

# 30 April 2019

#### **ASX Announcement**

# **BLACKEARTH QUARTERLY ACTIVITIES REPORT**

# Quarter ended 31 March 2019

#### HIGHLIGHTS FOR THE QUARTER

#### **OPERATIONAL**

- Positive Scoping Study results for the Maniry Graphite Project
- High-grade graphite discovery on the northwest extension of Razafy from trenching, including:
  - 48m @ 10.22% TGC (Total Graphitic Carbon) and 12.0m @ 13.32%
- Exploration Target defined at BEM's lanapera Graphite Project
- High-grade graphite trenching results at lanapera Graphite Project, including:
  - 18.0m @ 22.06% Total Graphitic Carbon (TGC), which includes 8.0m @ 32.70% TGC and 2.0m @ 46.00% TGC

#### **CORPORATE**

- Secured placement to raise \$500,000
- Successful completion of Share Purchase Plan, raising \$1.08 million

BlackEarth Minerals NL (ASX: BEM) (the **Company** or **BlackEarth**) is pleased to provide its March 2019 quarterly update on its Madagascan graphite projects. In summary, BlackEarth continues to fast-track the development of its 100% owned Maniry Graphite Project in southern Madagascar.

# 1. POSITIVE SCOPING STUDY RESULTS FOR THE MANIRY GRAPHITE PROJECT

BlackEarth Minerals NL (ASX: BEM) ("BlackEarth", the "Company") provided the outcomes on the scoping study for the Maniry Graphite Project which covers a total of 142 km² in southern Madagascar. The Company has now transitioned from graphite explorer to developer with the completion of the Scoping Study.

# **Highlights**

- Pre-tax NPV of USD103m and 42% IRR
- Payback period from first ore is 2.7 years (Phase 1)
- Majority of Resource sits within a 40 year granted Mining Licence
- Project Life of 10 years based on Indicated Resources only
- Start-up capital estimated at a low USD\$41M (Phase 1)
- Phase 2 expansion (doubling output) USD\$29M planned to commence production Year 4
- Scoping study completed within 9 months from first drill results and 12 months since IPO



The Scoping Study, completed by BatteryLimits in Perth, was based on extensive metallurgical testing, including variability work, completed on the Company's Indicated Resource only. Also of note was that a significant proportion of the concentrate contains large and jumbo flakes (50%) which can attract high product premium pricing. The Study also highlighted a low mining strip ratio (LOM 0.9) which has a positive impact on mining costs and soft to medium ore hardness and low abrasion which should have a positive impact on mining and processing costs.

The Indicated Resource of 8Mt at 7.22% total graphitic carbon (TGC) on which the Scoping Study was based, falls within the Project's substantial Exploration Target of 260-380Mt at 6-8% TGC announced on the 9 August 2018, highlighting the enormous potential that the Company now has to build and subsequently expand its Maniry Graphite Project, whilst maintaining a long mine life.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement for the Scoping Study results and that all material assumptions and technical parameters underpinning the estimates of forecast financial information derived from the original production target continue to apply and have not materially changed.

# **Scoping Study: Cautionary Statements**

The Scoping Study, completed by BatteryLimits in Perth, was based on extensive metallurgical testing, including variability work, completed on the Company's Indicated Resource only. Full details are contained in the ASX Release dated 30 January 2019.

The Scoping Study referred to in the announcement dated 30 January 2019 had been undertaken in regards to providing the outcomes for the Maniry Graphite Project inclusive of a sensitivity analysis across a number of key parameters. The Scoping Study is a preliminary technical and economic study of the potential viability of the Maniry Graphite Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves.

Further exploration and evaluation work and appropriate studies are required before BlackEarth will be in a position to estimate any ore reserves or to provide any assurance of an economic development case. The Scoping Study is based on the material assumptions outlined in the ASX announcement dated 30 January 2019. These include assumptions about the availability of funding. While BlackEarth considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, funding will be required for both the feasibility study and the capital required to implement phases 1 and 2 of the Project and are currently estimated to be in the range of USD\$40-70 million. Investors should note that there is no certainty that BlackEarth will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of BlackEarth's existing shares. It is also possible that BlackEarth could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce BlackEarth's proportionate ownership of the project, which is currently 100%.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.



#### 2. HIGH-GRADE GRAPHITE DISCOVERY AT MANIRY

The Company provided an update on the assay results received from the trenching programs at the Maniry Graphite Project in Southern Madagascar. The Maniry trenching program was completed in early-December with 47 trenches excavated for 4,314.4m metres, with 2,183 samples collected for analysis.

