

ASX: EGR

For personal use only

ASX Release / 25 July 2024

Updated Epanko Ore Reserve

110% Increase in Proven Ore Reserve Providing the Highest Level of Confidence

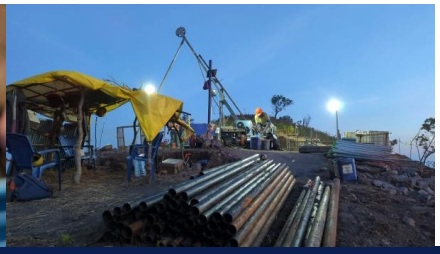
EcoGraf Limited (**EcoGraf** or the **Company**) (ASX: **EGR**; FSE: **FMK**; OTCQBX: **ECGFF**) is pleased to report an updated Ore Reserve for its Epanko Graphite Project (**Epanko**) in Tanzania.

The updated Ore Reserve is based on the 2024 Mineral Resource, announced to ASX on 11 March 2024, combined with the Company's "Oxide Ore first" approach for the Project, enabling improved process plant throughput and project economics.

Key Highlights:

- Epanko Ore Reserve increased to 14.3Mt at 8.8% total graphitic carbon (TGC) for 1.25Mt of contained graphite (refer Table 1)
- 110% increase in Proven Ore Reserves, with an industry-leading 82% of total Ore Reserves classified as Proven, delivering increased confidence on metallurgical factors such as process recoveries, flake size distribution and concentrate grades
- A 29% increase in contained graphite from the previous Ore Reserve announced to ASX on 21 June 2017 (previous Ore Reserve 11.7Mt at 8.3% TGC for 0.97Mt of contained graphite)
- Updated Ore Reserve is based on the 73,000tpa stage 1 Epanko development, with significant potential to expand production, given the Ore Reserve represents 2.3km of the total 3.5km Mineral Resource estimate strike length, and approximately only 20% of the vertical extent
- Initial 18-year Life of Mine (LOM) for stage 1, with additional Mineral Resources providing for a phased expansion up to 300,000tpa (refer ASX announcement on 28 April 2023)
- New mine design that delivers the Oxide Ore first strategy, provides significant operational benefits;
    - Increased initial process plant throughput of 850,000tpa when treating Oxide Ore to produce 73,000 tpa of graphite product.
    - Lower cost mining operation with 80% '*free dig'* when mining the softer near surface Oxide Ore
    - Low strip ratio (Waste to Ore) for LOM of 0.3:1, including the processing of low grade
- New mine design follows recent site due diligence visits by KfW IPEX-Bank, Euler Hermes and independent technical engineers and environmental & social consultants
- Low-grade material of ~3.1Mt at 5.1% TGC will be stockpiled and the processing deferred to the end of the current mining schedule, extending the initial stage 1 operating period by a further 5 years, to 23 years





EcoGraf Limited
ABN: 15 117 330 757
ASX: EGR

3/18 Richardson Street
West Perth WA 6005
Australia

E: info@ecograf.com.au
T: +61 8 6424 9000
www.ecograf.com.au

EcoGraf Limited
@EcoGraf
EcoGraf Limited

Epanko Ore Reserve Statement

The Ore Reserve estimation was carried out by Intermine Mining Consultants and has been classified in accordance with the JORC (2012) Code and is shown in Table 1.

Table 1 – July 2024 Ore Reserve Statement for the Epanko Deposit

JORC Classification	Proven			Probable			Total		
	Tonnes (Mt)	Grade (%TGC)	Cont. (Kt)	Tonnes (Mt)	Grade (%TGC)	Cont (Kt)	Tonnes (Mt)	Grade (%TGC)	Cont (Kt)
Oxide	8.9	9.0	805	0.2	8.4	15	9.1	9.0	820
Transitional	1.0	8.0	79	0.8	8.3	65	1.8	8.1	144
Fresh	1.8	8.3	149	1.6	8.6	140	3.4	8.4	289
Total	11.7	8.8	1,033	2.6	8.5	220	14.3	8.8	1,253

Notes for Table 1: Cut-off grade applied Eastern Zone is 4% TGC; Cut-off grade applied Western Zone is 6.25% TGC. Tonnage figures contained within Table 1 have been rounded to nearest 100,000. % TGC grades are rounded to 1 decimal figure. Abbreviations used: Mt = 1,000,000 tonnes, Kt = 1,000 tonnes. Rounding errors may occur in tables.

Material assumptions underpinning the Ore Reserve are set out below and in Appendix 1 (JORC Table 1).

The Epanko Ore Reserve was estimated from the March 2024 Mineral Resource estimates whilst factoring in the level of confidence in the Mineral Resource as well as considering relevant modifying factors and material assumptions. The Ore Reserve is based on Measured and Indicated Resources only. No Inferred Mineral Resources have been included in the Ore Reserve.

The updated Ore Reserve confirms the outstanding geology of Epanko and supports the debt financing program with KfW IPEX-Bank for a UFK loan of up to US$105m for the initial stage 1 development of Epanko (ASX announcement on 29 November 2023).

