partially infilled to 40m.</li> <li>Spacing of drillholes along traverses was from 25m to 40m.</li> <li>Zones of low graphite content were composited to 2 m and 4 m samples for assaying. All visual graphite samples were assayed at 1 m intervals.</li> </ul>
Orientation of data in relation to geological	<ul style="list-style-type: none"> <li>Orientation of drill holes is appropriate for the orientation of the mineralised lodes. Holes were drilled at approximately 60°–70° toward west–north–west</li> </ul>

Criteria	Commentary
structure	<p>(and one hole towards east-south-east) based on mine, trench and outcrop mapping and electromagnetic (EM) interpretation.</p> <ul style="list-style-type: none"> <li>No material sampling orientation bias is expected.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The sampling programme was managed by Lincoln staff. No contractors were associated with sampling. Sample ledgers were recorded onsite and poly-weaves containing samples zip tied and delivered to Amdel's preparation laboratory at Whyalla and then transported to the analytical laboratory in Adelaide. At the laboratory, samples were received, receipted, secured before commencing preparation and analysis.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>A site inspection was undertaken by Sharron Sylvester from OreWin on 3 June 2015 prior to commencing resource modelling. The inspection included a site visit and inspection of the sample reference library and geological chip trays.</li> <li>No audits have been undertaken at this time.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Exploration License EL 5065.</li> <li>The license holder is South Australian Iron Ore Group Pty Ltd (a subsidiary of Centrex Metals Limited, which holds the iron ore rights jointly with Wuhan Iron and Steel Limited in a JV company, Eyre Iron Pty Ltd). Lincoln Minerals Limited and its wholly-owned subsidiary Australian Graphite Pty Ltd own the rights for all other minerals.</li> <li>The tenement is in good standing with a current expiry date of 11/04/2016.</li> <li>The project is located on freehold land.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>The historic Koppio graphite mine was recorded in the Record of Mines of South Australia in 1908. No mention is made in the Record of any particular mine, however R. Lockhart Jack, Assistant Government Geologist first described the Koppio Graphite Mine in 1917. The mine was abandoned in the same year and it was not until November 1941, that it was again worked. A Mineral Claim over the property was registered by H. Harcourt Cribb, and graphite was put on the market early in 1943. The deposit was presumably found by its surface expression.</li> <li>Except for the operations the Mines Department in 1945, the mine has been closed since May 1944, though the treatment plant in Port Lincoln was treating ore well into the second half of the year. One diamond drillhole (KOPPIO_DD1) was undertaken down-dip of the mine workings. Using the diamond hole and mine mapping an "ore reserve" of proved ore 3,500 tons assaying 12.2% carbon and 13,500 tons of probable ore was estimated.</li> <li>Pancontinental Mining in the 1980's dug two trenches north and south of the historic Koppio Graphite Mine. However, no drilling was undertaken.</li> <li>Afmeco Pty Ltd, in 1982 in its search for uranium, drilled several holes in the vicinity of the Koppio graphite mine, with one drillhole intersecting graphite at end of hole. No carbon assays were undertaken.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>The Koppio graphite mineralisation occurs within Palaeoproterozoic Hutchison Group metasediments on eastern Eyre Peninsula. High grade metamorphism to Upper Amphibolite and locally Lower Granulite facies has produced coarse grained flake graphite within graphitic schist units. At Koppio Graphite Mine, graphite mineralisation is closely associated with the contact of an aplitic pegmatite. There are local pods of magnesite. Graphitic schist strikes 030° and, at the adit level, dips 60° east, although in drill core it is locally subvertical. The graphite units have been multiply folded and/or sheared during at least three phases of deformation.</li> </ul>
Drillhole Information	<ul style="list-style-type: none"> <li>Refer to drillhole table (Table 4) below and maps above.</li> <li>The total Koppio exploration database comprises 21 drillholes, 2 trenches</li> </ul>

