



Australian Securities Exchange  
Company Announcements Office

11 September 2017

**MRC TO ACQUIRE 51% INTEREST IN ADVANCED HIGH GRADE MUNGLINUP GRAPHITE PROJECT IN WESTERN AUSTRALIA**

**Highlights**

- **MRC has executed a binding term sheet with Gold Terrace Pty Ltd to earn up to 100% of the high grade Munmlinup Graphite Project, with an initial majority position of 51% for a total upfront consideration of A\$3.2 million in cash and 10 million ordinary shares in MRC.**
- **The Project is located in Western Australia, a Tier 1 Global mining jurisdiction, 105km from Esperance and close to excellent local and regional infrastructure.**
- **The Munmlinup graphite deposit's grade is in the top quartile for global flake graphite resources, with a high grade Measured and Indicated JORC compliant Mineral Resource of 3.625Mt at 15.3% graphite for 554kt of contained graphite, with the deposit open at strike and depth.**
- **The Project has a fully granted mining lease valid to August 2031 and an adjoining exploration licence. The tenements are located in a fully gazetted mining reserve, with no native title or private land ownership issues.**
- **Significant studies have been undertaken, including a feasibility study completed by Gwalia Consolidated Ltd in 1991 and a recent due diligence study by Battery Limits, a recognised graphite industry engineering leader.**
- **The studies have indicated that the Project could be in the lowest cost operating quartile and in the highest-grade quartile, as compared against global flake graphite deposits.**
- **The Project has excellent coarse flake distribution, supported by the Gwalia study and recent petrographic analysis, which have assessed the graphite flake size distribution at 67% greater than 150µm, including 35% Jumbo flake size greater than 300µm and 24% large flake size greater than 180µm.**
- **Testwork has been undertaken, supporting excellent expandability characteristics of the graphite.**
- **MRC will be uniquely placed to proceed with the development of the Munmlinup Graphite Project when the acquisition transaction and relevant feasibility studies are finalised.**

Mineral Commodities Ltd (ASX: MRC) ("MRC" or "the Company") is pleased to announce that it has executed a binding Term Sheet with Gold Terrace Pty Ltd ("Gold Terrace") to farm into the Munmlinup Graphite Project ("Munmlinup" or "the Project").

A peer review of the Project indicates that it presents a significant opportunity to potentially become a stable, low cost, high grade graphite producer. The Project appears to be highly competitive when compared with other graphite operations both in terms of capital required and operating cost.



Note that the various preliminary studies on the Project have been completed. However, no ore reserve estimation calculations have been undertaken at this stage. The ore reserve calculations will be done as part of the upcoming planned feasibility study which will commence after the acquisition is completed. In addition the completion of a further feasibility study will underpin any decision MRC will make in relation to an economic development case of the Project.

Executive Chairman Mr Mark Caruso stated:

*“We are extremely pleased to have secured the Munglinup Project from Gold Terrace, as we consider the Project to be a world class asset located in a Tier 1 operating jurisdiction. Munglinup is consistent with MRC’s high grade Industrial Mineral operating profile and compliments MRC’s Tormin Mine high grade mineral sands operation.*

*Munglinup presents an excellent near term development opportunity to enter the growing battery commodities market at a time of future demand and production uncertainty, mainly due to unfavourable mining industry regulatory changes in Tanzania and Mozambique, and tightening of Chinese supply.*

*Munglinup is one of the highest-grade coarse flake graphite deposits in the world and is near excellent infrastructure. The deposits are open along strike and at depth and contained within an approved mining lease. MRC will be looking to bring Munglinup into production as soon as possible to take advantage of a looming coarse flake graphite supply shortage.”*

The Term Sheet provides for MRC to be able to earn 90% of the Project for:

- A\$4 million in cash to be sourced from operating cash flows
- The issue of 40 million MRC fully paid ordinary shares
- The completion of a feasibility study within 2 years of executing formal Farm-In and Joint Venture Agreements.

The terms also provide for Gold Terrace to divest its remaining 10% to allow 100% MRC ownership of Munglinup.

