

8 July 2022

## Gonneville Resource increased to 11Moz Pd+Pt+Au (3E), 560kt Ni, 360kt Cu and 54kt Co (~2Mt NiEq or 20Moz PdEq)

Further resource growth and upgrade into the higher confidence Indicated category provides strong foundation for world-class Julimar 'green metals' Project

### Highlights

- « Updated Indicated and Inferred, open-pit and underground mineral resource estimate (Resource) completed for the Gonneville PGE-Ni-Cu-Co-Au deposit (Deposit), located on Chalice-owned farmland within the 100%-owned Julimar Project, ~70km NE of Perth, WA:
  - « **350Mt @ 0.96g/t 3E<sup>1</sup>, 0.16% Ni, 0.10% Cu, 0.015% Co (~0.58% NiEq<sup>2</sup> or ~1.8g/t PdEq<sup>3</sup>);**
  - « Containing **11Moz 3E, 560kt Ni, 360kt Cu, 54kt Co (~2.0Mt NiEq or ~20Moz PdEq);**
  - « **Significant increase in geological confidence with ~70%** of the Resource now in the Indicated category (up from ~45%) following extensive infill drilling;
  - « **~90%** of the Resource above a depth of 250m is now classified as Indicated.
- « The **higher-grade sulphide** component of the Resource (>0.6% NiEq cut-off in-pit plus underground) has also increased to:
  - « **82Mt @ 1.7g/t 3E, 0.21% Ni, 0.20% Cu, 0.020% Co (~1.0% NiEq or ~2.9g/t PdEq);**
  - « Containing **4.5Moz 3E, 180kt Ni, 170kt Cu, 16kt Co (~790kt NiEq or ~7.7Moz PdEq);**
  - « Resources are defined from a depth of **~30m to ~700m** and remain **open down-dip**;
  - « This higher-grade component affords the project **significant optionality** in development and could potentially **materially enhance project economics** in the initial years of operations.
- « The Resource **remains open to the north along strike** and at depth, with the **potential for further material growth**:
  - « Two rigs are continuing step-out drilling down-plunge at Gonneville, where **>800m of potential high-grade plunge extent** on farmland is yet to be fully tested;
  - « **Four rigs** are currently drilling along strike to the north of the Resource at the Hartog-Dampier targets – the Gonneville Resource covers just **~7%** of the Julimar Complex;
  - « Recent sulphide intersections at the Dampier Target highlight the **potential for additional Ni-Cu-PGE discoveries along the >30km long Julimar Complex.**
- « Gonneville Scoping Study for an initial stage of mine development at the Project is progressing well and expected to be completed in **Q3 2022**.

1 3E = Palladium (Pd) + Platinum (Pt) + Gold (Au), with an average in-situ ratio of ~4.8:1:0.18 (Pd:Pt:Au)

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

3 PdEq (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(%)

## Overview

Chalice Mining Limited ("Chalice" or "the Company", ASX: CHN | OTCQB: CGMLF) is pleased to report an updated Mineral Resource Estimate (Resource) for the Gonneville Deposit (Deposit), the first discovery at its 100%-owned **Julimar Nickel-Copper-Platinum Group Element (PGE) Project**, located ~70km north-east of Perth in Western Australia.

The large-scale PGE-Ni-Cu-Co-Au Deposit is entirely located within Chalice-owned farmland and remains open to the north and at depth.

Since the maiden Resource was reported in November 2021, drilling at Gonneville has largely been focussed on shallow infill, to improve the confidence level of the Resource from the Inferred category to Indicated. The proportion of Indicated category resources has increased from ~45% to ~70% of the total. Step-out drilling has also continued to evaluate the broader extent of mineralisation.

The drilling and remodelling has resulted in a ~5% increase in the Resource mass and contained nickel equivalent metal relative to the maiden estimate. This increase is largely due to:

- « The Resource pit shell increasing in size in the northern portion of the deposit as a result of infill and extensional drilling;
- « The Resource pit shell expanding along its western edge, due to extensional drilling in the west of the deposit undertaken since the last resource;
- « The inclusion of mineralisation in an underground category, outside the pit shell, within Mineable Stope Optimiser (MSO) shapes (maiden Resource was constrained to a pit shell only);
- « Pit optimisation parameters being updated to incorporate the latest consensus long-term metal prices as well as new metallurgical testwork on lower-grade disseminated sulphide mineralisation.