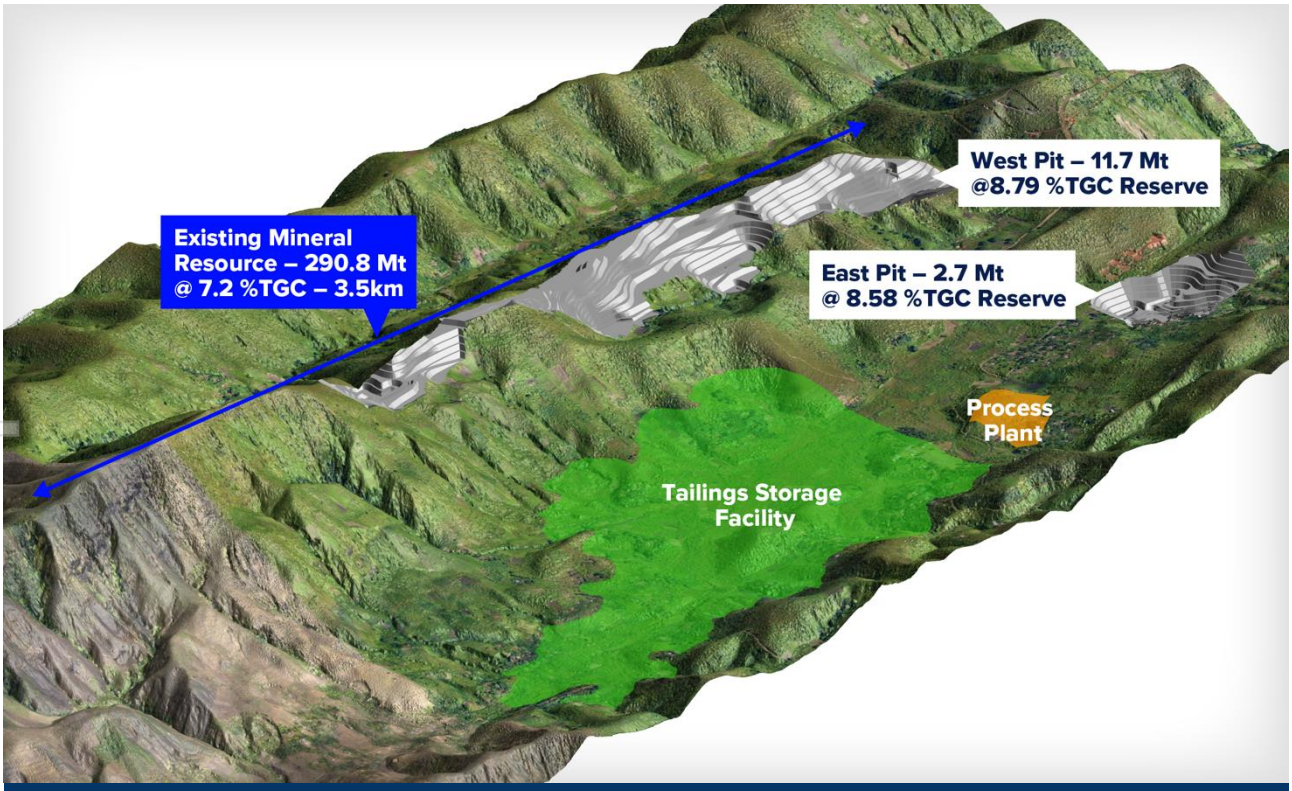


Figure 1 – Optimised Western Zone pit for the 18-year LOM for the 73ktpa base case Epanko development with proposed infrastructure

For personal use only

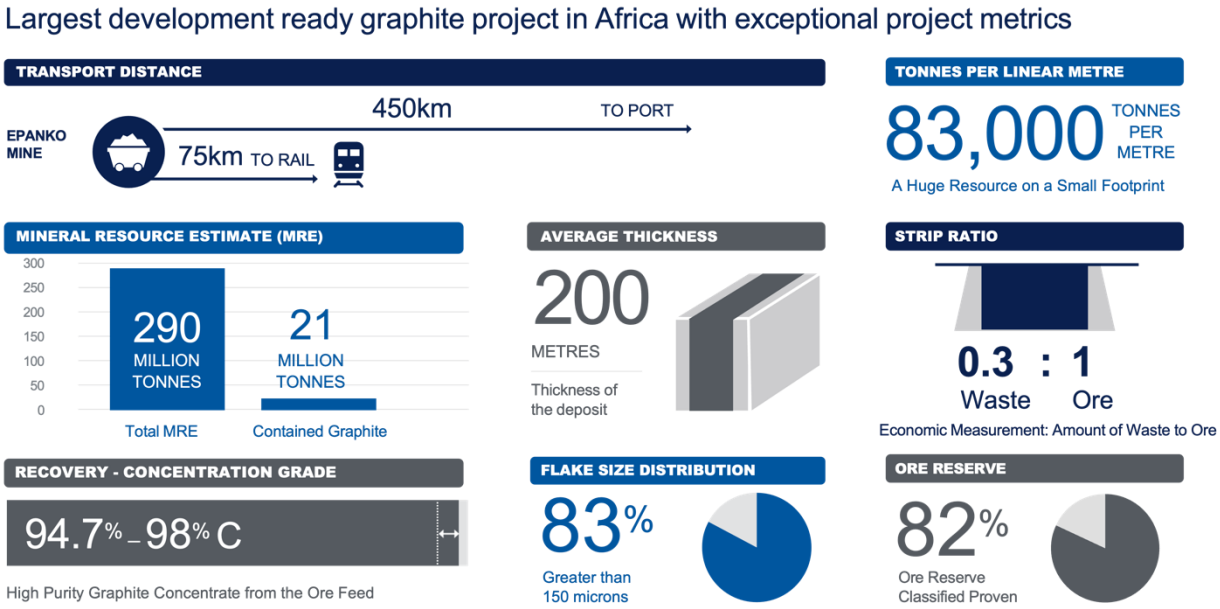
EXTRACT UPGRADE RECYCLE



View flyover video: https://youtu.be/G4iKtBJUGVk

Epanko Project Snapshot

The Epanko natural graphite provides a superior quality and cost competitive feedstock for the Company's downstream products, in particular for spherical battery graphite a key raw material for the lithium-ion battery market.



ASX Listing Rule 5.9.1

In accordance with ASX Listing Rule 5.9.1, and in addition to further information included in this announcement, including Appendix 2 JORC Table 1, the Company provides the following information:

Material Assumptions: The Ore Reserves are based on key modifying factors that include analysis, designs, schedules and cost estimates of the Epanko Bankable Feasibility Study (**Study**) that describes the development of the Epanko Graphite Project over an 18 year mine life. Material assumptions of the Study include:

- Extensive metallurgical testwork has been completed. This testwork is described in this document and supports modifying factors applied in the Ore Reserve estimate.
- The mining process has been based on Measured and Indicated Mineral Resources reported in accordance with the JORC code, detailed mine designs, specifications from a geotechnical study and mining equipment determined from experienced Mining contractors.
- The processing plant design has been developed by experienced design engineers to support the flowsheet and the predicted recovery, throughput and production estimates.
- The infrastructure requirements have been defined by specialist engineers.

For personal use only

EXTRACT UPGRADE RECYCLE

- The detailed designs discussed above have been used as the basis for capital and operating cost estimates derived from first principles, estimates and vendor quotes.

Classification criteria. The Ore Reserves comprises Measured and Indicated Mineral Resources only. The Study includes some Inferred Resources which are mined incidentally with the Measured and Indicated Resources and treated as waste for scheduling purposes. Over the 18 year mining period, approximately 82% of the material mined is within the Measured Resource category and approximately 18% is within the Indicated Resource category.

Mining Method: Graphite ore will be mined from two open cut pits which will be developed at the Western Zone and Eastern Zone. These are approximately one kilometre apart and lie near the northern boundary of the Mining License area. The Western Zone consists of mining a strike length of 2,300m along the top of the ridge to a depth of 210m in the south, and the Eastern Zone sits partially over a hill within a small valley and will be mined to a depth of 125m and the pit will have a strike extent of 350 m.

