

**ASX ANNOUNCEMENT**

7 July 2022  
ASX Code: MYL

**BOARD OF DIRECTORS**

Mr Jeff Moore  
Non-Executive Chairman

Mr John Lamb  
Managing Director

Mr Rowan Caren  
Executive Director

Mr Paul Arndt  
Non-Executive Director

Mr Steve Hendel  
Non-Executive Director

**ISSUED CAPITAL**

Shares	302 m.
Performance Rights	5 m.
Unlisted Options	1 m.

**Mallee Resources Limited**

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Western Australia

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malleeresources.com.au

ABN: 48 124 943 728

# MYL INVESTOR PRESENTATION

## 7 JULY 2022

An updated Investor Presentation following completion of the acquisition of the Avebury Nickel Project.

Authorised for release to the ASX by

**Rowan Caren**

Executive Director and Company Secretary  
Mallee Resources Limited





**MALLEE  
RESOURCES  
LIMITED**

# CRITICAL MINERALS FOR A SUSTAINABLE FUTURE

## INVESTOR PRESENTATION

JULY 2022



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### FORWARD LOOKING STATEMENTS

Certain statements contained in the Presentation Materials, including information as to the future financial or operating performance of the Company and its projects, are forward looking statements. Such. Subject to any continuing obligations under applicable law the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward looking statements in this document to reflect any change in expectations in relation to any forward looking statements or any change in events, conditions or circumstances on which any such statement is based.

## REFERENCES TO MINERAL RESOURCES 2022

The Mineral Resource estimate including JORC Table 1, sections 1, 2 and 3 and the competent persons statement has been previously reported by the Company in accordance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration results, Mineral Resources and Ore Reserves' (JORC Code) on 8 April 2022 and is publicly available at <https://bit.ly/3jifzIM>. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

## PROSPECTUS

The Company is in the process of preparing a prospectus (Prospectus) for the offer of fully paid ordinary shares in the capital of the Company (Shares) in relation to the capital raising contemplated by the Presentation Materials. A copy of the Prospectus is anticipated to be available by July 2022 and will be available on the Company's website at <https://malleeresources.com.au/>. All offers of Shares for the capital raising referred to in the Presentation Materials will be made in, or accompanied by, the Prospectus. Investors should consider the Prospectus in deciding whether to acquire Shares and any person who wishes to apply for Shares must complete the application form that will be in or will accompany the Prospectus.



# Australia's next nickel sulphide producer

First concentrate scheduled Q4 CY2022

## Class-1 nickel in tier one location

- Substantial nickel sulphide Mineral Resources of 29.3 Mt at 0.9% Ni (264 Kt contained Ni) (JORC 2012)<sup>1</sup>
- Tasmania is an excellent mining jurisdiction
- Readily available, skilled local workforce

## Short term production potential

- Mining operations have commenced at Avebury
- Underground mine and processing plant are in excellent condition and allow for a short term re-start to production

## Experienced executive and site team

- Track record in base, battery and precious metals
- Demonstrated ability to deal with complexity and challenges
- 30+ year veterans on key site management roles

## Positioned for a low carbon future

- MYL is aligned with the ICMM Mining Principles and has adopted the Global Reporting Initiative framework (GRI)
- Tasmanian grid power is 100% renewable<sup>2</sup>



Notes:

1. See page 2 on references to Mineral Resources and Mineral Resource Estimate on page 24

2. Tasmanian Government ([https://recfit.tas.gov.au/renewables/100\\_target\\_achievement](https://recfit.tas.gov.au/renewables/100_target_achievement))

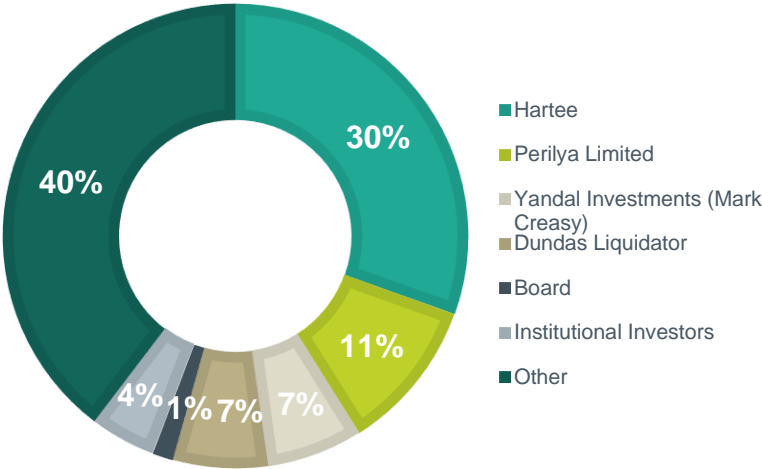


# Corporate snapshot

## Capital Structure<sup>1</sup>

Market capitalisation at 70cps issue price	▪ A\$211.3 m.
Shares on issue	▪ 301.9 m.
Unlisted options	▪ 1.3 m.
Performance rights	▪ 4.6 m.
Cash position <sup>2</sup>	▪ A.\$31.5 m.
Debt position	▪ US\$ 30.0 m. / A\$43.7 m.
Enterprise value / contained nickel tonne in Mineral Resources	▪ A\$ 847/t

## Key Shareholders



## Board



### Jeffrey Moore, Non-Executive Chairman

- B.Sc, MAusIMM, MGSA
- Geologist with extensive technical, managerial and project finance experience
- Former Director and CEO of significant ASX listed mining companies



### John Lamb, Managing Director

- B. Surv(IT), Grad Dip Management, MBA, FAusIMM(CP), GAICD
- Over 30 years experience across mining, construction, forestry and logistics sectors
- Former General Manager of the Avebury Mine and Rosebery Mines in Tasmania.
- Former General Manager of the Century Zinc Mine in Queensland



### Rowan Caren, Executive Director, CFO & Company Secretary

- B. Com, CA
- Over 30 years experience in natural resources sector providing financial and corporate services
- Extensive Director and company secretarial experience



### Paul Arndt, Non-Executive Director

- B. Sc, MBA, MSc, Grad Dip Engineering
- Managing Director and Chief Executive Officer of Perilya
- Formerly held senior positions with Newcrest, Pasminco and MIM



### Steve Hendel, Non-Executive Director

- B.A, J.D
- Founding Partner and Managing Director of Hartree
- Chairman of Sprague Resources LP. Former Partner at Goldman Sachs

1. Undiluted market capitalisation calculated as the shares on issue multiplied by the issue price for the purposes of the proposed capital raising. Shares on issue do not include Additional Acquisition Shares (13.1 M.) which will be issued subject to MYL's reinstatement to trading on the ASX and other conditions precedent. Shares on issue also exclude shares to be issued under the Prospectus. The cash and debt positions are as at 5 July 2022. Enterprise value is calculated as MYL's undiluted market capitalisation plus debt less cash. Contained nickel in the Avebury Mineral Resources Estimate is 264,000t (see slide 24)

