



ASX Announcement

8 March 2023

New Discoveries Keynote Presentation at the 2023 Prospectors and Developers Association of Canada Conference

Wednesday 8 March 2023

Chalice Mining Limited ("Chalice" or "the Company", ASX: CHN | OTCQB: CGMLF) wishes to advise it will be presenting the New Discoveries Keynote at the Prospectors and Developers Association of Canada (PDAC) Conference on **Wednesday, 8 March 2023 at 9.00am US Eastern Time (GMT-05:00), Toronto.**

The presentation will be jointly delivered by Managing Director and CEO, Alex Dorsch, and General Manager – Discovery and Growth, Kevin Frost.

A copy of the presentation is attached, and is also available on the Company website at:

<https://chalicemining.com/presentations>

Authorised for release by the Disclosure Committee.

For further information, please visit www.chalicemining.com, or contact:

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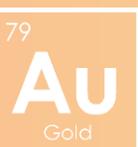
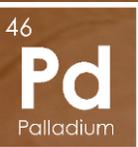
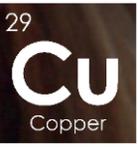
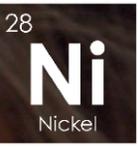


ASX: CHN | OTCQB: CGMLF

The Julimar Ni-Cu-PGE discovery – a re-write of the geological history of Western Australia

New Discoveries Keynote
Prospectors and Developers Association of Canada (PDAC)

8 March 2023



Forward looking statements and competent person(s) disclosure



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Forward-Looking Statement

This presentation may contain forward-looking statements and forward information, including forward looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively, forward-looking statements). These forward-looking statements are made as of the date of this announcement and Chalice Mining Limited (the Company) does not intend, and does not assume any obligation, to update these forward-looking statements. Forward-looking statements relate to future events or future performance and reflect Company management's expectations or beliefs regarding future events and include, but are not limited to: the impact of the discovery on the Julimar Project's capital payback; the Company's strategy and objectives; the realisation of mineral resource estimates; the likelihood of further exploration success; the timing of planned exploration and study activities on the Company's projects; mineral processing strategy; access to sites for planned drilling activities; and the success of future potential mining operations and the timing of the receipt of exploration results. In certain cases, forward-looking statements can be identified by the use of words such as, "commitment" or "committed", "considered", "could", "estimate", "expected", "for", "further", "future", "goal", "indicates", "is", "likely", "may", "needs", "open", "optionality", "plan" or "planned", "points", "possible", "potential", "promising", "strategy", "upside", "will" or variations of such words and phrases or statements that certain actions, events or results may, could, would, might or will be taken, occur or be achieved or the negative of these terms or comparable terminology. By their very nature forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors may include, among others, risks related to actual results of current or planned exploration activities; whether geophysical and geochemical anomalies are related to economic mineralisation or some other feature; whether visually identified mineralisation is confirmed by laboratory assays; obtaining appropriate approvals to undertake exploration activities; metal grades being realised; metallurgical recovery rates being realised; results of planned metallurgical test work including results from other zones not tested yet, scaling up to commercial operations; changes in project parameters as plans continue to be refined; changes in exploration programs and budgets based upon the results of exploration, changes in commodity prices; economic conditions; political and social risks, accidents, labour disputes and other risks of the mining industry; delays or difficulty in obtaining governmental approvals, necessary licences, permits or financing to undertake future mining development activities; changes to the regulatory framework within which Chalice operates or may in the future; movements in the share price of investments and the timing and proceeds realised on future disposals of investments, the impact of the COVID 19 pandemic as well as those factors detailed from time to time in the Company's interim and annual financial statements, all of which are filed and available for review on the ASX at asx.com.au and OTC Markets at otcm Markets.com. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

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 listed 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 exploration results and mineral resources in Australia is in accordance with the JORC Code and that Chalice's exploration results and 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 and other reporting regimes. There is no assurance that the Company's mineral resource estimates and related disclosures prepared under the JORC Code would be the same as those prepared under United States securities law other reporting regimes. 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 and other reporting regimes.

Competent Persons Statement

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

- "High-grade Ni-Cu-Pd Sulphide Intersected at Julimar", 23 March 2020
- "Preliminary Results from Second Target at Julimar Project" 24 March 2020
- "Significant Nickel-Palladium Discovery Confirmed at Julimar" 15 April 2020
- "Seismic identifies potential 1.6km extension of Gonnevillle", 6 September 2022
- "Major northern extension of Gonnevillle Intrusion confirmed", 19 October 2022
- "Outstanding wide high-grade intersections north of Gonnevillle", 23 November 2022
- "Promising new sulphide mineralisation at the Hooley Prospect", 8 December 2022
- "Julimar flowsheet development and scoping update", 13 December 2022

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

- "Updated Gonnevillle Mineral Resource", 8 July 2022.

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 exploration – a team with a track record of **finding mines and rewarding shareholders**



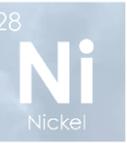
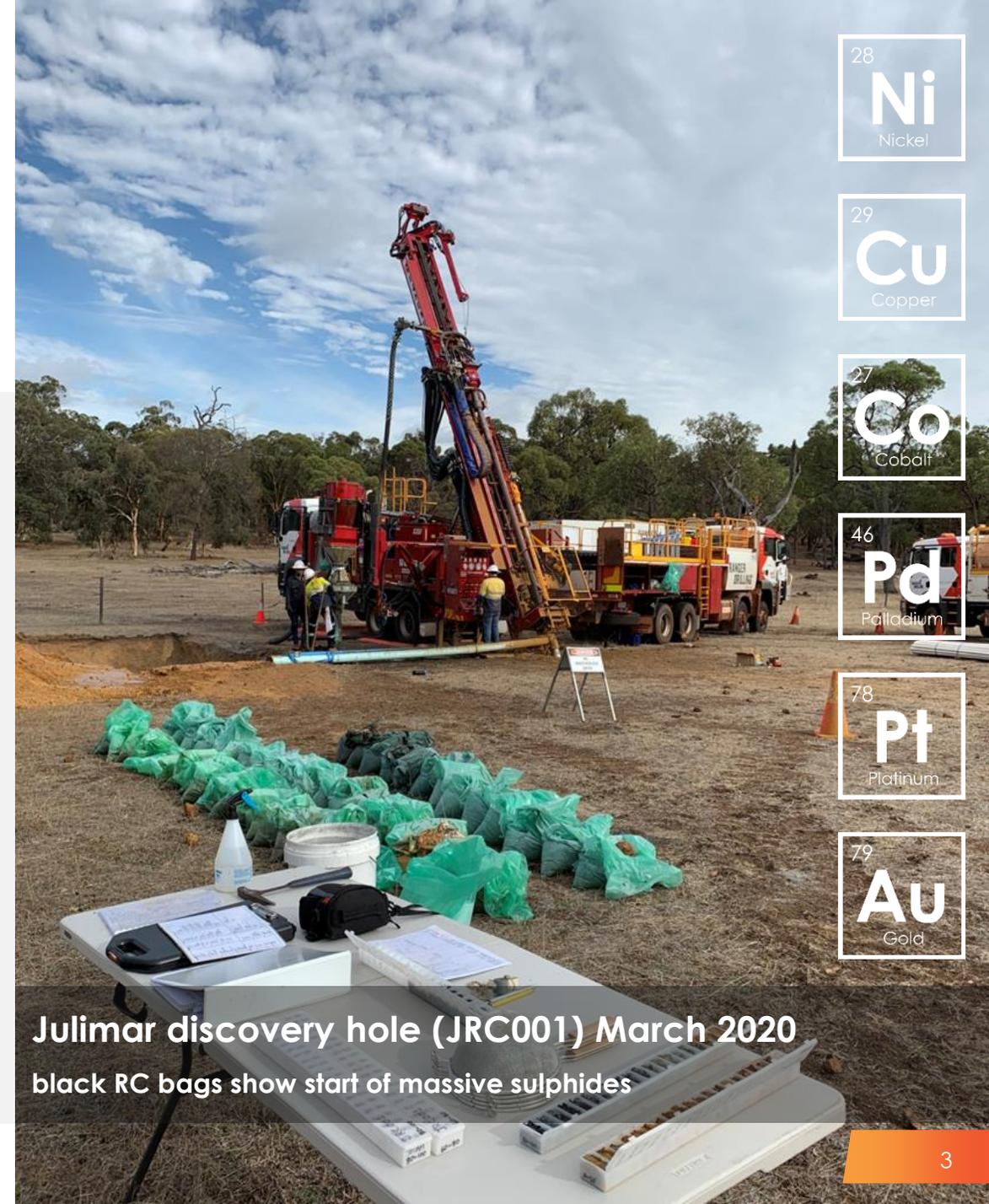
We have a high-performance, results driven culture – **our focus is world-class discoveries**



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

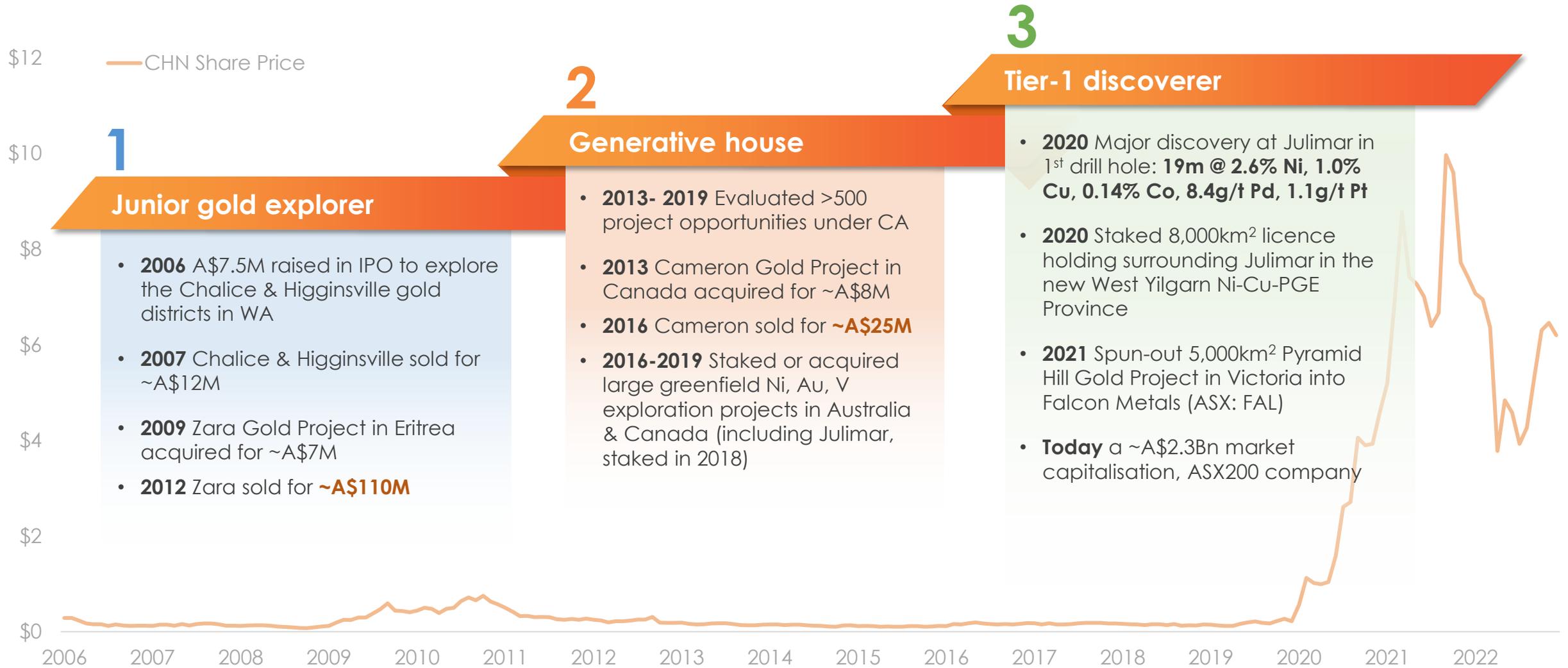


Our aspiration is to create a world class, multi-district green metals province



Julimar discovery hole (JRC001) March 2020
black RC bags show start of massive sulphides

Chalice's **three phases of growth** – an incredible ‘overnight success’ story 15+ years in the making...



A\$0.20 IPO in 2006 – A\$0.14 capital returned to date (plus Falcon Metals spin-out) – current share price ~A\$6.21 → ~10,250% TSR²

¹ As of 22 February 2023. ² TSR calculated on the assumption of participation in the 2006 IPO, net of capital returns paid in cash.