- Mining will be by a conventional drill and blast, truck and shovel operation, using a mining contractor. Blasting will be required in both the West Pit and the East Pit, however 80 % of oxide Ore is classified as free dig. Ore will be loaded onto trucks and transported to the Run-Of-Mine Pad (ROM Pad). Waste rock will be transported by trucks to the waste rock storage facility.
- The height of the mining benches is determined according to physical characteristics of the mineralisation. It is assumed that a 5 m working bench height will be maintained with free dig or blasted material excavated in two discrete flitches, each nominally of 2.5m height to minimise dilution and to maximise ore recovery.
- To accommodate the 73,000tpa of graphite product, the mine schedule will target a ROM feed of 850,000 tpa when feeding Oxide ore. This will drop to 60,000 tpa and 720,000 tpa respectively when feeding Transitional and Fresh Ore.

***Processing Method*:** The design is based on an 850,000 tpa flotation processing plant treating Oxide ore which will be the predominate feed for the first 7 years, to produce 73,000 tpa of graphite product and Transitional and Fresh ore will be processed at a rate of 720,000 tpa, producing 60,000 tpa of graphite product. Low-grade Western oxide material (~ 3.1 Mt at 5.1% TGC) will be stockpiled and processing deferred till the end of the mining schedule.

Ore will be processed through the processing plant which will consist of:

- A conventional two stage crushing circuit with a jaw crusher as the primary crusher and a cone crusher as the secondary crusher;
- A single stage rod mill (grinding to 710 microns) in closed circuit with a screen;
- A rougher flotation stage;
- Regrinding of the rougher tailings;
- Scavenger flotation;
- Primary cleaning and polishing of rougher/scavenger concentrate;
- Four stage cleaning flotation;
- Dewatering of the graphite;
- Concentrating the graphite in a pressure filter;
- Drying of the concentrate in a rotary dryer;
- Dry screening of graphite product into saleable size fractions.

Testwork carried out on composite samples and ore variability samples demonstrate outstanding grade and recovery of graphite in final concentrate with no deleterious elements.

***Estimation Methodology*:** Revenue is calculated as the concentrate price less royalties, less fixed and variable costs to produce and transport the product to the point of sale. Process plant feed from the mining schedule provided a head grade that was modelled through the processing plant and used to model costs and revenue over the life of the project.

For personal use only

EXTRACT UPGRADE RECYCLE

The forecast 2024 Graphite baseline price was used to calculate base revenue and was provided by Fastmarkets.

The financial projections have been modelled utilising an average basket price per tonne of graphite produced. The NPV is derived from post royalty, debt and equity funded real cash flows using a 10% discount rate.

***Material Modifying Factors*:** The Epanko Graphite Project is located within the mining license granted by the Government of Tanzania.



Figure 2 – Debt financing and technical due diligence team at Epanko during June 2024



Figure 3 – Demonstrating the free-dig nature of the oxide graphite mineralisation at Epanko

For personal use only

EXTRACT UPGRADE RECYCLE

Forward looking statements

Various statements in this announcement constitute statements relating to intentions, future acts and events. Such statements are generally classified as "forward looking statements" and involve known and unknown risks, uncertainties and other important factors that could cause those future acts, events and circumstances to differ materially from what is presented or implicitly portrayed herein. The Company gives no assurances that the anticipated results, performance or achievements expressed or implied in these forward-looking statements will be achieved.

Production targets and financial information

Information in this announcement relating to the Bankable Feasibility Study conducted on the Epanko Graphite Project, including production targets and forecast financial information derived from the production targets, included in this announcement is extracted from an ASX announcement dated 21 June 2017 "Updated Bankable Feasibility Study" available at www.ecograf.com.au and www.asx.com.au. The Company confirms that all material assumptions underpinning the production targets and forecast financial information derived from the production targets set out in the announcements released on 21 June 2017, 2 March 2023 and 28 April 2023 continue to apply and have not materially changed.

Competent Person Statements

The information in this report that relates to Mineral Resources is based on, and fairly reflects, information compiled by Mr. David Williams and Mr. David Drabble. Mr. David Williams is a full-time employee of ERM and is a Member of the Australian Institute of Geoscientists (#4176) (RPGeo). Mr. David Drabble is a full-time employee of EcoGraf Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (#307348). Mr David Williams and Mr David Drabble have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr David Williams and Mr David Drabble consent to the disclosure of the information in this report in the form and context in which it appears. Mr David Drabble assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr David Williams assumes responsibility for matters related to Section 3 of JORC Table 1.

The information in this report that relates to the Ore Reserve has been compiled by Mr Steve O'Grady. Mr O'Grady, who is a Member of the Australasian Institute of Mining and Metallurgy (#201545), is a fulltime employee of Intermine Engineering and produced the Mining Reserve estimate based on data and geological information supplied by Mr Williams. Mr O'Grady has sufficient experience that is relevant to the estimation, assessment, evaluation and economic extraction of Ore Reserve that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr O'Grady consents to the inclusion in this report of the matters based on his information in the form and context that the information appears.

This announcement is authorised for release by Andrew Spinks, Managing Director.

For further information, please contact:

INVESTORS

Andrew Spinks
Managing Director
T: +61 8 6424 9002

About EcoGraf

EcoGraf is building a vertically integrated battery anode materials business to produce high purity graphite products for the lithium-ion battery and advanced manufacturing markets. Over US$30 million has been invested to date to create a highly attractive graphite mining and mineral processing business.

In Tanzania, the Company is developing the TanzGraphite natural flake graphite business, commencing with the Epanko Graphite Project, to provide a long-term, scalable supply of feedstock for EcoGraf™ battery anode material processing facilities, together with high quality large flake graphite products for specialised industrial applications.

Using its environmentally superior EcoGraf HF*free*™ purification technology, the Company will upgrade the flake graphite to produce 99.95%C high performance battery anode material to supply electric vehicle, battery and anode manufacturers in Asia, Europe and North America as the world transitions to clean, renewable energy.

Battery recycling is critical to improving supply chain sustainability and the Company's successful application of the EcoGraf™ purification process to recycle battery anode material provides it with a unique ability to support customers to reduce CO_2 emissions and lower battery costs.

Follow EcoGraf on LinkedIn, Twitter, Facebook and YouTube or sign up to the Company's mailing list for the latest announcements, media releases and market news.

JOIN OUR MAILING LIST

For personal use only

EXTRACT UPGRADE RECYCLE

For personal use only

APPENDIX 1 MRE

March 2024 Mineral Resource Estimate for the Epanko Deposit >5.5% TGC

JORC Classification	Tonnage (Mt)	Grade (%TGC)	Contained Graphite (Kt)
Measured	32.3	7.8	2,500
Indicated	55.7	7.5	4,200
Measured + Indicated	88.0	7.6	6,710
Inferred	202.8	7.2	14,310
Total	**290.8**	**7.2**	**21,010**

Notes for Table 1: Tonnage figures contained within Table 1 have been rounded to nearest 100,000. % TGC grades are rounded to 1 decimal figure. Abbreviations used: Mt = 1,000,000 tonnes, Kt = 1,000 tonnes. Rounding errors may occur in tables.