The Joint Venture Agreement has the following structure:

Stage 1 - Initial Farm-In for 51% Interest

- A\$3.2m cash payment (to be paid from MRC current cash reserves)
- MRC issuing 10m ordinary shares to the Vendor

Stage 2 – Consideration and Feasibility Study for Further 39% Interest (for a Total 90% Interest)

- Completing a feasibility study (paid for by MRC current cash reserves) within the next 2 years
- A\$0.8m cash payment (paid from MRC current cash reserves)
- MRC issuing 30m ordinary shares to the Vendor

Stage 3 – Possible divestment of Vendors remaining 10% Interest for Full MRC Ownership

- Vendor can elect that MRC acquires remaining 10% JV Interest by:
  - MRC issuing 10m ordinary shares, or
  - MRC granting the Vendor a 1% gross royalty on all minerals produced
- Or otherwise standard Vendor Contribution or Watering Down provisions to apply

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The proposed transaction is subject to and conditional upon the following conditions precedent:

- the existing royalty holder, MRC and Gold Terrace executing a deed of covenant pursuant to which MRC agrees to be bound by the terms of the existing royalty;
- MRC procuring any shareholder approvals to the Proposed Transaction (or any part thereof) required under the ASX Listing Rules and the Corporations Act 2001 (Cth);
- the consent of the Minister to the transfer of a 51% interest in ML74/245 to MRC pursuant to section 82(1)(d) of the Mining Act;
- the Parties executing a formal and binding Farm-In and Joint Venture Agreement (“Formal Agreement”) based on the AMPLA model joint venture agreement, on terms reasonably acceptable to both parties and which are materially and substantially consistent with the provisions of the Term Sheet; and
- MRC procuring any authorisation, consent approval or making any notification required under the *Foreign Acquisitions and Takeovers Act* and Regulations as a condition to the Proposed Transaction completing.

MRC and Gold Terrace will now proceed to complete the Formal Agreement and satisfy all conditions precedent in an expedient manner.

Gold Terrace is an investment holding company, wholly owned by offshore interests with its sole asset being the Munglinup Graphite Project. The Term Sheet and Formal Agreements will provide for MRC to manage the Joint Venture and the terms provide for all delivery and performance risk residing with MRC.

### **Project Summary**

The Munglinup Graphite Deposit lies within the Munglinup Mining Lease M74/245 and includes neighbouring Exploration License E74/505. The deposit is located 4km north of the town of Munglinup, 42km east of the Ravensthorpe Nickel Mine and 105km west of the township and port of Esperance, Western Australia.

The Munglinup area comprises Archean to Paleoproterozoic, metamorphosed granitic and other metamorphic rocks of the Albany–Fraser Orogen, typically hornblende ( $\pm$  garnet) gneiss and migmatite. Within the gneissic rock mass, rocks containing the Munglinup graphite deposits consist of a succession of tightly folded metasedimentary units with a consistent dip to the southeast. This succession, originally carbonaceous shales, comprises graphitic schists and gneisses together with jaspilite (also called ‘ironstone’), and clastic rocks that have been weathered to kaolinite, quartz, graphite, and goethite, with the graphitic horizons having been subjected to a high degree of weathering in comparison to the host rocks. Individual graphite horizons vary in thickness up to a maximum of circa 20m.

Graphite occurrences within the area of interest have been identified, studied and at various times mined over the last 100 years. It is recognised that considerable geological understanding of the area exists and historical data informing the quantum and tenor of the graphite occurrences is robust.

