

ASX Announcement

MINERAL RESOURCE UPDATE:

212% INCREASE IN GRAPHITE RESOURCE AT GRAPHAMDA MINING COMPLEX

12 July 2022

Greenwing Resources Ltd (**Greenwing** or the **Company**) (ASX:GW1) is pleased to provide an updated Mineral Resource Estimate (MRE) for its wholly owned Graphmada Mining Complex, located in Madagascar.

HIGHLIGHTS

- Greenwing has expanded the Graphmada Mineral Resource, nearly tripling the Mineral Resource to **61.9Mt at 4.5% Fixed Carbon** (FC), with total contained graphite now greater than 2.7 million tonnes (refer Table 1).
- Given the quantum of the new mineralization discovered, the Company is reviewing its project development strategy, as part of ongoing feasibility studies.
- These ongoing feasibility studies being conducted focus on expanded production levels at Graphmada, and a concept study will be completed during the quarter to determine the potential of Graphmada to supply both advanced material and lithium battery anode markets.
- Greenwing is planning a geophysics program at Graphmada to determine further diamond drill targets, aiming to significantly increase the Mineral Resource once again.

"This is a fantastic result, giving Greenwing the opportunity to potentially supply traditional industrial markets and the advanced materials market from our soft rock resource and the lithium battery anode market from our hard rock resource. The lithium battery anode market is forecast to move into a structural deficit by mid-decade if not before, with end-users looking to secure raw material for their strategic supply chains. We will continue our focus on completing feasibility studies, while actively looking for partners that can help advance the project."

CEO, CRAIG LENNON

	Tonnes (Mt)	FC%	Contained Graphite (kT)
Measured	18.7	4.9	911
Indicated	12.3	4.7	582
Inferred	30.9	4.2	1,288
Total	61.9	4.5	2,780

Table 1: Graphmada Mining Complex Mineral Resources¹

TECHNICAL SUMMARY (ASX LR 5.8.1)

The following summary presents a fair and balanced representation of the information contained within JORC Table 5 (sections 1-3) attached:

- The Company holds the Mineral Resources via 100% owned exploitation permit numbers 26670, 25600 and the Loharano renewal. The permit grants the exclusive rights for 40 years to explore and mine graphitic resources.
- The mineralization contains large flake graphite mineralized within both the weathered profile (regolith) and underlying crystalline graphitic gneisses (hard rock), broadly coinciding with regional graphite mineralization trends.
- Diamond and auger drilling have intersected the mineralization, which is distributed broadly within the known mineralization footprint. The mineralization broadly dips to the west at approximately 45° and consists of a broad mineralization profile that continues to depth.
- 25,368 samples from 2,212 auger holes (18,843 meters drilled) and 212 diamond holes (8,555 meters drilled) were prepared, split, and analysed at the in-house Graphmada laboratory, with a representative proportion analysed by an SANAS accredited laboratory in South Africa for Fixed Carbon and Graphitic Carbon respectively, as well as further analysis for Sulphur.
- The estimate was classified as Measured, Indicated, and Inferred based on augering, diamond drilling, surface mapping, drill hole sample assay results, drill hole logging, assigned density values based on core sample measurements, flake size distribution studies, and nearby mining and processing operations.
- Grade estimation was completed using the ordinary kriging estimation method and checked using inverse distance weighting to the power of two estimation.
- A nominal 3% cut-off is supported by statistical analysis of the grade population distribution of the total dataset.

Reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code 2012') at a >3% cut-off.

LOCATION

The Graphmada Mining Complex is located near the town of Brickaville on the east coast of Madagascar, 236km by road east of the capital Antananarivo. Madagascar is a democratic island country in the Indian Ocean, off the south-east coast of Africa and is governed under a French legal system with a low corporate tax rate of 20% and a low mining royalty of 2%.



Figure 1: Location of Graphmada Mining Complex

Madagascar has produced benchmark quality graphite for over 100 years due to a high proportion of high-purity, large-flake, premium-quality graphite. Deposits like Graphmada have low operating costs and extremely low capital costs when compared with other deposits in Africa and around the world.

The well-developed export infrastructure is also a significant aspect that makes working in Madagascar attractive.