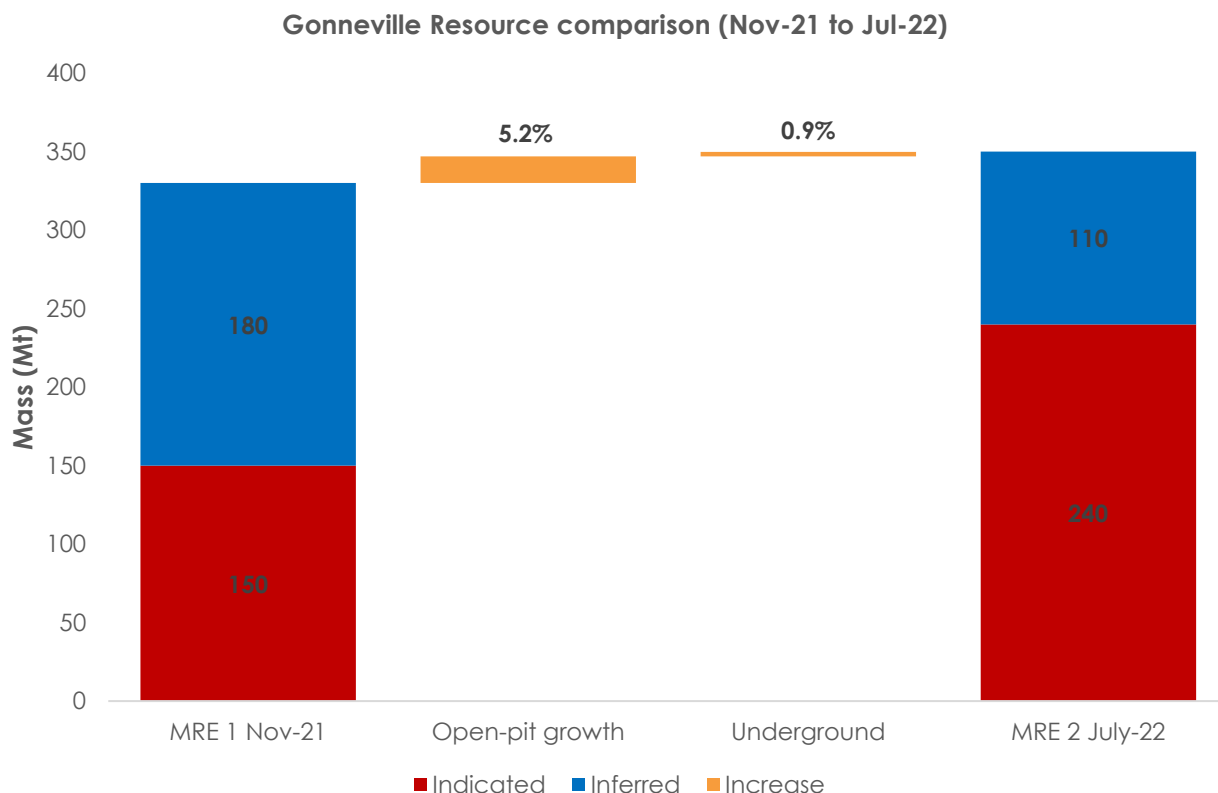


Figure 1. Change in Gonneville Resource from November 2021 to July 2022.

The Resource includes a mix of oxide, transitional and sulphide mineralisation. The sulphide mineralisation is reported at two different cut-off grades to highlight the scale and development optionality the Deposit affords.

The robust nature of the Resource is demonstrated by grade-tonnage curve (Figure 3), which highlights the significant quantity of pit-constrained sulphide mineralisation at higher cut-off grades. Note, the grade-tonnage curve for the Resource includes material classified as Inferred, where data is insufficient to allow the geological grade and continuity to be confidently interpreted.

The significant higher-grade component of the Resource provides excellent optionality for any future development and could potentially materially improve project economics in the initial years of operation. This is a key focus of the project Scoping Study, which is due to be completed in Q3 2022.