APPENDIX 2 JORC TABLE 1

JORC Table 1 Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	The Epanko deposit was sampled by reverse circulation (RC) holes, diamond core drilling and trenching. Sampling is guided by Ecograf's protocols and quality assurance procedures. RC samples are collected by a riffle splitter using a face sampling hammer diameter approximately 140 mm. Diamond core (if competent) is cut using a core saw. Where the material is too soft it is left in the tray and a knife is used to quarter the core for sampling. ¼ core was collected over nominal 1 m intervals, but with +/- variation to fit to lithological boundaries. Trenches were sampled at 1 m intervals. These intervals were speared and submitted for analyses. All samples were sent to SGS laboratory in Mwanza for preparation and multi-element analysis, before forwarding to SGS laboratory in Randfontein for LECO analyses. All samples are crushed using ALSTO PV2 mill to –2 mm and pulverised to nominal 85% passing –75 µm.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	RC drilling holes were complete at a diameter of 5¼" using a face sampling hammer. All RC samples were collected dry and riffle split after passing through the cyclone. Diamond holes were drilled at HQ3 diameter, with some occasions reducing to NQ when hole conditions required it. Where possible diamond core was orientated using a Ezi-Ori tool allowing orientated structural measurements to be taken Where terrain allowed, holes were designed to hit mineralisation orthogonally.

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	The RC rig sampling systems are routinely cleaned to minimise the potential for contamination. Drilling methods are focused on sample quality. Diamond drilling (triple tubed HQ diameter core) was used to maximise sample recovery when used. The selection of the RC drilling company, having a water drilling background enables far greater control on any water present in the system; ensuring wet samples were kept to a minimum. RC and diamond holes were all assessed for the quality of samples. This data was recorded for each interval in the logging template. Sample techniques were chosen to ensure the all remained highly representative of the parent interval (e.g. by using a three-tier riffle splitter). Sample quality and recovery was recorded for all intervals. No relationship exists between sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	All RC holes and trenches were geologically logged using the detailed company template, based on industry standards. All diamond holes were geological and structurally logged using the same template in addition to geotechnical logging using a separate industry standard template. Logged data is both qualitative and quantitative depending on field being logged. Core photography was also captured for every tray of diamond core, and RC chip photos for every tray of RC samples
Subsampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all subsampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	All RC holes and trenches were geologically logged using the detail company template, based on industry standards. All diamond holes were geological and structurally logged using the same template in addition to geotechnical logging using a separate industry standard template. Logged data is both qualitative and quantitative depending on field being logged. Core photography was also captured for every tray of diamond core. Trench samples were representatively collected across each 1 m interval by three-tier riffle splitter in a dry environment where ground conditions allowed. Diamond samples were cut to ¼ core using a core saw. The same ¼ for each interval was samples throughout the length of all holes. All samples were submitted for assay. Sample preparation at the SGS (Tanzania) laboratory in Mwanza involves the original sample being dried at 105°C between 8 to 12 hours and weighed on submission to laboratory. Crushing to nominal –2 mm. Sample is split to 1.5 kg through riffle splitter and excess retained. Sample splits are weighed at a frequency of 1/20 and entered into the job results file. Pulverising is completed using ALSTO PV2 mill to 90% passing –75 µm. Quality assurance/quality control (QAQC) protocols were followed, including the use of field duplicate samples to test the primary sampling step for the RC drilling along with certified reference material and blanks. Sample sizes are considered appropriate with regard to the grain size of the sampled material.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*	Drill samples were sent to SGS (South Africa) for LECO graphite assaying. The following methodology is used by SGS for total graphitic carbon (TGC) analyses during 2023, and Bureau Veritas 2012 to 2017. Total carbon is measured using LECO technique. The sample is combusted in the oxygen atmosphere and the IR used to measure the amount of CO_2 produced.

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	The calibration of the LECO instrument is done by using certified reference materials. For the analysis of graphitic carbon, a 0.1 - 0.2 g sample is roasted at 500°C for 1 hour to remove all organic carbon from the sample. Carbonate carbon is then leached/evolved using HCl. The sample is then dried to remove the chlorides and the residue analysed by combustion infrared detection, where this product is fully oxidized in a stream of oxygen and the CO2 gas evolved is detected by calibrated IR cell. Multi-element analysis was completed via Aqua regia digest/ ICP-OES with the following method. The samples are digested with HNO3 and HCl in a hot water bath. The sample is introduced by pneumatic nebulization into plasma causing atomization and ionization. The atoms and ions produce element specific emission spectra. The polychromatic radiation passes into the spectrometer where the light is differentiated using an Eschelle diffraction grating. The diffracted light is measured using a single device covering the entire spectrum (Agilent instruments). The analyte concentration is calculated from the emission of the sample relative to that of known calibration standards at a particular wavelength for each element. All emission intensities are corrected for matrix effects using an internal standard (typically lutetium) by dividing the intensity of the analyte or standard by the intensity of the internal standard prior to calculation of the concentration using a regression. Laboratory certificates were sent via email from the assay laboratory to Ecograf. EcoGraf imported this into an Access database, and subsequently into Micromine for review and interpretation. QAQC samples are inserted at 10% frequency with standards, blanks and field duplicates evenly comprising that 10%.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Senior Ecograf geological personnel supervised the sampling, and alternative personnel verified the sampling locations. Five RC holes were twinned with diamond drillholes. Primary data are captured on paper in the field and then re-entered into spreadsheet format by the supervising geologist, to then be loaded into the company's database. All digital logging templates contain in-built data QAQC functionality to prevent incorrect data entry. No adjustments are made to any assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Drillhole collar locations surveyed using Differential GPS equipment by a qualified surveyor. UTM Zone 37 South was the grid system used. No coordinate transformation was applied to the data. Downhole surveys were completed using Reflex ACTIII RD tool. Data was collected via single-shot for diamond and RC holes. Topographic DTM was from a LIDAR survey flown in 2015 and 2016.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Spacings are sufficient for estimation and reporting of a Mineral Resource. Drillhole locations are at a nominal 50 m (Y) by 25 m (X) spacings. Drill lines were completed on an east-west basis. Data spacing and distribution are sufficient to establish the degree of geological and grade continuity. No compositing has been applied to exploration data.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation*	Most holes have been orientated towards an azimuth so as to be able intersect the graphitic mineralisation in a perpendicular manner. Drill pad accessibility has required an adjustment to drillhole orientation to a few holes.