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

A remarkable new greenfield discovery in 2020, now a tier-1 scale Resource:

350Mt @ ~0.58% NiEq or ~1.8g/t PdEq¹ (~70% Indicated / ~30% Inferred):



11Moz 3E²

560kt Ni

360kt Cu

54kt Co

contained

equivalent to ~2.0Mt NiEq or ~20Moz PdEq contained

Including a higher-grade (>0.6% NiEq OP + UG) sulphide component, with upside:

82Mt @ ~1.0% NiEq or ~2.9g/t PdEq, extending from 30m to 700m+ (open)

Resource update expected in late Q1 2023



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



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**



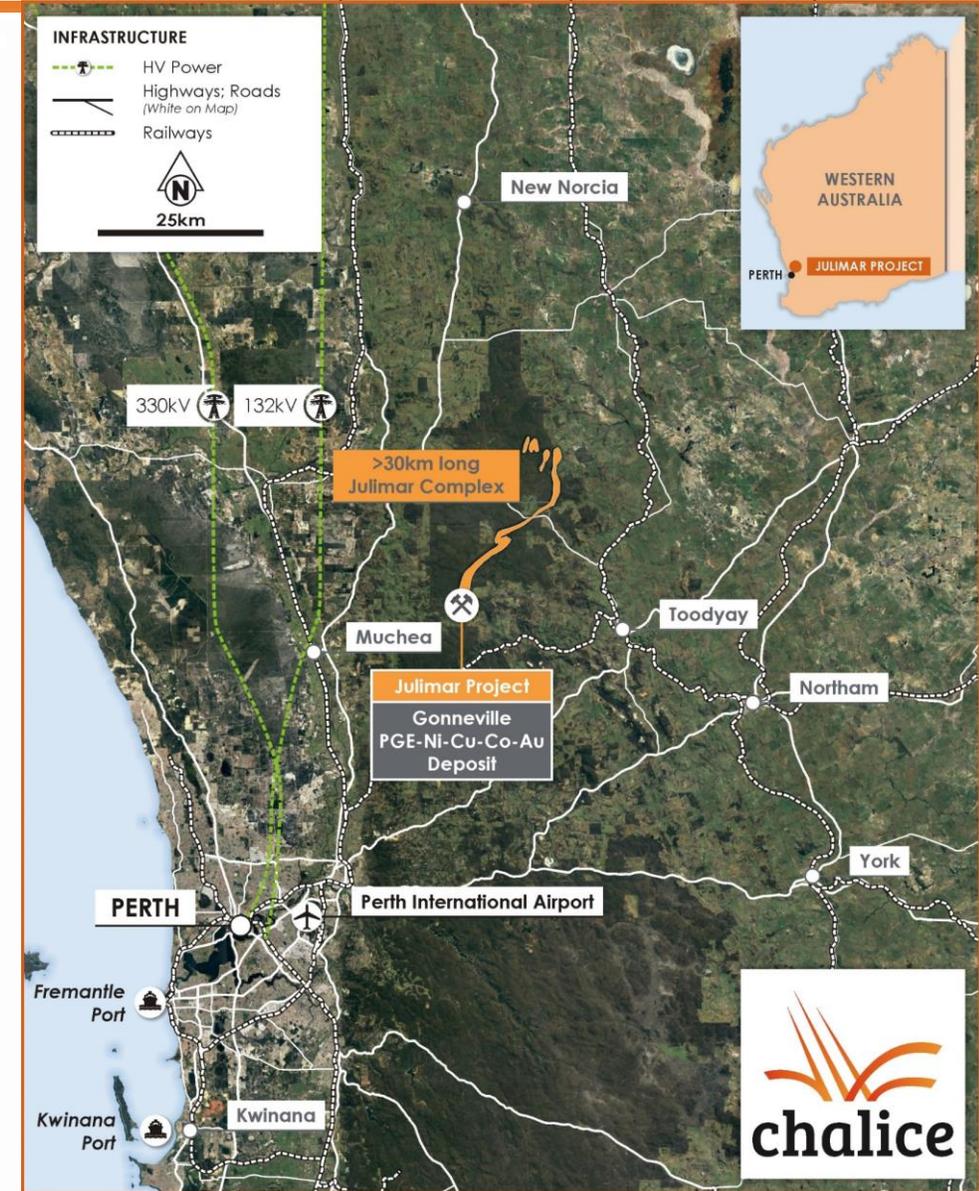
Strategy to explore and develop in parallel; **strategic minority JV partnerships** under consideration



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



Compelling exploration upside, Resource occupies just ~2km of newly recognised >30km long Julimar Complex



¹ Refer to full Mineral Resource Statement in Appendix

² 3E = Palladium (Pd) + Platinum (Pt) + Gold (Au)

Introducing the **Chalice 2023 Thayer Lindsley Award** recipients – credited with the Julimar Ni-Cu-PGE discovery in 2020



- Highly regarded exploration geologist with 25+ years experience across junior explorers and international mining houses
- Co-recipient of Association of Mining and Exploration Companies' Prospector of the Year Award for the Julimar discovery in 2022, and previously in 2009 for the discovery of the Spotted Quoll nickel sulphide deposit in WA (Western Areas)
- Specialist in nickel sulphide exploration, also involved in the discovery of the significant Flying Fox deposit (Western Areas)
- BSc (Hons) PhD MAIG

Dr Kevin Frost

GM Discovery and Growth –
Chalice Mining



- 14+ yrs experience across a diverse range of commodities
- Led reviews of several exploration and development projects across the globe, including several successful greenfield exploration campaigns for Chalice
- Part of the Bibra Gold deposit (2Moz) and Rosie Nickel deposit (30kt Ni) discovery teams, from grass-roots discoveries to defined Mineral Resources (IGO)
- BSc (Hons) Msc MAIG

Morgan Frejabise

Principal Geologist – Whistlepipe
Exploration (previously Senior Geologist at
Chalice Mining 2017-2019)



The Julimar discovery story

Dr Kevin Frost – GM Discovery and Growth

Why and how did we get here? A conceptual layered intrusive complex model and a team that was quick to move

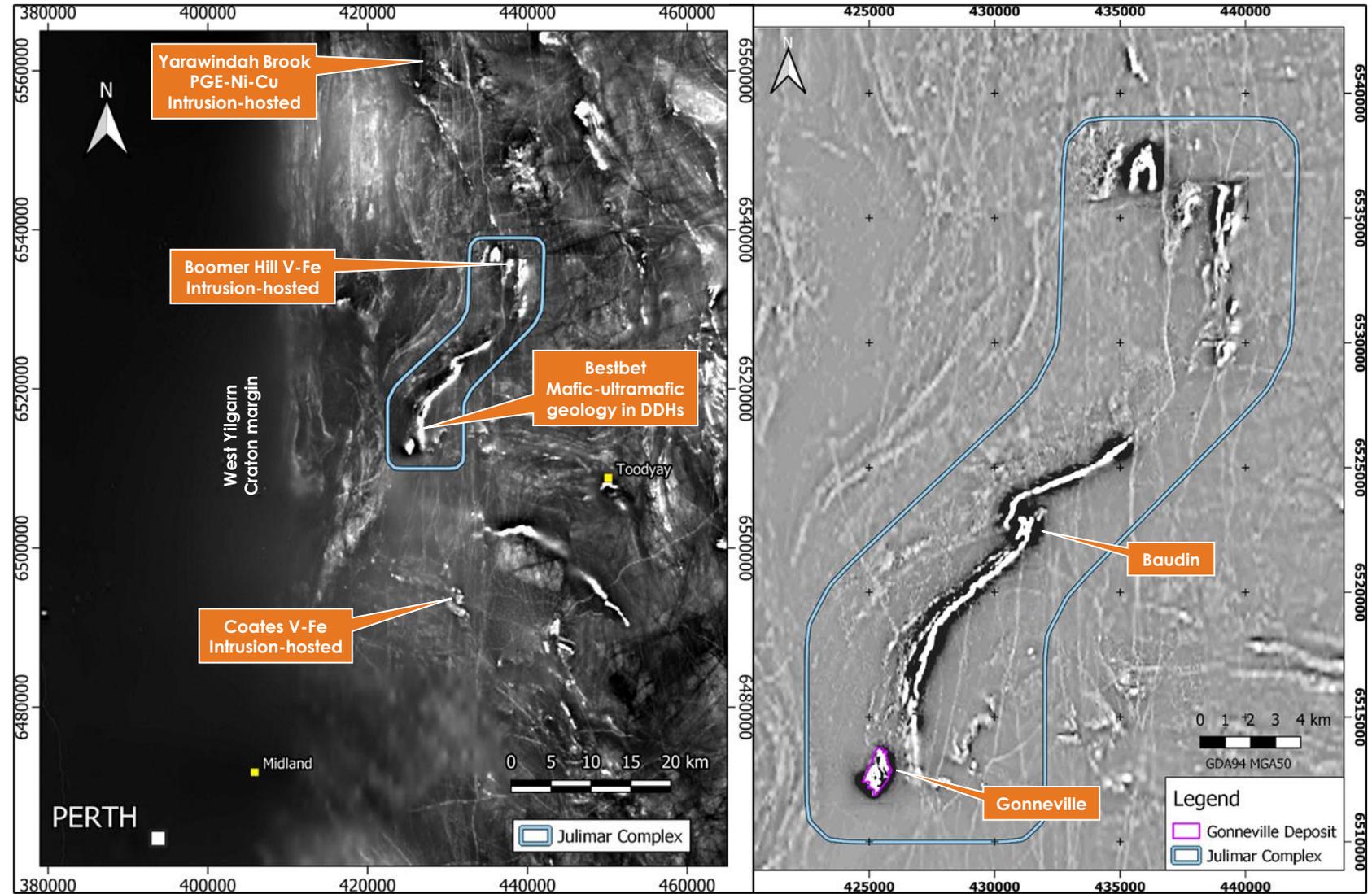


Area Selection (2018)

- Prominent **magnetic anomaly** located near western margin of Yilgarn Craton – unlicensed and appeared to be unexplained?
- **Conceptual model** for layered intrusive complex over ~30km of strike with channelised feeder structures
- Other mafic-ultramafic intrusions identified in the district including Coates **V-Fe** (1960s), Yarawindah Brook **PGE-Ni-Cu** (1980s) and Boomer Hill **V-Fe** (1979), but no economic deposits delineated
- Potential for prospective mafic-ultramafic intrusives in SW Yilgarn although **no mapped geology** to validate this hypothesis (laterite cover)

Previous Exploration – Julimar

- In 1970s Garrick Agnew undertook reconnaissance surface sampling over the Julimar magnetic anomaly with two areas of anomalous Ni/Cu including max **1,800ppm Ni/1,350ppm Cu** at Gonneville and max **5,300ppm Ni/245ppm Cu** at Baudin – no follow up!
- Bestbet (2006-2011) drilled 3 DDHs ~3km NE of Gonneville (could not access farmland) and intersected mafic-ultramafic rocks
- Stream sediments geochem indicated anomalous Pd (**up to 19ppb Pd**)



In 2018 Chalice team moved quickly to stake the entirety of the potential intrusive complex

What we were targeting? Tier-1 scale orthomagmatic Ni-Cu+/-PGE deposits, using a minerals system approach



Craton Margin Setting

- Preferred siting close to craton margins
- Favourable lithospheric architecture at craton margins facilitates passage of melt from mantle into crust