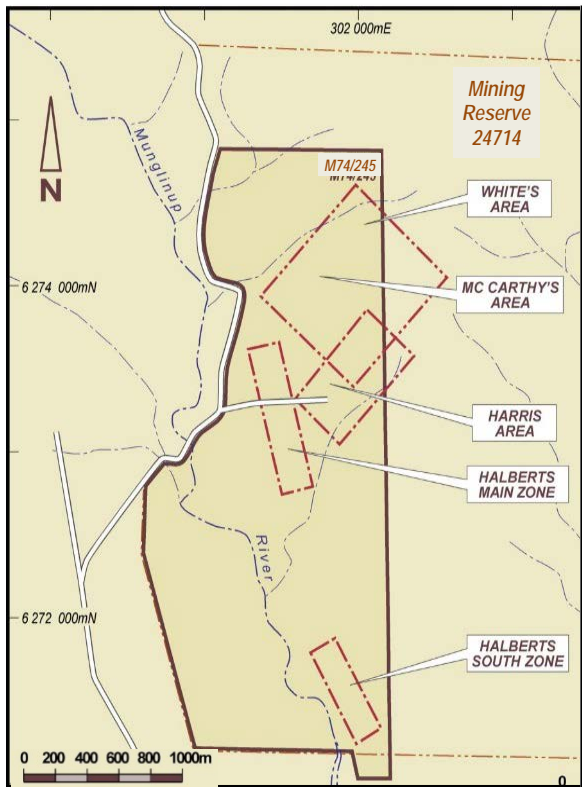
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The current resource database consists of 161 air core holes and 38 diamond holes representing 6612m of drilling and 2738 analysed drill samples. In 2016 re-logging and re-assay of 422 diamond core samples along with updated QA/QC work and historical data were used to derive an updated Mineral Resource model consisting of 5 separate deposits within the Munglinup area. In 2016 the Mineral Resource (JORC 2012 compliant) was updated by AEMCO and has since been peer reviewed which deemed the estimation methodology appropriate. The resource is classified into Indicated and Measured for a Total Resource of 3.625 million tonnes @ 15.3% Total Graphite Contained (“TGC”) using a lower cut-off grade of 10% or 1.6 million tonnes @ 18.7% TGC using a cut-off grade of 15%.

	Tonnes (kt)	Grade (TGC%)	Contained Graphite (kt)
<b>Halberts Main Zone</b>			
Measured	1,710	14.1	241
Indicated	1,367	15.3	209
<b>Other Areas</b>			
Indicated	548	19.1	104
<b>Total</b>	<b>3,625</b>	<b>15.3</b>	<b>554</b>

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Significant metallurgical work has been undertaken on the graphite mineralisation in the Munглинup deposit. Gwalia Consolidated completed expansive test work building on from historic work that was originally carried out in the 1950's, 60's and 70's. The Gwalia test program for their 1991 feasibility study was conducted from 1988-1991. Six distinct ore types were identified and the ore was described as having low variability. The project was further reviewed by Graphite Australia with the aim to consider a lower cost, simplified flowsheet. In 2011, Graphite Australia undertook:

- Metallurgical work to assess the quality of the graphite
- Costeans opened and 6 tonne of sample material from various locations on the Munглинup project site supplied for testing Commissioned test work by Nagrom mineral processors using updated technology

The Nagrom test work was undertaken with an updated flowsheet resulting in an expected gravity graphite recovery of 87-90% and flotation average recoveries of 96%. Preliminary flotation of concentrates achieved grades in the range of 90-96% carbon with the revised flowsheet.

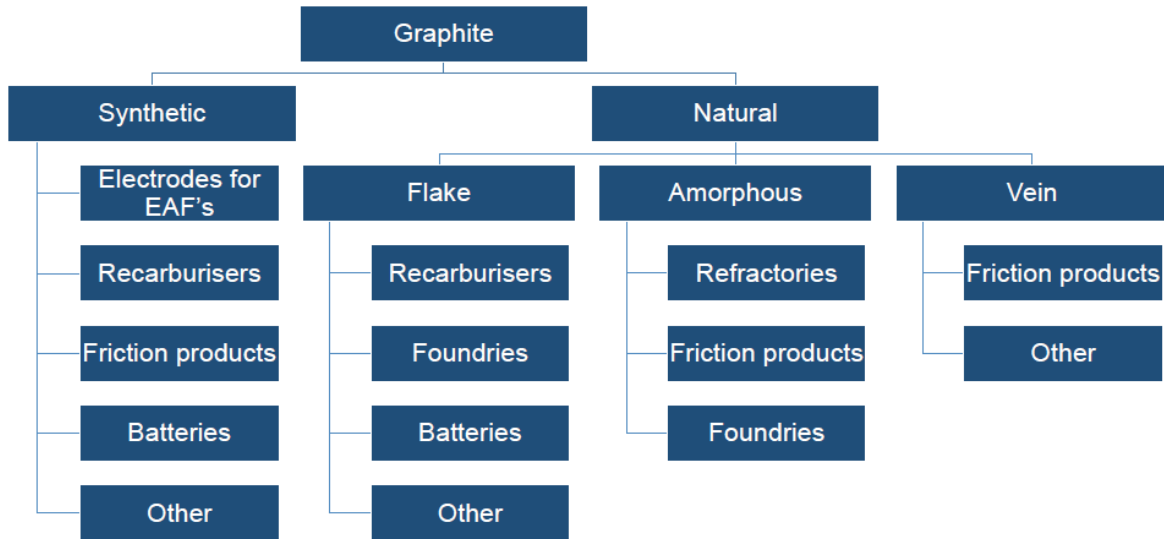
A due diligence review of the Project was undertaken by Battery Limits with modelling showing the project is economic under current and even lower graphite pricing conditions. The previous test work resulted in several flake size distributions and review of the historical test work by Battery Limits has found that the flow sheet has not yet been optimised. Battery Limits concluded that the Munглинup Project is a high-grade graphite project that provides the opportunity to establish a viable graphite operation. They did not identify any fatal flaws in the Project and also suggested that downstream processing such as producing spherical graphite or graphene could be considered to value add to the Project.