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
	and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Holes were drilled at dips ranging from -50° to -90°, to best intercept the targeted geology given constraints of topography and access. Varying orientation of drillholes was taken into consideration when interpreting the results.
Sample security	• *The measures taken to ensure sample security.*	Samples were stored at the company's secure field camp prior to dispatch to SGS Mwanza by a privately contracted transport company, who maintained security of the samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Sampling procedures were independently reviewed by ERM as part of the preparation of the Mineral Resource estimate. EcoGraf senior geological personnel reviewed sampling procedures on a regular basis. All drillhole results were collated and stored within a Microsoft Access database. A random selection of assays from the database was cross referenced against the laboratory certificates.

JORC 2012 Table 1 Section 2 – Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The tenement is 100% owned by EcoGraf's wholly owned subsidiary TanzGraphite (TZ) Limited. The Epanko deposit lies within granted mining license ML548/2015 and prospecting license PL11598/2021. The Mineral resource and contributing holes are in Mining License ML 548/2015, with the exception of holes MHDD081, 082 & 083 and trenches MHT23, 24, 25 & 26. These exceptions are located in granted Prospecting License PL 11598/2021 which continues a further 1.1km further south of the ML. The area of the Mineral Resource within PL 11598/2021 is covered by the pending Special Mining License.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Historical reports exist for the project area as the region was first recognised for graphite potential in 1914 and 1959. No more recent information exists.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Epanko Project is hosted within a quartz–feldspar graphitic schist, part of a Neoproterozoic metasediment package, including marble and gneissic units. Two zones of graphitic schist have been mapped, named the Eastern Zone and the Western Zone. Mineralisation is believed to be the product of pre-existing carbonaceous sediments subjected to regional metamorphism induced by a north-south regional thrusting event. The graphitic schists contain between 3% and 29% TGC.

Drillhole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:*
	  ○ *easting and northing of the drillhole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *downhole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		Sample and drillhole coordinates are provided in market announcement dated 21 December 2023, in addition to this announcement.

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No high-grade cuts were considered necessary. Aggregating was made for intervals that reported over 7% TGC. The purpose of this is to report intervals that may be significant to future geological interpretation. There is no implication about economic significance. Intervals reporting above 7% TGC are intended to highlight a significant higher grade component of graphite; there is no implication of economic significance. No equivalents were used because they are not relevant to graphite Mineral Resource estimates.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	All drillholes have been orientated towards an azimuth so as to be able intersect the graphitic mineralisation orthogonally, where possible. Terrain constraint restricted this on occasion. All interpretation considers the orientation of the drillhole and the intercepted units. Given dip variations are mapped downhole length are reported, true width not known from the exploration results.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.*	Not applicable to this announcement
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	Not applicable to this announcement.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Field mapping was conducted early in the geological assessment of the license area to define the geological boundaries of the graphitic schist with other geological formations. Geological mapping of trenches cut across the strike of the host geological units provided important information used to compile the Mineral Resource estimate and for drill hole planning. The southern Inferred Mineral Resource is supported by a Versatile Time Domain Electromagnetic (VTEM) survey, which highlights the potential for the delineation of additional Mineral Resources along strike and at depth in the Western Zone. Further support was derived from surface mapping and structural geology interpretations, indicating a continuation of strike of the graphitic schist package. Details of metallurgical testwork are detailed in the body of this report, and in Section 3 of this table.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Further work may involve closer spaced drilling within the new southern Inferred part of the Mineral Resource, with the aim of converting it to Indicated and Measured classification. Additional metallurgical testwork is in progress which is contributing to the on-going Front End Engineering Design for the final processing plant design.

JORC 2012 Table 1 Section 3 – Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Data used in the Mineral Resource estimate is sourced from an MS Access database, maintained by Ecograf. The data has been normalised and referential integrity between tables has been set through table relationships and key fields to ensure unique identifiers, which are consistent throughout. Relevant

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
		tables from the data base were exported to MS Excel format and converted to csv format for import into Datamine Studio RM software for use in the Mineral Resource estimate. ERM carried out a low-level validation of the database and it was found to be fit for purpose to support the Mineral Resource estimate. Validation of the data import include checks for overlapping intervals, missing survey data, missing assay data, missing lithological data, and missing collars. The Total Graphitic Carbon (TGC) grade was cross checked against the Total Carbon (C) grade to ensure TGC<=C.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	The Competent Person (Estimation and Reporting of Mineral Resources) visited site in March 2014. The RC drilling rig was in operation and the Competent Person was able to review drilling and sampling procedures. Outcrop showing mineralisation was examined and geologically assessed. Planned drill sites were examined and assessed with respect to strike and dip of the interpreted geological model. Trenches were examined and a re-enactment of sampling procedures was presented by the EcoGraf geological staff. Sample storage facilities were inspected. There were no negative outcomes from any of the above items, and all samples and geological data were deemed fit for use in the preparation of the Mineral Resource estimate. The Competent Person (JORC Table 1, Sections 1 and 2) spent considerable time on site during 2023 during the drilling programme, and monitored all aspects of the drilling and sampling with no negative outcomes noted.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	There is a high level of confidence in the geological interpretation, based upon lithological and structural logging of diamond drill core, and lithological logging of RC chips. Trenches cut orthogonal to the strike of the geology demonstrated the geometry of the deposit, and clearly showed graphitic mineralisation. Deposit scale geological mapping provide a geological framework for the interpretation. Geophysical models (VTEM) support the geological interpretation. Drillhole intercept logging and assay results (RC and diamond core), structural interpretations from drill core and geological logs of trenches have formed the basis for the geological interpretation. Assumptions were made on depth and strike extension of the graphitic schists, using drillhole and trench sample assays as anchor points at depth and at intervals along strike. Geological mapping also support the geological interpretation which supports the Mineral Resource estimate. No alternative interpretations were considered because the exposed geology in outcrop supports the current interpretation. Graphitic mineralisation is hosted within graphitic schist, which is mapped along its strike within the licence area. Total graphitic carbon is assumed to be likewise continuous with the host rock unit. Metallurgical characteristics, principally flake size, has been observed to be of a consistent nature when observed in outcrop, trench exposure and diamond drill core at numerous locations within the licence area. The graphitic schist is open along strike and down dip in Epanko West. The Epanko East deposit is interpreted to be a recumbent fold, open along strike to the north and south. A sub-vertical shear zone offsets the stratigraphy down dip along the lower fold limb. Mineralisation domains for TGC were not modelled. Weathering domains representing oxide, transitional and fresh were modelled and were used during grade interpolation to constrain grade interpolation, and were

