

FORGING A FUTURE IN CRITICAL COMMODITIES



November 2020



ASX:BEM







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Certain statements contained in this presentation, including information as to the future financial or operating performance of BlackEarth Minerals NL ("the Company") and its projects, are forward-looking statements. Such forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements, and may include, among other things, statements regarding targets, estimates and assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and expenditures, or may be, based on assumptions in respect of commodity prices, operating costs and results, capital expenditures, or results and anticipated events or results and are possible to such forward-looking statements, whether as a result of new information, future events or results or results in the properties and are reserved. In the company is allowed to the inherent uncertainty therein. Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflec

Some of the information contained in this presentation has been derived from previously released information to the ASX refer: 30/1/19 "Progressing to Full Feasibility", 17/1/20 "Fast Tracking the Maniry Graphite Project", 29/4/20 "Quarterly Activities Report – 31 March 2020", 31/7/20 "Quarterly Activities Report – 30 June 2020"

Competent Persons Statement

The information in this document that relates to Exploration Results, Exploration Targets and Mineral Resources is based on information compiled by Ms. Annick Manfrino, Principal of Sigma Blue and Manager Geology of Black Earth Minerals a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy and a consultant to the Company. Ms. Manfrino has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Manfrino consents to the inclusion of the information in this document in the form and context in which it appears.

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.

INVESTMENT HIGHLIGHTS

Vertical Integration

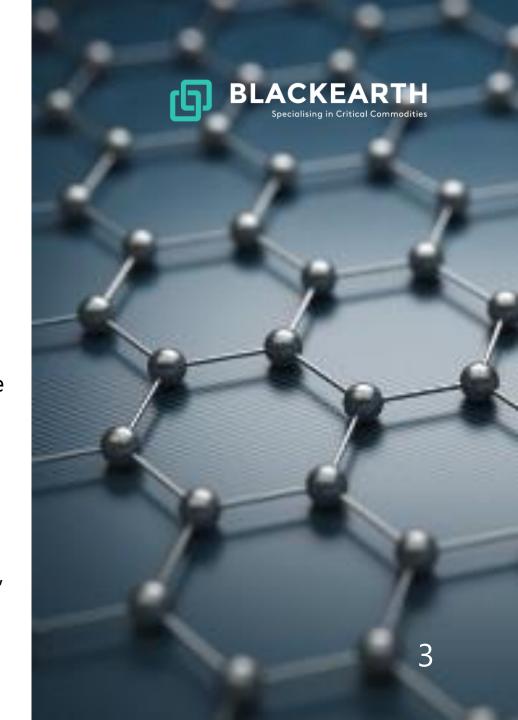
- Diversified critical commodity explorer and developer.
- Currently exploring downstream value added graphite processing opportunities.

Projects

- Maniry Graphite Project financially and technically robust graphite project with a BFS due to be completed in 2021; coarse flake focus with high value products being investigated.
- Donnelly River Ni-Cu-PGE Project, strategically / centrally located between CHN/VMS's South West Project Thor and Odin Prospects, with exploration to commence Q4, 2020.

Corporate

- Only 142M shares on issue and market capitalisation of A\$6.9M, providing a significant opportunity at these levels.
- Cash available for exploration & project development needs; recent capital raise (\$1.4M) and SPP to close 6 November 2020



CORPORATE SNAPSHOT



BlackEarth Minerals (ASX:BEM) is a vertically integrated graphite developer with advanced mining projects in Madagascar and base metal prospects (Ni-Cu-PGE) in Western Australia.

The Company holds the flagship Maniry Graphite Project which is located in Southern Madagascar, with the Bankable Feasibility Study (BFS) currently underway and a focus on value added products which are in high demand.

BlackEarth is currently reviewing several downstream value added graphite processing opportunities.