Drilling is continuing at the ~1.9km x 0.9km deposit outside the Resource, with assays currently pending for 90 drill holes. Two diamond rigs continue to test for extensions of high-grade mineralisation at depth.

Gonneville remains open at the Julimar State Forest boundary to the north, where four rigs are continuing an initial drill program at the Hartog-Dampier targets. The Deposit also remains open beyond a depth of ~700m.

Commenting on the updated Resource, Chalice Managing Director & Chief Executive Officer, Alex Dorsch, said: *"The work we have completed since publishing our maiden Resource in November last year continues to demonstrate the world-class endowment, scale and quality of the Gonneville Deposit."*

*"Apart from further increasing the contained metal, this Resource update has resulted in a significant increase in the higher-confidence Indicated Resource – which now represents ~70% of the total. Importantly, 90% of the resource above a depth of 250m is now classified as Indicated, which represents a major de-risking step for the Project."*

*"The Indicated component of the Resource will underpin the Scoping Study, which is progressing well and due for completion in Q3 2022."*

*"The continued growth in the higher-grade sulphide component – both in an expanded open pit optimisation and, significantly, in our first reported underground Resource, further enhances the significant development optionality of the Deposit."*

*"It is also evident from recent exploration results that there is enormous growth potential both at depth at Gonneville and along the effectively untested Julimar Complex to the north. While we already have a tier-1 scale deposit which has the potential to underpin a world-class, long-life green metals project, the resource base is expected to continue to grow."*

*"The exciting early results reported yesterday at the Dampier Target reinforce the potential for further Ni-Cu-PGE discoveries along the Julimar Complex"*

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## Project location and history

The 100%-owned Julimar Nickel-Copper-PGE Project is located ~70km north-east of Perth in Western Australia. The greenfield Project was staked in early 2018 as part of Chalice's global search for high-potential nickel sulphide exploration opportunities.

Chalice interpreted the possible presence of an unrecognised, >30km long mafic-ultramafic layered intrusive complex at Julimar based on high-resolution regional magnetics (the Julimar Complex). An initial RC drill program commenced in Q1 2020 at the southern end of the Julimar Complex on private farmland (due to access constraints) and resulted in the discovery of high-grade PGE-nickel-copper-cobalt-gold sulphide mineralisation near surface. The first hole discovery at the project was named Gonneville.



The discovery of Gonneville and the Julimar Complex established the newly defined West Yilgarn Ni-Cu-PGE Province in Western Australia, an almost completely untested mineral province which is interpreted to extend for ~1,200km along the western margin of the Yilgarn Craton.

The Julimar Project is favourably located, with world-class road, rail, port and high-voltage power infrastructure nearby, plus access to a significant 'drive-in, drive-out' mining workforce in the Perth surrounds (Figure 2).