Exceptional assay results were received from Trench MNT041 and MNT041a which were excavated at the **Razafy NW** prospect, these are summarised in the bullet points below and depicted in Figures 2:

- 56.0m @ 9.89% TGC, Inc. 48.0m @ 10.22%, Inc. 2m @ 19.20% and 6.0m @ 15.10% (MNT041)
- 36.0m @ 8.07% TGC Inc. 12.0m @ 13.32% Inc. 6.0m @ 19.43% (MNT041a)
- 52.0m @ 7.03% inc. 2.0m @ 10.30% and 2.0m @ 10.20% (MNT026)
- 39.0m @ 6.96% inc. 2.0m @ 10.90% (MNT034)
- 16.0m @ 8.35% inc. 6.0m @ 12.93% (MNT039)

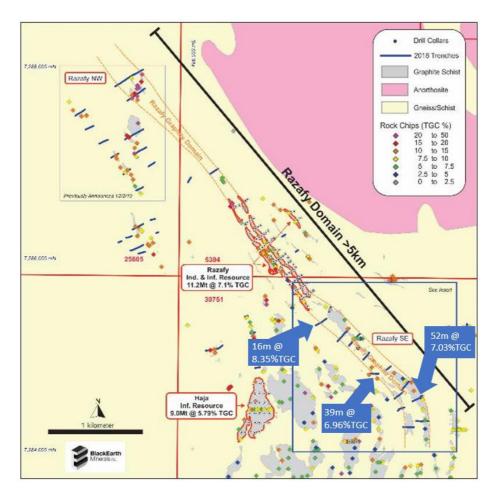


Figure 1 - Maniry Graphite Project - 2018 Trenching Program Overview

At this early stage, the dimensions and therefore size of the graphite deposit are not known, however, historical trenching across the Razafy Graphite Deposit lenses proved to provide a fairly accurate representation of the thickness and grade of graphite to be expected during exploration drilling into the lens,. With this in mind, BlackEarth believes, with drilling, this significant discovery has the potential to be converted into an estimated mineral resource adding high-grade resource tonnes to BlackEarth's mineral inventory.

Further significant assay results, received from Razafy NW which were summarised in the ASX release of 12 and 25 February 2019.



Solid assay results have also been received from the south east strike extension of the Razafy Graphite Mineral Resource.

Mineralisation has now been proven within the Razafy Domain for >5km. This domain is currently the main focus of exploration efforts by BlackEarth with the aim of outlining the scale and potential of the domain and also the delineation of high-grade mineralisation to compliment the initial stages of a mining operation. (Figure 1)

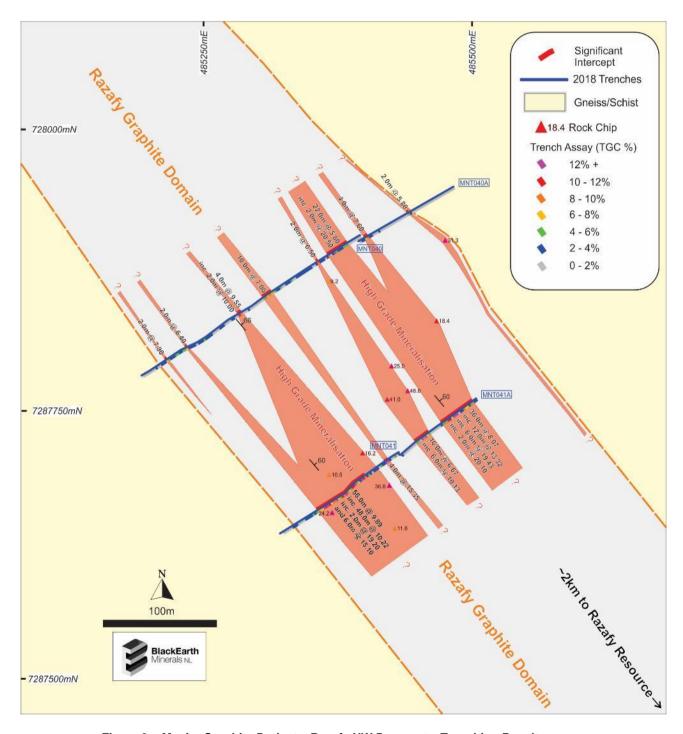


Figure 2 – Maniry Graphite Project – Razafy NW Prospect – Trenching Results



With the assay results received from the trenching program at Maniry, the company has already achieved the objective of the exploration program; these objectives were to:

- Demonstrate the scale and potential of the Razafy Domain; and
- Delineate high-grade zones with the potential of conversion to mineral resource e.g. Razafy NW Prospect Trench MNT041 56.0m @ 9.89% TGC inc. 48.0m @ 10.22% inc. 2.0m @ 19.20% and 6.0m @ 15.10% (ASX Announcement 12 Feb 2019 High-Grade Graphite Discovery at Maniry).

