

The Julimar Ni-Cu-PGE Project - the right metals at the right time in Western Australia

Macquarie Critical Minerals Forum

28 June 2023







Forward looking statements and competent person(s) disclosure



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Authorisation

This presentation has been authorised for release by the Disclosure Committee.

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Mineral Resources Reporting Requirements

As an Australian Company with securities quoted on the Australian Securities Exchange (ASX), Chalice is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act 2001 and the ASX. Investors should note that it is a requirement of the ASX listing rules that the reporting of mineral resources in Australia is in accordance with the JORC Code and that Chalice's mineral resource estimates comply with the JORC Code. The requirements of JORC Code differ in certain material respects from the disclosure requirements of United States securities laws. The terms used in this announcement are as defined in the JORC Code. The definitions of these terms differ from the definitions of such terms for purposes of the disclosure requirements in the United States.

Competent Persons Statement

The Information in this presentation that relates to previously reported exploration results for the Julimar Project is extracted from the following ASX announcements:

- "High-grade nickel-copper-palladium sulphide intersected at Julimar Project in WA", 23 March 2020
- "New Mineralised Zone Intersected at Dampier Target", 7 July 2022
- "Seismic identifies potential 1.6km extension of Gonneville", 6 September 2022.
- "Major northern extension of Gonneville Intrusion confirmed", 19 October 2022
- "Outstanding wide high-grade intersections north of Gonneville", 23 November 2022
- "Promising new sulphide mineralisation at the Hooley Prospect". 8 December 2022
- "Julimar flowsheet development and scoping update". 13 December 2022
- "Further early-stage exploration success north of Gonneville". 3 May 2023

The information in this presentation that relates to Mineral Resources has been extracted from the ASX announcement titled:

"Gonneville Resource increases by approx. 50% to 3Mt NiEa". 28 March 2023.

The above announcements are available to view on the Company's website at chalicemining.com

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the original release 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 relevant original market announcements. Refer to the attached Appendices for further information on the Mineral Resource Estimate and metal equivalents.







A **globally recognised** name in minerals exploration



A team with a track record of finding mines (Flying Fox, Spotted Quoll, Tropicana) and rewarding shareholders



High-performance, results driven culture that is values driven



Our purpose – to find the metals needed to decarbonise the world (the green metals)



Our aspiration – to create a world class, multi-district green metals province in the West Yilgarn Province















Chalice is a leading ASX200 green metals explorer-developer with a track record of creating shareholder value





Our Achievements

- ~4,000% total return to shareholders since Julimar discovery in March 2020
- World class Julimar Ni-Cu-PGE discovery recognised with PDAC Thayer Lindsley Award (2023) and AMEC Prospector of the Year Award (2022)
- Chalice recognised as RIU Craig Oliver Award (2021) MNN Explorer of the Year (2021) and D&D Emerging Company of the Year (2021)

Board of Directors



Derek La Ferla

Chairman



Dorsch

Managing Director

and Chief

Executive Officer



Morgan Ball

Non-Executive

Director



Garret



Stephen McIntosh

Director



Kenvon



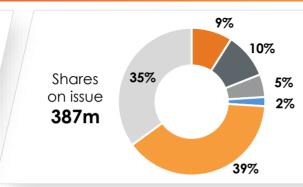
Jo Gaines

Non-Executive

Corporate snapshot - ASX: CHN

Market Capitalisation¹ ~**AS2.5Bn**

Cash balance² ~A\$145m



Top Shareholders³

- Tim Goyder (Founder)
- Goldman Sachs
- BlackRock
- Directors & Mgmt.
- Other Institutions
- Retail & HNWI

Research coverage

BELL POTTER



J.P.Morgan

Barrenjoey°



UBS

¹ As of 26 June 2023; ² As of 28 June 2023 ³ As of 31 May 2023 or as disclosed in the last substantial shareholding notice given to the Company. Note: Arctis Global disclosed a long equity derivative position of 46,728,282 shares on 10 Nov 2022.

Julimar – a major new polymetallic critical minerals project in Western Australia

A tier-1 scale magmatic sulphide Resource:

560Mt @ ~0.54% NiEq or ~1.7g/t PdEq1 (~55% M&I / ~45% Inferred)





860kt Ni

520kt Cu

83kt Co

contained

equivalent to ~3.0Mt NiEq or ~30Moz PdEq

Includes a higher-grade (>0.6% NiEq OP + UG) sulphide component:

120Mt @ ~0.9% NiEq or ~2.7g/t PdEq, extending from 30m to 800m+ (open)



A **strategic**, **large-scale**Resource with rare mix of
critical minerals in sulphide
mineraloay



Green metals at Julimar are essential for decarbonisation technologies like batteries, electric vehicles and hydrogen



100% owned by Chalice and located in WA, one of the world's most attractive mining jurisdictions



Strategy to explore and develop in parallel; formal strategic partnering process commenced

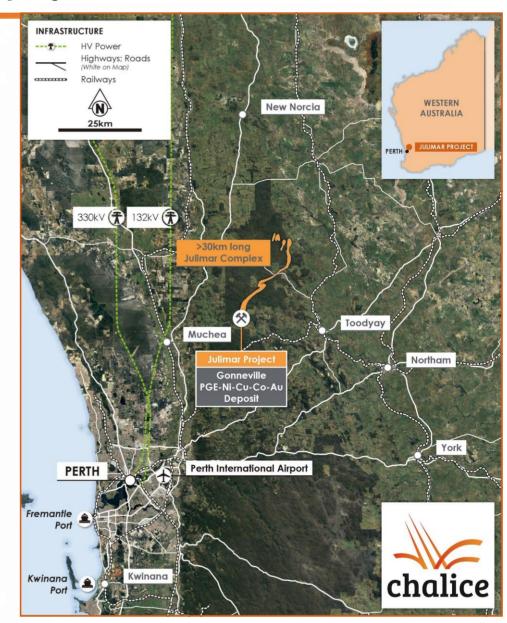


Direct access to major highway, rail, power, port infrastructure as well as a large local workforce



Resource on Chalice-owned farmland occupies just ~2km of newly recognised >30km long

Julimar Complex



Julimar is capturing attention as a **strategic asset** for Australia and the western world, given its rare palladium-nickel-cobalt content



Julimar is the **first major PGE discovery in Australia** and one of the few recent large-scale magmatic Ni-Cu-PGE discoveries in the western world

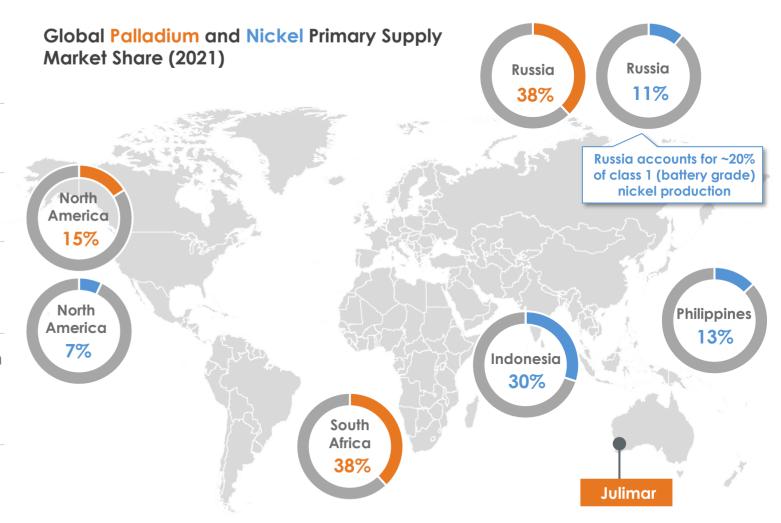
Pd, Pt, Ni and Co are classified as 'critical minerals' by most western governments

The western world is **extremely reliant** on **Russian Palladium supply** (~40% of global supply)

Located in one of the **world's most stable and friendly mining jurisdictions** with a commitment to sustainable development

The Australian Government has committed >\$1 billion to accelerate strategically significant projects and strengthen internal critical mineral security and supply chains⁽¹⁾

Strategic partner interest⁽²⁾ in **Julimar's large nickel sulphide endowment** has increased significantly, triggered by the US Inflation Reduction Act (IRA)