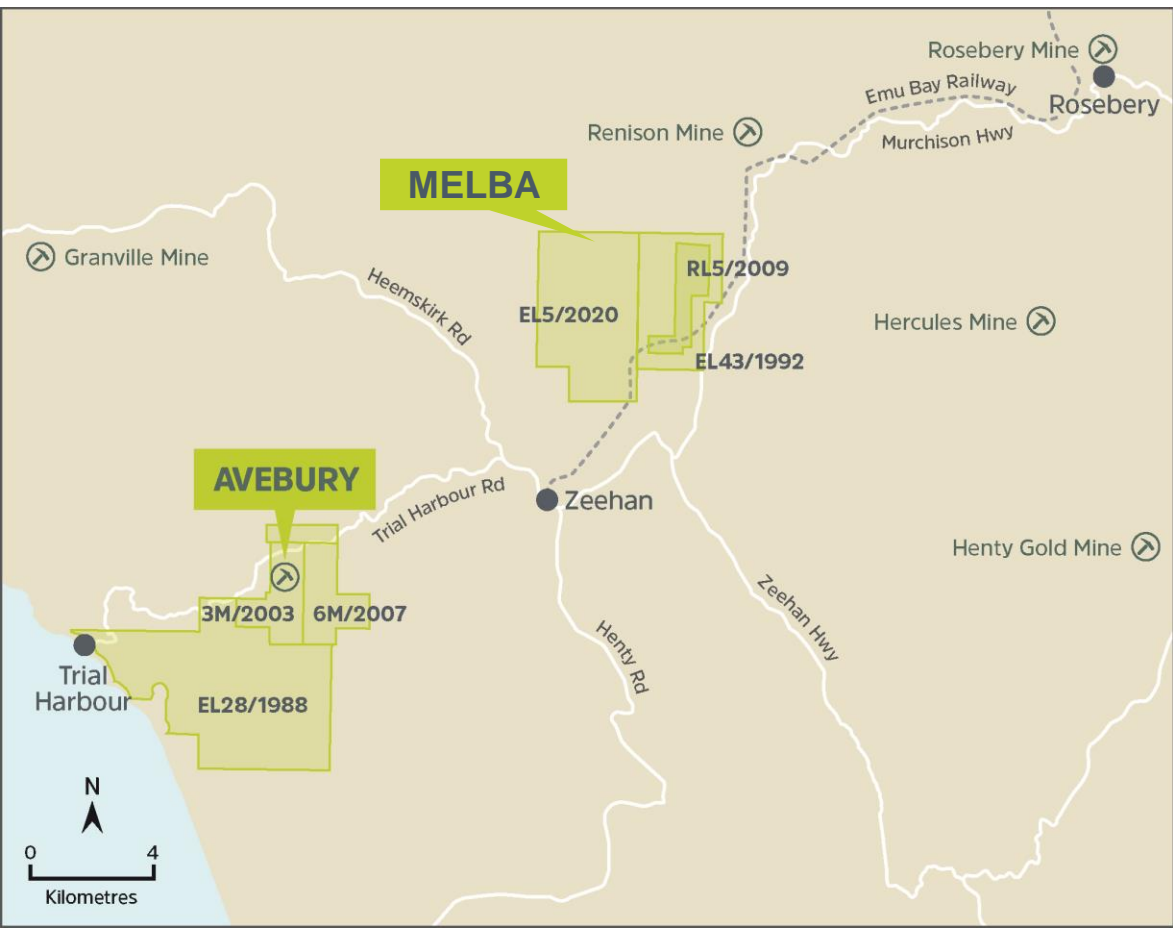
2. Includes USD 12.06 M. / AUD 17.6 M. held in MYL's Myanmar bank accounts. See announcement date 7 April. The processing of foreign currency transfers from Myanmar has been suspended while local financial institutions understand and implement recent policy changes by the Myanmar authorities. It is likely that further delays will result from this uncertainty within the foreign exchange environment in Myanmar. FX rate used AUD:USD 0.68652022.



# Avebury nickel project

Project Interest	<ul style="list-style-type: none"><li>100%</li></ul>
Licences <sup>2</sup>	<ul style="list-style-type: none"><li>2 Mining Leases</li><li>3 Exploration Licences and 1 Retention Licence</li></ul>
Project Location	<ul style="list-style-type: none"><li>Avebury: 8km west of the town of Zeehan</li><li>Melba: 8km northeast of Zeehan</li></ul>
Mineral Resources	<ul style="list-style-type: none"><li>29.3 Mt at 0.9% Nickel for 264 Kt contained nickel (JORC 2012)<sup>1</sup></li></ul>
Mine and Plant	<ul style="list-style-type: none"><li>8,500 m of underground development</li><li>900 ktpa processing plant</li></ul>
Infrastructure	<ul style="list-style-type: none"><li>Access to mine site is via a high quality, purpose-built bitumen road</li><li>Export facility at the Port of Burnie can be efficiently accessed by road or rail</li></ul>
Key Agreements	<ul style="list-style-type: none"><li>Life of mine offtake agreement</li><li>Loan agreement</li><li>Hedging agreement</li><li>Security documentation</li></ul>
Hartree Metals LLC (Hartree)	<ul style="list-style-type: none"><li>Hartree is a metal trader and is part of Hartree Partners, a global energy and commodities firm</li><li>Funds managed by Oaktree Capital Management are the majority shareholder of Hartree Partners</li></ul>