CAPITAL STRUCTURE

ASX Code	ВЕМ
Fully Paid Shares	142m
Share Price (3/11/20)	\$0.049
Market Cap (@ \$0.049)	\$6.9m

BOARD OF DIRECTORS & MANAGEMENT

Phil Hearse	Non-Executive Chairman
Tom Revy	Managing Director
George Bauk	Non-Executive Director
David Round	Company Secretary & CFO

MANIRY GRAPHITE PROJECT







Life-of-Mine Strip Ratio 0.9:1





500,000 tpa

Graphite Concentrate



30,000 tpa

Main Market

Fine / Small Flake (30-35%*)

US\$400-600/t

Lubricant, friction materials and primary battery Mid-Sized Flake (15-20%*)

US\$650-900/t

Refractory Materials

> Binding MOU with RHI Magnesita

Coarse Flake (50%+*)

US\$800-1400/t

BEM investigating downstream processing options

Flame retardant material

>US\$2500/t

Foils, fuel cell components and high quality gaskets

> US\$3000-15,000+/t

*% of BEM Product
Technical information based on BEM ASX Release 30/1/2019

MANIRY HIGHLIGHTS



Project Life	10 Years
NPV @ 10% pre-tax	US\$ 103M
IRR pre-tax	42%
Project CAPEX Stage 1	US\$ 41M (500ktpa ore)
Project CAPEX Stage 2	US\$ 29M (1Mtpa ore)
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+)

Exploration focus during Feasibility Study:

Maximising basket price and feed grade E.g. an increase in <u>feed grade from 6.3% to 7.3%TGC results in a project NPV of US\$152M and an IRR of 55%</u>

Maniry Project Resources

Classification	Tonnage	Total Graphitic Carbon	Tonnage Percentage
Indicated	8.0	7.20%	40%
Inferred	12.2	6.05%	60%
TOTAL	20.2	6.51%	100%

Estimated in accordance with the JORC Code (2012) **

Exploration Targets

Maniry Project: 260 – 380Mt at 6-8% TGC lanapera Project: 20 – 34Mt at 10-20% 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.

^{*}Refer ASX Releases 30 January 2019

^{**}reported in accordance with the 2012 australasian code for reporting of exploration results, mineral resources and ore reserves ('the jorc code 2012') see asx announcement released on the 14 August 2018. See Competent Persons Statement

BEM GRAPHITE SPECS



Graphite from BlackEarth's Maniry project meets the specifications required for applications in the expandables, refractory and lithium-ion battery industries.



- NGS (Germany) achieved results of 400 cm³/g which exceeded the industry benchmark rate of 250 cm³/g. (Refer ASX: BEM Announcement 13/6/19)
- Positive test results and quality approval from Yichang Xincheng Graphite – the largest expandable graphite producer in the world.



Following successful testing,
 BlackEarth entered binding MOU with
 the world's largest refractory group,
 RHI Magnesita ("RHIM"), the leading
 global supplier of high-grade
 refractory products, systems and
 solutions, and a large consumer of
 natural flake graphite for various
 refractory products and materials.



- Spherical graphite from Maniry meets specifications required by lithium-ion anode material manufacturers.
- Spherical graphite production yields of up to 52% achieved vs industry average 40%.
- Positive feedback received from tier-1 spherical graphite producers and anode material manufacturers.

MANIRY PROJECT GROWTH IN 2021





Further development into the potential downstream processing of coarse flake material



Exploration in the high grade northwest zone of Maniry



Optimisation of the flowsheet to further enhance recovery of the coarse flake material



Additional offtake arrangements



Completion of BFS



Significantly increase project revenue

Early high grade feed can substantially increase project NPV / IRR

Increase project revenue

Further enhance project confidence

Next stage – project execution (EPC/EPCM)

NATURAL GRAPHITE MARKETS



There's a lot of mis-information out there:

- Assumptions on future supply often do not take into account recovery, competing needs between industries and that a lot of material will never qualify
- The number of new mines likely to come on line in the near future are not plentiful (issues relating to geopolitics, product size / quality and funding will be limiting)
- > Pricing is highly variable for the same product market knowledge & networks is key to maximising revenue
- > There is no "graphite price"; the price of coarse material largely moves independent of fines

GRAPHITE MARKETS



- It's a critical commodity for a number of reasons:
 - > Responsible supply risk
 - Economic importance

Access to resources and sustainability is key for the EU's resilience in relation to raw materials. Achieving resource security requires action to diversify supply from both primary and secondary sources, reduce dependencies and improve resource efficiency and circularity, including sustainable product design. This is true for all raw materials, including base metals, industrial minerals, aggregates and biotic materials, but is even more necessary when it concerns those raw materials that are critical for the EU.