Criteria	Commentary
	<p>and channel/grab samples from mine workings. Twenty drillholes and part of the mine workings have accompanying assay data.</p> <ul style="list-style-type: none"> <li>A total of 1,680.2 m of drilling was completed by Lincoln. In addition, Lincoln has records for one historic diamond drillhole (KOPPIO_DDH1), which was drilled in 1944 to 66.6 m in length.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>Drillhole intercepts were based upon a 2% TGC assay sample cut-off. One metre assay samples comprised 96% of the 2014 intercept data so averaging of drillhole intervals was undertaken. If any composite samples fell into these intercepts weighting averaging of the intervals have been employed.</li> <li>An example of drillhole intercept calculations is shown below.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>Mineralisation widths and geological logs are shown as down hole lengths.</li> <li>The orientation of drill holes was planned to intersect mineralisation as close as possible to perpendicular to interpreted strike, and within the level of variability of dip of the mineralised lodes. True widths are estimated from interpretation of cross sections.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>All maps and sections in this report have been prepared by Lincoln using ArcView GIS software and Geosoft Target for ArcView software and by OreWin using Datamine Studio 3 software.</li> <li>Refer to LML ASX announcements from 26 March 2014, 30 April 2014 (<i>Quarterly Activities Report</i>) and 10 July 2014 for additional maps and sections for the Koppio graphite mine.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Historical data and maps for the Koppio graphite mine have been reproduced directly from Broadhurst and Armstrong, 1945 (<i>Department of Mines Report Book 21/87</i>). Refer also to LML's ASX announcement, 26 March 2014.</li> <li>Exploration Targets were reported in Lincoln's ASX announcement, 30 January 2014.</li> <li>All drillholes intercepts are included in the 10 July 2014 ASX announcement and updated Table 5.</li> <li>Continuous disclosures of exploration results are found in Lincoln's Quarterly Activity Reports and other announcements to the ASX.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Continuous disclosure of Exploration Results are found in Lincoln's Quarterly Activity Reports and other announcements to the ASX.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>No further drilling is currently planned but more detailed petrological, metallurgical and analytical work is being planned for 2015/2016.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	<ul style="list-style-type: none"> <li>All field data is manually recorded, and initially visually inspected for errors. Data is then plotted in GIS to visually inspect the field results including drillhole locations, survey information, geology and assay intervals.</li> <li>Each geological dataset is compiled into comma delimited (CSV) forms and imported in Datamine Studio 3 software for routine validation (checking for duplicates, overlaps, and missing samples). No validation issues were identified.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Dr John Parker has made several visits to and within the historic mine, undertook detailed aeromagnetic and EM interpretation in the region and made recommendations on drill hole locations. Dwayne Povey was present on site throughout the drilling program, undertook geological logging and supervised sample collection. All sampling and data collection were undertaken professionally and are in good order.</li> <li>Sharron Sylvester from OreWin made a site visit on 3 June 2015 prior to undertaking Mineral Resource estimation on the Koppio graphite deposit</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>Lincoln's geological domain interpretations for the graphite mineralisation were based on geological assessment of the drillhole information combined with</li> </ul>



Criteria	Commentary
	<p>observations within the historic mine workings and from geophysical maps. Modifications to the interpretations have been undertaken to allow 3-D modelling to be completed. OreWin's interpretations have been developed to reflect interpreted continuity of the geological strata and only vary slightly in detail from those supplied by Lincoln. OreWin believes the modified interpretation does not conflict with Lincoln's interpretation in a material way. Upon receipt of the assay data, the resource domains were defined by OreWin and these domains ultimately used for the resource estimation.</p>
Dimensions	<ul style="list-style-type: none"> <li>• Strike length of approximately 575 m with the main graphite units collectively 10–30 m in width. Mineralisation extends to 100 m below surface.</li> <li>• The deposit is open to the south and north but thins significantly from an aggregate thickness of 30 m at the historic mine site to 10 m thick some 160 m to the north. The aggregate thickness of lenses with &gt;2% TGC at the southern end of the resource (160 m south of the mine) is about 40 m.</li> </ul>
Estimation and modelling techniques	<ul style="list-style-type: none"> <li>• Interpretation and grade estimation were completed using ArcMap, Geosoft Target for ArcView and Datamine Studio 3 software.</li> <li>• Interpretations have been completed as 3-D solid wireframe models.</li> <li>• The orebody model is represented by a fully 3-D array of cells (a block model)</li> <li>• Parent cells are 2.5m x 5m x 2.5m (E x N x RL).</li> <li>• Estimation of C, TGC and S has been undertaken using the inverse distance method, with a power of two (ID2).</li> <li>• The dimensions of the search ellipse are 25 m x 6.25 m x 50 m (E x N x RL).</li> <li>• A three-pass search strategy was used, with the second pass using a search ellipse 2.5-times the size of the first pass ellipse, and the third pass using a search ellipse ten-times the size of the first pass ellipse.</li> <li>• The minimum number of samples for estimation to proceed in the first search pass was set to five and the maximum allowed was 24. The second and third passes used a minimum of five samples and a maximum of 16.</li> <li>• Estimation has been undertaken into the parent cells, with like coded sub-cells being assigned the grade of the parent cell.</li> <li>• Variation in dip and dip direction of the lodes has been accommodated in the estimation process using Datamine's Dynamic Anisotropy method, which forces search ellipses to orient locally in a way that is pre-determined by the geologist.</li> <li>• A 'no grade capping' strategy was considered appropriate based on statistical analysis.</li> <li>• Samples within the mineralised domain that have not been assayed are set to 0% TGC to ensure that their presence dilutes the grade. This is to counter any inflation of the volume that occurs as a result of their inclusion within the mineralised zones.</li> <li>• Estimates were verified using manual methods of alternative calculation and by cross-verifying the wireframe volumes. Visual validation was completed, as was statistical evaluation comparing the estimates to the input drillhole data. Peer review has been undertaken.</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>• Dry density was estimated using ID2. The Archimedes method and pycnometer density measurements were both considered. Where both types of data existed for the same sample, pycnometer-derived density was given higher priority.</li> <li>• Tonnages are estimated on a dry basis.</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>• The mineralisation interpretation was based on a nominal 5% TGC (high-grade core) and 2% TGC (low-grade halo) cut-off.</li> <li>• No grade cutting was applied during estimation.</li> </ul>
Mining factors or assumptions	<ul style="list-style-type: none"> <li>• It has been assumed from the orientation and shallowness of the graphite lodes relative to the topographic surface that the Koppio mineralisation is amenable to open pit mining and has reasonable prospects of proceeding on that basis.</li> <li>• No formal mining assessment has been undertaken to date.</li> <li>• Further work is required to develop an empirically-derived set of mining</li> </ul>