Host Intrusions

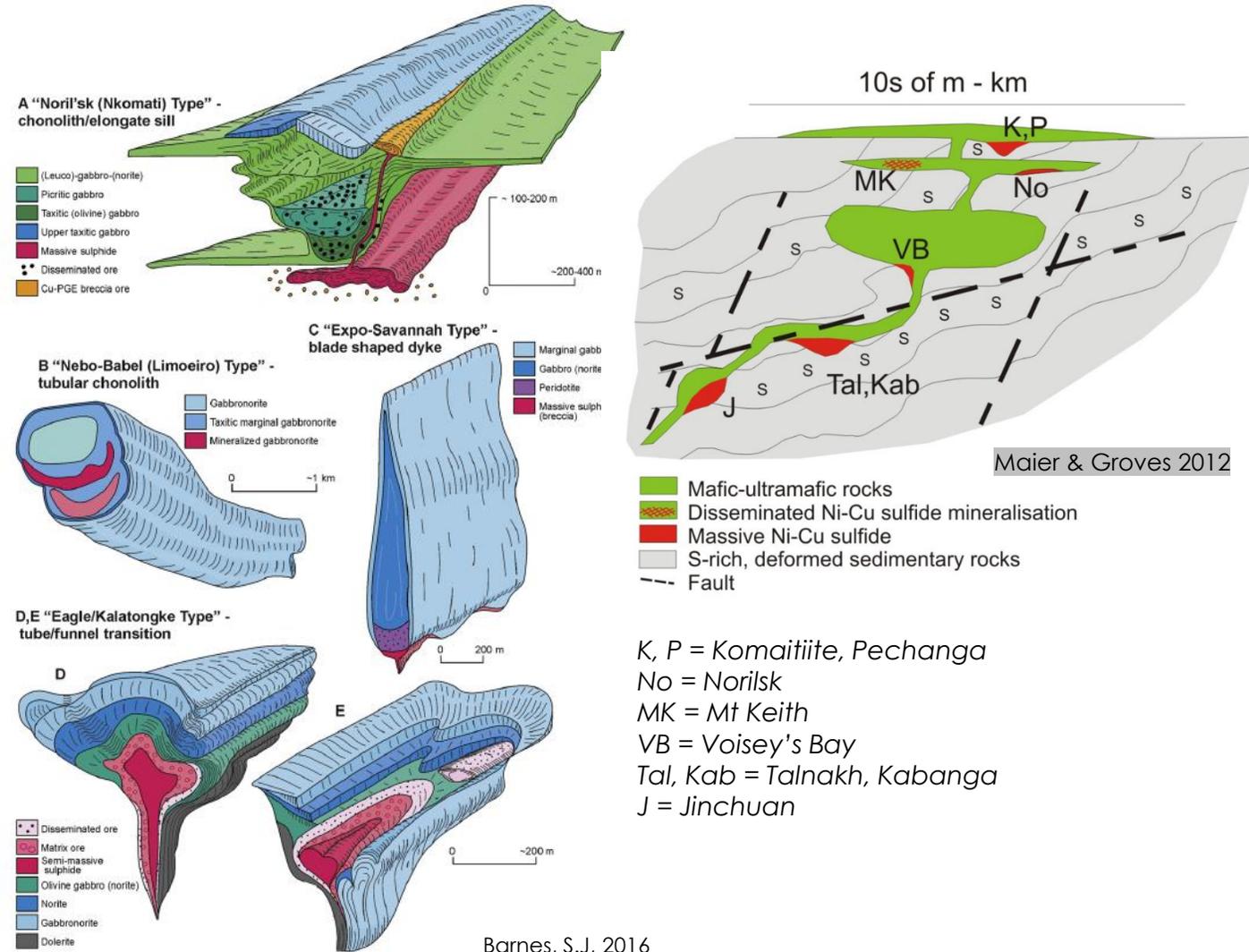
- Tier-1 deposits commonly associated with relatively small intrusions (100's of metres to ~1km thick) with high aspect ratios i.e. long axes >> cross sectional area – termed **chonoliths**

Sulphide segregation/ depositional sites

- Dense sulphide melts accumulate commonly at intrusion margins (base) or where dykes enter magma chambers
- Variability in Ni/Cu/Co/PGE grades and deposit types is a function of:
 - Parental magma composition (MgO)
 - Sulphur source (intrinsic vs external)
 - R-factor (silicate magma : sulphide melt), sulphide melt fraction (MSS,ISS)

Post-depositional Overprint

- Brittle/ductile deformation can remobilise ores (host rocks) into secondary structural settings



Barnes, S.J., 2016

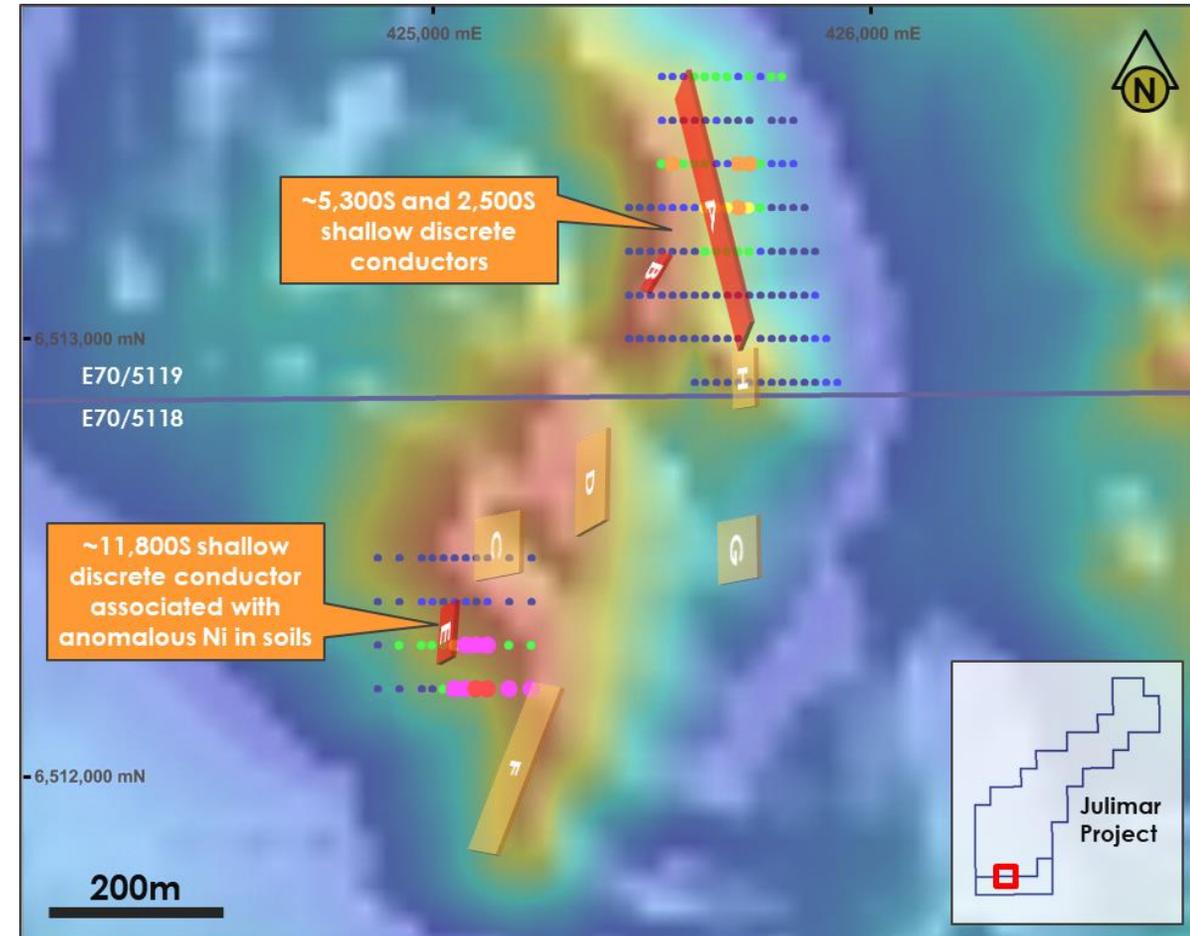
Our **exploration approach** focussed initially on the very southern end of the complex where we could get access to private farmland



Exploration approach

- Vast majority of the ~30km long Julimar magnetic anomaly located in State Forest or Defence Training Area – so very southern end on private farmland targeted first (Gonneville)
- Gonneville was a discrete **lens shaped magnetic anomaly** over ~2km of strike
- Initial field reconnaissance in 2019 found **no outcrop** to validate source of magnetic anomaly
- **Soil geochemical orientation** program showed coarse-fraction most responsive (laterite detritus)
- **Moving Loop Electromagnetic (MLEM) geophysics** used as a direct detection technique for conductive sulphide mineralisation – multiple conductors delineated
- Soil geochem program completed over 2 strongest MLEM conductors – **low level Ni/Cu anomalism** defined
- Initial 5 hole/1,200m RC drill program budgeted for early 2020

Total exploration expenditure pre-discovery of only ~A\$50,000!

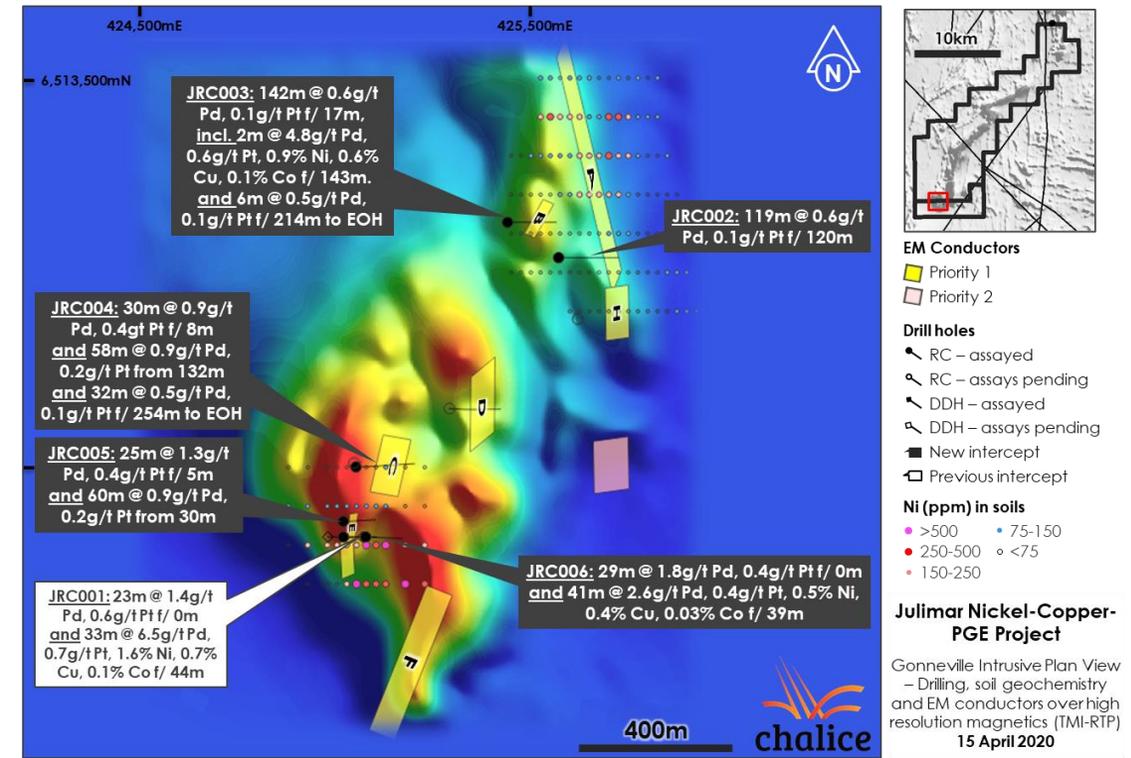
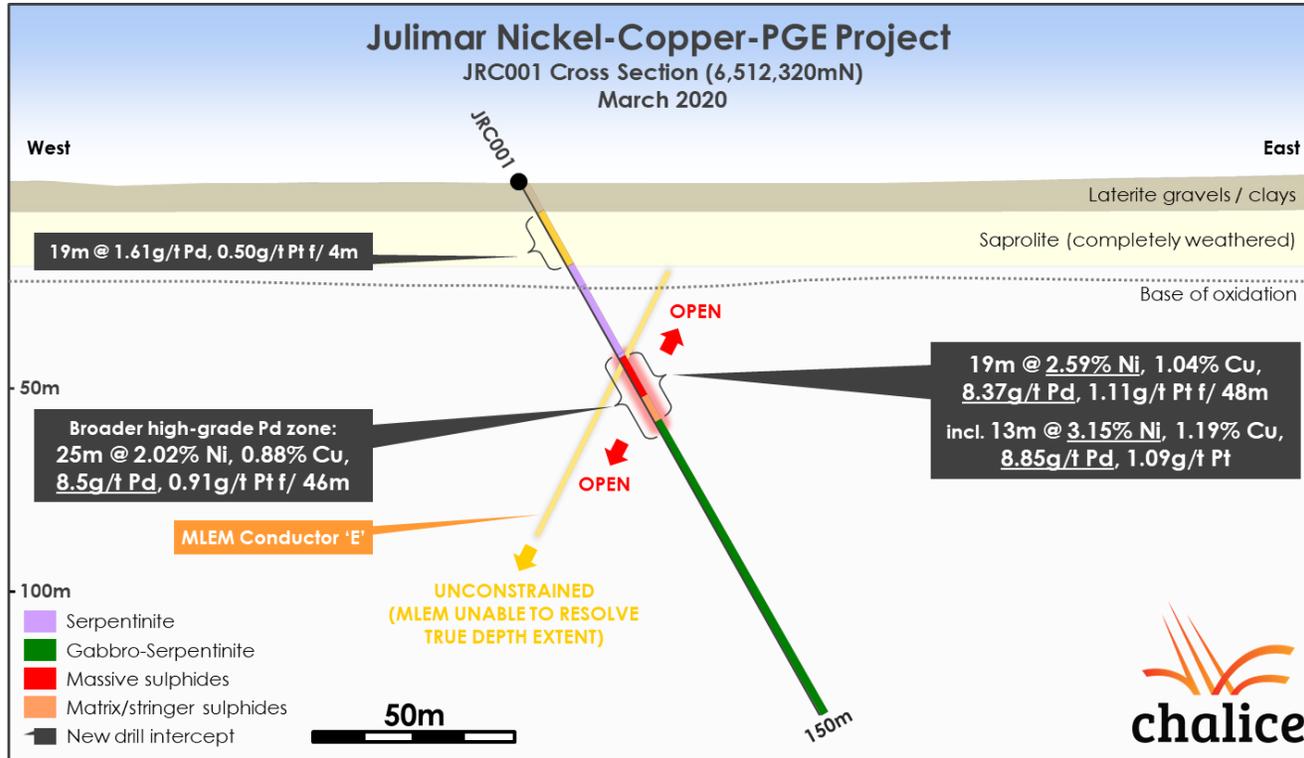