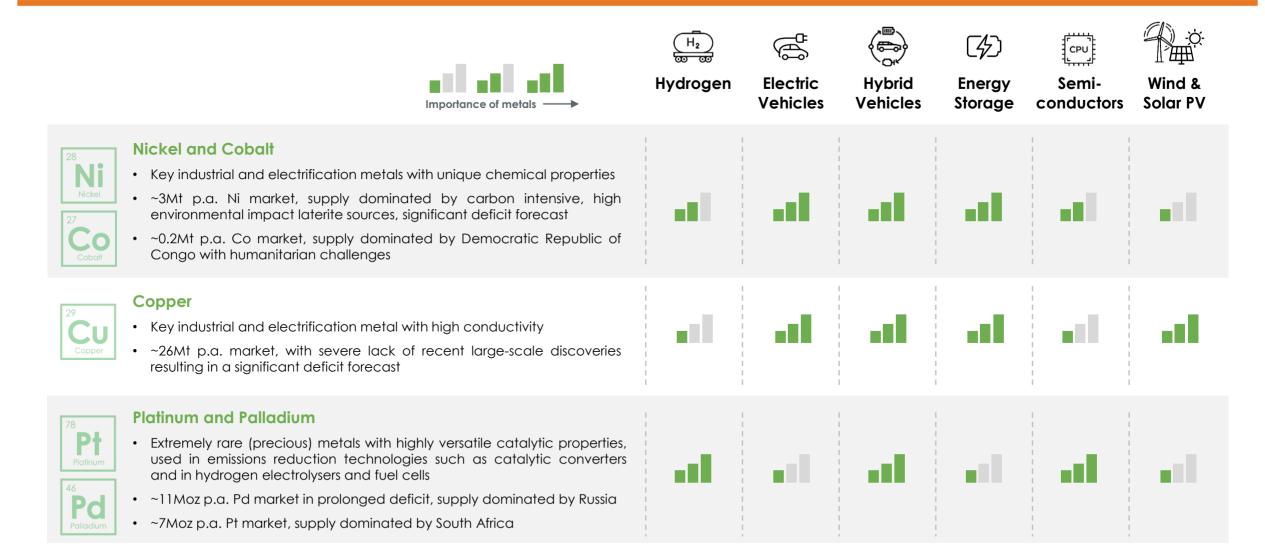
Source: 'Provision of PGM market intelligence and long-term metal price forecasts' SFA Oxford, March 2021 'Distribution of mine production of nickel worldwide in 2020*, by country', Statista, February 2022

^{1) &#}x27;2023-2030 Critical Minerals Strategy' Department of Industry, Science, Energy and Resources, Australian Government, June 2023

⁽²⁾ Discussions with potential partners are preliminary in nature, a formal partnering process is underway

The need to decarbonise the global economy will underpin long-term demand for the **green metals** at Julimar

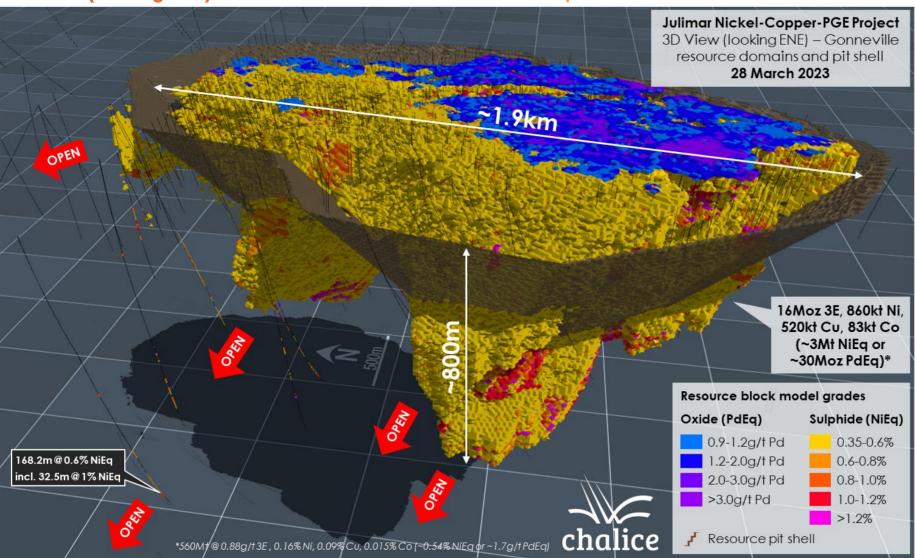




The tier-1 scale, near-surface Resource has high-grade optionality and compelling growth potential



3D view (looking ENE) of Gonneville Resource domains and pit shell



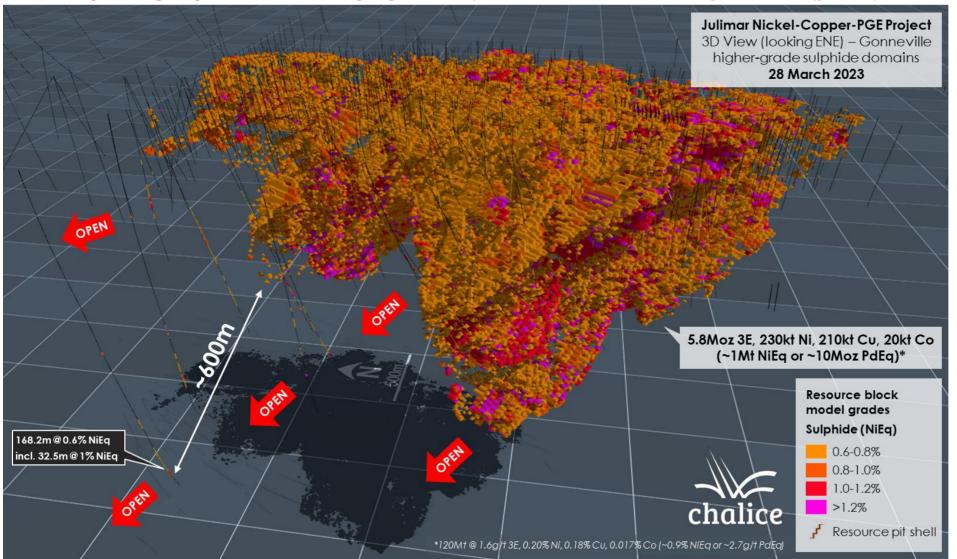
Mineral Resource Estimate¹:

- 560Mt @ 0.88g/t 3E, 0.16% Ni, 0.09% Cu, 0.015% Co (~0.54% NiEq or ~1.7g/t PdEq)
- 16Moz 3E, 860kt Ni, 520kt Cu
 and 83kt Co contained
- Equivalent to ~3.0Mt NiEq or ~30Moz PdEq contained
- Resource is defined to depth of ~800m, remains open at depth
- Located on Chalice-owned farmland
- Resource pit shell has deepened significantly at northern end of deposit
- Strip ratio in-pit of 1.6

The higher-grade sulphide component of the Resource starts near surface and remains the focus of studies evaluating the initial development phase



3D view (looking NE) of Gonneville high-grade sulphide Resource domains (>0.6% NiEq) and pit shell



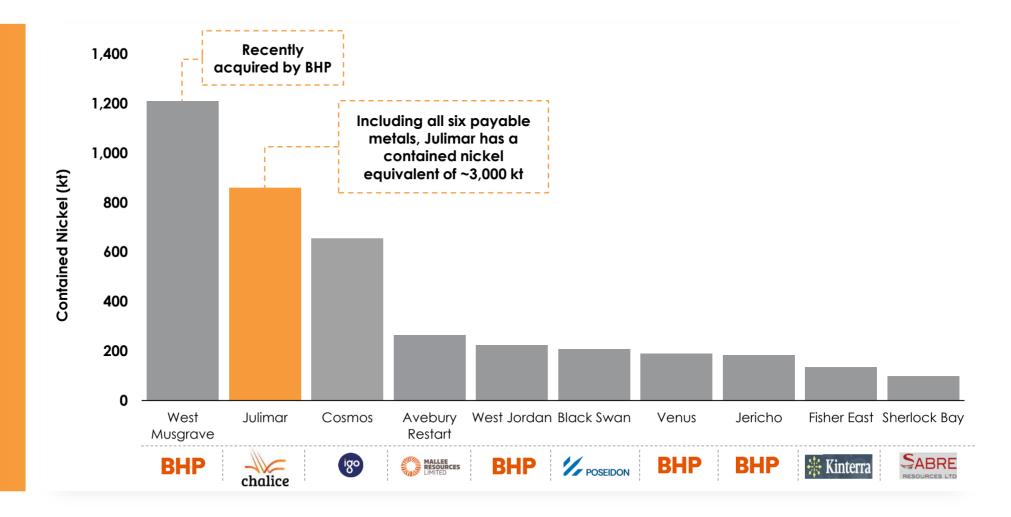
Higher-grade sulphide component of Resource¹:

- 120Mt @ 1.6g/t 3E, 0.20%
 Ni, 0.18% Cu, 0.017% Co
 (~0.9% NiEq or ~2.7g/t
 PdEq);
- 5.8Moz 3E, 230kt Ni, 210kt Cu, 20kt Co (~1.0Mt NiEq or ~10Moz PdEq) contained
- This higher-grade component affords the project significant optionality in development
- Evidence of continuation of high-grade sulphide zones ~600m beyond limit of updated Resource

Julimar has the **second largest** undeveloped nickel sulphide resource in Australia and has significant PGE-Cu-Co credits



Australian primary nickel sulphide resources in exploration or development ¹

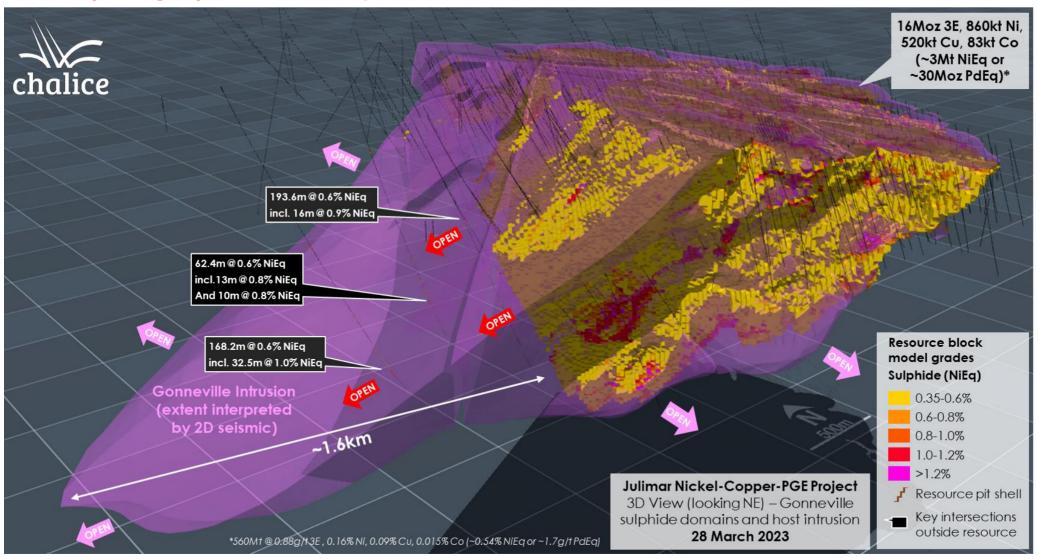


Source: Company filings.

The Resource remains open down-dip, with ongoing drilling demonstrating potential for material growth on farmland



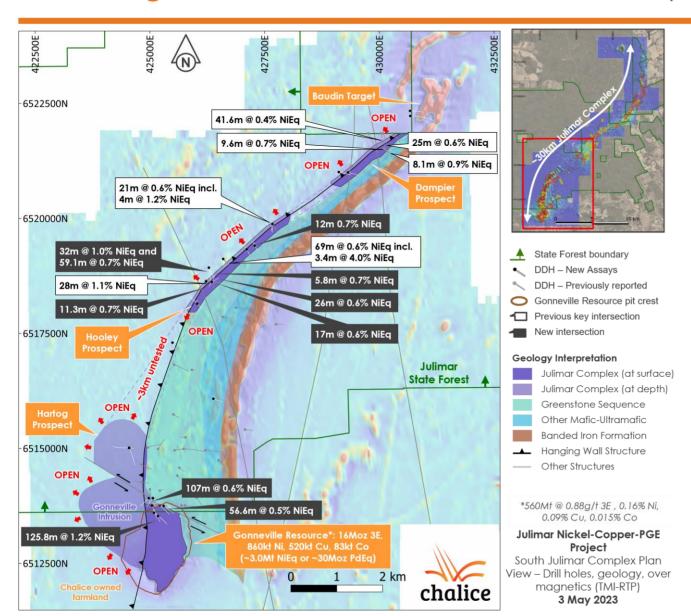
3D view (looking NE) of Gonneville sulphide resource domains and host intrusion



- thick host Intrusion is interpreted to extend a further ~1.6km down-dip to the west beyond the Resource
- poisseminated sulphide mineralisation is consistent within the host intrusion, with localised higher-grade sulphide zones plunging to the north-west
- Wide-spaced drilling continues with 2 diamond drill rigs to test for high-grade extensions

Mafic-ultramafic geology + magmatic sulphides have been intersected over a strike length of ~10km across the Julimar Complex



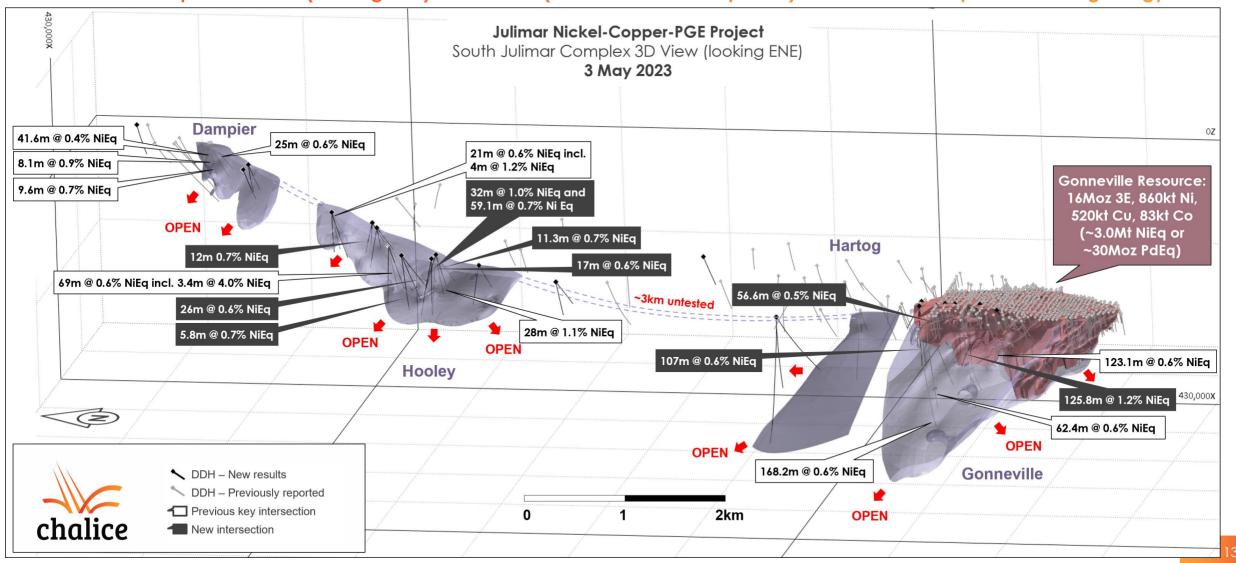


- 2D seismic and drilling to date supports interpretation of the Julimar Complex having a rare chonolith-like geometry, similar to other major mineral systems like Norilsk-Talnakh (Russia) and Jinchuan (China)
- Drilling 6-10km further north of Gonneville has continued to intersect the same prospective maficultramafic geology (the Julimar Complex) and magmatic sulphide mineralisation over ~5.5km of strike length
- Wide-spaced reconnaissance drilling continues with 2 diamond drill rigs
- Planning is underway for additional exploration drilling at Hooley as well as initial drilling at the Baudin-Jansz-Torres targets on existing access tracks in Q3 2023
- Exploration targeting new high-grade Ni-Cu-PGE deposits will continue in parallel to development studies for a potential mine at Gonneville on Chaliceowned farmland

Several large sections of the Julimar Complex **remain untested** and recent deeper drilling indicates a thickening of the Complex at depth