PERMITTING

The Graphmada Mining Complex holds two granted mining permits (PE 25600 and PE 26670) and one permit pending renewal (Figure 2). Graphmada has 40-year mining permits and 20-year landholder agreements in place.

With all associated mining infrastructure and logistics in place, the mine has previously produced and sold a range of graphite concentrates into multiple market segments, without penalty or rejection to customers in Europe under an off-take agreement and on order to customers in India, China, and the United States.



Figure 2: Graphmada Mining Complex.

PREVIOUS EXPLORATION AND MINING

Systematic exploration activities have been conducted since 2013 and results obtained confirm that the area contains shallow, regolith-hosted large flake graphite mineralisation that is extensive in its morphology, both laterally and by width, as well as hard rock mineralization that is highly suitable to lithium battery anode manufacture.

These exploration activities include rock chip and outcrop sampling, augering, diamond drilling, topographic and geophysical surveys, geological and structural modelling, statistical and elemental analysis, and flake size characterisation, along with reconciled production over an extended period.

GEOLOGY

Graphmada is predominantly underlain by the Andasibe Formation; a Neoproterozoic unit of the Manampotsy Complex, consisting of biotite gneiss (± hornblende) with quartzite, calcsilicate and graphitic (± sillimanite) units. The Manampotsy Complex is intruded by rocks from the Imorona-Itsindro Suite, summarised as Brickaville-type migmatitic ortho-gneiss with hornblende-garnet (± biotite) and gabbros. The Manampotsy Complex is overlain by younger Mesozoic sediments and Cenozoic alluvium, (GAFAG-BGR, 2008).

Graphitic rich units are intercalated within the Andasibe Formation and follow the characteristic N-NNE to S-SSW trending structural grain within the host units, and generally dip 40° to 50° to the W-NW. The graphite bearing gneiss' and migmatites have been completely weathered and are susceptible to regolith formation due to the characteristic tropical climatic conditions in the region.



Figure 3: Large Flake Graphite at surface (2019 mining).

Classification and JORC Code 2012 clause 49

The Company in adhering to the principals of JORC Code (2012) of transparency and materiality has updated the reporting of its Mineral Resources to provide additional information the Competent Person sees as relevant to investors for the purpose of making a reasoned and balanced judgement in the context of Natural Flake Graphite being an industrial mineral produced to customer specifications.

Specifically, Clause 49 of the JORC Code 2012 requires that: "For minerals that are defined by a specification, the Mineral Resource or Ore Reserve estimation must be reported in terms of the mineral or minerals on which the project is to be based and must include the specification of those minerals."

Approximately 90% of the graphite mineralisation at Graphmada is thought to be greater than 180 microns insitu (large flake). This is an excellent starting position from which to mine and process natural flake graphite and a more suitable reflection of insitu value than carbon grade.

In 2016, Independent Metallurgical Operations completed maiden test work and demonstrated that approximately 60% large flake could be recovered as saleable concentrates from regolith hosted mineralisation². In 2017 Dorfner ANZAPLAN³ demonstrated that approximately 70% large flake could be recovered from regolith hosted mineralisation utilising an improved process. ANZAPLAN also concluded that the concentrate benchmarked favourably for wide use in various carbon applications and market segments, including the lithium battery anode market⁴.

The lithium battery anode test work utilized a low excess of acids to achieve a purity of 99.99 wt. % which exceeds the quality of typical battery grade Shaped Graphite Flakes (SPG), which is specified with > 99.95 wt.%. Key parameters such as bulk density, tap density and surface area (BET) of Graphmada's SPG are equivalent, if not superior, to typical SPG products in the market.

Further optimization of the leaching procedure by variation of acid quantity, retention time, washing procedure and thermal processing steps are possible to optimize acid and energy consumption and final product qualities.