### Graphite Market

The majority of current world demand for graphite (88%) is driven by industrial applications (steel making, refractories and lubricants) that are growing at around 3% pa. Within the industrial sector, new applications comprising expandable graphite, and specialist applications including micronized graphite and graphene, are leading to an increase in demand. Expandable graphite has multiple uses including flame retardant materials, graphite foil, graphite paper, and knitted tape (high temperature and fire resistance). The remaining usage comes from the high-tech sector of batteries that is experiencing very high growth rates and requires high purity product.

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Source: Company Reports, Canaccord Genuity

It is estimated that the 2015 global natural flake graphite production was around 650kt with the majority of supply coming from Chinese domestic production. These operations, mainly located in the Shandong, Heilong and Jixi regions of China are usually small, of low grade and quality, and prone to poor environmental practices.

According to Benchmark Minerals, global production is estimated to have decreased by 45% since 2013, mainly due to the supply of marginal, lower quality Chinese amorphous production coming under pressure from influences such as increasing government intervention (i.e. closure of mines), and plateauing of demand from Chinese steel production.

General market consensus is that in the longer-term, expectations are for the natural flake graphite market to increase in size to around 1.1Mt by 2020, and to +2Mt by 2025, representing a CAGR of 16% (Canaccord Genuity). Supply is expected to increase to around 1.4Mt by 2020 and 2Mt by 2025 resulting in a short period of oversupply assuming natural coarse flake graphite projects currently in the development pipeline are delivered on time.

Of the 21 graphite projects globally (ex-China) at various levels of development and project feasibility, 8 are located in Tanzania and Mozambique. The largest and most advanced of these is Syrah Resources' 340ktpa Balama project in Mozambique, which is currently anticipated to achieve first production in 2017. Collectively these projects represent a potential +1.15Mtpa of natural graphite production, requiring more than US\$2.6bn in capital (Canaccord Genuity).

Should a number of these projects not be brought into production as anticipated prior to the ongoing issues around mining regulation, it is likely the coarse flake graphite market will be in undersupply shortly, having a positive impact on graphite pricing.

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Email: [info@mncom.com.au](mailto:info@mncom.com.au)

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Recent graphite pricing is already increasing with the Benchmark Flake Graphite Price Index up 16% in August off the back of China's tightening of environmental regulation. This is the highest level since June 2015 and there is an acceptance across the market that sharp increases are likely to continue in the short-term (Benchmark Mineral Intelligence).

Given the above factors and uncertainties, investors should not make any investment decisions based solely on the information contained in this release.

- ENDS -

**For enquires regarding this release please contact:**

**Peter Torre – Company Secretary**

**Ph +61 8 6253 1100**

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### **Competent Persons Statement**

The work in this report was prepared by Adriaan du Toit who is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and who is an independent consultant to Gold Terrace. Mr du Toit is the Director and Principal Geologist of AEMCO Pty Ltd. He has over 25 years of exploration and mining experience in a variety of mineral deposits and styles. Mr du Toit has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined by the 2012 JORC Edition. The information from Mr du Toit was prepared under the JORC Code 2012 Edition. Mr du Toit consents to inclusion in the report of the matters based on this information in the form and context in which it appears.