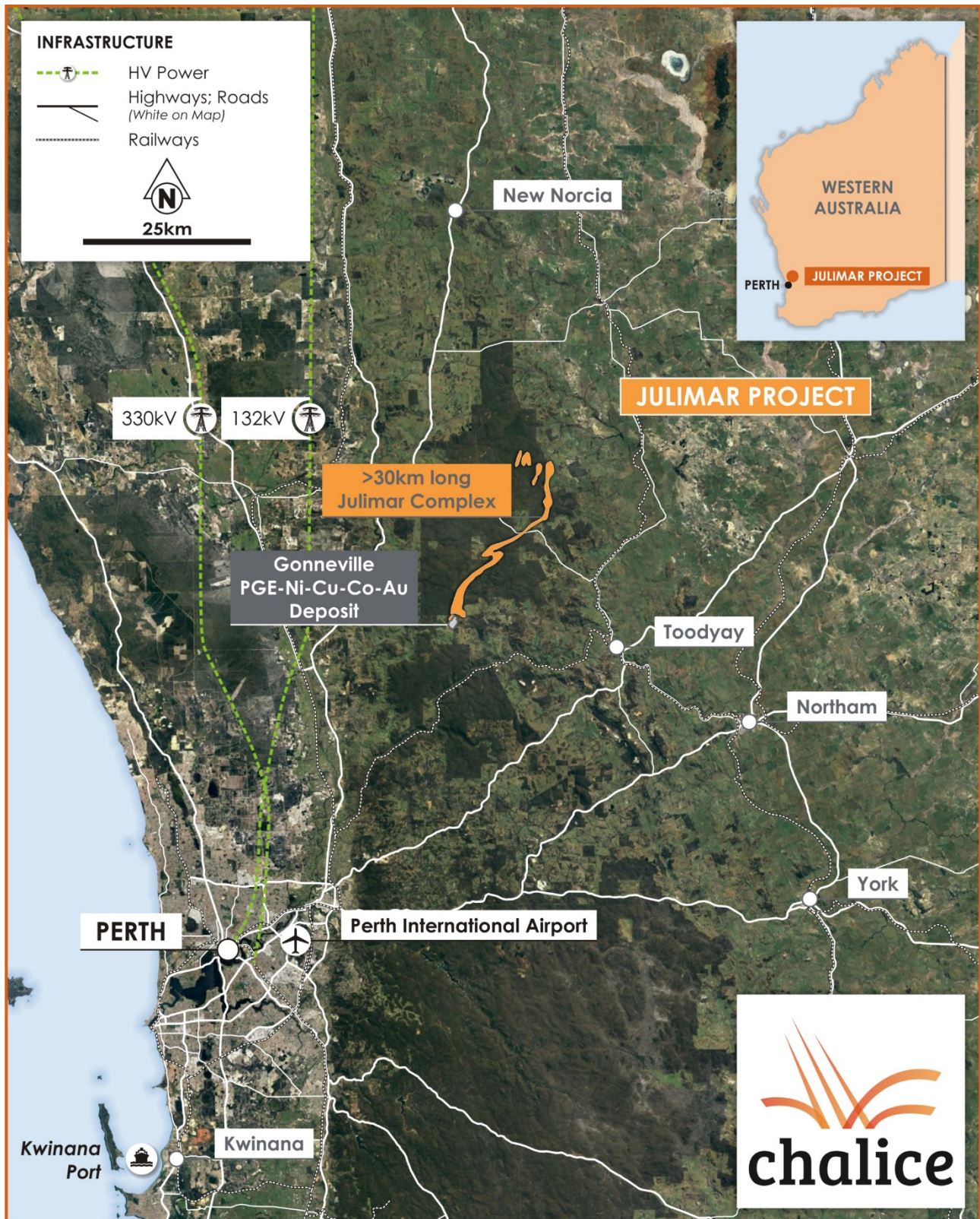


Figure 2. Julimar Complex, Gonneville Deposit, Project tenure and nearby infrastructure.

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## Gonneville Resource overview

Chalice engaged Cube Consulting (Cube) to prepare an updated mineral resource estimate (Resource) for Gonneville. The Resource has been reported in accordance with the JORC Code (2012), is effective 8<sup>th</sup> July 2022, and is shown in full in Table 1.

Cube considers that data collection techniques are consistent with good industry practice and are suitable for use in the preparation of a Resource to be reported in accordance with the JORC Code. Available quality assurance and quality control (QA/QC) data supports the use of the input data provided by Chalice.

The Resource is considered to have reasonable prospects for eventual economic extraction (RPEEE) on the following basis:

- « The Deposit is located in a favourable mining jurisdiction, with no known impediments to land access or tenure status;
- « The volume, orientation and grade of the Resource is amenable to mining extraction via traditional open pit and underground mining methods;
- « Current geo-metallurgical recovery vs grade formulae based on available preliminary metallurgical test work and nominal metal concentrate offtake payment terms were used in a Whittle pit optimisation to generate the resource pit shell and in a MSO to generate underground constraints.

The Resource is reported within a pit shell and within underground MSO shapes using metal price assumptions of 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, US\$75,000/t Co and is reported above a 0.4% NiEq cut-off grade in-pit and within selective mining shapes underground.

The metal prices used were determined from long-term consensus analyst estimates from S&P Global Market Intelligence (typically for 2025), selecting a rounded figure within the P20-P30 range of the distribution (i.e., 20-30% of the distribution of consensus analyst estimated metal prices were above the selected figures).