Criteria	Commentary																				
	assumptions and parameters at Koppio.																				
Metallurgical factors or assumptions	<ul style="list-style-type: none"><li>Preliminary metallurgical bench-scale testing of representative bulk mine samples of Koppio graphite was undertaken by a German company in mid-2012 but no further work has yet been undertaken to optimise the flotation of graphite and removal of gangue minerals.</li></ul>																				
Environmental factors or assumptions	<ul style="list-style-type: none"><li>Detailed assessment of community and environmental factors has been undertaken over the adjoining Kookaburra Gully Mineral Claims and detailed assessment of the Koppio historic mine site is planned for the coming year.</li></ul>																				
Bulk density	<ul style="list-style-type: none"><li>Archimedes samples were determined on mine and aircore core samples which were erratically distributed, therefore a representative selection of assay pulps along the strike and width of the deposit including hanging and footwall waste rocks were made using the pycnometer method.</li><li>Dry density was estimated using ID2. The Archimedes method and pycnometer density measurements were both considered: where both types of data existed for the same sample, pycnometer-derived density was given higher priority.</li></ul>																				
Classification	<ul style="list-style-type: none"><li>Classification as an Inferred Mineral Resource under the JORC Code (2012) has been applied to the Koppio graphite mineralisation.</li><li>The classification as Inferred Mineral Resource was based on OreWin's assessment of the availability and location of drillhole information, which, when considered along with the interpreted geological continuity, provided sufficient confidence to classify the Mineral Resource estimates as Inferred.</li></ul> <table><tr><th>Domain</th><th>Tonnage (Mt)</th><th>TGC%</th><th>C%</th><th>Density</th></tr><tr><td>High-Grade Core</td><td>1.85</td><td>9.76</td><td>11.65</td><td>2.67</td></tr><tr><td>Low-Grade Halo</td><td>1.21</td><td>3.18</td><td>4.25</td><td>2.80</td></tr><tr><td><b>TOTAL</b></td><td><b>3.06</b></td><td><b>7.16</b></td><td><b>8.72</b></td><td><b>2.72</b></td></tr></table> <p><i>Mt = million tonnes    TGC = Total Graphitic Carbon</i> <i>Tonnages may not add up exactly as shown due to rounding of significant figures</i></p>	Domain	Tonnage (Mt)	TGC%	C%	Density	High-Grade Core	1.85	9.76	11.65	2.67	Low-Grade Halo	1.21	3.18	4.25	2.80	<b>TOTAL</b>	<b>3.06</b>	<b>7.16</b>	<b>8.72</b>	<b>2.72</b>
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Audits or reviews	<ul style="list-style-type: none"><li>None completed to date.</li></ul>																				
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"><li>The classification as Inferred Mineral Resource was based on OreWin's assessment of the availability and location of drillhole information, which, when considered with the interpreted geological continuity, provided sufficient confidence to classify all modeled material as an Inferred Mineral Resource under the JORC Code, 2012.</li><li>There is currently no Measured or Indicated Mineral Resource.</li></ul>																				