# 3. HIGH-GRADE GRAPHITE RESULTS RECEIVED FROM INITIAL TRENCHING AT IANAPERA GRAPHITE PROJECT

The Company announced the final assay results received from the trenching program at the lanapera Graphite Project in Southern Madagascar (Figure 4). The Company also announced (21 March 2019) an Exploration Target for the lanapera Graphite Project of 20 to 34Mt at 10-20%TGC. The lanapera trenching program was completed in mid-December 2018 with 29 trenches excavated for 1,874.1 metres and 965 samples collected for analysis.

# **Ianapera Graphite Project - Trenching Results**

All samples were returned from the lanapera Graphite Project Trenching Program. Multiple intersections of high-grade mineralisation were returned from the southern end of the conductive trend. All significant results were reported in announcements on 7, 13 and 21 March 2019 and depicted in Figure 4. Highlights include:

- 18.0m @ 22.06% TGC returned from trench IPT007
  - Includes, 8.0m @ 32.70% TGC:
  - Includes, 2.0m @ 46.00% TGC
- 14.0m @ 10.36% TGC inc. 2.0m @ 23.90% (IPT009)
- 18.0m @ 22.06% TGC inc. 8.0m @ 32.70%
- inc. 2.0m @ 46.00% (IPT007)
- 14.0m @ 10.23% TGC (IPT016)
- 14.0m @ 14.00% TGC inc. 4.0m @ 21.80% TGC (IPT026)
- 14.0m @ 12.36% TGC inc. 24.30% TGC (IPT022)



Figure 3
Trenching activities at lanapera Graphite Project



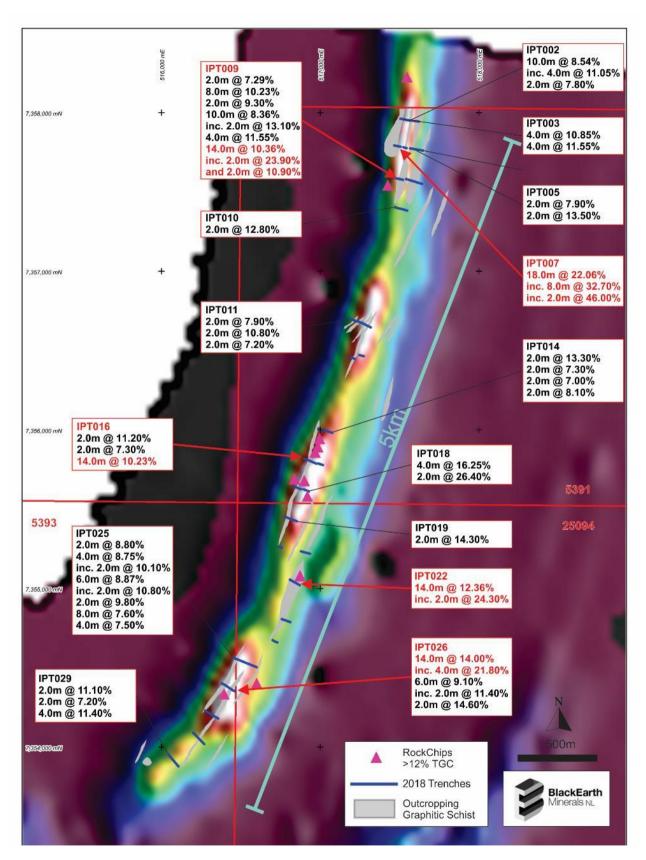


Figure 4 – lanapera Graphite Project – 2018 Trenching Results – VTEM Imagery (All relevant geophysics details and rock-chips assays are previously reported within company prospectus)



A continuous 5km long conductive trend outlines the interpreted zone of mineralisation at lanapera. Within this extensive mineralised trend, there are four zones of higher conductivity that are clearly visible and are interpreted as likely zones of high-grade mineralisation. These intense anomalies were targeted during this trenching program and previous reconnaissance exploration undertaken by the BEM technical team which has identified numerous horizons of graphite mineralisation and multiple high-grade rock-chips along the whole conductive trend. This has led to the Company's belief that a large graphite mineral system exists with the potential to host multiple high-grade graphite deposits.