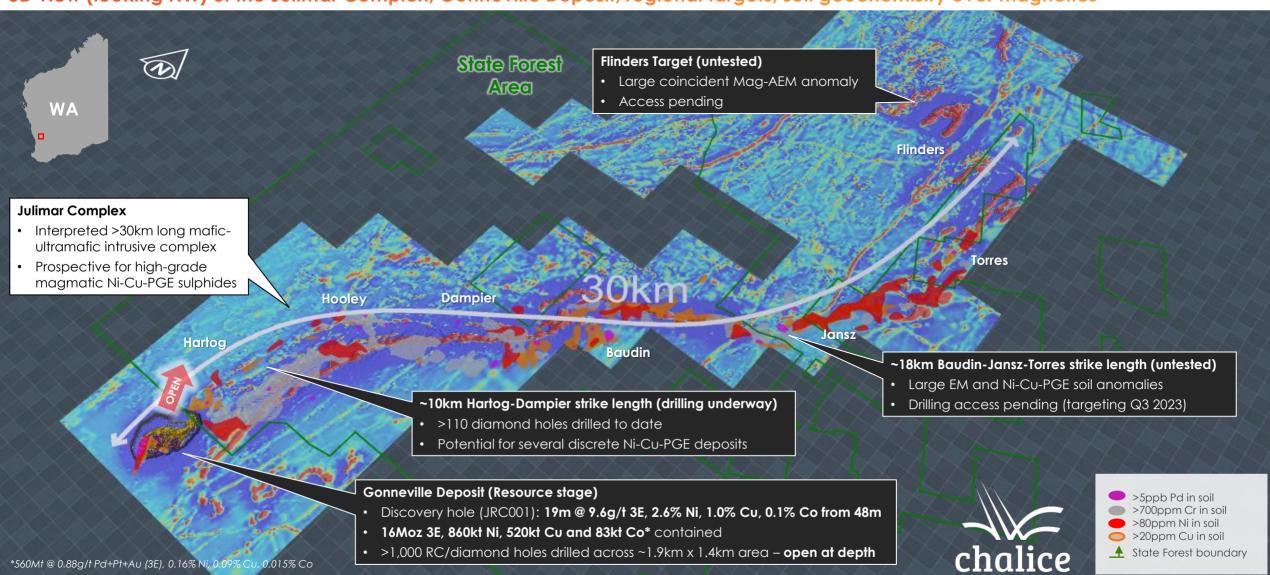
South Julimar Complex 3D View (looking ENE) – drill holes (down-hole widths quoted) and Julimar Complex intrusive geology



The current Resource occupies just ~2km of the >30km long Julimar Complex – the upside to the north presents a truly unique opportunity



3D view (looking NW) of the Julimar Complex, Gonneville Deposit, regional targets, soil geochemistry over magnetics



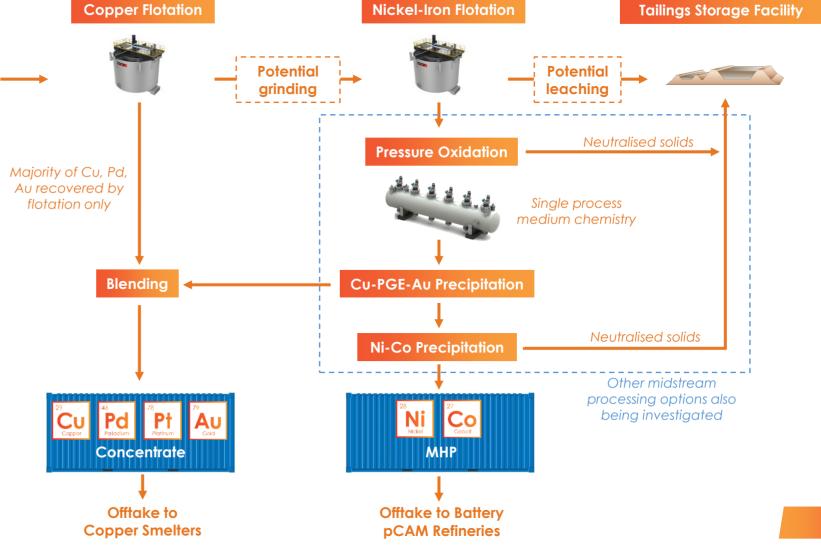
The processing flowsheet is under development, targeting production of a Cu-PGE-Au concentrate and a battery-grade Ni-Co MHP



Julimar Processing Flowsheet (simplified)



- >150 batch flotation and >25 locked cycle flotation tests completed to date
- The preferred sequential copper flotation and nickel concentrate enrichment process flowsheet is expected to produce:
 - A copper-palladium-platinum-gold concentrate, indicatively grading 20-25%
 Cu and 100-150g/t 3E for offtake to an international copper smelter(s); and
 - A Nickel-Cobalt Mixed Hydroxide
 Precipitate (using flotation and POx),
 assumed to be grading 40-50% Ni and 4-5%
 Co for offtake to an international battery
 precursor cathode active material (pCAM)
 refinery(ies).
- Further work in 1H 2023 is focussed on grind size optimisation, flotation tails leaching and assessment of midstream processing options
- Development studies underway, assessing a broad range of scale, mining and flowsheet options



Exploration drilling along the Julimar Complex and strategic partnering on Gonneville represent **significant upcoming milestones**



Chalice continues its **multi-track value creation strategy** at Julimar – continue initial exploration to determine the full scale of the mineral system, advance development studies and progress regulatory approvals for a potential mine at Gonneville (located on Chalice-owned farmland) and complete a strategic partnering process for the development of Gonneville...



Julimar discovery and birth of the new West Yilgarn Ni-Cu-PGE Province



Mar-2020



Significant expansion of tenure (~8,000km²) and exploration activities





Maiden Mineral Resource Estimate at Gonneville



Nov-2021



Drilling
commences
at greenfield
targets along
>30km
Julimar
Complex



Jan-2022



Updated Gonneville Resource #2 ~2.0Mt NiEq or ~20Moz PdEq



Jul-2022



Updated
Gonneville
Resource #3 ~3.0Mt NiEq or
~30Moz PdEq



Mar-2023



Strategic partnering process commenced



Advancing Gonneville Scoping Study



Gonneville
Mine Proposal
& Pre-Feasibility
Studies

April 2023

Q3 2023

2024+

... in addition, province scale exploration is ramping up across the new West Yilgarn Ni-Cu-PGE Province

Chalice is committed to strong environmental stewardship and has established trust based relationships with local communities and Traditional Owners





We have adopted a **Biodiversity goal** for the Julimar Project – to ensure science-based **no net loss of species or habitat diversity** as a result of our operations

Delivering the Biodiversity Strategy A detailed implementation plan is under development targeting:



Connectivity Establish ecological corridors



Restoration to address habitat fragmentation



Regeneration Improve carbon seauestration



A mine at Julimar could deliver significant jobs, skills and economic diversification to the Wheatbelt region of WA



Creating lasting social and economic benefits

- ~\$1.2M local procurement and investment by Chalice, plus ~\$1.5M spend by direct contractors in the local shires surrounding the Julimar Project in FY22
- Chalice has engaged early, actively and transparently to build respectful and collaborative relationships with stakeholders



Leading practice low-impact exploration

- Strictly governed by a Conservation Management Plan, according to industry best practice
- Track mounted rigs with a small footprint and no mechanised clearing of vegetation
- Flora, fauna and cultural heritage monitoring is conducted prior to each mobilisation to site



Science-based environmental management

- Comprehensive baseline environmental surveys across 6,000ha; covering flora, fauna, and dieback
- Baseline water studies underway; Chalice recognises water is a shared resource



Building strong, collaborative relationships with Whadjuk and Yued Traditional Owners

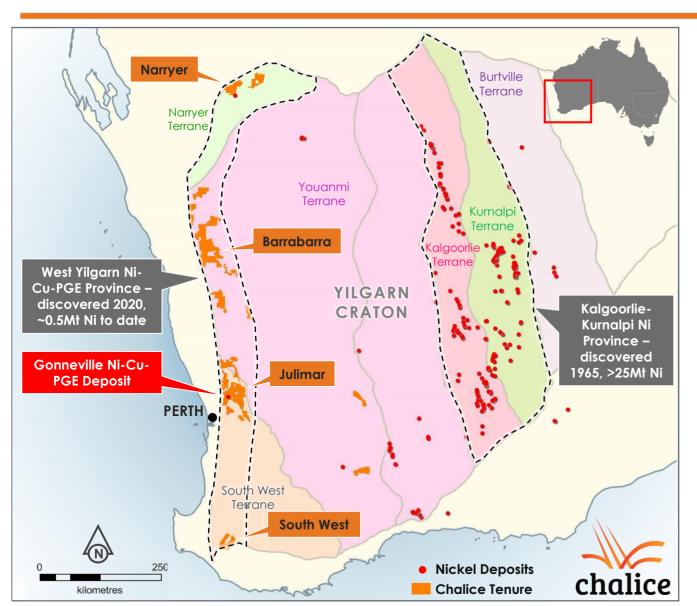


Actively engaging to protect cultural heritage values

- Whadjuk and Yued have started a program of cultural heritage surveys and monitoring for the Julimar Project
- In 2022 over 60 Traditional Owners participated in this work