Parameter	Result	Desired
Tap Density	0.94 g/cm3	>0.9 g/cm3
D50	14.7 micron	10 - 25 micron
Ratio D90/D10	2.6	2.6 - 2.8
BET	6.7 m2/g	3 - 8 m2/g
Yield Test	47 wt.%	>30 wt.%
Silicon dioxide SiO2	27 ppm	<45 ppm
Aluminium oxide Al2O3	11 ppm	<15 ppm
Iron oxide Fe2O3	24 ppm	<35 ppm
Titanium dioxide TiO2	<10 ppm	<10 ppm
Potassium oxide K2O	<10 ppm	<10 ppm
Sodium oxide Na2O	<10 ppm	<10 ppm
Magnesium oxide MgO	<10 ppm	<10 ppm
Calcium oxide CaO	<10 ppm	<10 ppm
Phosphorous oxide P2O5	<10 ppm	<10 ppm
Barium oxide BaO	<10 ppm	<10 ppm
Lead oxide PbO	<10 ppm	<10 ppm
Zirconium oxide ZrO2	<10 ppm	<10 ppm
Manganese oxide MnO	<10 ppm	<10 ppm
Sulfur oxide SO3	<0.01 wt.%	<0.01 wt.%
Loss on ignition LOI	99.99 wt.%	>99.96% wt.%
Ash content	0.01 wt.%	<0.04 wt. %

Table 3: Lithium battery anode test work results

In addition, the Company has mined, processed, and sold graphite concentrates from Graphmada's existing infrastructure. All concentrates were sold without penalty or rejection into a wide variety of markets, establishing Graphmada as a viable and highly sort after

² ASX Announcement 15/11/2016 "Bass achieves excellent concentrate optimisation results."

³ ASX Announcement 23/05/2017 "Tests confirm Graphite Concentrates as Industry Benchmark".

⁴ ASX Announcement 29/05/2017 "Concentrates confirmed as benchmark and highly suitable for use in lithium-ion batteries".

graphite suppler. Importantly, production from Graphmada approximated bench-scale test recovery results. To date, most large flake recovery data obtained pertains to regolith-hosted mineralization.

The Company has less information from diamond drill core and metallurgical test work for hard rock mineralisation. The Competent Person acknowledges that further test work on large flake recovery from hard rock mineralisation is warranted and advises that this work forms part of current feasibility studies being undertaken.

Therefore, based on this limited information for hard rock mineralisation but also considering the extensive data for regolith mineralisation, and the significant amount of production data available, the Competent Person estimates, on a conservative basis, approximately 50% large flake graphite can be recovered utilizing modern mining and processing techniques.

ESTIMATION METHODOLOGY

The Mineral Resource Estimate (MRE) is based upon 25,368 samples from 2,212 auger holes (18,843 meters drilled) and 212 diamond holes (8,555 meters drilled) were prepared, split, and analysed at the in-house Graphmada laboratory, with a representative proportion analysed by an SANAS accredited laboratory in South Africa for Fixed Carbon and Graphitic Carbon respectively, as well as further analysis for Sulphur.

The mineralization wireframes were modelled, using a nominal lower cut-off grade of 3%. The estimate assisted in defining grade envelop boundaries which were then interpreted in section with string polygons based upon geological and production knowledge of the deposit, drill hole logs and drill sample analysis results.

A detailed topographic surface was acquired from Drone and Differential Global Positioning System (DGPS) surveys. Weathering boundary surfaces, based on the drill logging, were used to define the regolith and hard rock zones.



Figure 4: Cross-section of mineralization.

Block models were constructed using Surpac software with a predominant parent cell size of 20m (E) by 50m (N) by 10m (RL). Drill hole sample assay results were subjected to detailed statistical and spatial (variography) analysis.

Composited sample grades for FC were interpolated into the block model using Ordinary Kriging (OK) with an inverse distance weighting to the power two (IDW) check estimate completed for validation purposes.

Density values were assigned to the block model based on analysis of measurements taken in the various weathering state domains.

The model was validated visually, graphically, and statistically, and reported from all classified estimated blocks within the interpreted mineralization domains under the guidelines of the JORC Code (2012). The results of the MRE are presented in the tables below.

MINERAL RESOURCE COMPARISON

Table 4: November 2021 Graphmada Mining Complex Mineral Resources 5,6

	Tonnes (Mł)	FC%	Contained Graphite (kt)
Measured	2.9	4.2	121
Indicated	3.3	4.3	143
Inferred	15.8	4.0	625
Total	22.0	4.0	890

Table 5: June 2022 Graphmada Mining Complex Mineral Resources 4,7

	Tonnes (Mt)	FC%	Contained Graphite (kt)
Measured	18.7	4.9	911
Indicated	12.3	4.7	582
Inferred	30.9	4.2	1,288
Total	61.9	4.5	2,780

⁵ Reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code 2012') at a >3% cut-off and first released to the ASX 19 November 2021 "Mineral Resource Update". 6 Figures subject to rounding

⁶ Figures subject to rounding.