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
		allocated different density values. A zone of overburden material was modelled for Epanko East, and is barren of TGC. Lithological domains representing schists, gneisses and marble were interpreted and modelled. Major structural features, mainly sub-vertical shears and faults, were modelled and used to assess drill assays during preparation of the Mineral Resource estimate.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Epanko West Mineral Resource estimate is approximately 3,500 m in strike, 250 m in plan width and reaches 300 m depth below surface. The Epanko East Mineral Resource is approximately 320 m in strike, 400 m in plan width and reaches 160 m depth below surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.*	The geological models were interpreted and prepared by EcoGraf using Micromine software. Datamine Studio RM software was used for block modelling, grade interpolation, mineral resource classification and reporting. GeoAccess Professional and Snowden Supervisor were used for geostatistical analyses of data. The TGC domain is coincident with the graphitic schist lithological domain, and is based upon a nominal 3% lower TGC cut-off grade. The graphitic schist interpretations were based upon geological interpretations of mineralised outcrop and trenches and logging of diamond drill core and RC chips. The Mineral Resource model consists of three domains of TGC mineralisation, with one domain in the Western Zone and two zones in the Eastern Zone. Mineralisation domains were encapsulated by means of 3D wireframed envelopes. Domains were extrapolated along strike or down plunge to half section spacing or if a barren hole cut the plunge extension before this limit. Top cuts were not used to constrain extreme grade values because the TGC grade distribution did not warrant their use. All samples were composited to 1 m intervals, following a review of sample length distribution that most sample lengths were 1 m. All drillhole data (RC and Diamond) and trench assays were utilised in the grade interpolation. A twin drilling program confirmed the RC drillholes could be used with the diamond core samples as part of the grade interpolation. A statistical study of the trench assay data demonstrated a slightly higher grade TGC population to the conventional drilling sample assay results, and a decision was made to limit the influence of the trench sample data to the Oxide weathering zone. Two block models were prepared, for the Epanko West and Epanko East zones, with parent cell sizes 10 mE x 25 mN x 20 mRL for each, compared to typical drill spacing of 25 m x 50 m in the well drilled areas. Sub-blocking was used to ensure the wireframe models were adequately filled with blocks. Grade estimation was by Ordinary Kriging (OK), and Inverse Distance Squared (IDS) estimation was concurrently run as a check estimate. The composited drill sample data were statistically analysed, examining the relationship between TGC and weathering profiles, hole types, and structural domains. Variograms were modelled to determine sills and ranges to use in the kriging algorithms. Within the oxide domain there was a population difference noted, but no discernible population differences were noted in the fresh rock domain. Variogram models present a very low relative nugget effect (<15%) for the Western and Eastern zones, with ranges typically between 90 m and 170 m. Short ranges at the first sill were also modelled.

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
		Due to the low nugget effect, a low number of samples were used for grade interpolation, with a minimum of four and maximum of 12 composited samples were used in any one block estimate for the Western and Eastern Zones. A maximum of five composited samples per drillhole were used in any one block estimate. Cell Discretisation of 5 x 5 x 5 was used. Grade interpolation was run within the individual graphitic schist domains (Epanko East), acting as hard boundaries. The Base of Complete Oxidation acted as a hard boundary for both Western and Eastern deposits. The transitional and fresh domains were combined for grade interpolation purposes, with the top of fresh rock surface acting as a soft interpolation boundary. The current Mineral Resource was checked against the previously reported Mineral Resource (2023) and showed an increase in global tonnage, with a 39% increase in Measured and Indicated tonnes, but with negligible change in TGC % grade. The stability of the TGC grade following more drilling demonstrates the low variability of TGC within the host units. No depletion of the Mineral Resource due to mining activity was required due to no mining having occurred historically. The Mineral Resource was truncated at Northing 9,037,320 mN (UTM37S), this being the northern boundary of the license area. No by products were modelled. No selective mining units were assumed in this model. The grade model was validated by: (1) creating slices of the model and comparing to drillholes on the same slice; (2) swath plots comparing average block grades with average sample grades on nominated easting, northing and RL slices; and (3) mean grades per domain for estimated blocks and flagged drillhole samples. Each validation step complemented the others. The Mineral Resource estimation process was peer reviewed within ERM. EcoGraf reported (13 April 2016) the results from 200 tonne bulk samples from the Western and Eastern Zones, with both samples reconciling favourably with the local estimated block grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	A reporting cut-off grade of 5.5% TGC is used to report the Mineral Resource and was selected following a review of the 2017 BFS mine optimisation and scheduling, which includes +5% TGC ore being scheduled into the operation, which delivered a positive economic outcome. A series of grade tonnage reports were prepared for EcoGraf and an example presented in the body of this announcement.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The 2017 BFS has determined the project can be mined by open cut methods. Geotechnical drilling, logging and rock strength and shear strength analyses have been completed. Detailed mine planning was carried out as part of the BFS. The key results from the BFS include a 60 ktpa production profile with pre-tax NPV of US$211M and an IRR of 38.9%.

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	During 2016-2017 a series of comminution and flotation tests have been conducted on composite samples selected from the oxide, transition and primary zones of both deposits. These have been done at a range of grades between 5%TGC and 8.9%TGC to determine whether there is any variability of recovery to concentrate in the weathering zones of each deposit. In addition, two locked cycle tests are in progress to determine ultimate recoveries from the East and West fresh material. Batch variability flotation testwork shows recoveries of 83-95% in the various ore types and grades tested producing a 96%TGC concentrate. The recovered flake graphite is clean, with no visible natural mineral impurities. The graphite concentrate is amenable to standard metallurgical recovery processes. The recovered product is considered marketable, with a binding offtake and partnership agreements with several European and Japanese graphite trader. There has been a significant change in the graphite market in the past few years, with the finer flake size (-100 flake) attracting much greater demand for the manufacture of Li-ion batteries for the Electric Vehicle (EV) markets. The finer flake size is more evenly distributed through the Epanko deposits than the large to jumbo flake sizes, consideration for which previously contributed significantly to the Indicated (and Measured) Mineral Resource classification. During 2023, EcoGraf conducted a programme to test the possibility of changing the process plant design to a single stream flotation circuit. The 2017 BFS included an intermediate wet screen followed by two separate cleaner flotation circuits. Test work completed by the Company has confirmed that a single stream cleaner flotation circuit delivers similar performance to the dual stream circuit but eliminates the need for intermediate wet screening and provides economies of scale with a larger single circuit when compared to a dual circuit.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	Preliminary designs for a valley fill tails dam and waste dumps with a life of up to 25 years have been produced, with the option to increase capacity eight fold, within the natural contours of the valley. The deposit is located within and surrounding the area of the Epanko village farming area, and Ecograf are holding ongoing discussions with local landholders and community groups to keep them well informed of the status and future planned directions of the project. Relocation discussions for the families directly impacted by the project are well advanced. Epanko is located in a sub-equatorial region of Tanzania and is subject to heavy seasonal rainfall, with rapid growth of vegetation in season. A strategy for both subsurface, surface water and decant water management has been prepared for the Bankable Feasibility Study.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Density was calculated using wet immersion techniques, conducted both by analytical laboratories and by Ecograf field staff. A total of 1,183 SG samples have been measured over the project history, with 771 SG measurements taken during the 2023 drilling programme. The Epanko West density database is based upon 802 diamond core samples, and Epanko East based upon 370 diamond core samples, with samples wax coated prior to immersion in a water bath. Laboratory testwork comparing the SG measurements for core samples coated in paraffin wax, compared to cling wrap, showed that wax coated samples returned