Table 4: Drillhole collars

BHID	EASTING	NORTHING	RL	LENGTH	DIP	AZIMUTH	SURVEY
KOPPIO_DDH1	583,473	6,190,067	180	66.6	61.5	297	GPS
KP-MS-01	583,424	6,190,077	161	na	na	na	3D laser
KP-MS-02	583,455	6,190,097	161	na	na	na	3D laser
KP-MS-02	583,439	6,190,068	161	na	na	na	3D laser
KP001	583,380.2	6,190,129	159.3	135	-60	129	DGPS
KP002	583,499.1	6,190,053	185.93	135	-60	303	DGPS
KP003	583,524.9	6,190,037	189.89	140	-60	300	DGPS
KP004	583,486.7	6,190,108	178.59	60	-60	308	DGPS
KP005	583,485.5	6,190,159	172.30	81	-70	311	DGPS
KP006	583,508.9	6,190,141	178.39	87	-70	314	DGPS
KP007	583,533.7	6,190,122	184.08	117	-70	315	DGPS
KP008	583,533.5	6,190,236	167.38	33	-65	296	DGPS
KP009	583,568.1	6,190,219	174.00	77	-65	301	DGPS
KP010	583,450.8	6,190,034	181.12	48	-65	282	DGPS
KP011	583,437.0	6,189,998	182.75	99	-65	301	DGPS
KP012	583,408.0	6,190,017	177.30	63	-65	304	DGPS
KP013	583,391.0	6,190,028	173.74	29	-65	301	DGPS
KP014	583,473.6	6,189,978	187.52	105	-60	304	DGPS
KP015	583,381.4	6,189,950	179.62	72	-65	298	DGPS
KP016	583,413.7	6,189,935	183.57	111	-65	296	DGPS
KP017	583,436.7	6,189,924	184.58	115	-65	293	DGPS
KP018	583,532.0	6,190,174	176.30	67	-70	306	DGPS
KP019	583,590.0	6,190,294	165.44	60	-60	302	DGPS
KP020	583,629.3	6,190,383	161.88	45	-60	294	DGPS

Table 5: Drillhole intercept table for drillholes KP001 to KP020 (nominal cut-off for intercepts is 2% TGC and a further cut-off for the 'including' intercept is 5% TGC)

HOLEID	FROM (m)	TO (m)	INTERVAL (m)	C (%)	TGC (%)
KP001			NIL		
KP002 (a)	62	66	4	6.39	5.56
KP002 (b)	68	73	5	6.01	5.21
KP002 (c)	75	80	5	19.66	18.20
KP002 (d)	96	114	18	11.06	10.13
including	97	109	12	13.75	12.75
KP003	114	140	26	10.36	8.89
including	115	136	21	11.40	9.93
KP004 (a)	22	30	8	14.11	9.19
KP004 (b)	36	58	22	9.05	7.70
including	41	55	14	11.02	9.61
KP005	3	25	22	10.21	6.36
including	9	17	8	14.58	9.78
KP006 (a)	28	38	10	14.41	12.30
including	31	38	7	17.81	15.04
KP006 (b)	45	73	28	11.15	10.05
including	45	58	13	16.64	15.18
including	61	67	6	8.72	7.80
KP007	83	102	19	6.72	6.21
including	86	94	8	9.80	9.28
KP008	3	14	11	11.53	4.57
KP009	52	59	7	7.16	4.33
KP010	20	33	13	10.16	7.01

HOLEID	FROM (m)	TO (m)	INTERVAL (m)	C (%)	TGC (%)
including	24	33	9	12.24	8.50
KP011	75	87	12	7.68	6.75
including	77	83	6	10.72	9.49
KP012	30	46	16	11.40	8.18
including	33	44	11	13.67	9.90
KP013	5	13	8	9.61	7.09
KP014 (a)	70	78	8	4.75	4.33
KP014 (b)	83	87	4	12.13	11.26
KP015 (a)	1	14	13	6.20	4.45
KP015 (b)	42	52	10	10.85	7.42
including	43	49	6	14.39	10.20
KP016 (a)	27	32	5	7.24	6.05
KP016 (b)	42	53	11	21.30	15.59
KP016 (c)	56	103	47	7.19	6.75
including	90	102	12	11.67	11.10
KP017 (a)	25	29	4	3.19	2.84
KP017 (b)	47	50	3	7.71	7.45
KP017 (c)	52	60	8	14.30	13.70
KP017 (d)	65	84	19	6.97	6.50
including	72	78	6	10.58	9.85
KP017 (e)	87	96	9	3.66	3.26
KP017 (f)	99	115	16	5.01	4.35
including	103	107	4	8.00	7.25
KP018	38	60	22	10.63	9.28
including	41	57	16	13.23	11.68
KP019 (a)	31	33	2	16.70	15.10
KP019 (b)	36	45	9	7.15	6.02
KP020	28	39	11	7.83	5.50
including	28	30	2	15.70	10.63

*Note: KP001 was a scissor hole to mineralisation and did not intercept any graphite*