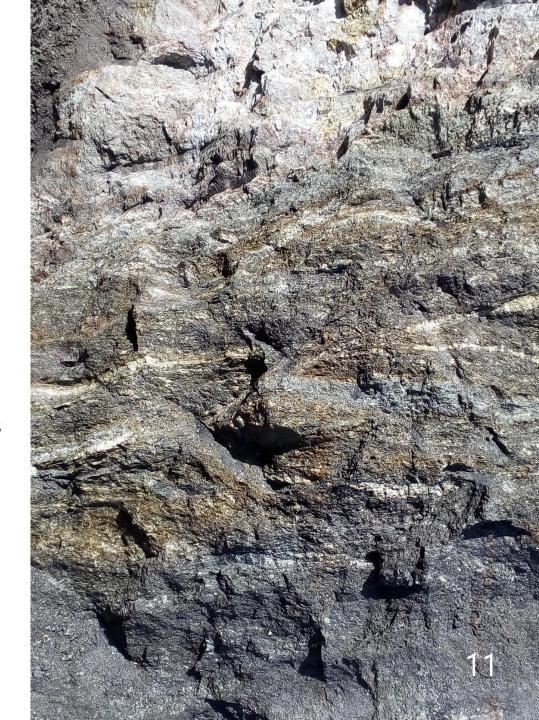
European Commission Critical Raw Materials Resilience: Charting a Path towards greater Security and Sustainability 03/09/2020

The United States is 100% import reliant on 14 minerals on the critical minerals list (aside from a small amount of recycling). These minerals are difficult to substitute inputs into the U.S. economy and national security applications; they include graphite, manganese, niobium, rare earths, and tantalum, among others.

Critical Minerals and U.S. Public Policy, June 28, 2019

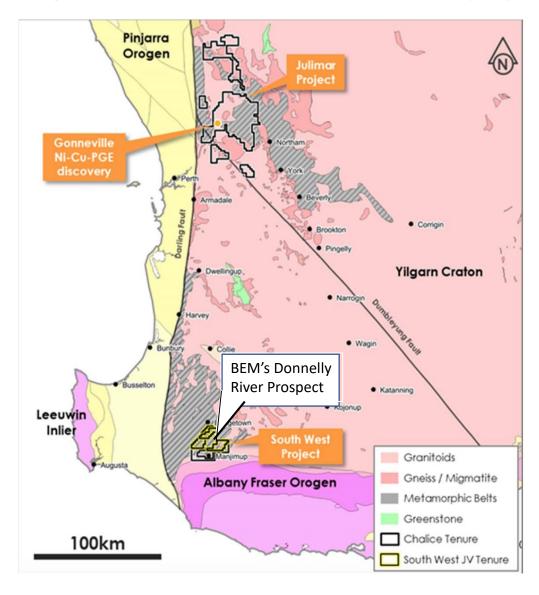
GRAPHITE MARKETS

- Don't underestimate the value of graphite to organisations inside & outside of China
 - ➤ The importance of China MinMetals creating a graphite subsidiary in Dec 2019
 - Coarse flake production is materially decreasing in China
 - ➤ There is a significant gap between investors and end-users / governments on the understanding / importance of natural graphite on future (green & sustainable) economics
 - Its criticality to future needs is unquestionable, even on the short term