⁷ Reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code 2012') at a >3% cut-off.

NEXT STEPS

As previously noted, past test work and production undertaken by the Company has demonstrated that Graphmada's premium graphite concentrates are highly suitable to supplying both the advanced materials and lithium battery anode markets.

Given the quantum of the mineralization discovered, the Company is reviewing its project development strategy, as part of ongoing feasibility studies, to potentially incorporate the processing of hard rock mineralization best suited to possible future supply into the lithium battery anode market.

A concept study will be undertaken to better understand the potential of this larger resource at Graphmada to supply additional markets.

The Company is also planning a geophysics program at Graphmada to determine further diamond drill targets, aiming to again significantly increase the Mineral Resource to support large scale mining and processing.

For further information:

visit greenwingresources.com or contact: info@greenwingresources.com

Rick Anthon, Chairman

Craig Lennon, CEO

This announcement has been approved by the Company's Board of Directors for release.

ABOUT GREENWING RESOURCES

Greenwing Resources Limited (**ASX:GW1**) is an Australian-based critical minerals exploration and development company committed to sourcing metals and minerals required for a cleaner future. With lithium and graphite projects across Madagascar and Argentina, Greenwing plans to supply electrification markets, while researching and developing advanced materials and products.

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Any forecasts or other forward-looking statements contained in this announcement are subject to known and unknown risks and uncertainties and may involve significant elements of subjective judgment and assumptions as to future events which may or may not be correct. There are usually differences between forecast and actual results because events and actual circumstances frequently do not occur as forecast and these differences may be material.

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Competent Person Statement

The information in this document that relates to Exploration Results, Exploration Targets and Mineral Resources is based on information compiled by Tim McManus, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy and a full-time employee of the Company.

Tim McManus has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Tim McManus consents to the inclusion of the information in this document in the form and context in which it appears.

JORC Code, 2012 Edition - Table 1

Discussion and results within this appendix relate to the Graphmada Mineral Resource.