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
		a slightly higher SG measurement compared to the cling wrap samples. Since 2015, all SG measurements taken from diamond core with cling wrap have used a correction factor of 1.057 applied to the SG record. EcoGraf are commissioning further testwork to verify this conversion factor. EcoGraf carried out a study of SG results and provided ERM with a memorandum with recommended density values for the weathering profiles within the graphitic schist. ERM flagged the drill hole files with density records against lithological and weathering domains, and a statistical study supports EcoGraf's findings. Density values of 1.92 t/m^3, 2.34 t/m^3 and 2.83 t/m^3 were applied to the oxide, transitional and fresh weathering domains respectively for the Mineral Resource located in the Western Zone. Density values of 1.76 t/m^3, 2.57 t/m^{3}and 2.83 t/m^3 were applied to the oxide, transitional and fresh weathering domains respectively for the graphitic schist domain in the Eastern Zone.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Classification of the Mineral Resource estimates was carried out taking into account the geological understanding of the deposit, quality of the sample data, quality of the local block estimates, quality of density data, and drillhole spacing. Metallurgical results related to flake size and sample purity, as well as marketing agreements in place supported the classification, as per Clause 49 (JORC 2012). The Mineral Resource is classified as Measured, Indicated and Inferred, with geological evidence sufficient to confirm geological and grade (and quality) continuity within the Measured volumes, between points of observation where data and samples are gathered. The Indicated classification level was applied to the volumes where geological evidence is sufficient to assume geological, grade and quality continuity. The Inferred classification level was applied to the volumes where geological evidence is sufficient to imply but not verify geological, grade and quality continuity. Geophysical models (VTEM), trenching and surface mapping support the Inferred classification in block model volumes where no drill sampling has occurred. Mineral Resource classification was carried out by stepping through both the West and East models, and creating 3D wireframe surfaces constraining the resource classification levels (Western Zone) or by applying northing and easting limits (Eastern Zone). Weathering profiles also controlled the classification, with the oxide weathering zone generally classified at the same or higher level to the adjacent blocks in transitional and fresh zones, due to high confidence in the geological continuity of graphitic schist as observed in outcrop and from trench data. All available data was assessed and the competent person's relative confidence in the data was used to assist in the classification of the Mineral Resource. The current classification assignment appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	An independent due diligence review of the current Mineral Resource is planned to occur following this announcement, to support the use of the Mineral Resource in updating the BFS.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could*	An inverse distance estimation algorithm was used in parallel with the ordinary kriging interpolation. Results were very similar between the methods. No other estimation method or geostatistical analysis has been performed. The Mineral Resource is a local estimate, whereby the drillhole data was geologically domained, resulting in fewer drillhole samples to interpolate the block model than the complete drillhole dataset, which would

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
	affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	comprise a global estimate. Relevant tonnages and grade above nominated cut-off grades for TGC are provided in the body of this report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages. The graphite metal values (g) for each block were calculated by multiplying the TGC grades (%) by the block tonnage. The total sum of all metal for the deposit for the filtered blocks was divided by 100 to derive the reportable tonnages of graphite metal. No production data is available to reconcile results with, apart from bulk sample results discussed earlier.

JORC 2012 Table 1 Section 4 – Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	The JORC 2012 compliant Mineral Resource models for the Epanko deposits have been developed by CSA Global and Associates in April 2024 and the Ore Reserve has been determined based on these models: West model – "epw2402_eng_md.dm" East model – "epe202402_eng_md.dm" The stated Mineral Resource is inclusive of the Ore Reserve.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	A site visit was not undertaken by the Competent Person as a site visit would not materially affect the determination of the Reserve. The Competent Person has relied on reports from other independent consultants and site surveys in determining the viability of the Reserve.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	Studies undertaken and the modifying factors applied to enable the Mineral Resource to be converted to an Ore Reserve are based on a Bankable Feasibility level estimation of costs, modifying factors and parameters that the resulting mine plan is technically achievable and economic.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	The cut-off grade applied is based on the profitability of the Resource block after modifying factors and the metallurgical and mass recovery are applied to the in-situ TGC grade. The nominal cut-off grade for processing is around 2.6% TGC. However, to maintain concentrate output, a raised cut-off grade of 6.25% TGC for the Western zone and 5% TGC for the Eastern zone has been applied to ensure the concentrate production target of 73kt per year is achieved for an Oxide ore feed rate of 840kt per year and 60kt per year is achieved for a Fresh ore feed rate of 720kt per year.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and*	A conventional open pit mining method using proven technology was chosen due to the near surface and outcropping presentation of the graphite mineralisation, the relatively low stripping ratio and the availability of land required to support the selected mining method and associated infrastructure. Mining dilution and ore loss factors were applied based on weathering and the expected influence of blasting in these profiles. The mineralisation zones consisting of graphitic schist are up to 75m wide in the Eastern and Western zones. Geotechnical parameters applied to the designs are based on investigations by George Orr and Associates. The detailed mine designs have been reviewed by George Orr and Associates. Installation of hydraulic monitoring and depressurisation bores with ongoing geotechnical review will be required to ensure the