DONNELLY RIVER LOCATION



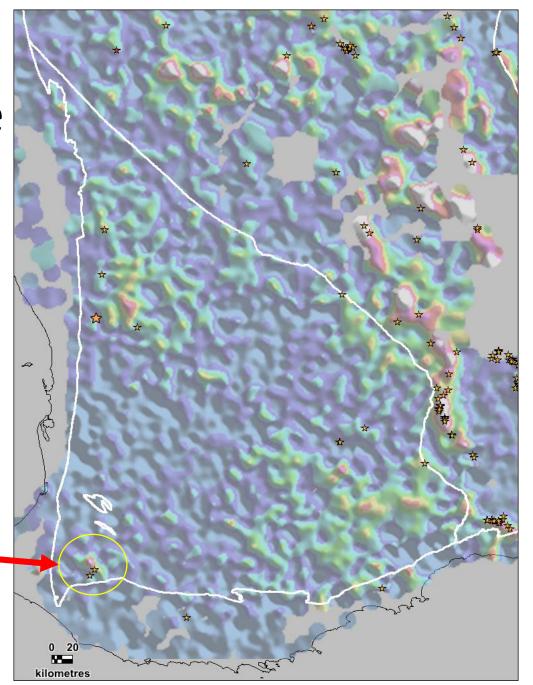


- The Donnelly River Prospect is located approx. 240km south of Perth, Western Australia.
- BEM's prospects are situated immediately adjoining the Thor and Odin Ni-Cu-PGE prospects (JV: Chalice Gold Mines "CHN" and Venture Minerals "VMS") – "South West Project".
- A drill program at CHN/VMS JV's Thor prospect intersected massive sulphide averaging 0.5%Cu with 0.05% Ni, 0.04% Co and anomalous Au & Pd*.
- Drilling at CHN/VMS JV's Odin prospect intersected Ni and Cu sulphides within a highly prospective mafic-ultramafic unit that extends over a 10km strike*.

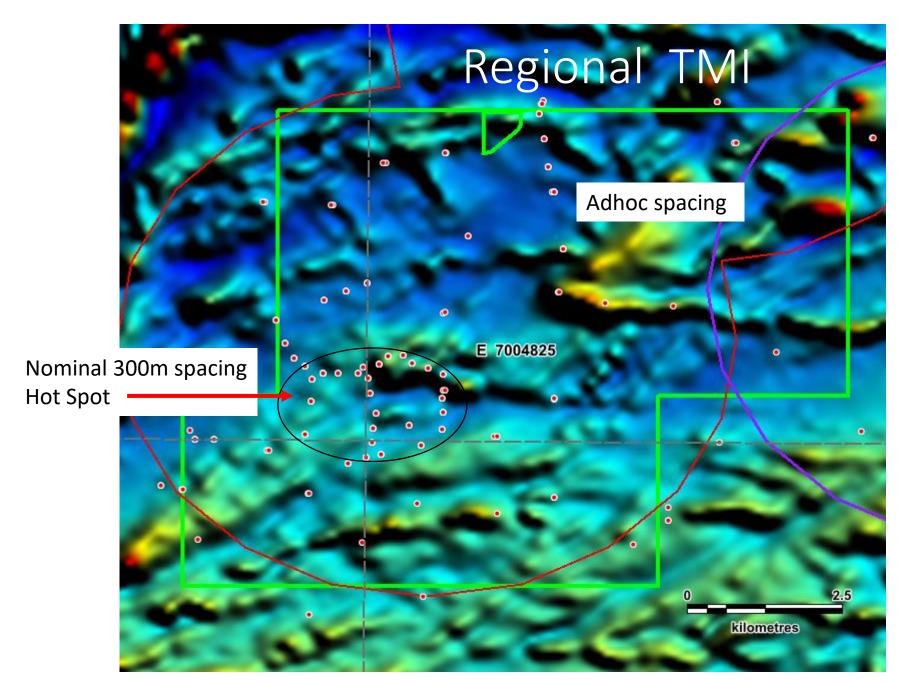
^{*}Sourced from: ASX:VMS release dated 16/9/20