***The following table provides a summary of important assessment and reporting criteria used for the Munglinup Graphite Deposit in accordance with the Table 1 checklist in The Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition). Criteria in each section apply to all preceding and succeeding sections.***

### **Estimation and Reporting of Mineral Resources**

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Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<ul style="list-style-type: none"><li>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.</li><li>Data validation procedures used.</li></ul>	<ul style="list-style-type: none"><li>The database containing drilling data and results was provided by Graphite Australia. A review of the data was done by the project field geologist Mr Luke Forti and the accuracy of the data was discussed with him during a number of meetings with AEMCO during 2015. Confirmation on the integrity and accuracy of the data was provided.</li><li>A visual review of the diamond core was then done by AEMCO in 2016 to confirm the historical logging by Graphite Australia. Any outstanding information was recovered from the diamond core and updated geological logs were created.</li><li>Diamond core was relogged and resampled in 2016. 422 Core samples were re-analyzed by Nagrom during April 2016, including 26 duplicate and 19 repeat samples to confirm grade results. GGC01, GGC08 &amp; GGC09 standards were used.</li><li>The data and results obtained from the 2012-2013 (Graphite Australia) drilling campaign were compared with the new logging and lab results from 2016 (AEMCO) as well as the historical logging and grades from the 1986 diamond holes by Sons of Gwalia. Any discrepancies or errors were either corrected or the results rejected.</li><li>Four twin holes were drilled by Graphite Australia near (8-14m) the historical diamond holes by Sons of Gwalia.</li><li>The current resource database consists of 161 air core holes and 38 diamond holes representing 6612m of drilling and 2738 analyzed drill samples.</li><li>All exploration drillhole collars were re-surveyed to 0.05m accuracy by Esperance Surveys in July 2016. In total 90% (179 holes) were re-surveyed to confirm location integrity. Average variation from the original field survey in all directions was less than 2m.</li></ul>
<i>Site visits</i>	<ul style="list-style-type: none"><li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li></ul>	<ul style="list-style-type: none"><li>No site visit was undertaken as all drilling, survey work and site rehabilitation had been completed before this resource assessment started. All recent drill samples, core samples and bulk samples have been removed</li></ul>



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	<ul style="list-style-type: none"> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<p>to an industrial site in Welshpool and this material was inspected and reviewed by the CP.</p>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The determined measured and indicated resource of 1.6 million tonnes @ 18.7% TGC at the Halberts Main zone compares favourable with the historical reported measured resource grade of 1.467 million tonnes @ 18.2% and the produced product grade of 19%. The confidence in the current geological interpretation is therefore considered to be good.</li> <li>Assay data has been used to generate mineralization domains. Unsampled intervals were classified as waste and any graphite mineralization less than 1m in thickness outside mineralized domains was ignored. Internal waste material less than 1m was ignored.</li> <li>The geology, strike and dip of the deposit is well understood and is tabular in geometry with sub parallel gneissic units.</li> <li>As graphite content is found within a highly weathered lithological zones described as either a schist or gneiss and the host rock is within a para- and orthogneiss, modeling of a lithological model were problematic as the mineralized zone contact is not always distinct. It was therefore decided to only model zones with proven graphite content – a mineral composite grade model – not a lithological model. The mineralized domains were though interpolated using the local strike and dip of their host lithologies. These mineralized domains reflect their host schist lithologies to a very large degree.</li> <li>The graphite rich zone were modeled according to 4 grade zone – Low (1 to 5% TGC); Medium (&gt;5 and ≤10% TGC); Medium to High (&gt;10 and ≤15% TGC) and High grade zone (&gt;15% TGC).</li> <li>Resource grade interpolations was limited to a search radius length equal to at least the nearest fence drill line as follows:</li> <li>Halberts Main Zone: Measured Resource: 50m search radius, Indicated Resource 100m search radius (SR) (Drill Grid 50 x 20m).</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Halbert South Zone: Indicated Resource 50m SR (Drill Grid 40 x 20 &amp; 40 x 10 infill)</li> <li>• Harris Area: Indicated Resource 50m SR (Drill Grid 40 x 20m)</li> <li>• McCarthy West Area: Indicated Resource 50m SR (Drill Grid 40 x 20)</li> <li>• McCarthy East Area: Indicated Resource 50m SR (Drill Grid 40 x 10)</li> <li>• Total Graphite Content grade was modelled using Leapfrog Geo software. Any TGC grade intersections less than 1m in thickness was ignored during the resource calculations. Any intersections larger than 1m that did not carry graphite was modeled outside the grade models.</li> <li>• No composite grading was done and true intersections and reported grade was used to create interpolants.</li> <li>• The local strike and dip of the host formation in each area was used as structural trend control on the grade interpolation model.</li> <li>• The resulting mineralized zones were compared with historical maps and sections to determine if the current model reflects the historical interpretations. The model was found to closely reflect the historical interpretations and were true to the geological strike and dips reported.</li> </ul>
	<p><i>Dimensions</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The mineralized zones consist of numerous thin (2-20m wide) steeply dipping folded zones reflecting a cover nappe system with late stage granite and pegmatite intrusions.</li> <li>• Halberts Main Zone:                      Length: 730m                      Width: 90-130m                      Depth: surface to -90m</li> <li>• Halbert South Zone:                      Length: 560m</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>Width: 20-50m                      Depth: surface to -60m</p> <ul style="list-style-type: none"> <li>Harris Area:                              Length: 435m                              Width: 30-70m                              Depth: surface to -35m</li> <li>McCarthy West Area:                              Length: 290m                              Width: 100-110m                              Depth: surface to -55m</li> <li>McCarthy East Area:                              Length: 260m                              Width: 12-20m                              Depth: surface to -30m</li> </ul>
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>A conservative approach was taken during the resource modeling.</li> <li>Leaprog Geo version 3.1 was used to model the resource.</li> <li>A composite grade geological model was created for each deposit. The mean grade for each zone was then determined for each model.</li> <li>The model parameter for each of the five deposit was based on site specific aspects. The search radius for the grade model was limited to the nearest adjacent fence drill line as previously reported. No extrapolation of results were allowed outside the search radius. The search ellipse was weighted and</li> </ul>