	Oxide	Trans	Fresh
Dilution	2%	3%	7%
Ore Loss	2%	5%	5%

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
	Mineral Resource model used for pit and stope optimisation (if appropriate). • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	long term stability of final walls. Mine planning activities included pit optimisation, interim staged and final pit designs, mine and waste disposal scheduling, concentrate production estimation, and mining cost estimation. Minimum mining widths have been considered in the West pit design. The optimisation was undertaken using only the Measured and Indicated Resource classifications. Inferred Resource has been treated as waste. The Ore Reserve has been determined, constrained by detailed pit designs. The mining infrastructure will consist of the contractor laydown, offices and workshops with haulage roads to access the top of the East and West mining areas. Mining equipment used will consist of 50t excavator and 35t articulated trucks for pioneering and mainstay of mine life production. Most of the waste will be used in the Tailings Storage Facility (TSF) construction. A waste rock dump will be constructed on the downstream side of a conventional Tailings Storage Facility (TSF) and will be integrated into the final TSF landform. A low grade ore dump will be constructed over the life of mine for post mining processing. Infrastructure is not detrimental in determining the Reserve.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	Processing will consist of a grinding, flotation and concentrator to produce a high quality graphite concentrate. The process is a proven method for the extraction of the graphite ore to a concentrate. Metallurgical factors applied by weathering and zone based on testing undertaken by IMO in conjunction with GR Engineering Services. During 2016-2017, 2023 and 2024, a series of comminution and flotation tests have been conducted on composite samples selected from the oxide, transition and primary zones of both deposits. These have been done at a range of grades between 5% TGC and 8.9% TGC to determine whether there is any variability of recovery to concentrate in the weathering zones of each deposit. In addition, two locked cycle tests were completed to determine ultimate recoveries from the East and West fresh material. Oxide / Trans / Fresh East: 95.3% / 96.1% / 96.1% West: 97.7% / 95.8% / 95.8% The recovered flake graphite is clean, with no visible natural mineral impurities. The graphite concentrate is amenable to standard metallurgical recovery processes. The recovered product is considered marketable, with a binding offtake and partnership agreements with several European and Japanese graphite traders.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	Environmental and social impact assessment and management plans have been developed An Environmental Impact Assessment certificate, EC/EIA/1828, was issued for the Project on 10 July 2017. Designs for a valley fill TSF years have been completed by Knight Piésold for the processing life of 24 years. The deposit is located within and surrounding the area of the Epanko village farming area, and EcoGraf are holding ongoing discussions with local landholders and community groups to keep them well informed of the status and future planned directions of the project. Relocation discussions for the families directly impacted by the project are well advanced. Epanko is located in a sub-equatorial region of Tanzania and is subject to heavy seasonal rainfall, with rapid growth of vegetation in season. A strategy for both subsurface, surface water and decant water management has been prepared for the Bankable Feasibility Study. Potentially acid forming rock occurs in both zones. Measures will be taken to encapsulate the AMD waste material within the construction of the waste dump. Sulphide ore will be subject to a sulphide flotation circuit and the resulting high sulphur tailings will be disposed in a manner to ensure no AMD

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	Land acquisition, purchase and rental agreements for the areas affected by mining, the site access road and the siting of the process plant and infrastructure are currently being finalised through the RAP process. Grid power cost assumptions are based on quotes from TANESCO (Tanzania national power authority). The concentrate will be transported by truck on a public site access road, to be constructed, before connecting to the main road network at Mahenge and then to Dar Es Salaam port for export. Labour for the majority of the workforce will sourced locally around the major regional centre of Mahenge. A mine camp is being built on site for all personnel.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	Mine operating costs are based on haulage distances and monthly total movement targets that were used in unit cost estimation by mining contractor Jac Rijk Africa Ltd from Tanzania. Mine administration and ancillary costs have been based on current market levels. Processing costs include allowances for crushing, beneficiation, processing, administration and transport. These costs have been costed by GR Engineering Services. Deleterious elements are not a factor. All quotes are in US dollars. Quotes for transport and port handling have been used. Royalties have been included as government takes 3.3% value of saleable concentrate.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	The price of Graphite concentrate, based on a basket price as determined by the percentage of size fractions of the concentrate product, was applied in the Reserve determination. Revenue was calculated as the concentrate price less royalties, less fixed and variable costs to produce and transport the product to the point of sale. Process plant feed from the mining schedule provided a head grade that was modelled through the processing plant and used to model costs and revenue over the life of the Project. The forecast Graphite concentrate baseline price of US$1,511/t was used to calculate base revenue and was provided by Fastmarkets.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	In accordance with Clause 49 of the JORC Code (2012), the product specifications and general product marketability were considered in order to support the Mineral Resource Estimate for Industrial Minerals. The following metallurgical characteristics are considered exceptional and provide Epanko with significant competitive and commercial advantages: The expansion rates for Jumbo (+50 mesh) flake is 490 ml/g which is up to 30% higher than graphite produced in China. An ultra-high purity of 99.98% Carbon is achievable. The ash melting point of 1,305°C is up to 150°C higher than graphite produced in China. The Resource has a very low percentage of fine flake (< 75 micron), with only 15.8% reporting to this size fraction. The extremely high percentage of large flake provides higher basket prices and revenue from sales. Test work has confirmed the graphite mineralisation is suitable for the 'expanded' and 'spherical' battery market and has no limitations on its uses.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs*.	The Reserve estimate is based on inputs from open cut operations, processing, transportation, capital and contingencies to generate a life of mine financial model. Economic inputs have been sourced from contractors and suppliers. The NPV has been calculated using a discount rate of 10%. Inflation has not been included in the optimisation. The NPV of the project is positive at the commodity price used. The sensitivity of the market price is a driving factor of the project's viability. Sensitivities of +/- 10% were assessed.
Social	• *The status of agreements with key stakeholders and matters leading to*	EcoGraf has engaged in local stakeholder negotiation and was covered as part of the ESIA certificate that the company

For personal use only

EXTRACT UPGRADE RECYCLE

Criteria	JORC Code explanation	Commentary
	social licence to operate.	received.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	No natural occurring risks have been identified at this stage that will affect the project operation. A formal process to mitigate risks will be completed prior to project implementation. A mining licence over the mine area has been granted. ML 548/2015. The Framework Agreement with the Government of Tanzania for the development and operation of the Epanko Graphite Project was reached and formally signed on 17 April 2023. A joint venture company, Duma TanzGraphite has been established as part of the framework agreement. The Government of Tanzania will own a 16% free carried interest in Duma TanzGraphite whist EcoGraf will own the remaining 84%. A new Project life-of-mine Special Mining Licence in anticipated to be issued in due course to Duma TanzGraphite
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Only Measured and Indicated Resource within the LOM designs have all been converted respectively to a Proven and Probable Ore Reserve. No Probable Ore Reserve has been derived from a Measured Mineral Resource. No Inferred Resource has been considered or included in the Reserve. The result appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	An independent due diligence review of the current Reserve is being undertaken at the time of preparation of this announcement The Reserve estimate has been reviewed internally by EcoGraf personnel and is considered to appropriately reflect the results of the application of the modifying factors to the Mineral Resource.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage*.	The design, schedule and financial model on which the Ore Reserve is based has been completed to a feasibility standard. A degree of uncertainty is associated with geological estimates and the Reserve classification reflects the level of confidence in the Resource. Modifying mining factors, revenue prices, geotechnical and processing parameters are of a confidence level reflecting the level of the study and the Reserve estimate would remain economically viable with any negative impacts applied to the factors or parameters.

For personal use only

EXTRACT UPGRADE RECYCLE