Julimar Nickel Project
Ni in soils, MLEM conductors
over regional magnetics
(TMI-RTP-TDR)

- Chalice tenure
- Priority 1 conductor
- Priority 2 conductor

- Ni in soils (ppm Ni)
- >400
 - 300-400
 - 250-300
 - 200-250
 - 150-200
 - 100-150
 - <100

The **discovery** was made in the very first drill hole and it quickly became evident that Julimar was a very large mineral system



- **March 2020** RC drilling commenced as WA entering COVID-19 lockdowns – uncertainty with how to execute drill program!
- **JRC001** intersected massive/matrix sulphides in mafic-ultramafic geology – assays rushed (!) and returned **19m @ 8.4g/t Pd, 1.1g/t Pt, 2.6% Ni, 1.0% Cu, 0.14% Co from 48m. First major PGE-rich orthomagmatic sulphide discovery in Australia**
- **JRC002** next strongest EM plate (A; 5,300S) at the shallow up-plunge projection. Disseminated sulphides (1-5% vol) were intersected over entire serpentinite interval (87-243m downhole) prior to intersecting sulphidic sediments in footwall (likely source of EM conductor)

- **JRC003** tested Conductor B which intersected ~2m of massive sulphides with significant N/Cu values, ~800m NE of JRC001
- **JRC006** 41m @ 2.6g/t Pd, 0.4g/t Pt, 0.55% Ni, 0.4% Cu, 0.03% Co – no associated EM conductor – demonstrated not all PGE dominant sulphide mineralisation responded to EM
- **April 2020** Significant PGE-Ni-Cu-Co discovery confirmed within the ~2km strike length Gonneville Intrusion → resource drill-out commenced

The **Gonneville Intrusion** occupies ~2km of the Julimar Complex – an Archean aged layered mafic-ultramafic intrusive



Gonneville Intrusion – intrusive sub units

SP1 – Serpentinised peridotite (harzburgite):

- Olivine ortho-mesocumulate ; MgO >35% (max 40% MgO); Ni 1,500-2,500ppm; Cr 1,500-2,500ppm
- Central core of intrusion (<250m wide) – consistently >0.3ppm Pd

SP2 – Serpentinised peridotite (harzburgite):

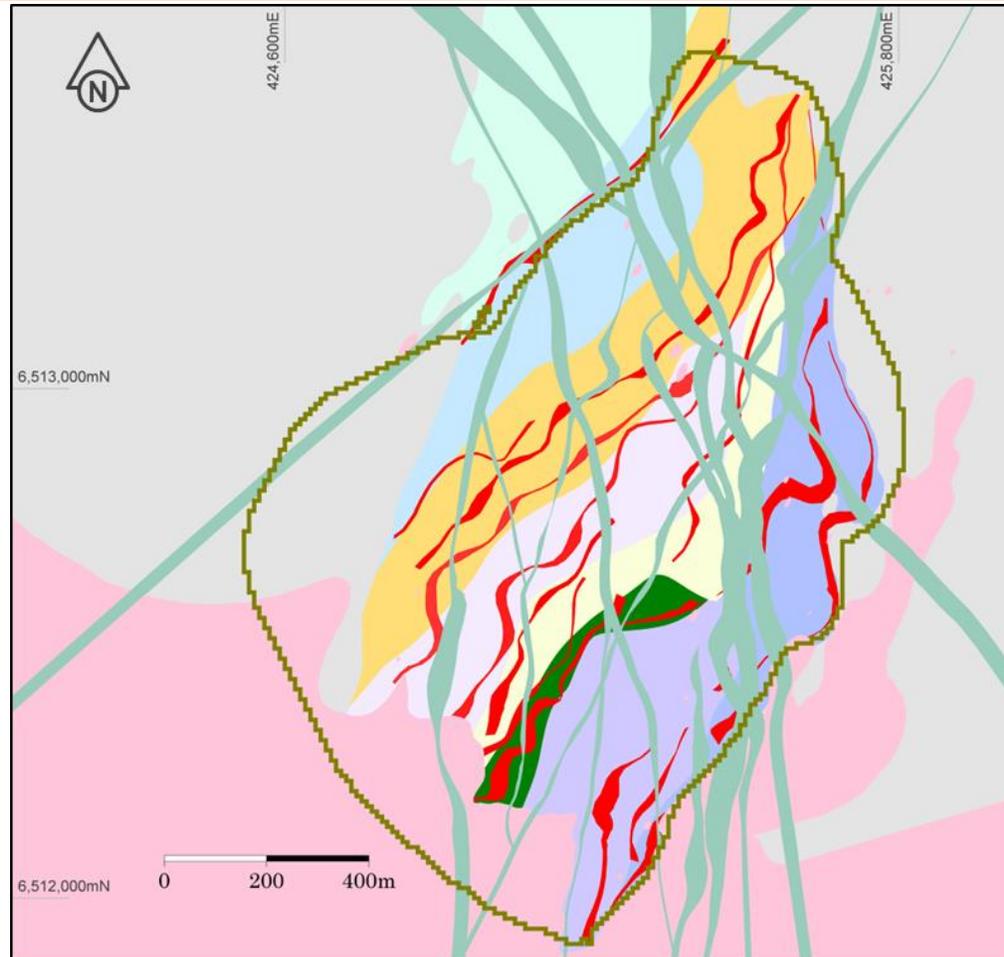
- Olivine orthocumulate 30-35% MgO – opx oikocrysts
- Defines a broad ultramafic zone (<450m wide) enveloping SP1
- Hosts majority of the high-grade (>1g/t Pd) mineralisation – G1-13 Zones)

PYX1, PYX2, Low-Ni PYX (cumulate pyroxenites)

- Orthopyroxenite oikiocrysts – amph replacement

Gabbronorite, anorthosite (cumulate norite):

- Plagioclase (clinozoisite) cumulates



Julimar Nickel-Copper-PGE Project

Gonneville Intrusion Plan View –
geology at 160m RL
8 July 2022

Resource Pit Shell (July 2022) – 160m RL

Geology (chronological order)

- Dolerite
- Granite
- Gonneville Domain 8 (Anorthosite – Gabbronorite)
- Gonneville Domain 7 (Low-Ni Pyroxenite)
- Gonneville Domain 6 (High-Cr Ultramafic)
- Gonneville Domain 5 Serpentinite (Harzburgite)
- Gonneville Domain 4 (High-Cr Ultramafic)
- Gonneville Domain 3 (Pyroxenite)
- Gonneville Domain 2 (Gabbro)
- Gonneville Domain 1 Serpentinite (Harzburgite)
- Meta-sediments

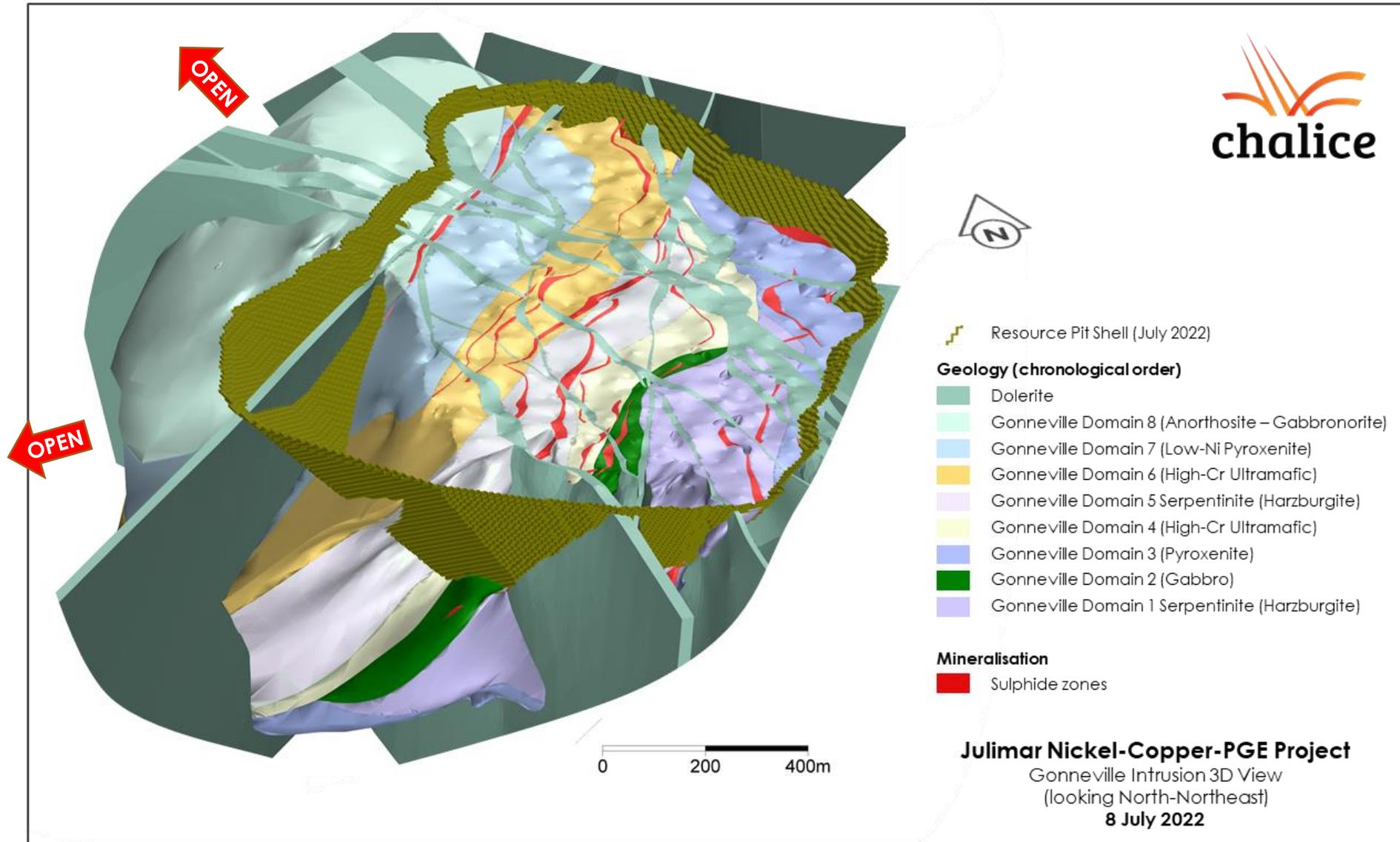
Mineralisation

- Sulphide zones

Gonneville ‘chonolith’ interpretation

- ~2km strike extent NNE (open), ~1.6km dip extent 45° WNW (open)
- ~550-650m thickness, 25° NNW plunge

The **Gonneville Intrusion** is interpreted from 2D seismic to have a ~1.6km dip extent, with 45° WNW dip





There are **four types of Ni-Cu-PGE sulphide mineralisation** at Gonneville, with higher grades in sub-parallel sulphide rich zones (the 'G zones')

High-S mineralisation (>1.0% NiEq, ~20-100 vol% sulphide)

- G1-G2 Zones: PGE-Ni-Cu-Co; discrete zones of matrix, massive to semi-massive/stringer po-pn-cpy at SP1/SP2 transition and proximal to an internal gabbro (HW, FW, interlayered)
 - Ni/Cu/Co increase in grade with sulphide abundance
 - Typical matrix/net texture (interstitial to olivine orthocumulate) and massive sulphides
- G4 & G11 Zones: PGE-Cu-Au; heavy disseminated zone located close to base of intrusion, in SP2/UPX
 - Typically high Cu, low Ni, disseminated cpy with lesser po
- Typically 5-40m wide

Low-S PGE-rich mineralisation (0.6-1.0% NiEq, ~3-10 vol% sulphide)

- G3, G5-10, G12-G14: PGE-dominant, low but variable Ni, Cu, Co (po>pn/cpy), typically 3-20m wide
- Defined by gradual increase in sulphide abundance, rare blebby sulphides
- Hosted in wide variety of rock-types including SP2, PYX1, PYX2, Gabbro

Low-S disseminated mineralisation (0.2-0.6% NiEq, ~1-3 vol% sulphide)

- Wide intervals (100's of metres thick) of low abundance disseminated sulphides (po-rich) in SP1, SP2, UPX1/2