The Julimar discovery has kick-started the new West Yilgarn Ni-Cu-PGE Province, which could deliver more major critical mineral discoveries



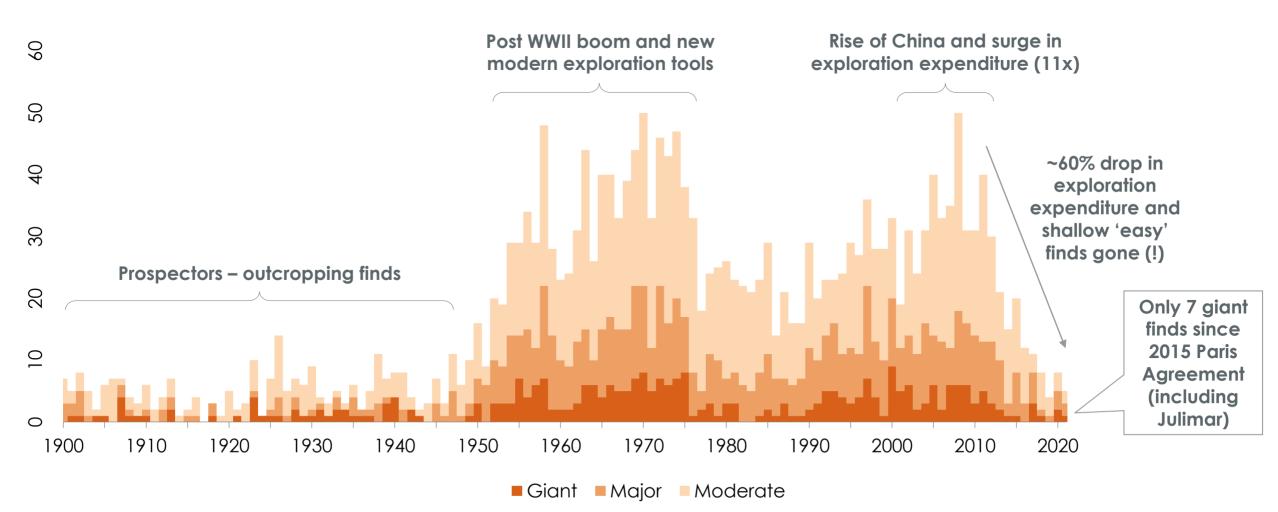


- Many of the 'giant' ortho-magmatic nickel-copper-PGE sulphide deposits (Norilsk, Jinchuan, Thompson and Voisey's Bay, etc) are located proximal to the margin of cratons
- ~1,200km long western margin of the Yilgarn presents a similar geological setting, but is almost entirely unexplored
- Eastern Yilgarn craton hosts several world-class nickel sulphide deposits over **25Mt of Ni** discovered since 1965
- Chalice made the first major ortho-magmatic Ni-Cu-PGE discovery in the West Yilgarn, subsequently staking >8,000km²
- Chalice has 'first mover' advantage in this exciting new province – strong potential to deliver more major Ni-Cu-PGE discoveries
- Hundreds of potential host intrusions already identified
- Rapid, low-cost exploration approach being used EM, soil/auger sampling and shallow reconnaissance drilling
- Nine new drill-ready greenfield targets defined initial drilling planned to commence in Q4 2023*
- Potential for highly variable mineralisation styles (Ni:Cu:PGE metal ratios) across the province
- The prize is significant i.e. Julimar discovery zone massive sulphides grading c. 3.2% Ni, 1.2% Cu, 10g/t 3E

The fate of decarbonisation rests on the explorers who must find the green metals – the big discoveries are very rare



Number of base metal (Ni, Cu, Zn, Pb) discoveries in the World by size – 1900-2021



Source: MinEx Consulting © February 2023







World class, tier-1 scale green metals project in Western Australia – unique exposure to critical metals required for decarbonisation



A team with a track record of discovery and shareholder value creation



Significant exploration upside at Julimar and in the exciting new West Yilgarn Ni-Cu-PGE Province





Chalice is actively growing its organisational capability





Derek La Ferla, Chairman

- Highly regarded ASX200 chair and company director with 30+ years experience as a corporate lawyer
- Chair of Poseidon Nickel and formerly Chair of Sandfire Resources



Alex Dorsch, Managing Director and Chief Executive Officer

- Diverse experience in consulting, engineering and corporate advisory in the energy and resources sectors
- Previously a Specialist consultant with McKinsey & Company



Morgan Ball, Non-Exec Director

- Chartered Accountant with 25+ years experience in the resources, logistics and finance industries
- Formerly CFO of Northern Star Resources and Saracen Mineral Holdings



Garret Dixon, Non-Exec Director

- 30+ years experience in resources and mining contracting sectors
- Formerly Executive VP Alcoa & President Bauxite



Stephen McIntosh, Non-Exec Director

- Highly regarded mining executive with 30+ years experience in exploration, major project studies and execution
- Formerly Group Executive and Head of Exploration & Development Projects at Rio Tinto



Linda Kenyon, Non-Exec Director

- Corporate lawyer and senior executive with 30+ years experience
- Formerly Company Secretary and member of Executive Leadership Team at Wesfarmers



Jo Gaines, Non-Exec Director

- Extensive experience in intergovernmental negotiations and stakeholder engagement
- Chair of the Government Employees Superannuation Board (GESB) and a Director of Development WA

Management



Richard Hacker, GM Strategy and Commercial

- Chartered Accountant with 20+ years experience in resource company financing, corporate and commercial management
- Previously Company CFO since 2006



Dr Kevin Frost, GM Discovery and Growth

 Co-recipient of PDAC 2023 Thayer Lindsley Award and AMEC's 2022 Prospector of the Year Award for the Julimar discovery, and previously in 2009 for the discovery of the Spotted Quoll nickel sulphide deposit in WA (Western Areas)



Bruce Kendall, GM Exploration

 Co-recipient of AMEC's Prospector of the Year Award in 2012 for the discovery of the world-class Tropicana gold deposit in WA (AngloGold Ashanti)



Dr Soolim Carney, GM Environment and Community

- Environment, health and safety, indigenous affairs, govt relations and community specialist with 20+ years experience
- Former Regional Environment Manager for Alcoa Australia



Mike Nelson, GM Project Development

- 30+ years experience in operational and technical leadership roles
- Instrumental in leading several mega-projects for mining internationals including Barrick Gold and Teck Resources



Chris MacKinnon, CFO

 Qualified accountant and lawyer with 15+ years experience of professional and corporate experience in the energy and resources industry



Jamie Armes, Company Secretary

 Chartered Accountant with 20+ years experience within the accounting profession and administration of public listed companies in the mining and exploration industry

Since our 2006 IPO, we have acquired quality assets, advanced projects quickly and generated exceptional returns





2012 Zara Gold Project in Fritrea sold for ~US\$114M (pre-tax)

A\$0.10ps / ~AS25M capital return to shareholders

2016 Cameron Gold Project in Ontario sold for ~AS25M (pretax)

2018 Staked Juliman Nickel-Copper-PGF Proiect in Western Australia

2020 **Major PGE-**NI-Cu-Co-Au discovery at Julimar Proiect

2021 Gold spinout into Falcon Metals Ltd (ASX: FAL)

2022 \$100M raised to progress Julimar studies

> 2023 Upgraded Gonneville Resource #3

2006

2023

2017



2009-2011 ~A\$43M raised to progress Zara to DFS

~A\$7M

2013 Cameron Gold Project in Ontario acquired for ~A\$8M

Acquired **Fast** Cadillac Gold Project in Quebec and staked Pvramid Hill Gold Project in Victoria

Quebec Gold **Projects** sold to \bigcirc 3 Mining 2018 A\$0.04ps / ~A\$10.6M

capital return to shareholders

2019

2021 Tier-1 maiden Gonneville Resource

2020 ~\$145M raised to progress Julimar

~\$76M raised to progress Gonneville studies and reaional exploration

2023

2022 **Upgraded** Gonneville Resource #2

The growing battery industry needs new, large scale and sustainable sources of battery-grade nickel – a unique opportunity for Julimar