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	25,368 samples from 2,212 auger holes (18,843 meters drilled) and 212 diamond holes (8,555 meters drilled) were prepared, split, and analysed at the in-house Graphmada laboratory, with a representative proportion analysed by an SANAS accredited laboratory in South Africa for Fixed Carbon and Graphitic Carbon respectively, as well as further analysis for Sulphur. The samples were oven dried, crushed to -2mm, split twice through a 50/50 riffle splitter to obtain a representative sub-sample, weighing between 100-150g and then pulverized that 85% pass -75µm. The pulp samples were sent to the Greenwing in-house laboratory in South Africa for Graphitic Carbon (GC), Total Carbon (TC) and Sulphur (S) analysis. Whole core samples were removed for bulk density testing before splitting and sampling. Upon completion of bulk density measurements, the whole core samples were placed back. Samples were collected within lithological sub-divisions only and not across geological boundaries.
Drilling techniques	25,368 samples from 2,212 auger holes (18,843 meters drilled) and 212 diamond holes (8,555 meters drilled) were used to obtain data points. All diamond drilling was undertaken with an EP200 man portable drilling rig. The nominal core diameter was 56.2 mm (NTW). Coring was completed with appropriate diamond impregnated tungsten carbide drilling bits. Diamond drill holes were inclined at -60. The core was not orientated.
Drill sample recovery	For diamond drilling, at the completion of each drill run the steel splits containing the core were pumped out of the retrieved core tube. Core was then carefully transferred from the core barrel into plastic sleeves, which were transferred to core trays for recovery measurements and calculations recorded by both the driller and the Company geologist.
	Drilling, orientated perpendicular to the orebody, was conducted with specific drilling mud additives to aid drill hole wall integrity, along with slow drilling rates to maximize sample recovery and ensure representative nature of the samples. An overall core recovery of >90% was achieved for all sampled cores. There is no known
	relationship that exists between sample recovery and grade currently. Inconsequential sample bias would have occurred due to preferential loss/gain of fine/coarse material.
Logging	Drill core and auger samples were geologically logged, and the recording of relevant data was captured on Greenwing logging templates. All data was codified to a set company codes system as per sampling and logging procedures, which are in place. This offers sufficient detail for the purposes of geological interpretation, further studies, and resource estimation where continuity of the orebody needs to be proved and understood.
	All logging included lithological features, estimates of graphite percentages and flake sizes, which is quantitative and is recorded on the logging sheets. All drill core and augering intervals were photographed prior to geological logging and after sampling and images were digitally catalogued. Photographs have been taken as a qualitative check on logging when the need arises. All drill core intersections (100%) were logged by experienced, competent geoscientists are reliable and reproducible semi-quantitative estimates of the abundance of minerals present in samples when referenced to past drilling assay data and previous mining operations undertaken by the Company in the same style of mineralisation.
Sub-sampling techniques and sample preparation	For diamond drilling, the core was manually hand split and where appropriate sawn to produce half core (50:50) samples. All equipment was cleaned according to best practise procedures prior to cutting and sampling. Appropriate and documented techniques were used to collect samples in 1-metre intervals. Samples were taken along the depth intervals and lithological sub-division mark- ups to gather representative samples. For auger drilling, samples were collected and included composite samples of the graphite bearing host rocks. Visual estimation of graphite percentages and flake sizes have been used to define
	mineralisation prior to return of assays. The samples were solar/oven dried, crushed to -2mm, split twice through a 50/50 riffle splitter to obtain a representative sub-sample, weighing between 100-150g and then pulverized that 85% pass -75µm. The pulp samples were sent to the Greenwing in-house laboratory for Fixed Carbon (FC) and LECO analysis and crosscheck samples to a SANAS accredited laboratory in South Africa for Graphitic Carbon (GC), Total Carbon (TC) and Sulphur (S) analysis.
	Certified graphite standards (GC-09 and GC-11) and silica blanks (AMIS0484, AMIS0439 and AMIS0052) and duplicates (a second sample of the same interval) were inserted with the dispatch of the crosscheck samples to the SANAS accredited laboratory in South Africa and in the sample analysis by the Company's laboratory. The insertion rate of standards/blanks were 1 in 20, and duplicates were 2 in 100. The SANAS Laboratory also insert check samples (blanks, standards, and