Map of Avebury Tenements<sup>2</sup>

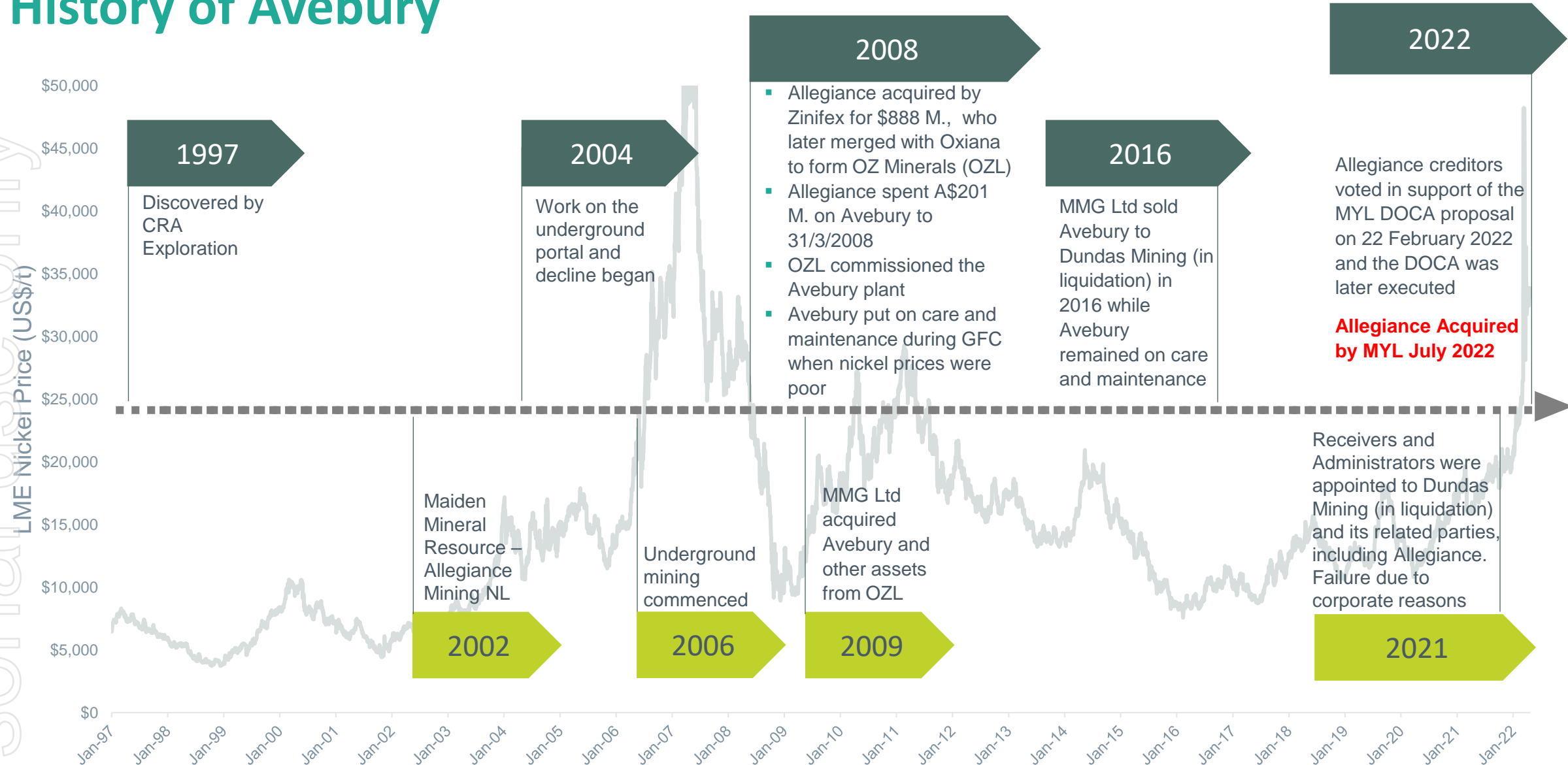


Notes:

1. See page 2 on references to Mineral Resources and Mineral Resource Estimate on page 24
2. EL5/2020 will be acquired immediately prior to MYL's relisting.



# History of Avebury



## Notes:

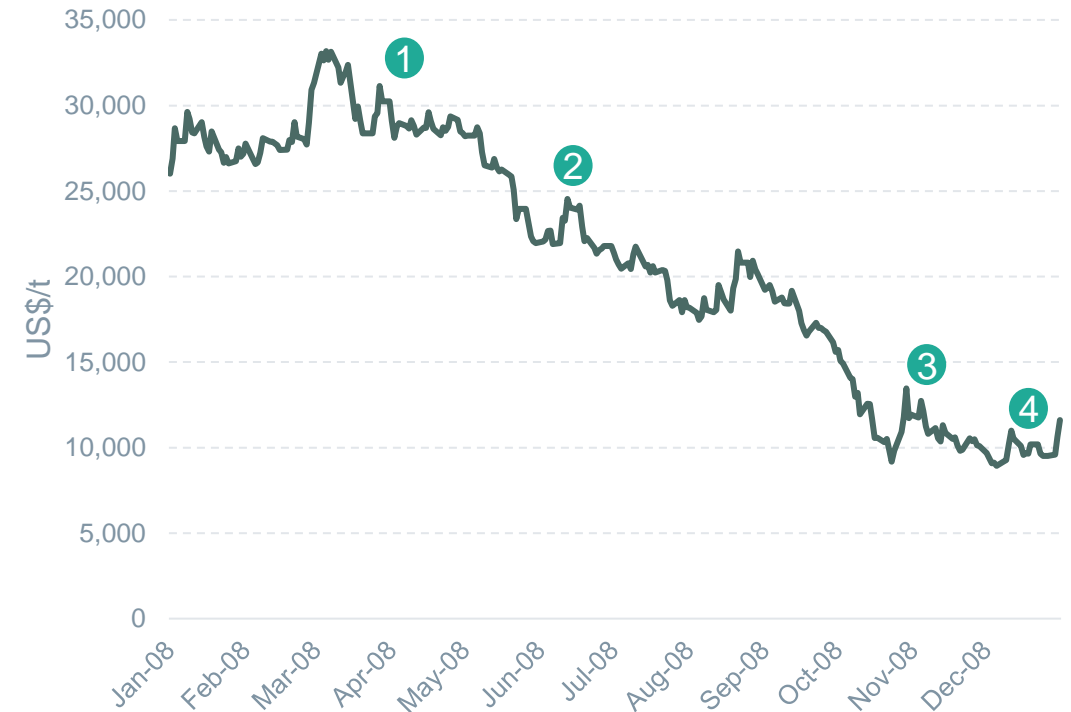
1. Source: Allegiance Mining NL, Zinifex Limited and Oz Minerals Limited ASX announcements.



# Why did production at Avebury cease?

- Avebury was commissioned in 2008 in the global financial crisis. Nickel prices fell 68% during commissioning, below US\$10,000 / t
- OZL announced major cuts to the capital and operating budgets of its mines including Avebury and had difficulty in re-financing its debt facilities and was unable to fund the startup
- Limited capital equipment and financial resources were available to facilitate the commissioning which allowed no tolerance for commissioning challenges, including the management of arsenic in the Avebury ores. This was further compounded by an offtake agreement which did not allow for the sale of concentrates outside of China, a country which has strict arsenic importation limits
- In December 2008, after producing 10kt of nickel concentrate, and with Nickel prices below US\$10,000/t OZL announced that the Avebury operation was not profitable and that it would be placed on care and maintenance

2008 LME Spot Nickel Price



- 1 Avebury plant commissioning commences
- 2 First concentrate produced
- 3 OZL suspended pending re-finance of debt
- 4 Avebury placed on care and maintenance

Notes:

1. Source: Allegiance Mining NL, Zinifex Limited and Oz Minerals Limited ASX announcements.

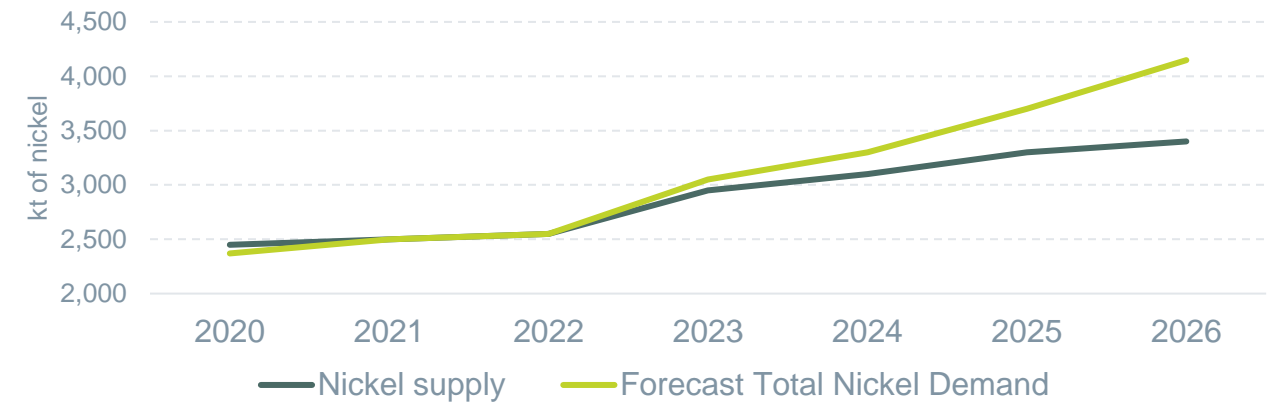




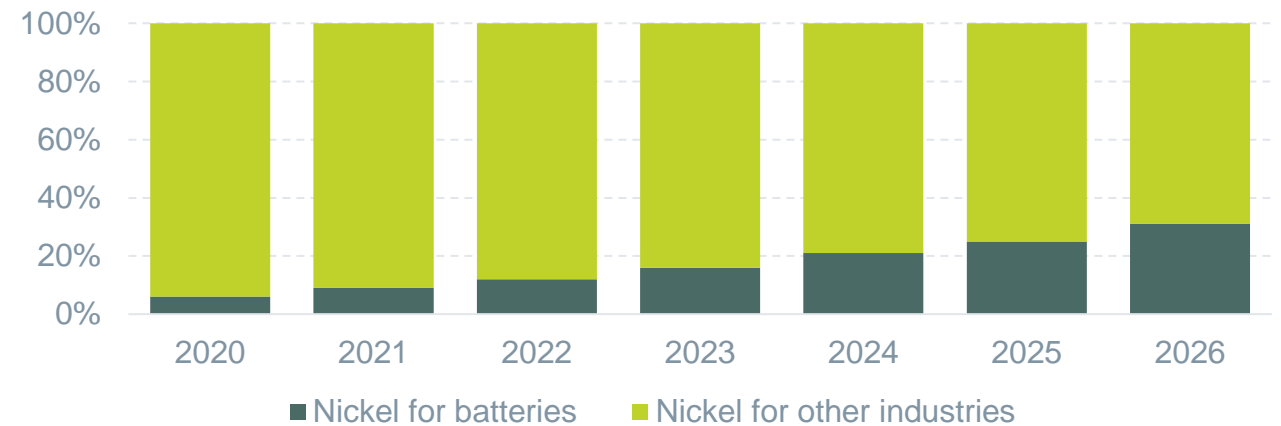
# A favourable landscape for a re-start of Avebury

- **Favourable nickel pricing environment.** Spot LME nickel prices and futures contracts are supportive
- **Robust demand outlook.** Demand for nickel in battery technologies provides a robust outlook:
  - ~20 million passenger EV sales in 2025 is expected to grow to over 70 million by 2040<sup>1</sup>
  - High nickel content batteries are the key to longer range, more efficient EV's
  - Downstream users are seeking responsibly sourced Class-1 nickel
- **Limited Global Supplies.** Nickel sulphide concentrates from low-emission, high-ESG providers in tier one jurisdictions are in short supply, exacerbated by the Ukraine war and the likely impact on Norilsk
- **Short path to re-start.** The care and maintenance program has kept the mine and processing plant in good condition allowing for a start to mining operations. Processing operations will commence once sufficient ore stockpiles are available on the ROM pad

*Global Nickel Supply Capacity & Demand <sup>2</sup>*



*Forecast Global Use For Nickel By End-Use Industry <sup>2</sup>*



**Notes:**

1. Wood Mackenzie
2. Rystad Energy Battery Metals Cube, Rystad Energy research and analytics



# An enviable ESG proposition



**MINING WITH  
PRINCIPLES**

## Environmental

- **Renewable grid power.** A rare opportunity to decarbonise a mining operation
- **Small disturbance footprint.** Key mine infrastructure is established and permitted
- Tailings storage facility permitted. Future tailings to be backfilled into underground mine
- Mine has a waste rock deficit. No surface waste landforms will be created
- **Improving water quality.** Positive site water balance. Avebury wetlands enhancing water quality
- Conservation plans in place to protect local fauna

## Social

- **Zero LTI within the past 24 months**
- Safety conscious culture with implementation of workplace management procedures
- **Local workforce.** New jobs start with locals
- No native title disputes
- Strong Tasmanian Government support

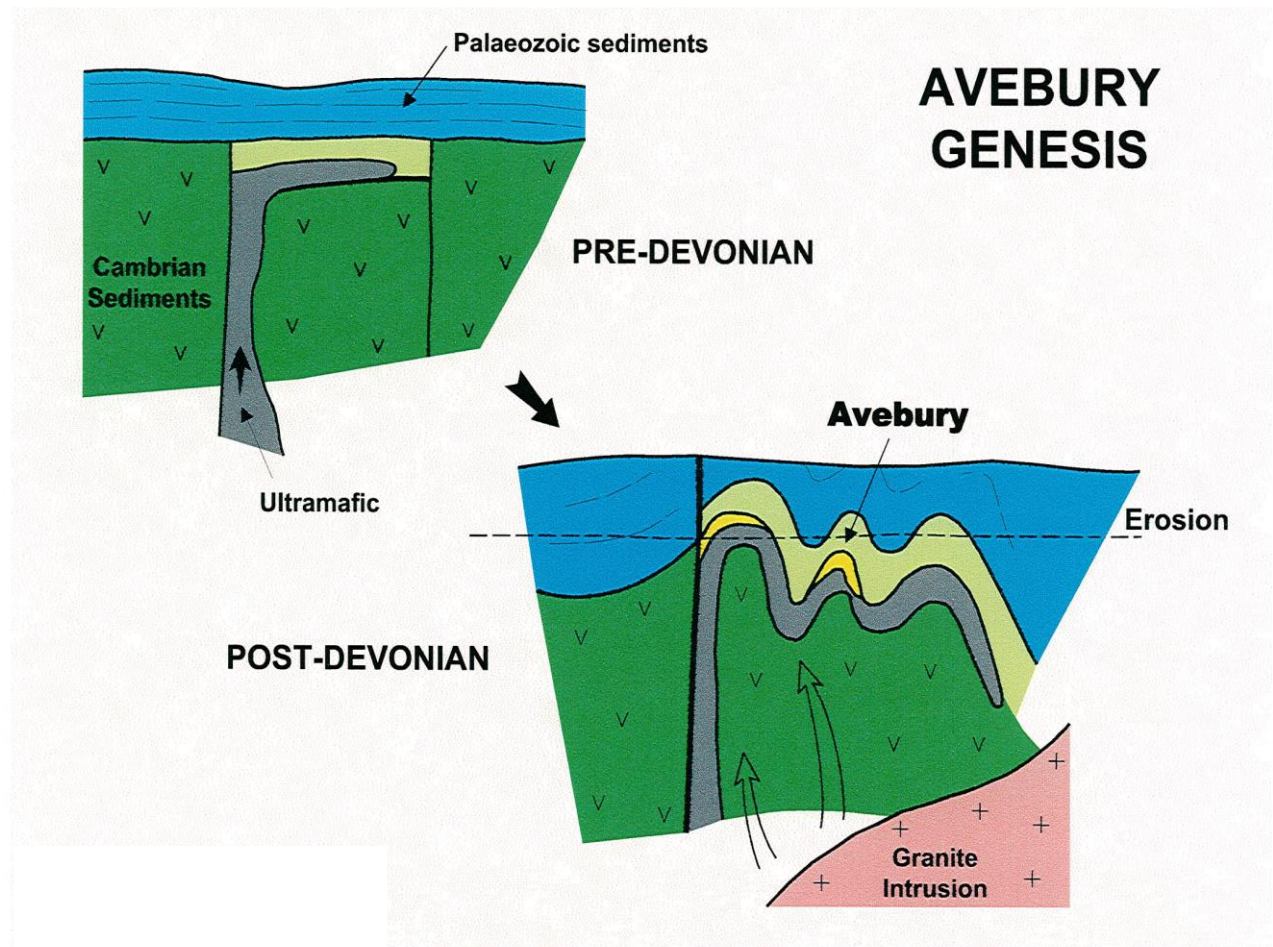
## Governance

- Aligned with International Council on Mining & Metals (ICMM) Mining Principles
- Global Reporting Initiative (GRI) reporting framework
- ASX Corporate Governance Principles and Recommendations