The Ianapera Project is located 75km North of BlackEarth's Maniry Graphite Project, and significantly, within 10km of the NextSource Materials Inc's ("**NextSource**") (TSX: NEXT) 'World Class' Molo Graphite Deposit, containing an NI43-101 compliant total combined graphite resource of 141.28Mt @ 6.13% TGC, as shown in Figures 5, 6 & 7).

The Molo Graphite project is considered to be one of the largest, high quality flake graphite deposits in the world and NextSource has made significant progress in moving towards production, with the granting of a forty year Mining Permit, allowing NextSource to move toward the financing and building of the Molo project. The granting of this Mining Permit is also a highly significant signal from the newly elected Madagascan Government, which demonstrates its desire to engage with overseas resource companies and continue to promote Madagascar as a mining friendly jurisdiction.

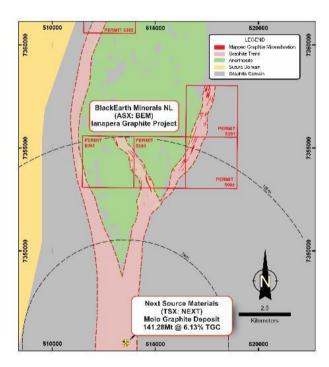


Figure 5 – Ianapera Graphite Project – Interpreted Projects – Geology and Mineralisation

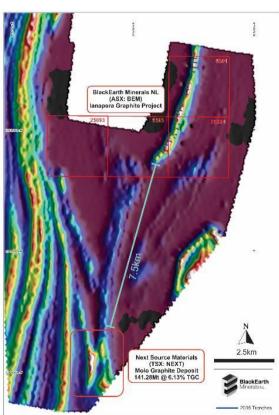


Figure 6 – Ampanihy Project and Molo VTEM Imagery



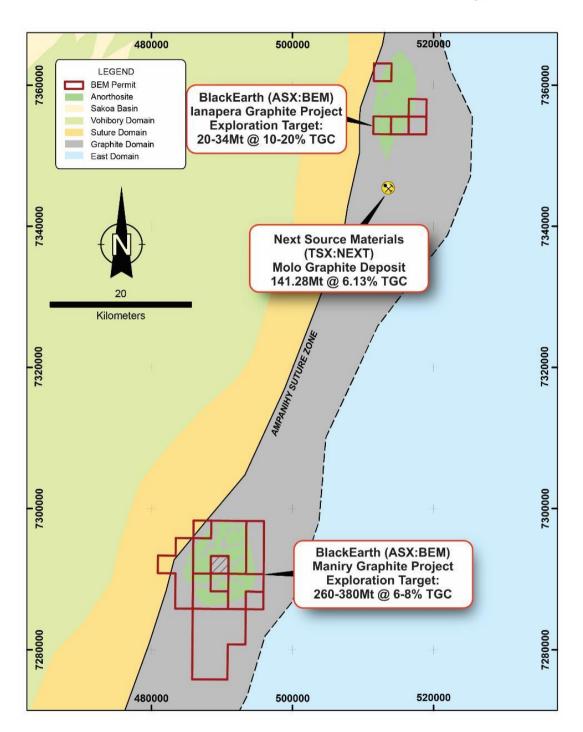


Figure 7 - Ampanihy Regional Geology and Graphite Projects

# **Ianapera Graphite Project - Exploration Target**

The Ianapera Graphite Project can be briefly described as a series of parallel NNE trending graphite schists that vary in thickness between 2-50M that dip relatively steeply (60-70deg) to the NW. Significant mineralisation has now been consistently identified over 5km in strike, the footprint of which is outlined in VTEM/Conductivity imagery (refer Figure 4).

The Exploration Target for the lanapera Graphite Project is outlined as follows: **20–34 Mt** @ **10–20% Total Graphitic Carbon (TGC).** 



**Cautionary Statement.** The Exploration Targets reported herein are not JORC compliant Mineral Resources. The potential quantity and grade of the Exploration Targets are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in the determination of a Mineral Resource.

Two scenarios due to varying lens morphology/shape have been provided:

Scenario	Length (m)	Depth (m)	Width (m)	SG	<b>Grade Ranges</b>	<b>Total Tonnes</b>
Scenario 1	5,000	60	30	2.25	10-20%	20,250,000
Scenario 2	5,000	60	50	2.25	10-20%	33,750,000

Table 1 - Ianapera Exploration Target

The exploration team in conjunction with BEM management is currently reviewing an exploration program and, subject to available funds, anticipates that further exploration work, including drilling may be undertaken during 2019/20.