Battery-grade nickel consumers forecast to become heavily reliant on supply sources that **do not meet sustainability standards**, i.e. NPI



With **860kt of contained nickel** defined to date, Julimar has the potential to become a globally significant source of class 1 nickel, which has a much lower carbon footprint than other sources

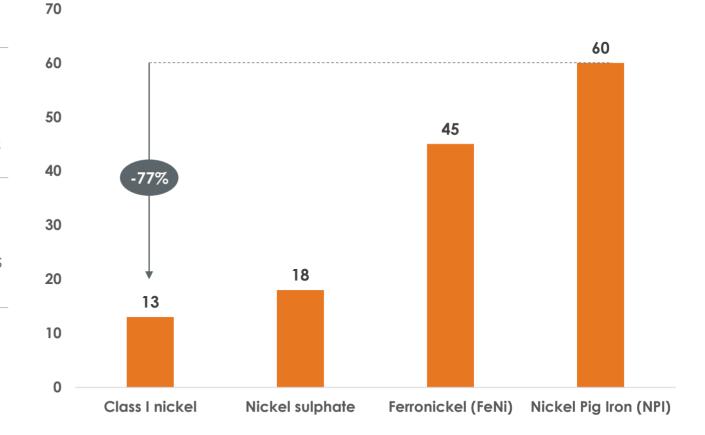


Julimar's proximity to WA's world class power grid and infrastructure make it uniquely positioned to deliver low carbon intensity metals



Class 1 nickel sources are likely to **demand a premium**, driven by the need to comply with emissions targets and to satisfy increasing sensitivity to sustainability standards





Platinum and Palladium are essential in every stage of the hydrogen value chain, a critical solution to achieving net-zero carbon emissions



Production

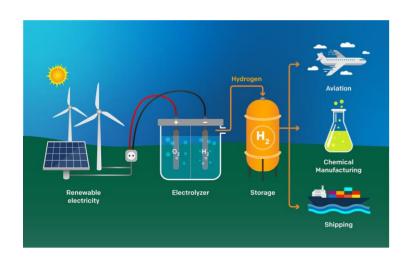
Transport and Storage

Utilisation

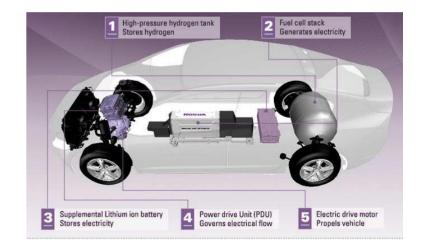
Green hydrogen produced by electrolysis of water using renewable energy (wind, solar, hydro)

Long-term storage and transport of green hydrogen likely to be achieved using liquified ammonia (NH₃) as carrier

Green hydrogen ideal for use in green steel and Fuel Cell Electric Vehicles (FCEVs), likely to be the dominant technology for heavy transport such as trucks, trains and ships







PGEs are essential catalysts in the Proton Exchange Membrane (PEM) Electrolyser

Pd is an essential catalyst in hydrogen-ammonia conversion and purification

PGEs are essential catalysts in most hydrogen fuel cell designs

^{&#}x27;Provision of PGM market intelligence and long-term metal price forecasts' SFA Oxford, March 2021

The rapidly growing and increasingly adopted hydrogen economy has the potential to underpin long term PGE demand





Current **primary supply of Pt and Pd is ~16Moz p.a.** Pd is in prolonged deficit while Pt in surplus



Our view is that with **conservative hydrogen adoption**, demand for Pt and Pd from hydrogen could be as high as ~8Moz p.a.⁽¹⁾



A modest hydrogen adoption scenario includes ~10% share of light vehicle market, ~40% share of heavy vehicle market, and 50-70GW of electrolyser capacity by 2040

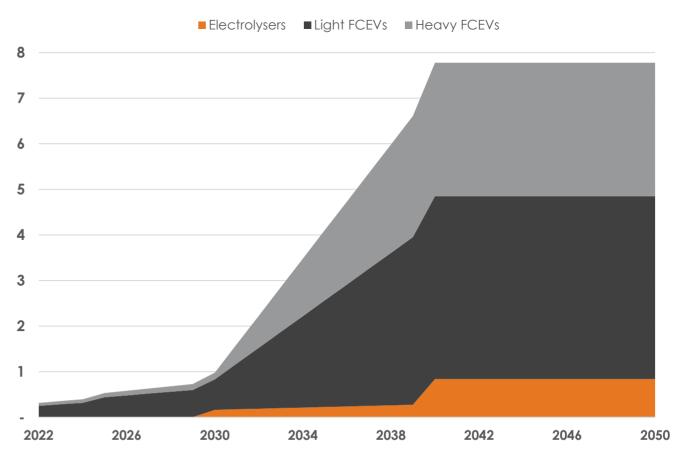


Projections do not include PGE usage from hydrogen applications in **shipping**, **aviation**, **industrial or steel manufacturing**



European Union forecasts a 970x increase in PGM demand from hydrogen by 2050⁽²⁾

Estimated Annual Pt and Pd Demand from Hydrogen (Moz)



(1) Cautionary statement: The forward-looking statements have been estimated by Chalice using assumptions that have been informed by third party research. These statements are based on an assessment of economic and operating conditions and on various assumptions regarding future events and actions that, as at the date of this presentation, are considered reasonable by Chalice. Refer to slide 28 "Long Term PGE Demand Forecast" for additional information regarding the underlying assumptions and calculation methodology, and Slide 2 for a statement regarding the risks involved in forward-looking statements of this nature. Without limiting these risks, such forward-looking statements are predictive in character, may be affected by incorrect assumptions or by known or unknown risks and uncertainties, and may differ materially in due course. Investors are therefore cautioned against attributing undue certainty to forward-looking statements, including those outlined above. (2) European Union's Critical Raw Materials Act, Mar 2023.

Long term PGE demand forecast: supporting assumptions & calculations



The long term PGE demand impact from the Hydrogen economy have been generated by Company analysis using assumptions and forecasts that have been informed by recent third party research. The assumptions used below relate to the year 2040. Note: There is the potential risk that these projections will not be achieved should the adoption of a hydrogen economy be less than expected or if major technological developments reduce the PGE loadings required for electrolysers and fuel cells.

Key Model Inputs (2040)

Technology	Input	Unit	Assumption	PGE Demand Calculation				
	Capacity	GW	70					
PEM electrolyser	Market share	%	75	$70 \times 75\% \times 0.5 / 31.1^{(1)} = ~ 0.8 \text{Moz}$				
	PGE loading	g/kW	0.5					
	Light vehicle market	million per annum	100					
Light Vehicles	Light FCEV market share	%	12	- 100 x 12% x 80 x 0.13 / 31.1 ⁽¹⁾ = ~4.0 Moz				
Ligiti veriicies	Light vehicle rating	kW	80	- 100 x 12/6 x 60 x 0.13 / 31.11 - ~4.0 MOZ				
	PGE loading	g/kW	0.13					
	Heavy vehicle market	million per annum	7					
Hogay Vahiolos	Heavy FCEV market share	%	40	- 7 x 40% x 250 x 0.13 / 31.1 ⁽¹⁾ = ~2.9 Moz				
Heavy Vehicles	Heavy vehicle rating	kW	250	- / x 40/0 x 230 x 0.13 / 31.111/ - ~2.7 MOZ				
	PGE loading	g/kW	0.13	-				

Source: 'Provision of PGM market intelligence and long-term metal price forecasts', SFA Oxford, April 2020 & 2021

^{&#}x27;Strategy Update', AngloAmerican Platinum, 22 February 2021

^{&#}x27;Australian and Global Hydrogen Demand Growth Scenario Analysis', Deloitte & COAG Energy Council, November 2019