G1 / G2



G1 / G2



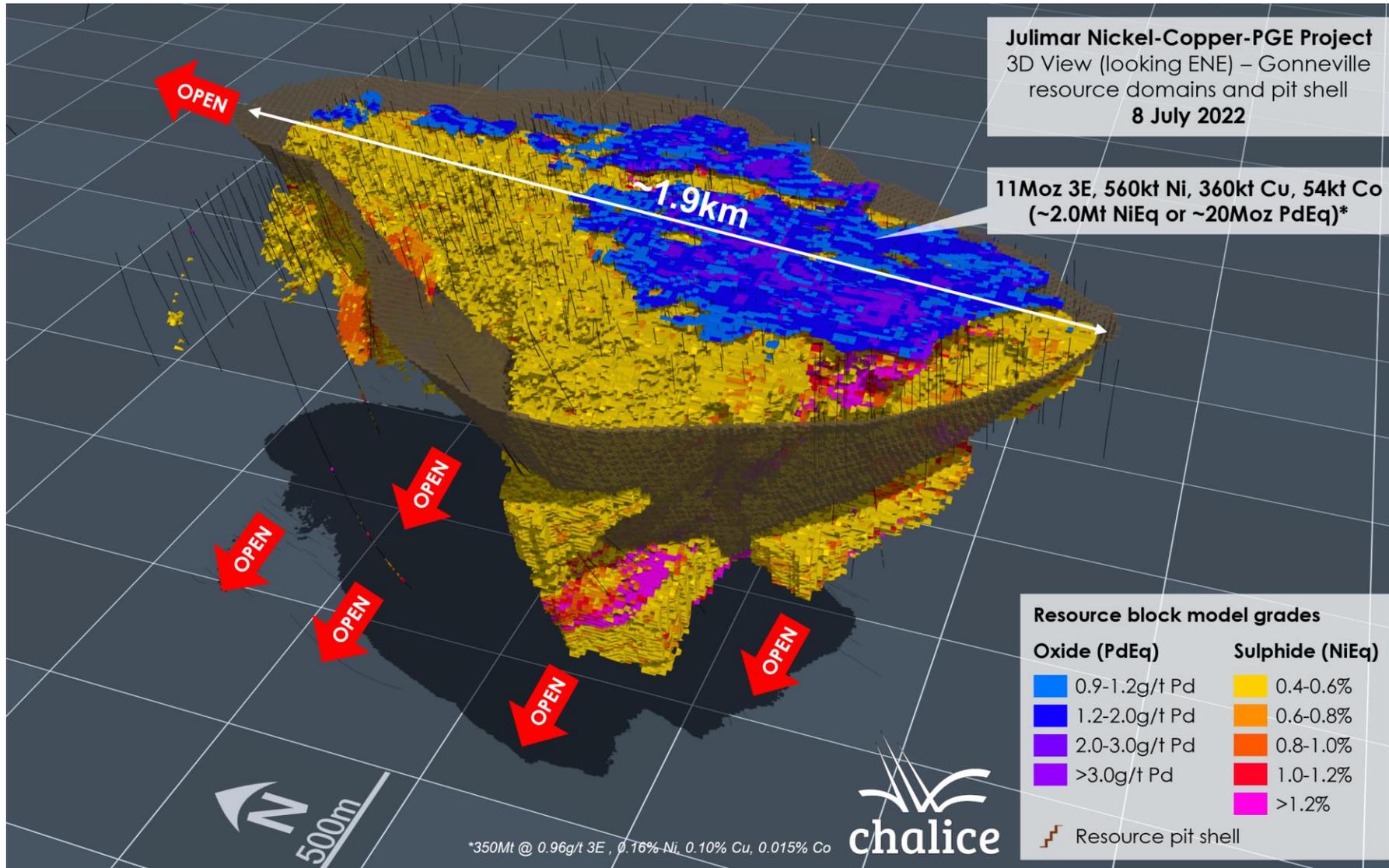
G4

All assaying to date indicates negligible deleterious elements

Gonneville has a **tier-1 scale, near-surface Resource** with high-grade optionality and compelling growth potential



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



Current Indicated and Inferred Mineral Resource Estimate¹:

- **350Mt @ 0.96g/t Pd+Pt+Au (3E), 0.16% Ni, 0.10% Cu, 0.015% Co (~0.58% NiEq or ~1.8g/t PdEq)**
- **11Moz 3E, 560kt Ni, 360kt Cu and 54kt Co contained**
- **Equivalent to ~2.0Mt NiEq or ~20Moz PdEq contained**
- **Resource is defined to depth of ~700m, open to the north and at depth**
- **Located entirely on Chalice-owned farmland**

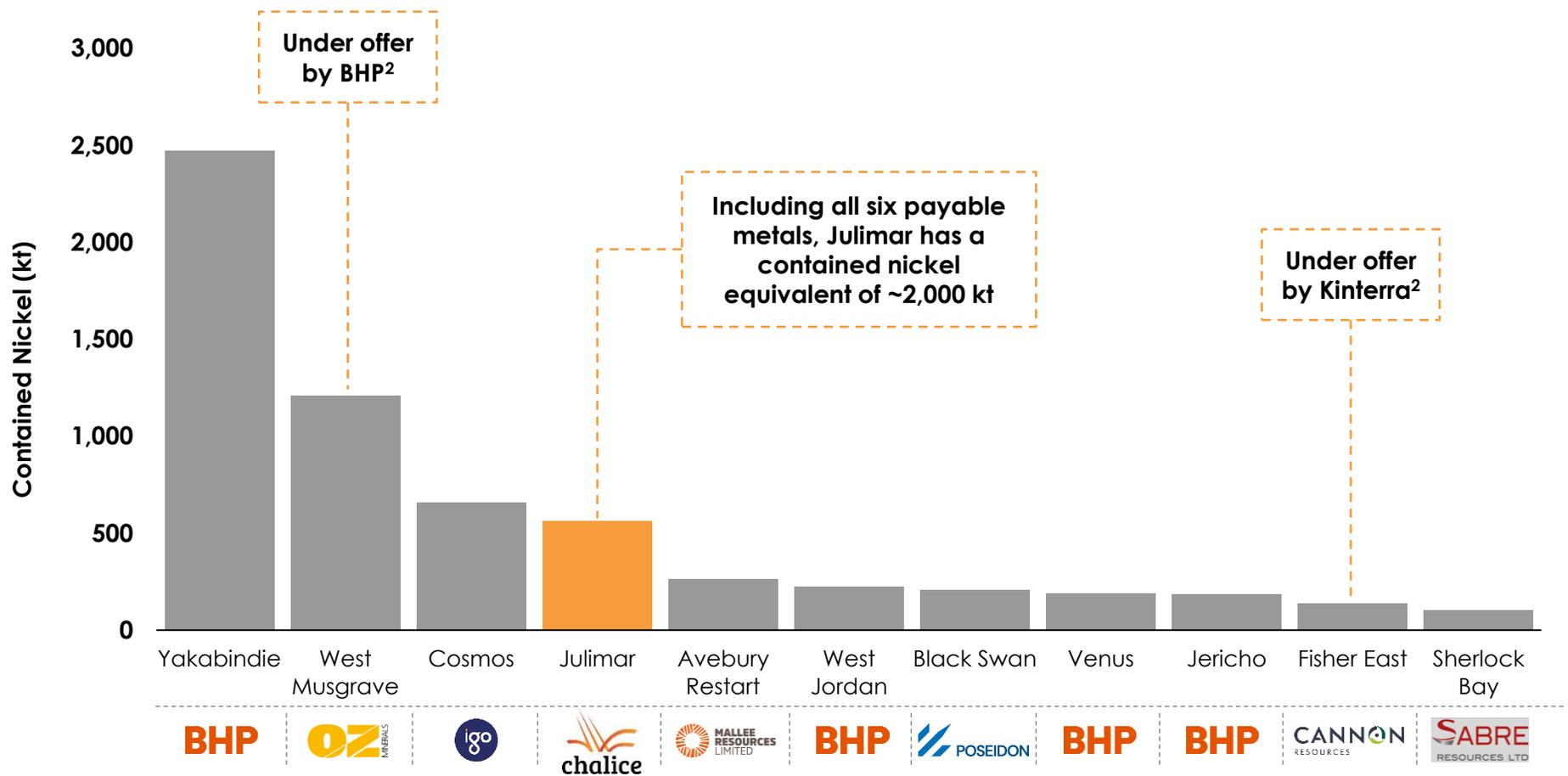
Resource update in progress, expected to be completed in late Q1 2023

¹ Refer to full Mineral Resource Statement in Appendix
² 3E = Palladium (Pd) + Platinum (Pt) + Gold (Au)

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



Australian primary nickel sulphide resources in exploration or development ¹

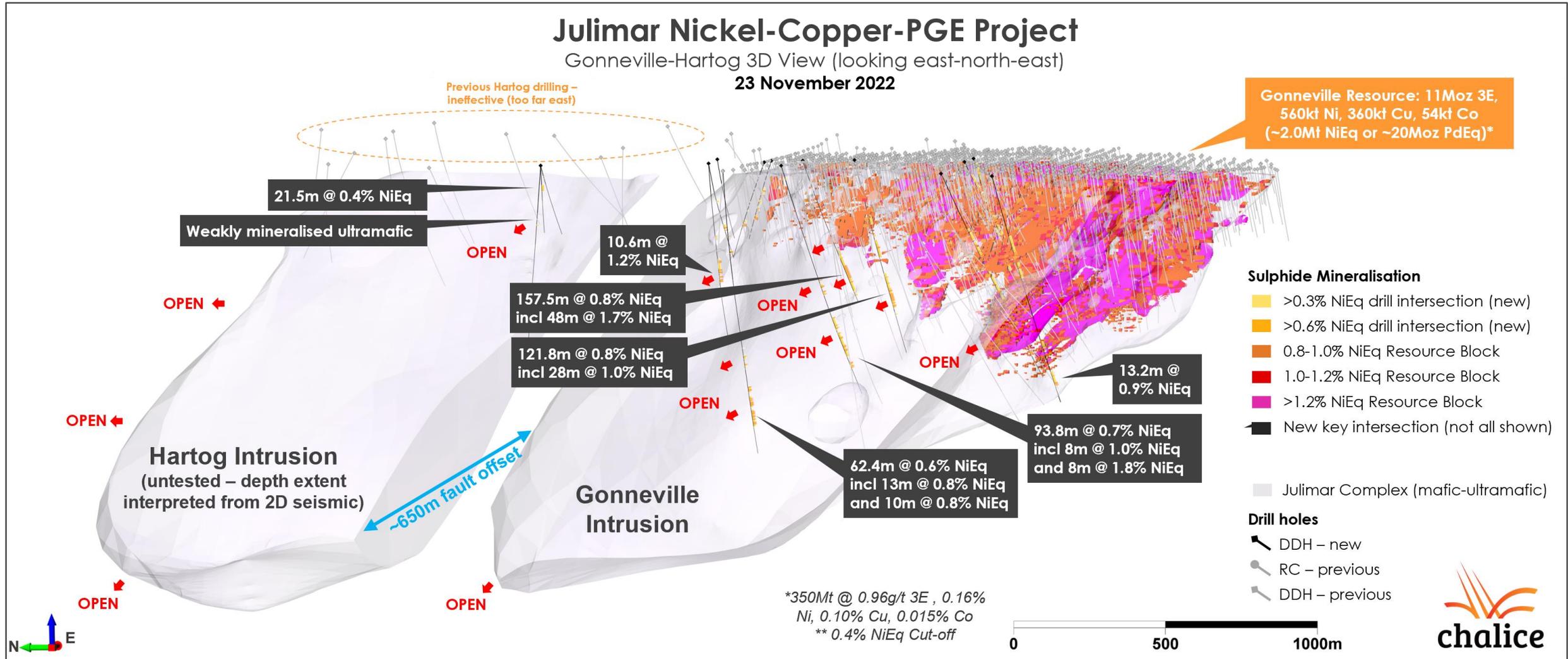


Source: Company filings.

1: Based on total reported JORC Resource (Measured, Indicated, and Inferred). Includes all exploration and development projects with a contained Ni resource of over 99kt. Please refer to Appendix [Australian Primary Nickel Sulphide Resources slide] for peer comparison information; [Gonneville Mineral Resource Estimate slide] and [Metal equivalent assumptions slide] for the assumptions used for the calculation of metal equivalents.