Regional Nickel image

Region of interest



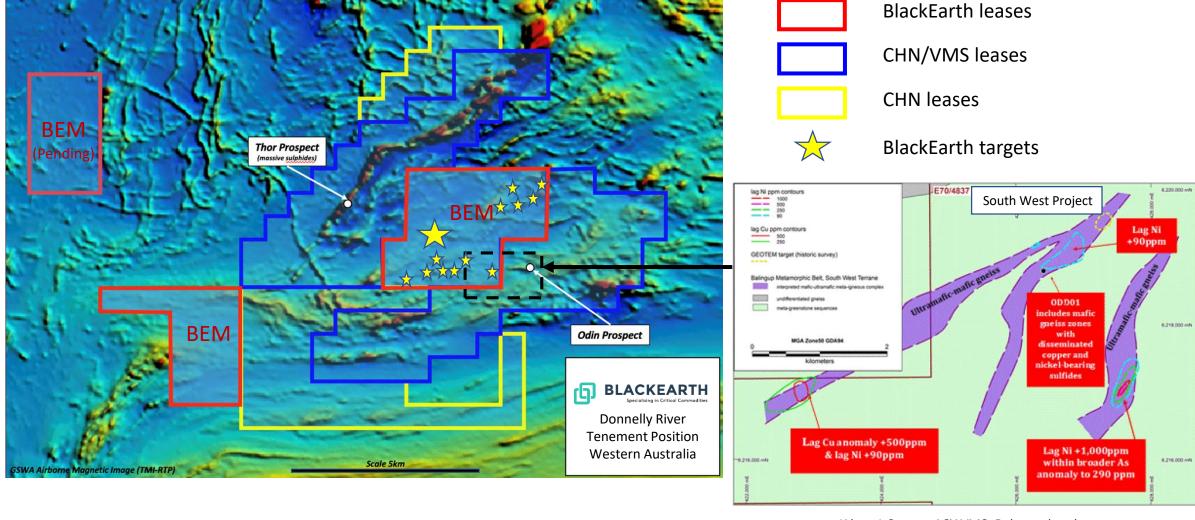






Location of historic geochemical samples used to identify first order targets (ASX announcement dated 22/10/20)

DONNELLY RIVER Ni-Cu-PGE POTENTIAL

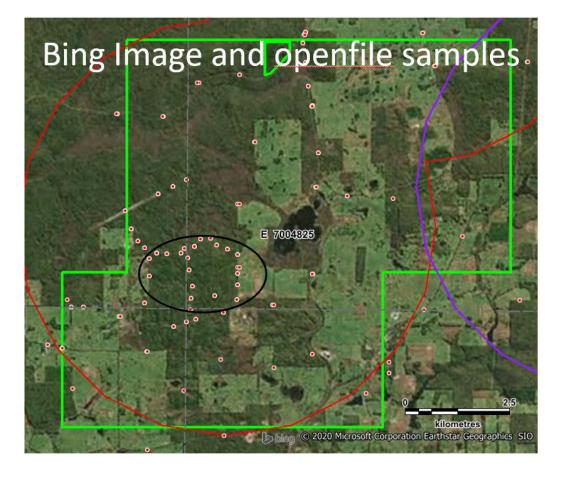


(Above) Source: ASX:VMS Release dated 16/9/20

DONNELLY RIVER EXPLORATION PROGRAM



- Regional geochemical sampling and geological mapping
 - a) Phase (1): sampling along public road and rail easements –
 LAG and rock chip sampling
 - b) Phase (2): following negotiated access to all of the project area undertake grid based LAG sampling program
- Detailed airborne magnetic and electromagnetic data surveys
- Systematic geochemical sampling
- Ground based detailed gravity survey
- Ground geophysical surveys and drilling on specific (identified) targets.



NEWSFLOW CATALYSTS NEXT 3-4 MONTHS



- Maniry pilot plant update (graphite)
- Exploration activities at Donnelly River (Ni-Cu-PGE)
 - Complete regional geochemical sampling and VTEM
 - Identification of drill ready targets
- Exploration activities at Razafy NW (Maniry) focus on adding high grade resources
- Downstream value add product development works (graphite coarse flake)
- Continue BFS activities (graphite)
- Continue offtake arrangement discussions (graphite)



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