# Geology of Avebury

- Deposit is hosted in an ultramafic body located within a sedimentary sequence comprising volcanoclastic turbidites
- Nickel remobilised from olivine within the ultramafics, concentrated and emplaced in structures to form the Avebury resource
- Mineralisation consists of veins and coarse-grained disseminations of sulphides that can be hosted by both serpentinised ultramafic rocks and skarn-altered rocks
- Grades of mineralised serpentinite and skarn range from 0.4% to 4% Ni, with an average of about 0.9% Ni at a cut-off grade of 0.4% Ni
- Mineralised zones in the ultramafic body vary in true width from 4 – 40m and average around 10 metres
- Mineralised lenses range from 50 to 600 metres in length and can extend over 400m down dip

*Avebury Genesis Model<sup>1</sup>*



Notes:

1. See MYL announcement date 8 April 2022.

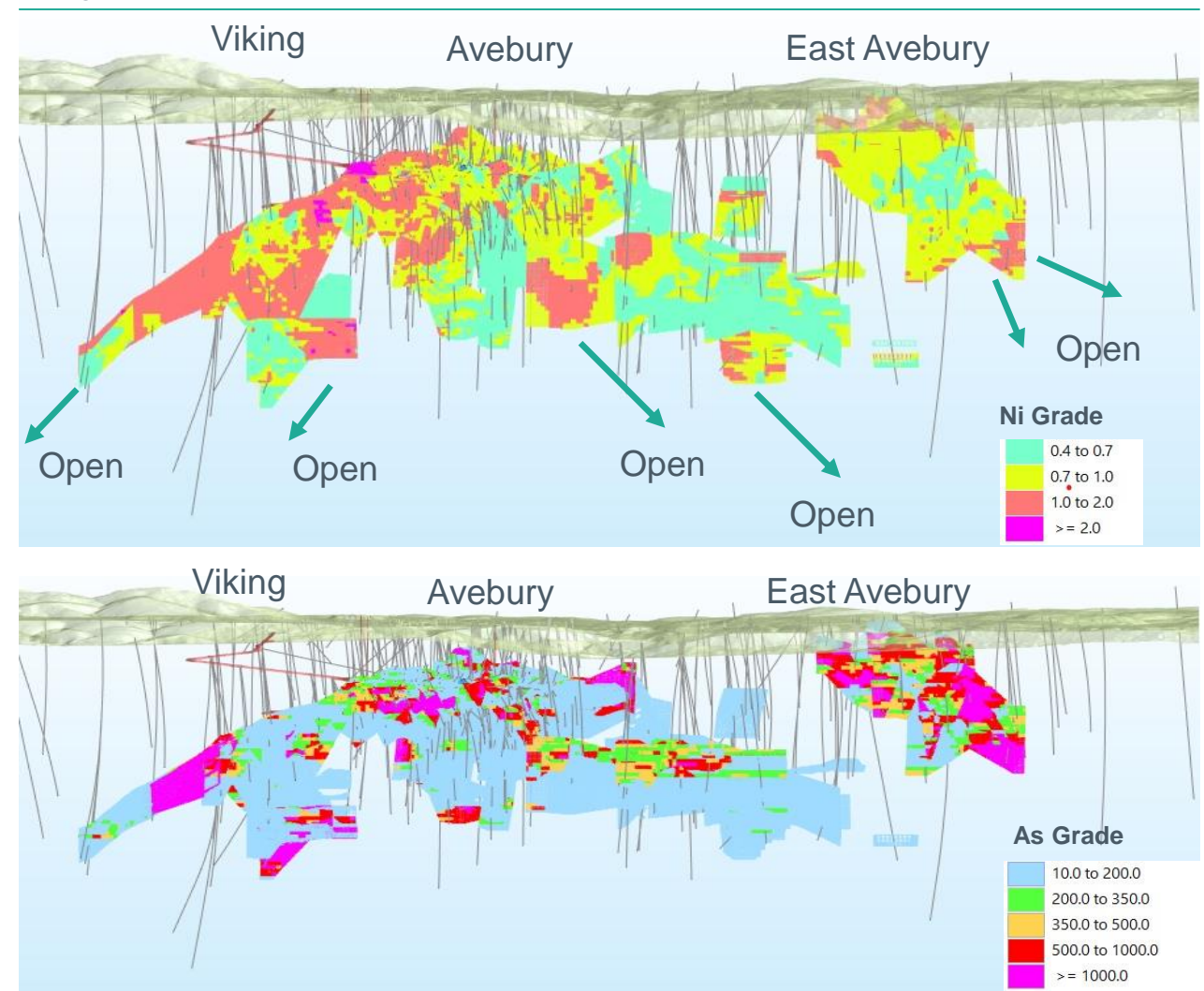




# Enhanced understanding of Avebury

- An ore genesis model developed using all the drilling data, including data acquired post Avebury being placed on care and maintenance, supports the view that Arsenic (As) is within discrete zones within the ore body
- MYL's solutions to managing arsenic
  - Hartree offtake agreement allows for sales of nickel concentrate outside of China, where higher thresholds are permitted
  - Greater flexibility on concentrate grade allowing control of As content in product
  - Better understanding of As distribution in ore body allows for As management in the mine schedule
  - Blending of run-of-mine ore to optimise As grade
  - Blending of concentrate to optimise As grade
- None of these solutions were effectively implemented by the prior operator of Avebury due to a lack of financial resources and contractual flexibility

*Long Sections of Avebury Block Model for Nickel (Upper) and Arsenic (Lower)<sup>1</sup>*



Notes:

1. Visual representation of the Avebury Mineral Resource Estimate prepared in accordance with JORC Code (2012). See page 2 on references to Mineral Resources and Mineral Resource Estimate on page 24.