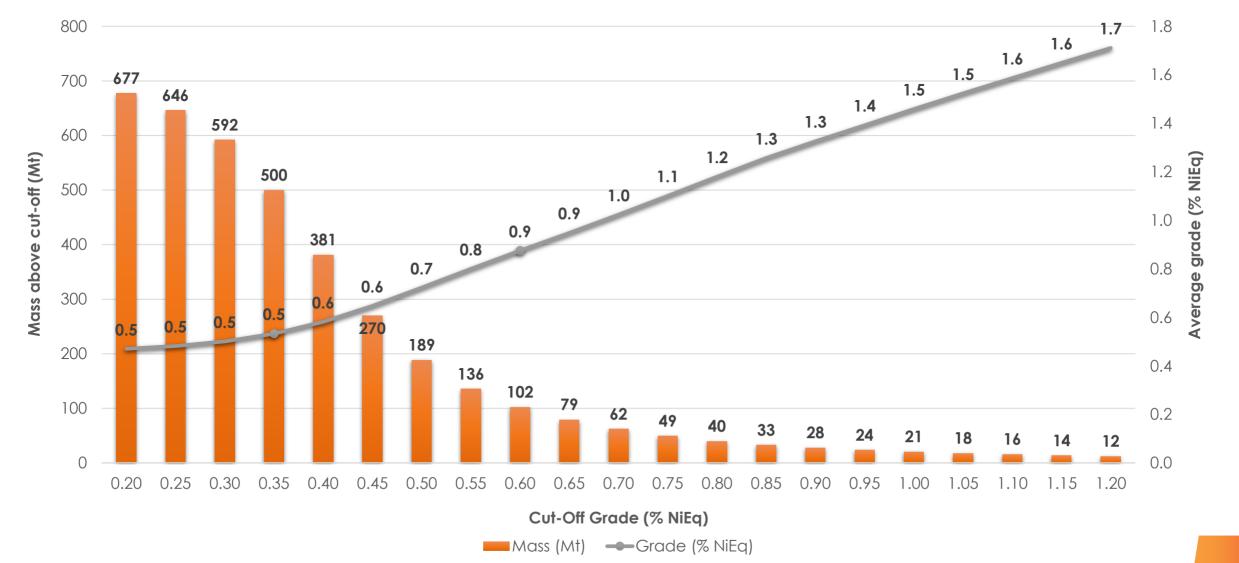
^{&#}x27;Fuelling the Future of Mobility' Deloitte & Ballard, 2020

^{&#}x27;Committed to producing green metals', Green Metals & Hydrogen Conference, Sibanye Stillwater, 26 Nov 2021

Flat grade-tonnage curve highlights the significant higher-grade component – providing the project with **development optionality**



Gonneville Nickel Equivalent Grade-Tonnage Curve in-pit (on NiEq cut-off grade basis)



Gonneville Mineral Resource Estimate (JORC Code 2012), 28 March 2023



Domain	Cut-off Grade	Category	Mass		Grade									Contained Metal											
			(Mt)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Co (%)	NiEq (%)	PdEq (g/t)	Pd (Moz)	Pt (Moz)	Au (Moz)	Ni (kt)	Cu (kt)	Co (kt)	NiEq (kt)	PdEq (Moz)						
		Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
0.44	0.0 /4.0 -1	Indicated	7.3	1.9	-	0.06	-	-	-	-	2.0	0.45	-	0.01	-	-	-	-	0.47						
Oxide	0.9g/t Pd	Inferred	0.2	1.9	-	0.07	-	-	-	-	2.0	0.01	-	0.00	-	-	-	-	0.02						
		Subtotal	7.5	1.9	-	0.06	-	-	-	-	2.0	0.47	-	0.01	-	-	-	-	0.49						
	0.35% NiEq	Measured	0.38	0.82	0.17	0.03	0.19	0.17	0.020	0.70	2.2	0.01	-	-	0.72	0.63	0.07	2.7	0.03						
Sulphide		Indicated	14	0.66	0.15	0.03	0.16	0.10	0.018	0.54	1.7	0.30	0.07	0.01	22	14	2.5	77	0.77						
(Transitional)		Inferred	0.27	0.60	0.16	0.03	0.15	0.12	0.015	0.54	1.7	0.01	-	-	0.42	0.32	0.04	1.5	0.01						
		Subtotal	15	0.66	0.15	0.03	0.16	0.10	0.018	0.55	1.7	0.31	0.07	0.01	23	15	2.6	81	0.81						
	0.35% NiEq	Measured	2.3	1.1	0.26	0.03	0.24	0.18	0.019	0.87	2.7	0.08	0.02	-	5.4	4.2	0.43	20	0.20						
Sulphide (Fresh)		Indicated	280	0.67	0.15	0.03	0.16	0.09	0.015	0.53	1.7	6.0	1.3	0.23	440	260	43	1500	15						
Solpinae (Hesii)		Inferred	200	0.67	0.15	0.03	0.15	0.09	0.015	0.53	1.6	4.4	0.96	0.16	310	180	29	1100	11						
		Subtotal	480	0.67	0.15	0.03	0.16	0.09	0.015	0.53	1.7	10	2.3	0.39	750	440	72	2600	26						
		Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
Underground	0.40% NiEa	Indicated	1.7	0.75	0.21	0.06	0.14	0.08	0.013	0.55	1.7	0.04	0.01	-	2.4	1.4	0.23	9.5	0.10						
ondergrooma	0.40% MILG	Inferred	52	0.78	0.17	0.03	0.16	0.11	0.015	0.59	1.8	1.3	0.28	0.05	83	56	7.7	310	3.1						
		Subtotal	54	0.78	0.17	0.03	0.16	0.11	0.015	0.59	1.8	1.3	0.29	0.06	86	57	7.9	320	3.2						
		Measured	2.7	1.1	0.24	0.03	0.23	0.18	0.019	0.85	2.6	0.09	0.02	-	6.2	4.9	0.51	23	0.23						
All		Indicated	300	0.70	0.15	0.03	0.16	0.09	0.015	0.54	1.7	6.8	1.4	0.26	460	280	45	1600	16						
OII		Inferred	250	0.70	0.15	0.03	0.15	0.09	0.015	0.54	1.7	5.7	1.2	0.22	390	230	37	1400	14						
		Total	560	0.70	0.15	0.03	0.16	0.09	0.015	0.54	1.7	13	2.7	0.48	860	520	83	3000	30						

Note some numerical differences may occur due to rounding to 2 significant figures.

PdEq oxide (Palladium Equivalent g/t) = Pd (g/t) + 1.27x Au (g/t)

NiEq sulphide (Nickel Equivalent %) = Ni (%) + 0.32x Pd(g/t) + 0.21x Pt(g/t) + 0.38x Au(g/t) + 0.83x Cu(%) + 3.00x Co(%)

PdEq sulphide (Palladium Equivalent g/t) = Pd (g/t) + 0.67x Pt(g/t) + 1.17x Au(g/t) + 3.11x Ni(%) + 2.57x Cu(%) + 9.33x Co(%) Underground resources are outside the pit above a 0.40% NiEq cut off grade based on sub-level caving mining method Includes drill holes drilled up to and including 11 December 2022.

Higher-grade sulphide component of Gonneville Resource (in pit and underground), 28 March 2023



Domain	Cut-off Grade	Category	Mass				Gra	de							Containe	ed Metal			
			(Mt)	Pd (g/t)	Pt (g/t)	Au (g/t)	Ni (%)	Cu (%)	Co (%)	NiEq (%)	PdEq (g/t)	Pd (Moz)	Pt (Moz)	Au (Moz)	Ni (kt)	Cu (kt)	Co (kt)	NiEq (kt)	PdEq (Moz)
		Measured	0.17	1.2	0.24	0.05	0.24	0.25	0.023	0.97	3.0	0.01	-	-	0.41	0.43	0.04	1.7	0.02
High-grade Sulphide	0.6% NiEq	Indicated	3.4	1.1	0.21	0.04	0.20	0.16	0.020	0.79	2.5	0.12	0.02	-	6.6	5.3	0.69	27	0.27
(Transitional)	0.6% INIEQ	Inferred	0.07	0.84	0.18	0.03	0.22	0.26	0.019	0.81	2.5	-	-	-	0.16	0.18	0.01	0.57	0.01
		Subtotal	3.6	1.1	0.21	0.04	0.20	0.16	0.021	0.80	2.5	0.12	0.02	-	7.2	5.9	0.74	29	0.29
	0.6% NiEq	Measured	0.88	2.2	0.47	0.05	0.39	0.35	0.027	1.6	4.9	0.06	0.01	-	3.4	3.1	0.24	14	0.14
High-grade Sulphide		Indicated	58	1.2	0.26	0.06	0.20	0.18	0.018	0.87	2.7	2.3	0.48	0.11	120	100	10	500	5.1
(Fresh)		Inferred	40	1.3	0.26	0.06	0.19	0.18	0.017	0.87	2.7	1.6	0.33	0.08	75	73	6.6	340	3.5
		Subtotal	98	1.2	0.26	0.06	0.20	0.18	0.017	0.88	2.7	3.9	0.82	0.19	200	180	17	860	8.7
		Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Underground	>0.6% NiEq	Indicated	0.4	1.2	0.36	0.12	0.14	0.11	0.014	0.78	2.5	0.02	-	-	0.61	0.46	0.06	3.3	0.03
ondergrooma	>0.6% NIEQ	Inferred	13	1.4	0.27	0.06	0.20	0.20	0.017	0.93	2.9	0.58	0.12	0.03	26	26	2.2	120	1.2
		Subtotal	14	1.4	0.28	0.06	0.20	0.19	0.017	0.93	2.9	0.60	0.12	0.03	27	26	2.3	130	1.3
		Measured	1.1	2.0	0.43	0.05	0.37	0.33	0.026	1.5	4.6	0.07	0.01	-	3.8	3.5	0.28	15	0.15
All		Indicated	62	1.2	0.25	0.06	0.20	0.18	0.018	0.87	2.7	2.4	0.50	0.11	130	110	11	530	5.4
All		Inferred	53	1.3	0.26	0.06	0.19	0.19	0.017	0.89	2.8	2.2	0.45	0.11	100	99	8.8	470	4.7
		Total	120	1.3	0.26	0.06	0.20	0.18	0.017	0.88	2.7	4.7	0.97	0.22	230	210	20	1000	10