## **Key Announcements relating to Exploration Target:**

13 March 2019 – Further High-Grade Hits at Ianapera Graphite Project
7 March 2019 – Substantial Trench Widths of Greater Than 22% TGC at Ianapera
13 September 2018 – Phase two programs set to commence at Maniry and Ianapera
14 August 2018 – Update Maniry Exploration Target
14 August 2018 – Update Razafy Resource Estimation of 11.2Mt @ 7.1% TGC
16 January 2018 – Prospectus

#### 4. COMMUNITY RELATIONS

BlackEarth continues its partnerships with the local communities in which it operates, to ensure positive and enduring impacts well into the future.

# 5. WESTERN AUSTRALIA TENEMENTS

The Company continues to review its West Australian tenements and will update the market in regard to any material developments on these tenements as appropriate. The Company plans on focusing its efforts during 2019 on its Maniry and lanapera graphite projects located in Madagascar.

# 6. CORPORATE

#### **Placement**

On 5 March 2019 the Company issued 7,575,758 new fully paid ordinary shares at an issue price of \$0.066 per share (a 23% discount to the 5 day volume weighted average) to Australian institutional and professional investors to raise minimum gross proceeds of \$500,000 before costs.

The new shares were issued within the Company's 15% placement capacity under ASX Listing Rule 7.1 and without disclosure under the Corporations Act. The Placement is not subject to shareholder approval and the new shares rank equally with the Company's existing fully paid ordinary shares.

The funds raised by the Placement will, together with the Company's existing funds, be used to commence some or all of the work to progress the feasibility study for the Maniry Graphite Project (activities as outlined below) and for working capital purposes:

- Some further exploration activity;
- Additional bulk metallurgical test work and detailed concentrate product testing; and
- Independent social, community and environmental studies.



#### **Share Purchase Plan**

On 28 March 2019 the Company successfully completed the Share Purchase Plan ("SPP") announced on 21 February 2019 and issued 15,278,195 ordinary shares at \$0.066.

The successful SPP and placement announced on 19 February 2019, increased the total amount raised to approximately \$1.5M. The funds will primarily be applied in a similar manner to those funds raised under the placement.

## **CFO and Company Secretary**

The Board announced the appointment of Mr Simon Storm as the CFO and Company Secretary of the Company effective 27 March 2019 following the resignation of Mr Barry Woodhouse.

Mr Storm is a Chartered Accountant with more than 30 years of Australian and international experience in the accounting profession and commerce. He commenced his career with Deloitte Haskins & Sells in Africa then London before joining Price Waterhouse in Perth. During the past 17 years he has held various senior finance and company secretarial roles with listed and unlisted entities in the resources, agribusiness, banking, construction, telecommunications, property development and funds management industries.

Mr Storm provides consulting services covering accounting, financial and company secretarial matters to various companies in these sectors.

# CONTACTS

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Jane Morgan Investor and Media Relations 0405 555 618

BlackEarth encourages investors to update their contact details to stay up to date with Company news and announcements here: <a href="http://www.blackearthminerals.com.au/update-details/">http://www.blackearthminerals.com.au/update-details/</a>



#### **Competent Person's Statement**

The information contained in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr. Peter Langworthy, a member of The Australasian Institute of Mining and Metallurgy. Mr. Langworthy is an employee of OmniGeoX Pty Ltd which is a consultant to BlackEarth. Mr. Langworthy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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, Mineral Resources and Ore Reserves." Mr. Langworthy consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to the Exploration Target for the Maniry Graphite Project is extracted from the report entitled "Exploration Target Update" dated 14 August 2018 and is available to view on the Company's website (<a href="www.blackearthminerals.com.au">www.blackearthminerals.com.au</a>). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to the Maiden Resource Estimation for Razafy at the Maniry Graphite Project is extracted from the report entitled "Update – Maiden Resource Estimation for Razafy at the Maniry Graphite Project" dated 14 August 2018 and is available to view on the Company's website (<a href="www.blackearthminerals.com.au">www.blackearthminerals.com.au</a>). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this document that relates to metallurgical test work results is based on information compiled and reviewed by Mr David Pass, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pass is an employee of BatteryLimits. Mr Pass has sufficient experience relevant to the mineralogy and type of deposit under consideration and the typical beneficiation thereof to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr Pass consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

For more information – www.blackearthminerals.com.au



#### About BlackEarth Minerals NL ( www.blackearthminerals.com.au )

BlackEarth Minerals NL (ASX: BEM) ("Company") is an ASX listed company focused primarily on the development of its 100% owned Madagascan Maniry and lanapera graphite projects



The location of the Company's primary graphite projects: Madagascar (Maniry & lanapera - above)

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement for the scoping study results; and that all material assumptions and technical parameters underpinning the estimates of forecast financial information derived from a production target as outlined below continue to apply and have not materially changed.