	duplicates) to maintain QAQC standards.
Quality of assay data and laboratory tests	Samples were analysed at the Greenwing in-house laboratory for an evaluation of the carbon grade. The Muffle Furnace method was used to determine Loss on Ignition (LoI), Volatile Matter (VM) and Fixed Carbon (FC).
	Lol Test: a crucible is placed on an electronic balance, primarily zeroed and the weight recorded. 1 gram +- 0.01 of the sample are added, the weight of crucible + sample are recorded. The crucible is placed in the Muffle Furnace at 950°C +-25°C for 8 hours continuously. After the crucible is removed and cooled, the ash + crucible is then weighed and recorded. The Lol % is calculated as follows:
	$LOI \% = (1 - \frac{Weight of ash}{Weigh of original sample}) \times 100$
	VM Test: a crucible is placed on an electronic balance, primarily zeroed and the weight recorded. 2 grams +- 0.01 of the sample are added, the weight of crucible + sample are recorded. The crucible is placed in the Muffle Furnace at 950°C +- 25°C for 7 minutes. After the crucible is removed and cooled, the ash + crucible is then weighed and recorded. The VM % is calculated as follows:
	$V M \% = (1 - \frac{\text{Weight of ash}}{\text{Weigh of original sample}}) \times 100$
	The FC % of the sample is calculated as follows: FC % = (LOI % - VM %)
	A split of the sub-sample was analysed using a LECO Analyser to determine Total Carbon (TC), Sulphur (S) and Graphitic Carbon (GC) contents (these are considered both partial and total digestion analyses).
	For TC and S, a stream of oxygen passes through a prepared sample (2g), it is heated in a furnace to approximately 1350°C and the sulphur dioxide and carbon dioxide released from the sample are measured with infrared detection.
	For GC, a 0.2g sample is leached with dilute hydrochloric acid to remove inorganic carbon. After filtering, washing, and drying, the remaining sample residue is roasted at 425°C to remove organic carbon. The roasted residue is analysed for Carbon - High temperature LECO furnace with infra-red detection.
	Internal Laboratory check samples (blanks, standards, and duplicates) are also analysed as per normal laboratory practice. The reject pulp samples in Madagascar were re-sampled and another 100g pulp sample each were dispatched for analysis. The in-house and laboratory standards, blanks and duplicate results were reviewed. Performance of the laboratory across all assay batches were within acceptable tolerance levels.
Verification of sampling and assaying	All work was completed by Greenwing personnel. Significant mineralization intersections were verified by an external consultant and by internal peer review. No twinned holes were drilled.
	All data was collected initially on paper log sheets by Greenwing personnel. This data was hand entered into spreadsheets and validated by an external consultant. All paper log sheets were scanned, and electronic spreadsheets stored together with the photographs of the geological features logged.
	The master collar, geotechnical, density, lithology and assay database with all photographs are backed-up and stored in a cloud-based database. No adjustments were made to the data.
Location of data points	DGPS's were used to locate collar locations, and final location coordinates were completed with estimated positional errors between 15 and 30 centimetres.
Data analing and	The WGS84 UTM Zone 39S projection system is used at Graphmada.
Data spacing and distribution	Diamond collars were spaced predominantly along a 50m x 40m grid, with drill hole inclination and strike aligned perpendicular to the orebody orientation, infilling previous augering on a 20m x 20m spacing, and in some instances 10m x 5m for grade control purposes.
	The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedure(s) and classifications applied.
Orientation of data in relation to geological structure	Diamond drilling was approx. orientated perpendicular to the estimated dip and strike of the mineralization to limit bias. Deeper diamond drill holes were inclined at -60 degrees. Subsequent samples are deemed to be unbiased in terms of known structures and the deposit type.
Sample security	Samples were stored in a secure storage area at the Greenwing sample storage facility. A selection of crosscheck samples were prepared and stored securely until dispatch to the laboratory in South Africa via courier.
Audits or reviews	The sampling techniques and data were reviewed by an external consultant and internally peer reviewed. It is considered by the Company that industry best practice methods have been implemented by the Company at all stages of exploration.

Section 2 Reporting of Exploration Results

Criteria listed in the preceding section also applies to this section.