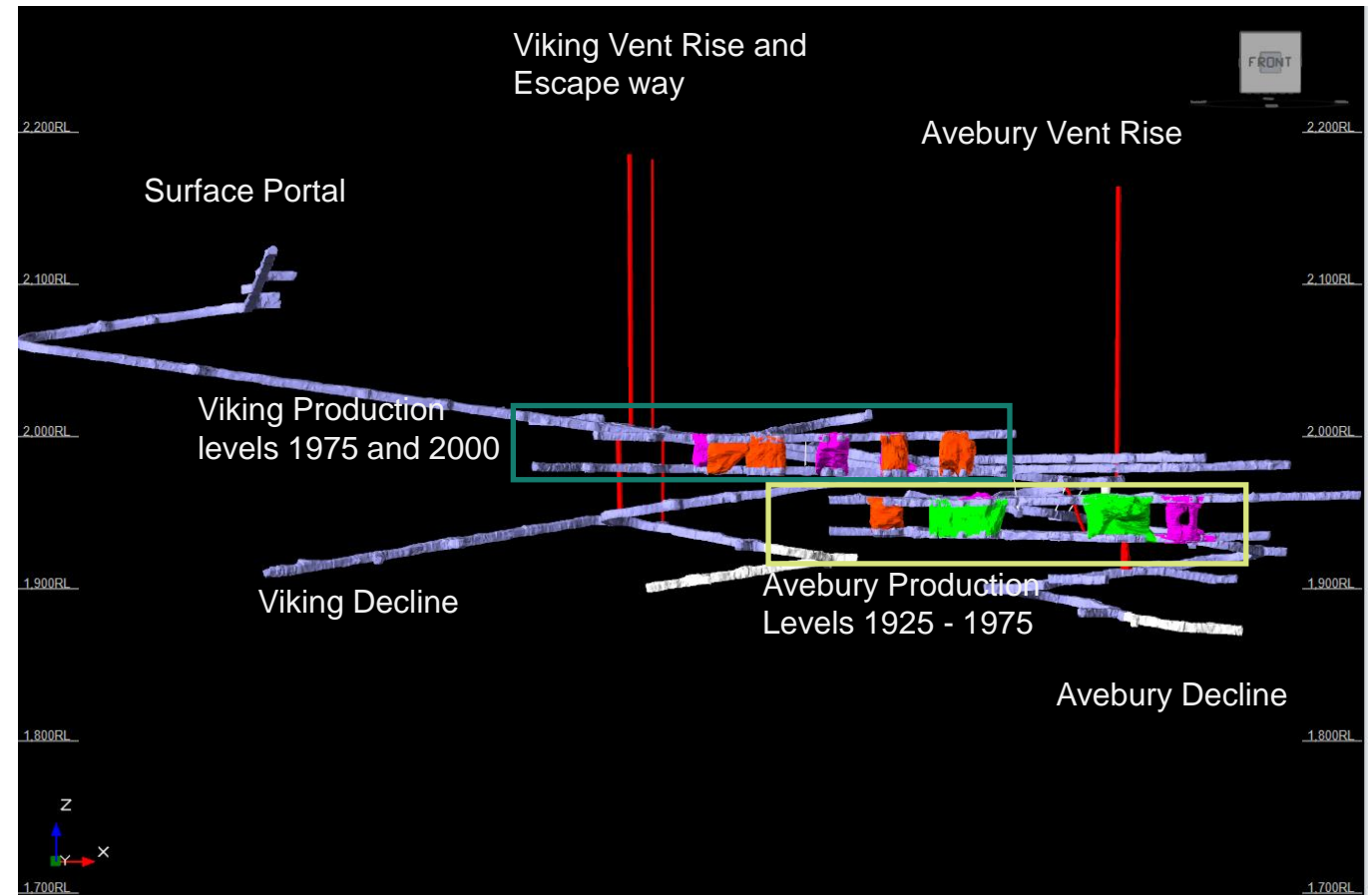
# Advanced underground mine

The Avebury underground is an established, modern underground mine with 8.5 km of underground development, two vent rises, an escape way and underground mine infrastructure

Advantages of Avebury:

- The ore body is close to surface
- Simple longitudinal and transverse stoping mining method will be utilised
- There is a relatively high proportion of stope ore to development ore
- Waste development has been completed well in advance of that needed for mine production (future production flexibility for blending)
- The three Avebury lodes are accessible from the existing decline and underground development, resulting in excellent mine working area flexibility

*Avebury Underground Mine*



# Established mine infrastructure



Underground Water Pumping Station



Avebury No.2 Vent Rise



Underground Electrical Substation



# Modern processing infrastructure

*Grinding and Flotation Circuits*



*Crusher House and Fine Ore Bin*



- Avebury's processing infrastructure is in very good condition with most of the processing equipment housed in sheds to prevent weathering
- Nameplate processing capacity of 900,000 tonnes of ore per annum, with potential for greater throughput identified<sup>1</sup>
- Designed to recover 79% of the nickel in ore to a nickel concentrate, with a nickel grade around 20%. Potential for enhanced metallurgical recovery identified<sup>1</sup>
- Site also includes stores, workshops, an administration building, land holdings and accommodation facilities
- Tailings storage facility is fully permitted and retains storage capacity

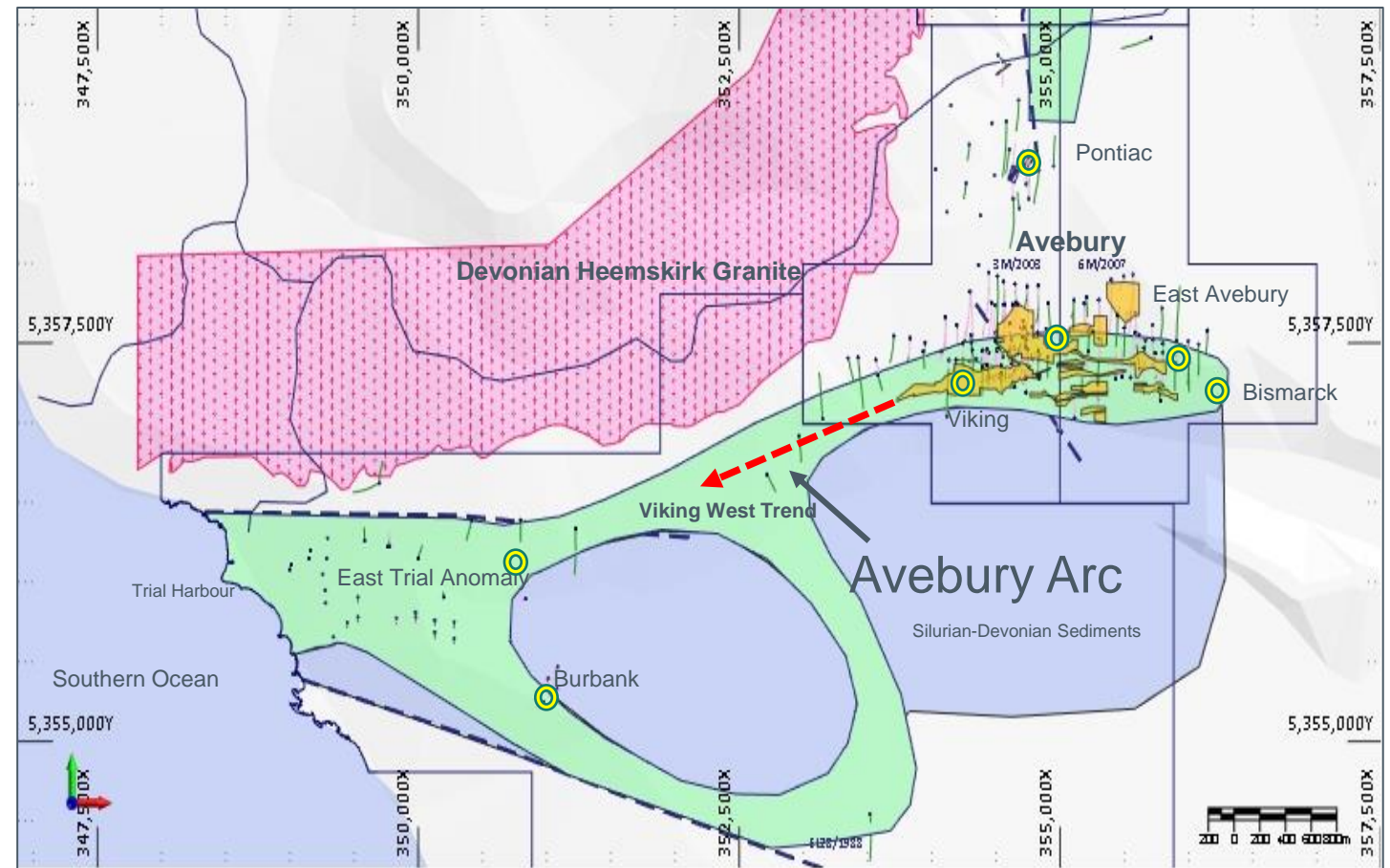
Notes:

1. Capacity enhancement and improved metallurgical recoveries are subject to further technical studies



# Only 12% of the Avebury Arc has been tested<sup>1</sup>

*Avebury Ultramafic Host Rock in the Avebury Region*



7 km

## Notes:

1. Zinifex Limited (2008). No material exploration has been undertaken along the Avebury Arc since 2008

2. Kamenetsky et. al. 2016





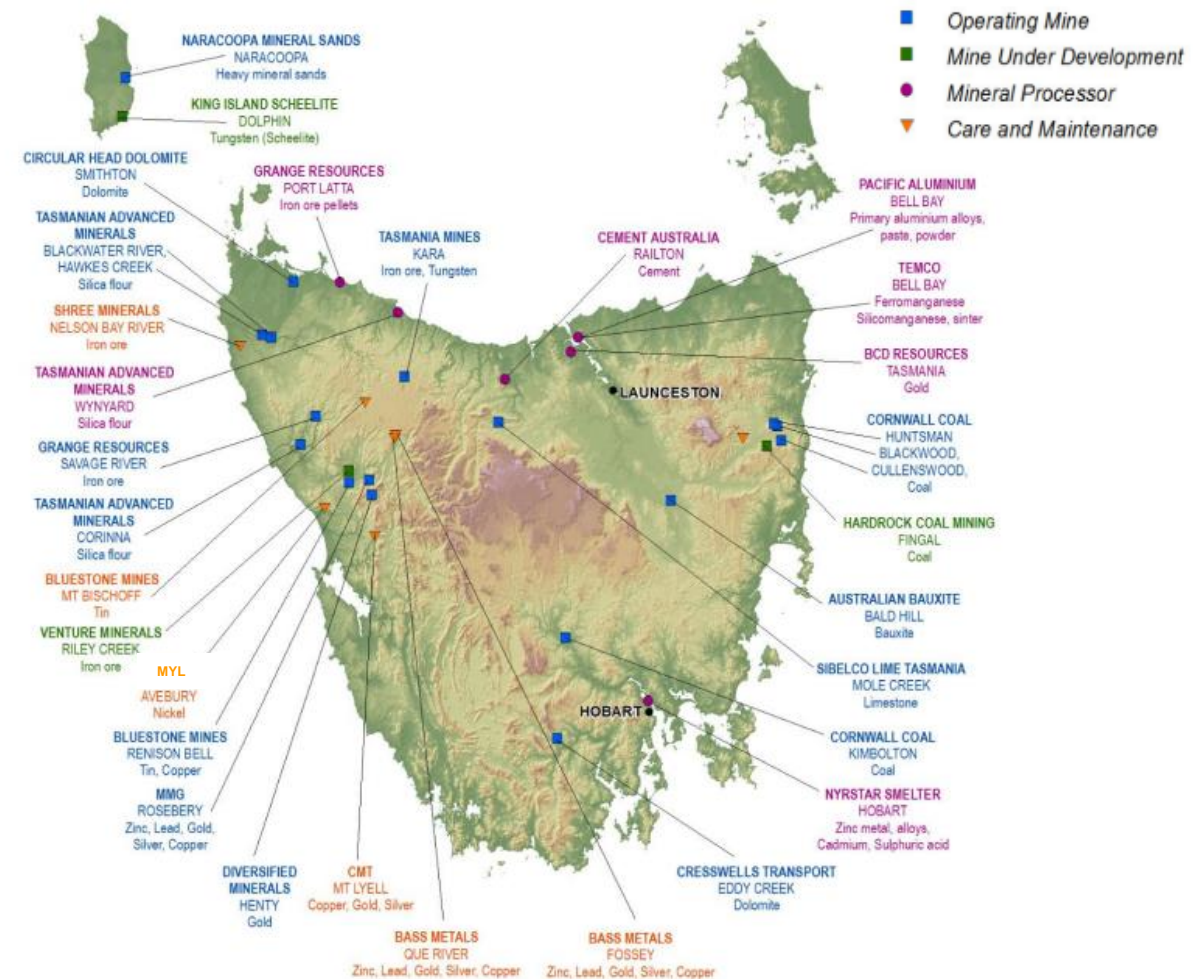
Notes  
1. [www.irs.gov](http://www.irs.gov)

- Notes:
- EL5/2020 will be acquired immediately prior to MYL's relisting.

# Tasmania – a world class mining district

- One of the most highly mineralised regions in the world, with an extensive range of mineral deposits
- The mining and minerals processing sector is a key pillar of economic growth in Tasmania and the sector employs around 5,200 people<sup>2</sup>
- The majority of the state's mining operations are located in close proximity to Avebury in Western Tasmania. This includes the Rosebery (zinc, lead, gold, copper and silver), Renison Bell (tin) and Savage River (iron ore) mines
- \$2.8 billion worth of minerals were mined and processed in Tasmania in FY21 with \$2.3 billion of mineral products being exported. This accounted for 61% of Tasmania's exports<sup>2</sup>

Map of Tasmanian Mineral Projects <sup>1</sup>



## Notes:

1. Western Tasmania Export Corridor Plan 2017
2. MRT, TMEC:



# Funding Avebury

- **Limited capital required for re-start.** As little as A\$ 30 M. is required to fund the re-start capital and operating costs
- Under a maximum subscription scenario an accelerated re-start schedule would be pursued, and additional site expenditure would be incurred on:
  - Capital equipment
  - Accelerated exploration activity
  - Stage 2 of the accommodation facility
  - Installation of a paste fill plant
  - A decarbonisation study
  - Expanded concentrate storage facilities, and
  - A debottlenecking study to optimise concentrate production

## Sources and Uses of Funds Presented Under Two Equity Capital Raising Scenarios <sup>1,2</sup>

	A\$20 M. Minimum Subscription (Amounts in A\$ M.)	A\$70 M. Maximum Subscription (Amounts in A\$ M.)
<b>Sources of Funds</b>		
Existing cash reserves in Australia	13.9	13.9
Existing cash reserves in Myanmar <sup>3</sup>	17.6	17.6
Capital Raising	20.0	70.0
<b>Total</b>	<b>51.5</b>	<b>101.5</b>
<b>Uses of Funds</b>		
Repayment of Hartree bridging loan	14.6	14.6
Avebury site expenditure	30.0	66.0
Costs associated with the Avebury acquisition	3.0	3.0
Expenses of the Capital Raising	1.3	3.8
Administration Costs	1.6	1.6
Working Capital	1.0	12.5
<b>Total</b>	<b>51.5</b>	<b>101.5</b>