#### **Maniry Graphite Project - Scoping Study Results**

Project life (processing) 10 years

NPV @ 10% pre-tax US\$ 103M

IRR pre-tax 42%

Project CAPEX Stage 1 US\$ 41M (500ktpa ore)

Stage 2 US\$ 29M (1Mtpa ore)

Operating Cost FOB US\$ 593/t

(Port of Ehoala)

Payback for Stages 1 & 2 3.7 years (Stage 1 only: 2.7 years)

Annual graphite production Av 30ktpa (Stage 1 – Years 1-3)

Av 60ktpa (Stage 2 – Years 4+ )

Average Basket Price US\$ 1215/t

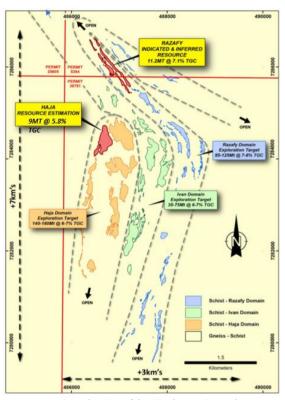
Refer to ASX Release 30 Jan 2019 – Positive Scoping Study results for the Maniry Graphite Project

Project	Deposit	Tonnes (Mt)	TGC Grade (%)	Contained Tonnes (t)
Maniry	Razafy - Indicated	8.0	7.22	577,600
	Razafy - Inferred	3.2	6.80	217,600
	Razafy Total	11.2	7.10	795,200
	Haja - Inferred	9.0	5.79	521,100
	Haja Total	9.0	5.79	521,100
	Total Resources	20.2	6.51	1,316,300

Razafy - Resource reported at a 6% TGC cut off with constraining wireframe so lids defined at a no minal 3% cut-off grade Haja - Resource reported at a 5% TGC cut off with constraining wireframe so lids defined at a nominal 15% cut-off grade

For Razafy CP statement refer to ASX release 14th August 2018 - "Update Razafy resource estimation"

For Haja CP statement refer to A SX release 27th December 2018 - 'Maiden Resource Estimation for Haja'



Maniry Graphite Project - Overview

 $For \textit{ Maniry Exploration Target refer to ASX release 14 August 2018-"Update \textit{ Maniry exploration target"} \\$ 



# **SCHEDULE OF MINING TENEMENTS**

Details of Mining Tenements at Quarter ended 31 March 2019							
(ASX Listing Rule 5.3.3)  Australia							
E66/95	Northern Gully	WA	100%				
E70/4811	Kauring, Greenhills	WA	100%				
E70/4812	Kauring, Greenhills	WA	100%				
E70/4824	Yanmah, Donnelly	WA	100%				
E70/4825	Manjimup, Donnelly	WA	100%				
E70/4903	Kauring, Greenhills	WA	100%				
E70/4906	Kauring, Greenhills	WA	100%				
	Internation	onal					
Tenement ID	Location	Country	Interest				
PR25605	Maniry	Madagascar	100%				
PR25606	Maniry	Madagascar	100%				
PR3432	Maniry	Madagascar	100%				
PR39750	Maniry	Madagascar	100%				
PR39751	Maniry	Madagascar	100%				
PE5394	Maniry	Madagascar	100%				
PE5391	Ianapera	Madagascar	100%				
PE5392	Ianapera	Madagascar	100%				
PE5393	Ianapera	Madagascar	100%				
PE25093	Ianapera	Madagascar	100%				
PE25094	Ianapera	Madagascar	100%				

# **CORPORATE INFORMATION**

(30 April 2019) 83,639,453 fully paid ordinary shares 28,142,750 \$0.25 partly paid shares paid to \$0.0001 and unpaid \$0.2499 2,750,000 Unlisted \$0.30 options 10,000,000 Performance Rights \$5.1 million market capitalisation

# **BOARD OF DIRECTORS**

Phil Hearse (Non-executive Chairman)
Tom Revy (Managing Director)
George Bauk (Non-executive Director)