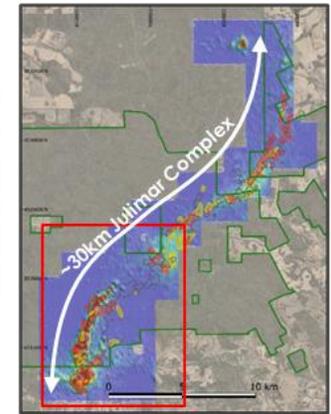
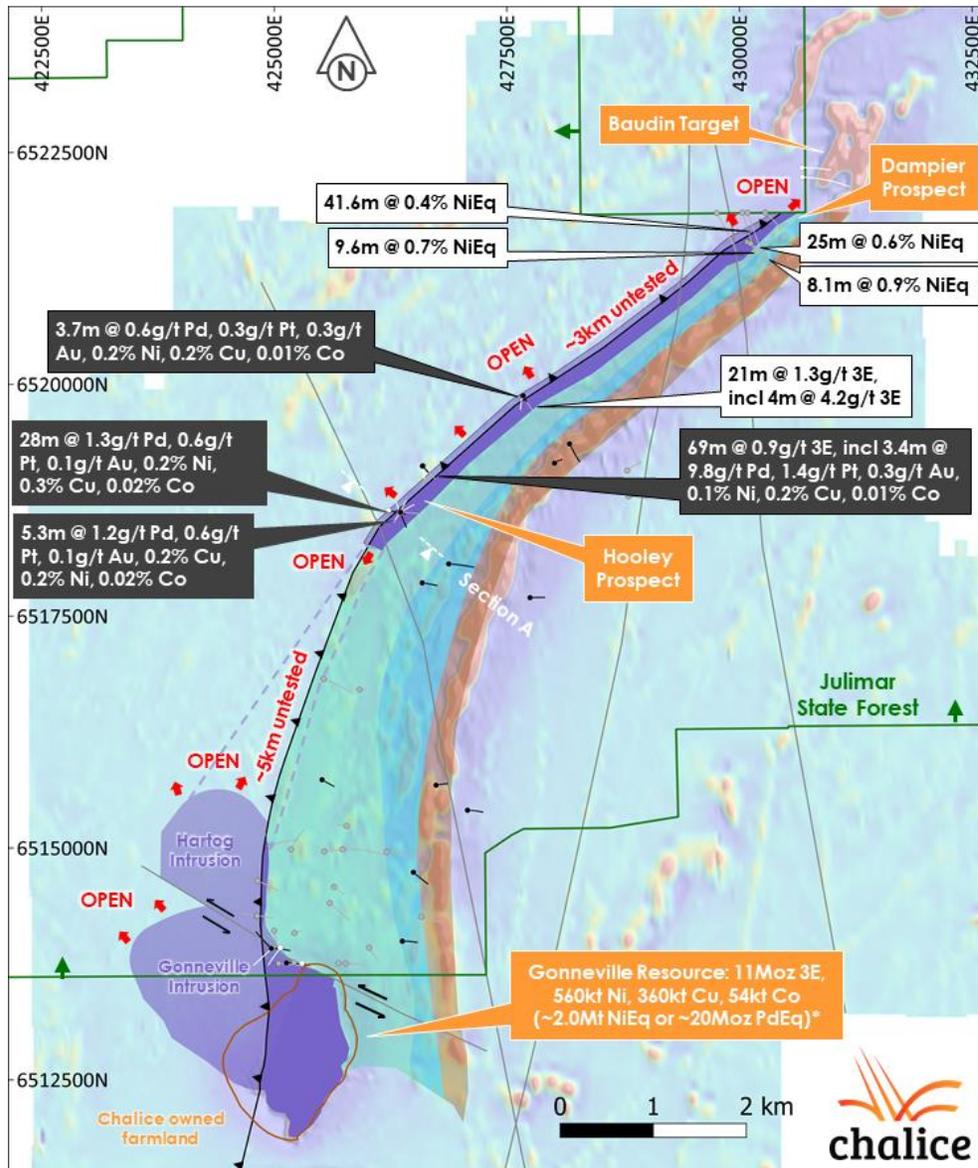
2: As at time of release

The growth potential at Gonneville was highlighted by recent **outstanding wide, high-grade intersections** at the northern end of the deposit



The initial results at Hartog from restricted drill sites have confirmed **Gonneville-like sulphide mineralisation** in this fault-offset extension of the Julimar Complex – further wide-spaced step-out drilling is underway

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



- State Forest boundary
- DDH – New
- DDH – Previous
- DDH – Assays pending
- Gonneville Resource pit crest
- New intersection (excl. Gville)
- Previous intersection

- Geology Interpretation**
- Julimar Complex (at surface)
 - Julimar Complex (at depth)
 - Greenstone Sequence
 - Other Mafic-Ultramafic
 - Banded Iron Formation
 - Granite
 - Hanging Wall Structure
 - Other Structures

*350Mt @ 0.96g/t 3E, 0.16% Ni, 0.10% Cu, 0.015% Co

Julimar Nickel-Copper-PGE Project

South Julimar Complex Plan View – Drill holes, geology, over magnetics (TMI-RTP)

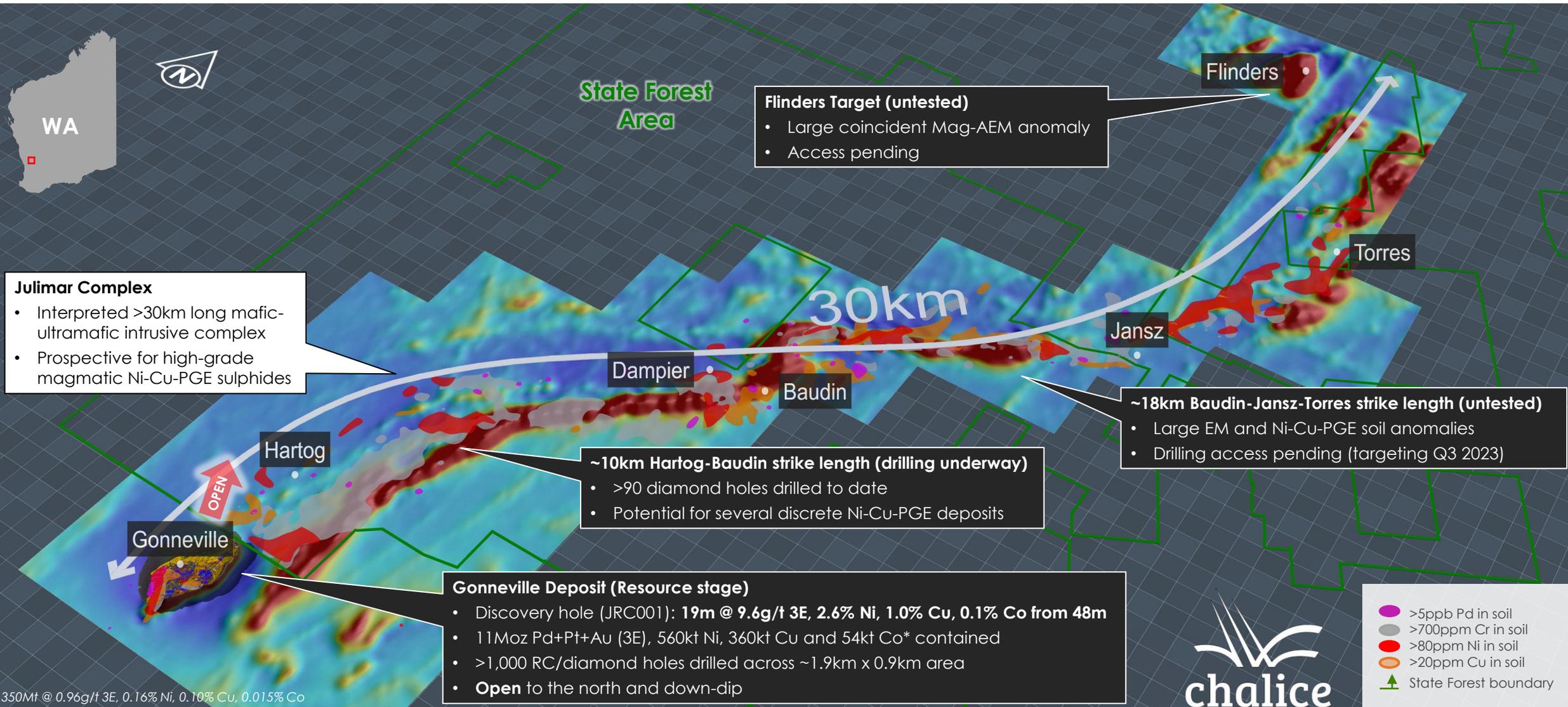
8 December 2022

- Drilling **6-10km** further north of Gonneville has intersected a Gonneville-type ultramafic horizon over **~5.5km of strike length**
 - All these holes have intersected highly encouraging evidence of **magmatic sulphides** → Julimar is a very extensive mineral system, potentially **capable of delivering multiple discoveries**
 - 2D seismic and drilling to date supports interpretation of Julimar having a rare chonolith-like geometry, similar to other major mineral systems like **Norilsk-Talnakh** (Russia) and **Jinchuan** (China)
-
- Drilling along the Complex continues with **5 rigs**
 - Access discussions underway for next phase of exploration along Hartog-Baudin trend
 - **Targeted exploration** will continue in parallel to development studies for a potential mine at Gonneville on Chalice-owned farmland

The Resource occupies just ~2km of the **>30km long Julimar Complex** – the upside to the north has the potential to transform the project



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



* 350Mt @ 0.96g/t 3E, 0.16% Ni, 0.10% Cu, 0.015% Co



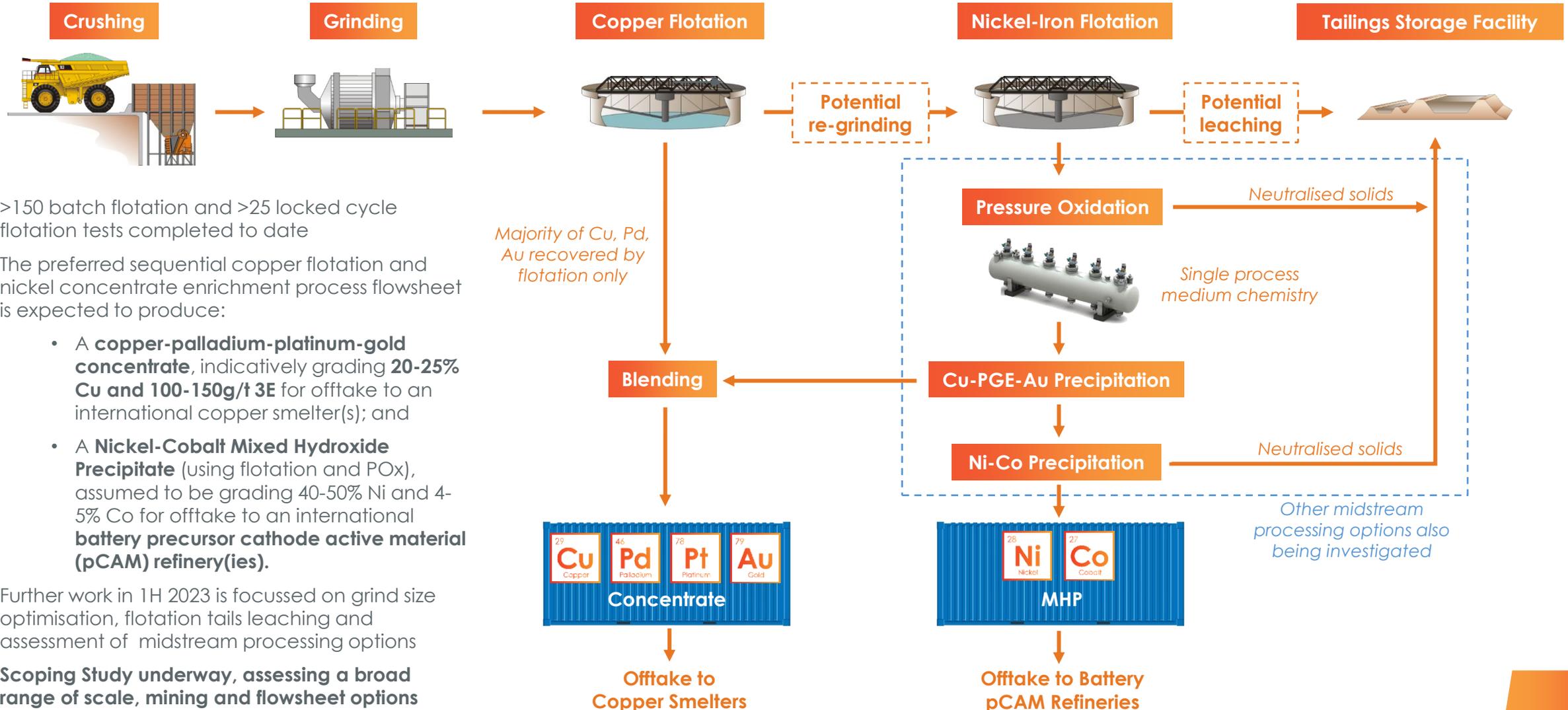
What next for Julimar?