Criteria	Commentary
Mineral tenement and land tenure status	The Company holds the Mineral Resources via exploitation permit number 26670, 25600 and the Loharano renewal, which are 100% owned. The permit grants the exclusive rights for 40 years to explore and mine graphitic resources.
Exploration done by other parties	No other systematic exploration activities were completed within this permit area until 2014 when previous project owners commenced preliminary outcrop sampling and trenching over the area. Greenwing built on this work by completing augering, diamond drilling, surface mapping, drill hole sample assay results, drill hole logging, assigned density values based on core sample measurements, flake size distribution studies, and 18 months of mining and processing operations.
Geology	At Graphmada, the mineralization system is extensive, both laterally and in width, with a shallow, regolith-hosted morphology and hosted within the bedrock gneiss and are termed 'Regolith-Hosted' and 'Hard Rock' Natural Flake Graphite occurrences respectively. The crystalline 'Hard Rock' mineralization occurs in graphitic gneisses within Neoproterozoic metasedimentary type rocks and include accessory minerals of biotite (± sillimanite / kyanite, ± garnet). Due to the tropical climate and because graphite is comparatively inert, weathering of the 'Hard Rock' graphitic gneiss units further concentrates the graphite to form residual Regolith-Hosted' accumulations within the weathered profile. Regolith refers to weathered material that occurs above unweathered bedrock. Two primary subdivisions are the pedolith (PED) and the saprolith (SAP). Secondary subdivisions of the pedolith, from the surface downwards, include soil (SL), ferruginous zone (FZ), and the mottled zone (MZ). Secondary subdivisions of the saprolith, include saprolite (SP) and saprock (SR). The mineralization strikes nominally north - south and is open ended into the north and south.
Drill hole Information	No exploration results are being reported.
Data aggregation methods	Samples have been reported in Fixed Carbon grades, the same basis as saleable grade. No Metal Equivalents have been stated.
Relationship between mineralisation widths and intercept lengths	The mineralization system is extensive, both laterally and in width, with a shallow, regolith-hosted morphology and hosted within the bedrock gneiss. The mineral resource estimate is a global estimate and has no direct relationship with drill intercept lengths.
Diagrams	This information has been accurately represented in the announcement and contains all relevant information required for the reader to understand the nature of the graphitic mineralization.
Balanced reporting	The Company the reporting herein is balanced, in that visual inspections of a fully complete drilling program by experienced, competent geoscientists are reliable and reproducible semi-quantitative estimates of the abundance of minerals present in samples when referenced to past drilling assay data and mining operations undertaken by the Company in the same style of mineralisation.
Other substantive exploration data	Previous exploration by the Company has demonstrated widespread mineralization at Graphmada. Please reference previous ASX releases.
Further work	Further drilling is either underway or planned at zones within the Graphmada Mineral Resource.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database Integrity	Data provided for use in the Mineral Resource estimate (MRE) is stored in an electronic cloud-based database by Greenwing. Supporting data in the form of pdf format laboratory certificates, pdf format geological logging sheets and survey reports have also been provided. Greenwing has conducted random checks of the assay data against the pdf laboratory certificates and survey reports have also been provided.
	and has found no import errors. Random comparisons of the geological data against the provided logging sheets also showed no errors.
	Validation of the data import included checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars. No significant issues were found in this process.
Site Visits	The Competent Person has frequently visited the project site and is familiar with the extents of the surface expression of the modelled mineralization.
Geological Interpretation	The geology and mineral distribution of the system appears to be reasonably consistent, nominally north-south striking, westward dipping, graphite mineralized lenses, separated by apparent structural breaks as shown by the diagrams in the body of this announcement. The mineralization has been intersected by diamond and auger drilling, as well as having been previously mined.
	Drill hole intercept logging and sample analysis results have formed the basis for the mineralization domain interpretation. Assumptions have been made on the depth and strike extent of the mineralization based on the available drill hole and geophysical data.
	The extents of the modelled zones are constrained by the available data. Alternative interpretations are unlikely to have a significant influence on the global MRE.
	An overburden layer of roughly one metre thickness of soil has been modelled based on drill logging and is depleted from the model. The base of the pedolith, base of saprolite, and top of fresh rock weathering boundary surfaces have been modelled based on the drill logging.
	The mineralization lens interpretation is based on a nominal 3% lower cut-off grade. The graphite mineralization at this grade cut-off has been recognized by on site geological staff, with their visual grade range estimates of graphite content well correlating with analysis results but incorporating a wholistic view of mineralisation (global estimation).
	Continuity of geology and grade can be identified and traced between drill holes by visual, geological, and geochemical characteristics. Additional data is required to model the effect of any potential structural or other influences more accurately on the down dip and strike extents of the defined mineralized geological units. Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.
Dimensions	There are several zones of mineralization at Graphmada. Loharano has a mineralization footprint of approximately 0.2 sq.km, Mahela 0.7 sq.km, Mahefedok 0.2 sq.km and Ambatofafana 0.4 sq.km for a combined mineralization footprint of approximately 1.5 sq.km.
Estimation and modelling techniques	The mineralization was modelled by zone due to the extensive nature of mineralization, producing a combined estimate. Grade envelop boundaries were interpreted in section with string polygons based upon geological knowledge of the deposit, drill hole logs and drill sample analysis results. A detailed topographic surface was updated with more accurate information obtained from Drone and DGPS surveys. Weathering boundary surfaces, based on the drill logging, were used to define the regolith and bedrock zones.
	Block models were constructed using Surpac software with varying parent cell size depending on the zones modelled. The material modelling was predominantly completed using 20 m (E) by 50 m (N) by 10 m (RL). Drill hole sample assay results were subjected to detailed statistical and spatial (variography) analysis. Composited sample grades for FC were interpolated into the block model using Ordinary Kriging (OK) with an inverse distance weighting to the power two (IDW) check estimate completed for validation purposes. Density values were assigned to the block model based on analysis of measurements taken in the various weathering state domains. The model was validated visually, graphically, and statistically, and reported from all classified estimated blocks within the interpreted mineralization domains under the guidelines of the JORC Code (2012). Drill hole samples were selected for each lens and grouped appropriately for data analysis. Statistical analysis was completed for each lens or lens grouping to determine if any outlier grades required top-cutting.
	An inverse distance weighting to the power of two (IDW) grade estimate was completed concurrently with the OK estimate in several estimations with varying parameters. Block model results were compared against each other, and the drill hole results to ensure an estimate that best honours the drill sample data is reported.
	No mining assumptions have been made in respect of the MRE, other than confirming the confidence in classification, having previously mined and processed ore in the area. Any mining pit volume is depleted from the model.
	No other elements have been estimated.
	In the grade estimate, soft boundaries have been employed in a global estimation manner, other than