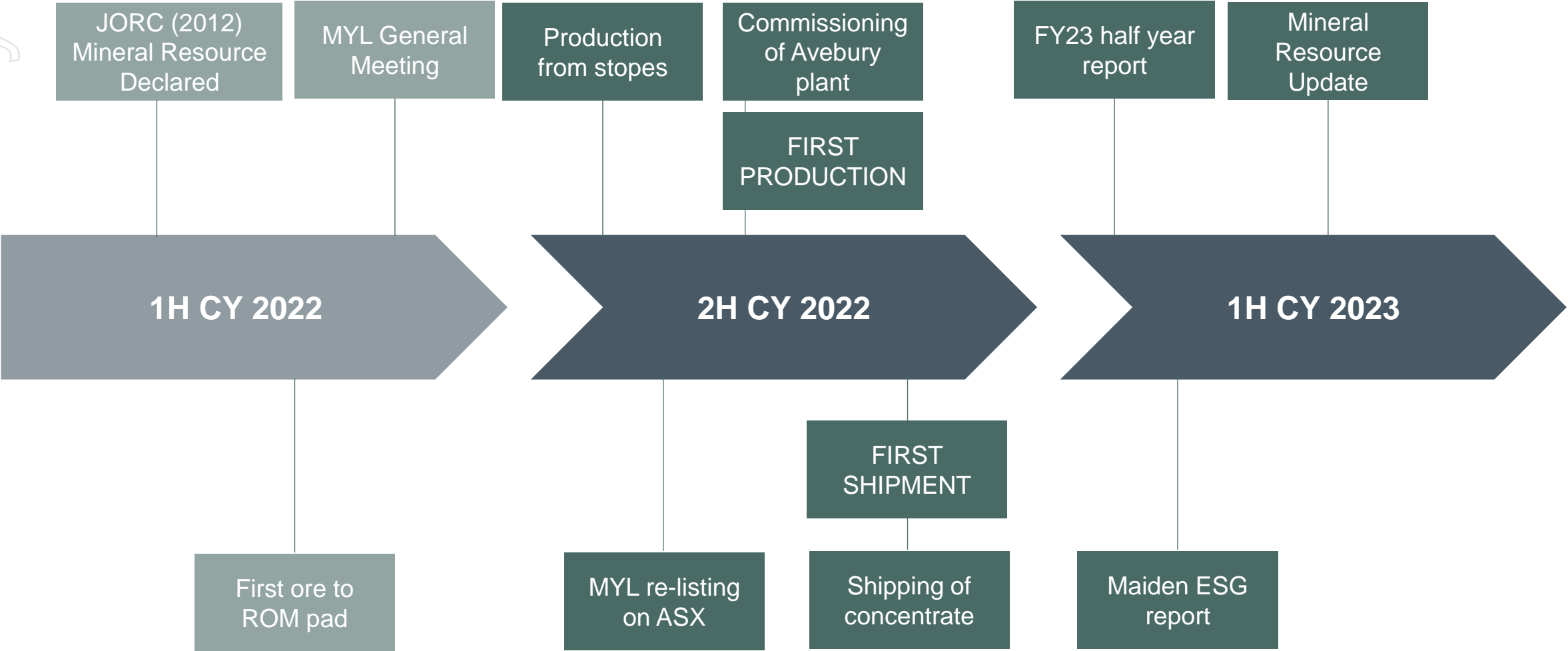
1. Cash and debt figures as at 5 July 2022. See table 1.13 in the notice of meeting published on the ASX on 30 May 2022 for disclosures related to sources and uses of funds.

2. Amounts itemised in the table are budgetary, forward looking estimates and represent the best information the Company has available to date. These estimates are subject to change.

3. See announcement date 7 April. The processing of foreign currency transfers from Myanmar has been suspended while local financial institutions understand and implement recent policy changes by the Myanmar authorities. It is likely that further delays will result from this uncertainty within the foreign exchange environment in Myanmar. FX rate used AUD:USD 0.68652022.



# Indicative timeline



Notes:  
1. Times are indicative only and are subject to change. A re-listing of MYL on the ASX is at the ASX's sole discretion. Accordingly, there is no certainty that MYL will successfully re-list. There can be no guarantee that commissioning of the Avebury plant will be successful and that first concentrate will be produced in accordance with the indicative timeline.





# A start to mining operations

*First tonnes on the Avebury ROM Pad*



- Nameplate Avebury processing plant throughput is 900 ktpa or 75 ktpm
- OZL achieved a maximum plant throughput of 70 ktpm when commissioning Avebury in 2008
- MYL will seek to develop a stockpile on the ROM pad in the coming months sufficient to allow for the commissioning of the plant
- MYL plans a graduated commissioning phase to test plant bottlenecks before bringing production up to nameplate capacity
- Detailed mining and processing schedule and full operating and capital cost budget in place for FY23

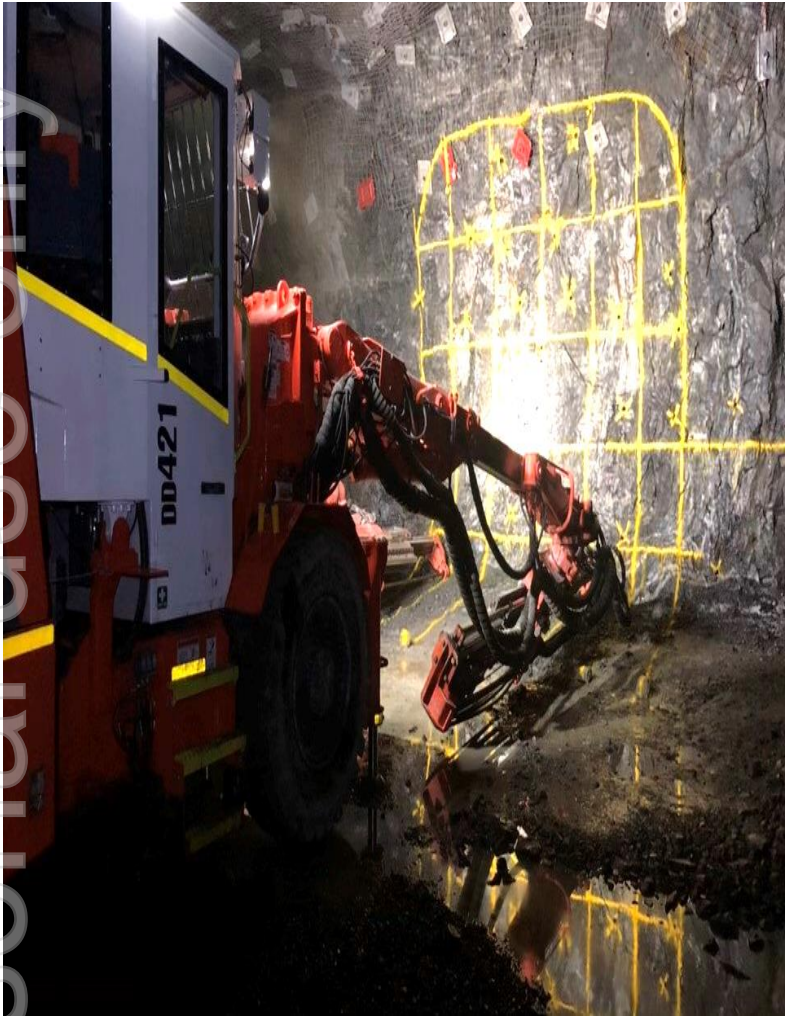
Notes:

1. See notes on Forward Looking Statements on page 2.





# Snapshots from site



Jumbo drilling



Underground drone survey



Heli-supported geophysics survey



Loader #1 arriving



Mine Rescue training



# Snapshots from site



Underground Bagger



Production Drill Rig



First Ore Truck in 13 Years



ersonal use only



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# Mineral Resource Estimate

*Avebury Mineral Resource estimate, reported from all blocks within Ni > 0.4 % envelope*

JORC classification	Tonnage (Mt)	Ni (%)	Co (ppm)	As (ppm)	Contained Ni (kt)	Contained Co (kt)
Indicated	8.7	1.0	244	378	87	2
Inferred	20.7	0.8	223	297	166	5
TOTAL	29.3	0.9	229	321	264	7

Notes:  
1. See page 2 on references to Mineral Resources