Alex Dorsch – Chalice MD & CEO

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

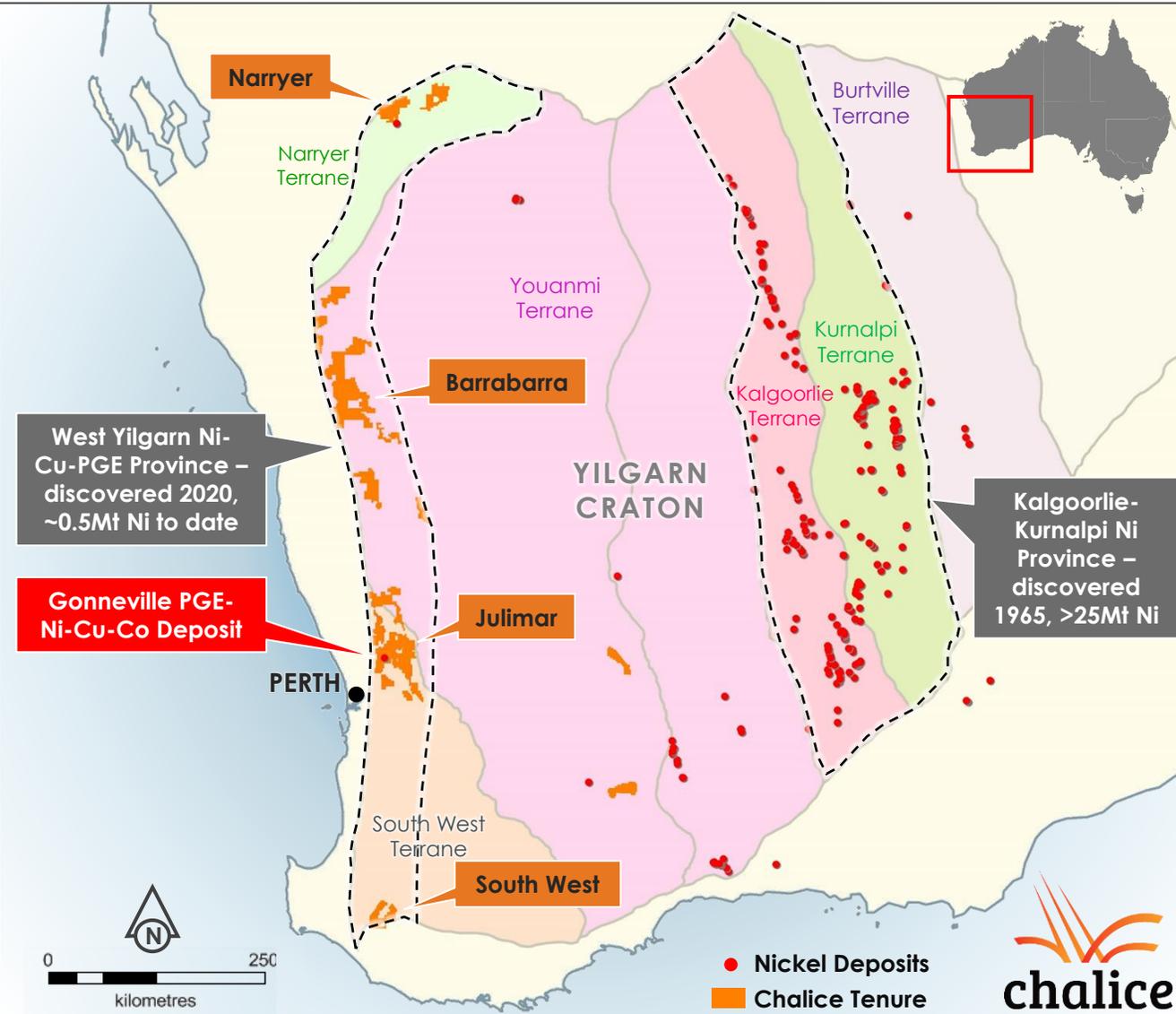


Julimar Processing Flowsheet (simplified)



- >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
- **Scoping Study underway, assessing a broad range of scale, mining and flowsheet options**

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

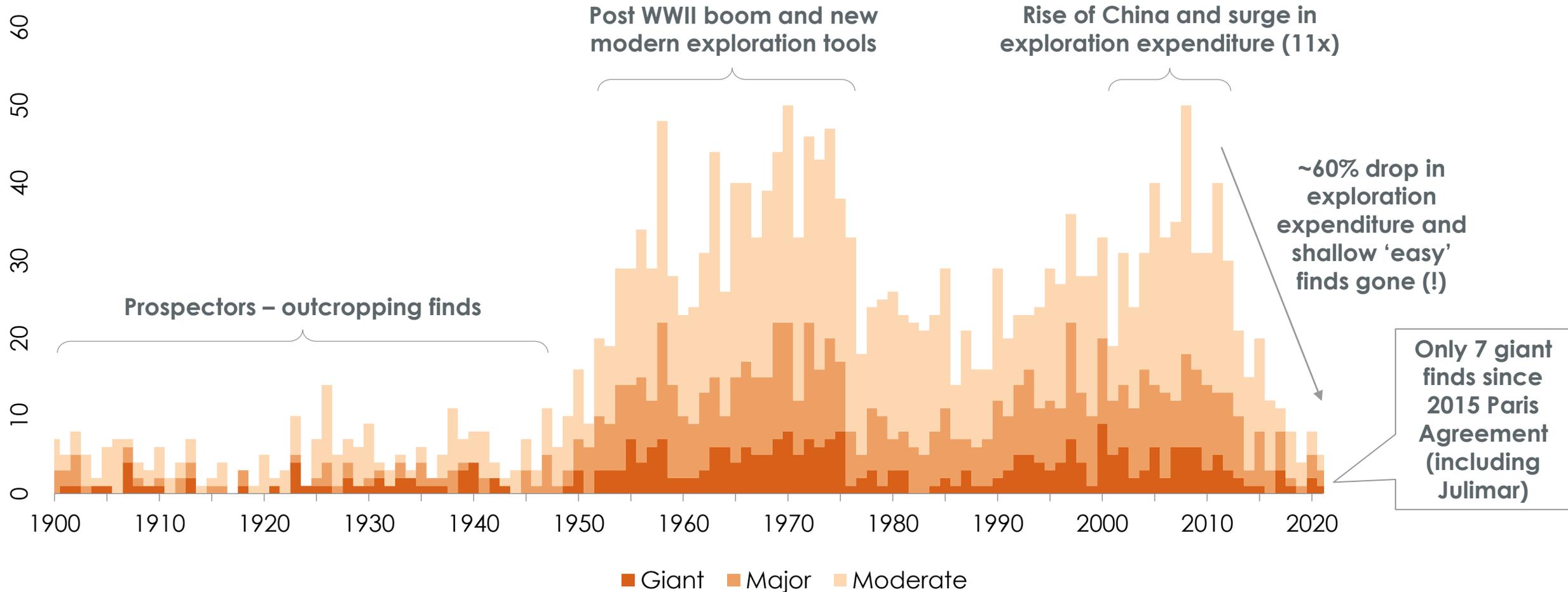


- Many of the **'Tier-1' orthomagmatic nickel-copper-PGE sulphide** deposits such as Norilsk, Jinchuan, Thompson and Voisey's Bay are located proximal to the margin of cratons
 - In WA, the Archaean age eastern Yilgarn craton hosts several world-class nickel sulphide deposits with over **25Mt of Ni** discovered since 1965
 - ~1,200km long western margin of the Yilgarn presents a **similar geological setting, but is almost entirely unexplored.**
 - **The Julimar discovery has re-rated the prospectivity of the West Yilgarn**
 - Chalice made the first major ortho-magmatic Ni-Cu-PGE discovery in the region (Julimar), subsequently staking **>8,000km² (our first mover advantage)**
-
- **Hundreds of potential host intrusions** already identified in our area – **AI assisted screening and prioritisation underway**
 - Rapid, low-cost exploration approach being used – EM, soil/auger sampling and shallow reconnaissance drilling
 - 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

Note: "Moderate" >10kt Ni, >100kt Cu, >300kt Zn+Pb; "Major" >100kt Ni, >1Mt Cu, >3Mt Zn+Pb; "Giant" >1Mt Ni, >5Mt Cu, >12Mt Zn+Pb.

Excludes unreported discoveries in recent years



Highlights



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





Appendix

Chalice is a **leading ASX200 green metals explorer** 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 Lindsay 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



Alex Dorsch

Managing Director and Chief Executive Officer



Morgan Ball

Non-Executive Director



Garret Dixon

Non-Executive Director



Stephen McIntosh

Non-Executive Director



Linda Kenyon

Non-Executive Director



Jo Gaines

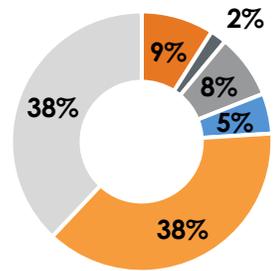
Non-Executive Director

Corporate snapshot - ASX: CHN

Market Capitalisation¹
~A\$2.3Bn

Cash balance²
A\$97.6m

Shares on issue
376m



Top Shareholders³

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

Research coverage



J.P.Morgan



¹ As of 17 Feb 2023; ² As of 31 Dec 2022; ³ As of 31 Jan 2023 or for shareholdings over 5%, 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.



Chalice is actively growing its organisational capability

Board of Directors



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, CFO

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



Dr Kevin Frost, GM Discovery & Growth

- Co-recipient of AMEC's Prospector of the Year Award 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, Business Development and Legal Manager

- 15 years experience as a corporate lawyer and finance advisor in the 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

Gonneville Mineral Resource Estimate (JORC Code 2012), 8 July 2022



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)
Oxide	0.9g/t Pd	Indicated	8.6	1.9	-	0.06	-	-	-	-	1.9	0.52	-	0.02	-	-	-	-	0.54
		Inferred	0.4	1.9	-	0.13	-	-	-	-	2.0	0.03	-	0.00	-	-	-	-	0.03
		Subtotal	9.1	1.9	-	0.06	-	-	-	-	1.9	0.55	-	0.02	-	-	-	-	0.57
Sulphide (Transitional)	0.4% NiEq	Indicated	14	0.80	0.19	0.03	0.17	0.12	0.024	0.65	2.0	0.37	0.09	0.01	24	17	3	93	0.90
		Inferred	1.1	0.64	0.17	0.03	0.14	0.11	0.016	0.55	1.6	0.02	0.01	0	2	1	0	6	0.06
		Subtotal	15	0.79	0.19	0.03	0.16	0.12	0.023	0.65	1.9	0.39	0.09	0.01	25	18	4	99	0.96
Sulphide (Fresh)	0.4% NiEq	Indicated	220	0.73	0.16	0.03	0.16	0.10	0.016	0.59	1.8	5.1	1.1	0.20	360	230	34	1,300	12
		Inferred	110	0.71	0.15	0.03	0.16	0.11	0.015	0.58	1.7	2.4	0.52	0.10	170	110	16	610	5.9
		Subtotal	320	0.72	0.16	0.03	0.16	0.11	0.015	0.58	1.8	7.5	1.7	0.30	530	340	50	1,900	18
Underground	MSO	Indicated	0.03	1.7	0.33	0.08	0.16	0.15	0.016	0.99	3.0	0	0	0	0.1	0.1	0.0	0.3	0
		Inferred	2.9	1.8	0.40	0.06	0.27	0.21	0.021	1.2	3.7	0.17	0.04	0.01	7.6	6.0	0.6	35	0.34
		Subtotal	2.9	1.8	0.40	0.06	0.26	0.21	0.021	1.2	3.7	0.17	0.04	0.01	7.6	6.1	0.6	35	0.34
All		Indicated	240	0.78	0.16	0.03	0.16	0.10	0.015	0.57	1.8	6.0	1.2	0.22	380	240	37	1,400	14
		Inferred	110	0.74	0.16	0.03	0.16	0.11	0.015	0.59	1.8	2.6	0.57	0.11	180	120	17	650	6.3
		Total	350	0.77	0.16	0.03	0.16	0.10	0.015	0.58	1.8	8.6	1.8	0.33	560	360	54	2,000	20

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 (%) + 0.33x Pd(g/t) + 0.24x Pt(g/t) + 0.29x Au(g/t) + 0.78x Cu(%) + 3.41x Co(%)

PdEq sulphide (Palladium Equivalent g/t) = Pd (g/t) + 0.72x Pt(g/t) + 0.86x Au(g/t) + 2.99x Ni(%) + 2.33x Cu(%) + 10.18x Co(%)

MSO optimisation defined reasonable shapes that could be extracted by underground mining methods.

Includes drill holes drilled up to and including 18 March 2022.