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ABN 39 008 478 653

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Web: [www.mncom.com.au](http://www.mncom.com.au)

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	<ul style="list-style-type: none"><li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li><li><i>The assumptions made regarding recovery of by-products.</i></li><li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li><li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li><li><i>Any assumptions behind modelling of selective mining units.</i></li><li><i>Any assumptions about correlation between variables.</i></li><li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li><li><i>Discussion of basis for using or not using grade cutting or capping.</i></li><li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li></ul>	<p>oriented according to the structural trend (dip and dip direction and plunge) of the host lithological formation as follows:</p> <ul style="list-style-type: none"><li>Halberts Main Zone: Dip: 45° Dip Azimuth: 77° Pitch: 0.2°</li><li>Halbert South Zone: Dip: 38° Dip Azimuth: 60° Pitch: 0.2°</li><li>Harris Area: Dip: 37° Dip Azimuth: 143° Pitch: 0.1°</li><li>McCarthy West Area: Dip: 45° Dip Azimuth: 160° Pitch: 0°</li><li>McCarthy East Area: Dip: 45° Dip Azimuth: 137° Pitch: 0°</li></ul>



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ABN 39 008 478 653  
 Email: [info@mncom.com.au](mailto:info@mncom.com.au)  
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		<ul style="list-style-type: none"> <li>The resource boundaries was limited to the search radius from the last point of intersections and against the surface topography.</li> <li>3D Wireframes volumes/isosurfaces has been snapped precisely to drill results.</li> <li>Validation of the statistical drill results data and historical reported grades compared very favorably with the determine resource grade of 18.2% TGC and historical mine production grades of 19% TGC.</li> <li>There appear to be a correlation between pegmatite intrusions and higher grade graphite zones but the correlation cannot be proven.</li> <li>The current resource is declared at a cut-off grade of 10% as the industry standard median grade for commercial graphite mine development is considered to be approximately 9-10% TGC. This gives a total resource of 3.076 million tonnes @ 14.6 TGC.</li> <li>If a cut-off grade 1% is used the total resource increases to 5 million tonnes @ 10.4% TGC.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul style="list-style-type: none"> <li>The resource tonnages are based on a dry basis at an SG of 1.91.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>The current resource is declared at a cut-off grade of 10% as the industry standard median grade for commercial graphite mine development is considered to be approximately 9-10% TGC.</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Mining of the deposit will be by open pit surface mining methods involving standard truck and haul mining techniques.</li> <li>No assumptions on mining methodology have been made.</li> </ul>