	dolerite bodies which were modelled in a hard boundary basis. Validation checks included statistical comparison between drill sample grades, the OK estimate and the IDW estimate for each mineralization lens or lens grouping. Visual validation of grade trends along the drill sections was completed and trend plots comparing the drill sample grades and model grades for northings, eastings and elevation were completed. These checks show a reasonable correlation between estimated block grades for each estimation method and with the drill sample grades.
Moisture	Tonnages have been estimated on a dry, in-situ basis, due to the analysis being completed on dry samples. Density measurements have been completed by means of the caliper method with samples measured and weighed both wet and after drying. Based on a comparison of the mean wet versus dry density, the fully weathered materials contain roughly 15 weight percent moisture, with the transitional material containing roughly 10 and the fresh rock roughly less than 5 weight percent moisture.
Cut-off parameters	Statistical analysis of the raw un-domained sample analysis results showed a reasonable mineralization population cut-off grade interpretation of 3%. Based on analysis of the visual grade estimate logging by on site geologists, and visual analysis of the drill core photography, the statistically based mineralization threshold appears to be more sensible and practical from a potential future mining perspective, as mineralization is generally recognizable around and above this level. Reasonable strike and sectional continuity were found when defining the mineralization lenses at a 3% threshold. Test modelling at the 3% cut-off showed the grade estimates better honouring the drill data and geological interpretation of mineralization, and this was then selected as the most appropriate mineralization cut-off grade to complete the MRE.
Mining factors or assumptions	It has been assumed that the deposit will be amenable to the truck and shovel mining method which is economic to exploit to the depths currently modelled. No assumptions regarding minimum mining widths and dilution have been made.
Metallurgical factors or assumptions	Flotation tests were carried out on samples. These tests confirmed that a range of concentrates with overall grades between approximately 83- 96% Total Carbon, with approximately 50-60% of the flakes larger than 180 µm could be produced depending on process parameters. Recoveries ranged from approximately 75-92%. The flake size distribution and purity are considered by the Competent Person (industrial minerals) to be favourable for product marketability. Greenwing has mined and sold product produced from the region. The concentrates are sold into traditional and specialty carbon markets throughout Europe, China, India, and USA.
Environmental factors or assumptions	No assumptions regarding waste and process residue disposal options have been made. It is assumed that such disposal will not present a significant hurdle to exploitation of the deposit and that any disposal and potential environmental impacts would be correctly managed as required under the regulatory permitting conditions and as per previous operational methods.
Bulk Density	In situ dry bulk density values have been applied to the modelled mineralization based on the mean measured values for each of the weathering zones. Density measurements have been completed by means of the calliper method for each of the modelled weathering state domains and from within the mineralized material and surrounding waste. The mean density measurements, all in t/m3, for mineralization were: 1.8 in the saprolite, 2.0 in the saprock and 2.4 in the bedrock graphitic gneiss. It is assumed that use of the mean measured density for each of the different weathering zones is an appropriate method of representing the expected dry bulk density for the deposit.
Classification	Classification of the MRE was carried out considering the level of geological understanding of the deposit, quality of samples, density data and drill hole spacing and previous mining operations. The MRE has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table. Overall, the mineralization trends are reasonably consistent over numerous drill sections. The MRE appropriately reflects the view of the Competent Person.
Audits or reviews	Internal audits were completed by experience geoscientists, which verified the technical inputs, methodology, parameters, and results of the estimate. No external audits have been undertaken.
Discussion of relative accuracy / confidence	The relative accuracy of the MRE is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The Mineral Resource statement relates to global estimates of in situ tonnes and grade.