Note some numerical differences may occur due to rounding to 2 significant figures.

This higher-grade component is contained within the reported global Mineral Resource.

PdEq oxide (Palladium Equivalent g/t) = Pd (g/t) + 1.27x Au (g/t)

NiEq sulphide (Nickel Equivalent %) = Ni (%) + 0.32x Pd(g/t) + 0.21x Pt(g/t) + 0.38x Au(g/t) + 0.83x Cu(%) + 3.00x Co(%)

PdEq sulphide (Palladium Equivalent g/t) = Pd (g/t) + 0.67x Pt(g/t) + 1.17x Au(g/t) + 3.11x Ni(%) + 2.57x Cu(%) + 9.33x Co(%)

Underground resources are outside the pit above a 0.40% NiEq cut off grade based on sub-level caving mining method Includes drill holes drilled up to and including 11 December 2022.

Metal equivalent assumptions of Gonneville Resource, 28 March 2023



Based on metallurgical testwork completed to date for the sulphide domain, it is the Company's opinion that all the quoted elements included in metal equivalent calculations (palladium, platinum, gold, nickel, copper and cobalt) have a reasonable potential of being recovered and sold.

Only limited samples have been collected from the transitional zone due to its relatively small volume. Therefore, the metallurgical recovery of all metals in this domain are unknown. However, given the relatively small proportion of the transition zone in the Mineral Resource, the impact on the metal equivalent calculation is not considered to be material.

Metal equivalents for the transitional and sulphide domains are calculated according to the formula below:

- NiEg%= Ni (%) + 0.32x Pd(g/t) + 0.21x Pt(g/t) + 0.38x Au(g/t) + 0.83x Cu(%) + 3.00x Co(%);
- PdEq(g/t) = Pd(g/t) + 0.67x Pt(g/t) + 1.17x Au(g/t) + 3.11x Ni(%) + 2.57x Cu(%) + 9.33x Co(%)

Metal recoveries used in the metal equivalent calculations are based on rounded average Resource grades for the sulphide domain (>0.35% NiEg cut-off):

• Pd – 60%, Pt – 60%, Au – 70%, Ni – 45%, Cu – 85%, Co – 45%.

Metal prices used are consistent with those used in the Whittle pit optimisation (based on long term consensus analyst estimates):

• US\$1,800/oz Pd, US\$1,200/oz Pt, US\$1,800/oz Au, US\$24,000/t Ni, US\$10,500/t Cu and US\$72,000/t Co.

Initial metallurgical testwork indicates that only palladium and gold are likely to be recovered in the oxide domain, therefore no NiEq grade has been quoted for the oxide. The PdEq grade for the oxide has been calculated using the formula:

PdEq oxide (g/t) = Pd (g/t) + 1.27 x Au (g/t).

- Metal recoveries based on limited metallurgical test work completed to date:
 - Pd 75%, Au 90%.
- Metal prices used are consistent with those used in the pit optimisation:
 - US\$1,800/oz Pd, US\$1,800/oz Au

For additional information on the assumptions used in the calculation of metal equivalents, refer to the ASX announcement titled "Gonneville Resource increases by approx. 50% to 3Mt NiEq", dated 28 March 2023.

Australian Primary Nickel Sulphide Resources (28 Mar 2023)

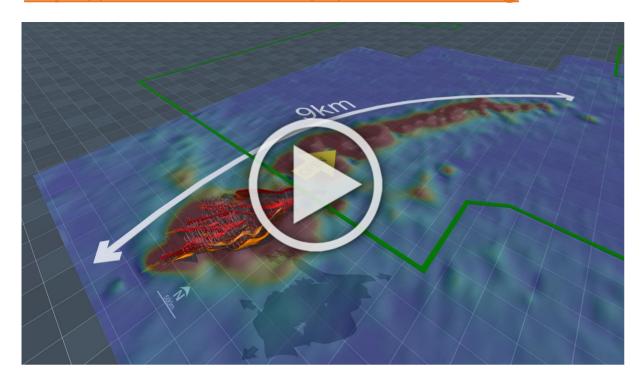


							Total Measured (Meas.), Indicated (Ind.) and Inferred (Inf.) resources								Ind.	Inf.
Rank	Asset	Company	Stage	Source Announcement	Date	Tonnage (Mt)	Nickel (kt, %)	Copper (kt, %)	Cobalt (kt, ppm)	Gold (koz, g/t)	Platinum (koz, g/t)	Palladium (koz, g/t)	Silver (koz, g/t)	Tonnage (Mt)	Tonnage (Mt)	Tonnage (Mt)
1	West Musgrave	ВНР	Feasibility	West Musgrave Mineral Resource and Ore Reserve Statement (IGO)	23-Sep-22	390	1,200 0.30%	1,300 0.33%	47 120	752 0.06	1,003 0.08	1,129 0.09	10,659 0.85	91	240	 59
2	Julimar	Chalice	Exploration	Gonneville Resource increases by ~50% to ~3Mt NiEq	28-Mar-23	560	860 0.16%	520 0.09%	83 150	480 0.03	2,700 0.15	13,000 0.7	- -	2.7	300	250
3	Cosmos	IGO	Development	FY22 Cosmos and Forrestania Resources and Reserves	30-Aug-22	67	656 0.98%	-	-	-	-	-	-	13.6	38.9	14.5
4	Avebury Restart	Mallee Resources	Restart	Binding Financing Facility and Operations Update	19-Jun-23	29	264 0.90%	-	7 229	-	-	-	-	 	8.7	20.7
5	Black Swan	Poseidon	Restart	Full Steam Ahead for Black Swan Restart	15-Dec-22	30	206 0.69%	7 0.02%	5 178	-	-	-	-	1.5	10.1	18.3
6	West Jordan	ВНР	Exploration	Annual Report to Shareholders	06-Sep-22	43	224 0.52%	-	-	-	-	-	-	 	-	43
7	Venus	ВНР	Exploration	Annual Report to Shareholders	06-Sep-22	11	189 1.71%	-	-	-	-	-	-	1.5	7.5	2.1
8	Jericho	ВНР	Exploration	Annual Report to Shareholders	06-Sep-22	31	183 0.59%	-	-	-	-	-	-	 	-	31
9	Fisher East	Kinterra	Exploration	Fisher East Resource Increased to 134.1kt Contained Nickel (CNR)	15-Aug-22	8	134 1.79%	-	-	-	-	-	-	-	2.8	4.7
10	Sherlock Bay	Sabre Resources	Exploration	Sherlock Bay Ni Scoping Study Delivers Positive Cashflow	17-Jan-23	25	99	22	5 220	-	-	-	-	12.5	6.1	6.1

Interactive 3D Model & Video: Take a tour of our globally significant Julimar Ni-Cu-PGE Project in Western Australia



Click here to explore Julimar in 3D: https://inventum3d.com/c/chalicemining



Click here to watch the Julimar Project Video: https://youtu.be/lfZbkexfJDk



To view on the Chalice website or for more information visit https://chalicemining.com/projects/julimar-nickel-copper-pge-project/



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