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	<i>be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>Extensive metallurgical testing has been done on the deposit which include the following studies:</li> <li>Amdel (for Picon) – 1986</li> <li>Leach and Flotation test work – Chemistry Centre – 1990</li> <li>Settling Tests – Chemistry Centre – 1991</li> <li>Flotation Tests – Chemistry Centre – 1991</li> <li>Screening Test – Chemistry Centre - 1992</li> <li>Coffey Mining 2011</li> <li>Metallurgical study – TF Brittliffe – 2011</li> <li>Nagrom tests 2011-2016 and Petrographical studies by Roger Townend and Associates</li> <li>A summary of results include:</li> <li>90% Graphite concentrate will be achievable.</li> </ul> <p>Furthermore this circuit will be comprised of gravity and flotation units only – obviating the need for any chemical cleaning units.</p> <p>Flake size distribution of 35% +300µ; 32 % -300 +150µ; 33% -150µ</p>



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ABN 39 008 478 653

Email: [info@mncom.com.au](mailto:info@mncom.com.au)

Web: [www.mncom.com.au](http://www.mncom.com.au)

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<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"><li>• <i>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.</i></li></ul>	<ul style="list-style-type: none"><li>• No assumptions have been made and these will form part of a scoping study.</li></ul>
<i>Bulk density</i>	<ul style="list-style-type: none"><li>• <i>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.</i></li><li>• <i>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.</i></li><li>• <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li></ul>	<ul style="list-style-type: none"><li>• The bulk density is based on historical density calculation for the material at 1.91 g/cm<sup>3</sup></li><li>• The host geology comprises weathered metamorphic material. Visual inspection of core indicate little loss of material due to vugs or discontinuities.</li><li>• All material within the mineralization domains were assumed to be schist for the purpose of assigning density values.</li></ul>
<i>Classification</i>	<ul style="list-style-type: none"><li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li><li>• <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations,</i></li></ul>	<ul style="list-style-type: none"><li>• The original 1989 resource classification was an indicated and measured resource based on 1989 JORC criteria including diamond drilling, trenching, bulk sampling, exploration &amp; mine shafts and bulk mining.</li><li>• Since that time an additional 161 air core holes and 22 new diamond holes representing 5883m of drilling and 2615 analyzed drill samples were added to the resource database.</li></ul>



PERSONAL USE ONLY

Criteria	JORC Code explanation	Commentary
	<p><i>reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <ul style="list-style-type: none"> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The input data is comprehensive in its coverage of the known areas of mineralization and mineralization remains open along strike and depth.</li> <li>• A review of the drill data, lab results, continuity of the mineralization and the drill spacing allowed the current resource to be classified as indicated and measured.</li> <li>• A conservative modelling approach was used to be able to classify part of the Halberts Main zone into measured with an interpolation search radius limited to 50m on a 50 x 20m drill grid. No extrapolation of the resource were done past this distance. No mineralization with intersections less than 1m was used in the resource determination and all waste or unsampled zones thicker than 1m was classified to be located outside the mineralized zone.</li> <li>• The model is not considered to favor or misrepresent in-situ mineralization and reflects the current and historical interpretation of the ore body. The Mineral Resource estimate appropriately reflects the view of the Competent Person.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• This is the maiden mineral resource estimate under JORC 2012.</li> </ul>
<i>Discussion of relative accuracy/confidence</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Munglinup graphite deposit has been mapped, drilled, mined and investigated numerous times over the past 100 years. The high grade nature of the resource and its potential is well documented. The structural complexity and difficulty in lithological identification within the weathered zone has always made modeling using a standard lithological model difficult. Using implicit modeling methods as provided by Leapfrog software and the creation of a composite lithological grade model helped to overcome some of these difficulties.</li> <li>• A statistical analyses of all the mineralized (carrying graphite) drill data indicates the following:  27.45% of intersections is above 15% having a median grade of 19.57% TGC</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <ul style="list-style-type: none"> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>38.45% of intersections is above 10% having a median grade of 14.64% TGC</p> <p>54.67% of intersections is above 5% having a median grade of 11.19%</p> <ul style="list-style-type: none"> <li>• The statistical grade data correlates extremely well with the Halberts Main zone modeled resource grade of 14.6% using a cut-off grade of 10%.</li> <li>• The current data quality, drill hole spacing and the interpreted continuity of grades and continuity at surface outcrop have allowed AEMCO to classify the Halberts main zone resource into Measured and Indicated category and all the other deposits into Indicated.</li> <li>• The resource estimate compares favorably with historical production grades of 19%.</li> </ul>