Higher-grade sulphide component of Gonneville Resource (in pit and underground), 8 July 2022



Domain	Cut-off Grade	Category	Mass	Grade								Contained Metal							
				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)
High-grade Sulphide (Transitional)	0.6% NiEq	Indicated	4.8	1.3	0.31	0.04	0.20	0.18	0.038	0.99	3.0	0.20	0.05	0.01	10	9	2	48	0.46
		Inferred	0.2	1.1	0.26	0.06	0.18	0.18	0.019	0.82	2.4	0.01	0.00	0.00	0	0	0	2	0.02
		Subtotal	5.1	1.3	0.30	0.05	0.20	0.18	0.037	0.98	3.0	0.21	0.05	0.01	10	9	2	50	0.48
High-grade Sulphide (Fresh)	0.6% NiEq	Indicated	52	1.3	0.29	0.06	0.21	0.19	0.019	0.94	2.8	2.2	0.49	0.11	110	99	10	490	4.8
		Inferred	22	1.3	0.29	0.08	0.21	0.23	0.018	0.98	2.9	0.94	0.20	0.05	46	52	4	220	2.1
		Subtotal	74	1.3	0.29	0.07	0.21	0.20	0.019	0.95	2.9	3.1	0.69	0.16	160	150	14	710	6.9
Underground	MSO	Indicated	0.03	1.7	0.33	0.08	0.16	0.15	0.016	0.99	3.0	0	0	0	0.1	0.1	0.0	0.3	0
		Inferred	2.9	1.8	0.40	0.06	0.27	0.21	0.021	1.2	3.7	0.17	0.04	0.01	7.6	6.0	0.6	35	0.34
		Subtotal	2.9	1.8	0.40	0.06	0.26	0.21	0.021	1.2	3.7	0.17	0.04	0.01	7.6	6.1	0.6	35	0.34
All		Indicated	57	1.3	0.29	0.06	0.21	0.19	0.020	0.95	2.9	2.4	0.54	0.11	120	110	12	540	5.2
		Inferred	25	1.4	0.30	0.07	0.21	0.23	0.018	1.00	3.0	1.1	0.24	0.06	54	58	5	250	2.5
		Total	82	1.3	0.29	0.07	0.21	0.20	0.020	0.97	2.9	3.5	0.78	0.17	180	170	16	790	7.7

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.

NiEq sulphide (Nickel Equivalent %) = Ni (%) + 0.33x Pd(g/t) + 0.24x Pt(g/t) + 0.29x Au(g/t) + 0.78x Cu(%) + 3.41x Co(%)

PdEq sulphide (Palladium Equivalent g/t) = Pd (g/t) + 0.72x Pt(g/t) + 0.86x Au(g/t) + 2.99x Ni(%) + 2.33x Cu(%) + 10.18x Co(%)

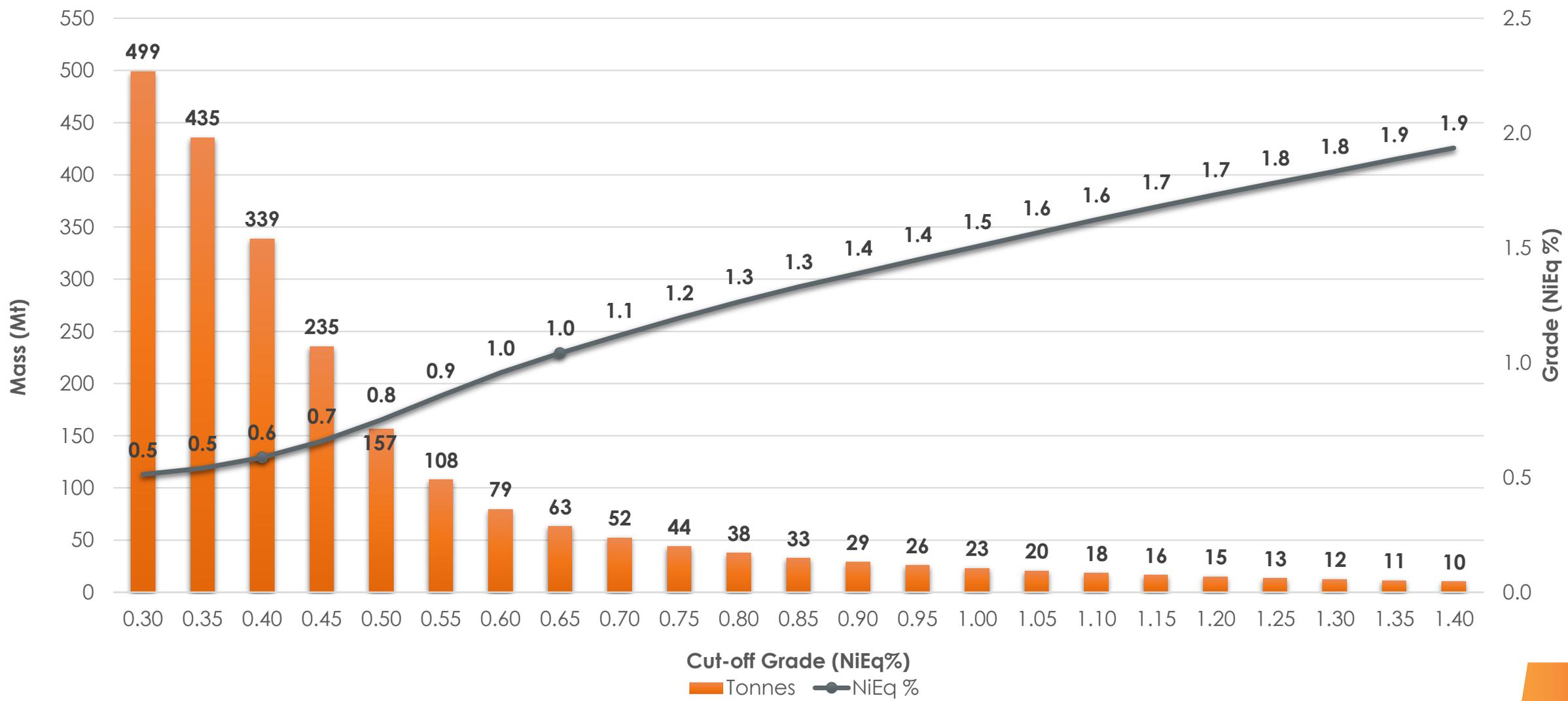
MSO optimisation defined reasonable shapes that could be extracted by underground mining methods.

Includes drill holes drilled up to and including 18 March 2022.

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



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



Metal equivalent assumptions of Gonneville Resource, 8 July 2022



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 sulphide domains are calculated according to the formula below:

« $\text{NiEq (\%)} = \text{Ni (\%)} + 0.33x \text{ Pd (g/t)} + 0.24x \text{ Pt (g/t)} + 0.29x \text{ Au (g/t)} + 0.78x \text{ Cu (\%)} + 3.41x \text{ Co (\%)};$

« $\text{PdEq (g/t)} = \text{Pd (g/t)} + 0.72x \text{ Pt (g/t)} + 0.86x \text{ Au (g/t)} + 2.99x \text{ Ni (\%)} + 2.33x \text{ Cu (\%)} + 10.18x \text{ Co (\%)};$

Metal recoveries used in the metal equivalent calculations are based on rounded average Resource grades for the higher-grade sulphide domain (>0.6% NiEq cut-off):

« Pd – 70%, Pt – 70%, Au – 60%, Ni – 55%, Cu – 90%, Co – 55%.

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\$1,300/oz Pt, US\$1,800/oz Au, US\$22,000/t Ni, US\$10,500/t Cu and US\$75,000/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:

« $\text{PdEq oxide (g/t)} = \text{Pd (g/t)} + 1.27 x \text{ Au (g/t)}.$

Metal recoveries based on limited metallurgical test work completed to date:

« Pd – 75%, Au – 95%.

« 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 “Updated Gonneville Mineral Resource” dated 8 July 2022.

Australian Primary Nickel Sulphide Resources (1 Feb 2023)



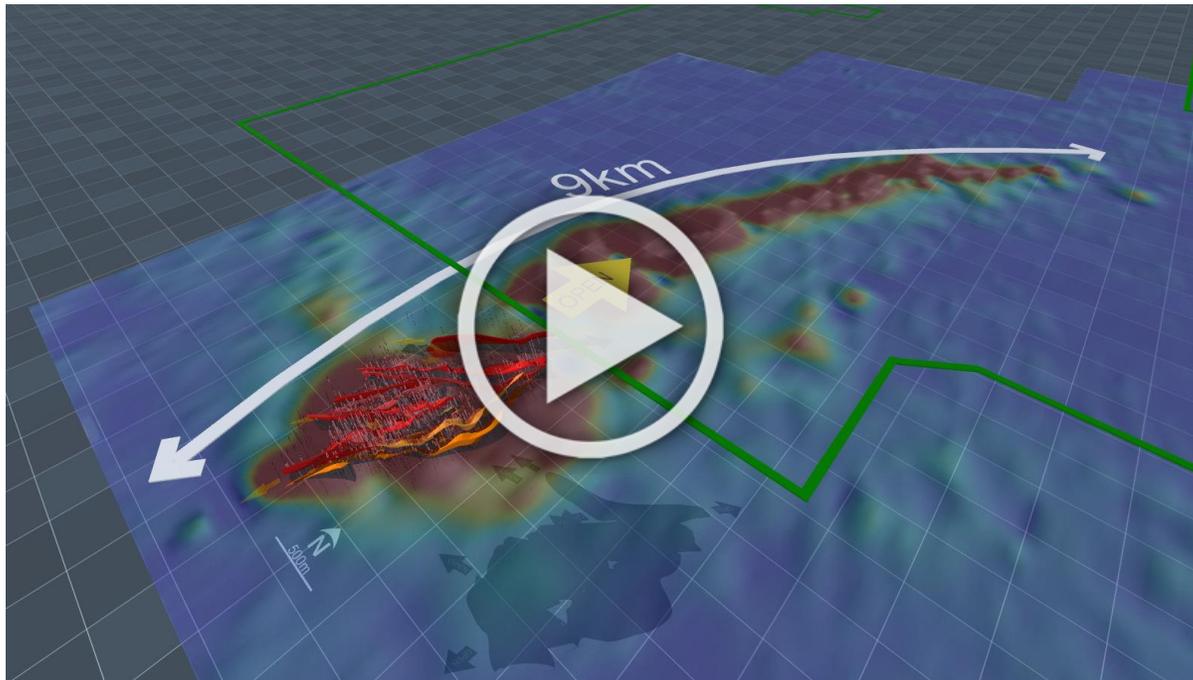
Rank	Asset	Company	Stage	Source Announcement	Date	Total Measured (Meas.), Indicated (Ind.) and Inferred (Inf.) resources								Meas.	Ind.	Inf.
						Tonnage (Mt)	Nickel (kt, %)	Copper (kt, %)	Cobalt (kt, ppm)	Gold (koz, g/t)	Platinum (koz, g/t)	Palladium (koz, g/t)	Silver (koz, g/t)	Tonnage (Mt)	Tonnage (Mt)	Tonnage (Mt)
1	Yakabindie	BHP	Feasibility	Annual Report to Shareholders	06-Sep-22	406	2,474 0.61%	-	-	-	-	-	-	129.6	106	170
2	West Musgrave	OZ Minerals	Feasibility	West Musgrave Mineral Resource and Ore Reserve Statement	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
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	Julimar	Chalice	Exploration	Updated Gonneville Mineral Resource	08-Jul-22	350	560 0.16%	360 0.10%	54 154	330 0.03	1,800 0.17	8,600 0.77	-	-	240	110
5	Avebury Restart	Mallee Resources	Restart	Updated Investor Presentation	07-Jul-22	29	264 0.90%	-	7 229	-	-	-	-	-	8.7	20.7
6	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
7	West Jordan	BHP	Exploration	Annual Report to Shareholders	06-Sep-22	43	224 0.52%	-	-	-	-	-	-	-	-	43
8	Venus	BHP	Exploration	Annual Report to Shareholders	06-Sep-22	11	189 1.71%	-	-	-	-	-	-	1.5	7.5	2.1
9	Jericho	BHP	Exploration	Annual Report to Shareholders	06-Sep-22	31	183 0.59%	-	-	-	-	-	-	-	-	31
10	Fisher East	Cannon Resources	Exploration	Fisher East Resource Increased to 134.1kt Contained Nickel	15-Aug-22	8	134 1.79%	-	-	-	-	-	-	-	2.8	4.7
11	Sherlock Bay	Sabre Resources	Exploration	Sherlock Bay Ni Scoping Study Delivers Positive Cashflow	17-Jan-23	25	99 0.40%	22 0.09%	5 220	-	-	-	-	12.5	6.1	6.1

Note: Values presented in the above table have been rounded and where totals do not add to their components is due to rounding.

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/zaparMvbb4g>





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