Chalice and Cube believe this is a reasonable approach, considering the potential mine life and considerations for reporting Mineral Resources in accordance with the JORC Code.

The Resource is reported according to domain (oxide, transitional, fresh or underground) as well as codified confidence levels (Indicated or Inferred) (Table 1).

Table 1. 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)	PdEq (Moz)
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
		<b>Subtotal</b>	<b>9.1</b>	<b>1.9</b>	<b>-</b>	<b>0.06</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.9</b>	<b>0.55</b>	<b>-</b>	<b>0.02</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.57</b>
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
		<b>Subtotal</b>	<b>15</b>	<b>0.79</b>	<b>0.19</b>	<b>0.03</b>	<b>0.16</b>	<b>0.12</b>	<b>0.023</b>	<b>0.65</b>	<b>1.9</b>	<b>0.39</b>	<b>0.09</b>	<b>0.01</b>	<b>25</b>	<b>18</b>	<b>4</b>	<b>99</b>	<b>0.96</b>
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
		<b>Subtotal</b>	<b>320</b>	<b>0.72</b>	<b>0.16</b>	<b>0.03</b>	<b>0.16</b>	<b>0.11</b>	<b>0.015</b>	<b>0.58</b>	<b>1.8</b>	<b>7.5</b>	<b>1.7</b>	<b>0.30</b>	<b>530</b>	<b>340</b>	<b>50</b>	<b>1,900</b>	<b>18</b>
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
		<b>Subtotal</b>	<b>2.9</b>	<b>1.8</b>	<b>0.40</b>	<b>0.06</b>	<b>0.26</b>	<b>0.21</b>	<b>0.021</b>	<b>1.2</b>	<b>3.7</b>	<b>0.17</b>	<b>0.04</b>	<b>0.01</b>	<b>7.6</b>	<b>6.1</b>	<b>0.6</b>	<b>35</b>	<b>0.34</b>
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
		<b>Total</b>	<b>350</b>	<b>0.77</b>	<b>0.16</b>	<b>0.03</b>	<b>0.16</b>	<b>0.10</b>	<b>0.015</b>	<b>0.58</b>	<b>1.8</b>	<b>8.6</b>	<b>1.8</b>	<b>0.33</b>	<b>560</b>	<b>360</b>	<b>54</b>	<b>2,000</b>	<b>20</b>

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.



Table 2. Higher-grade sulphide component of Gonneville Resource (in pit and underground), 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)	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
		<b>Subtotal</b>	<b>5.1</b>	<b>1.3</b>	<b>0.30</b>	<b>0.05</b>	<b>0.20</b>	<b>0.18</b>	<b>0.037</b>	<b>0.98</b>	<b>3.0</b>	<b>0.21</b>	<b>0.05</b>	<b>0.01</b>	<b>10</b>	<b>9</b>	<b>2</b>	<b>50</b>	<b>0.48</b>
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
		<b>Subtotal</b>	<b>74</b>	<b>1.3</b>	<b>0.29</b>	<b>0.07</b>	<b>0.21</b>	<b>0.20</b>	<b>0.019</b>	<b>0.95</b>	<b>2.9</b>	<b>3.1</b>	<b>0.69</b>	<b>0.16</b>	<b>160</b>	<b>150</b>	<b>14</b>	<b>710</b>	<b>6.9</b>
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
		<b>Subtotal</b>	<b>2.9</b>	<b>1.8</b>	<b>0.40</b>	<b>0.06</b>	<b>0.26</b>	<b>0.21</b>	<b>0.021</b>	<b>1.2</b>	<b>3.7</b>	<b>0.17</b>	<b>0.04</b>	<b>0.01</b>	<b>7.6</b>	<b>6.1</b>	<b>0.6</b>	<b>35</b>	<b>0.34</b>
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
		<b>Total</b>	<b>82</b>	<b>1.3</b>	<b>0.29</b>	<b>0.07</b>	<b>0.21</b>	<b>0.20</b>	<b>0.020</b>	<b>0.97</b>	<b>2.9</b>	<b>3.5</b>	<b>0.78</b>	<b>0.17</b>	<b>180</b>	<b>170</b>	<b>16</b>	<b>790</b>	<b>7.7</b>

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.

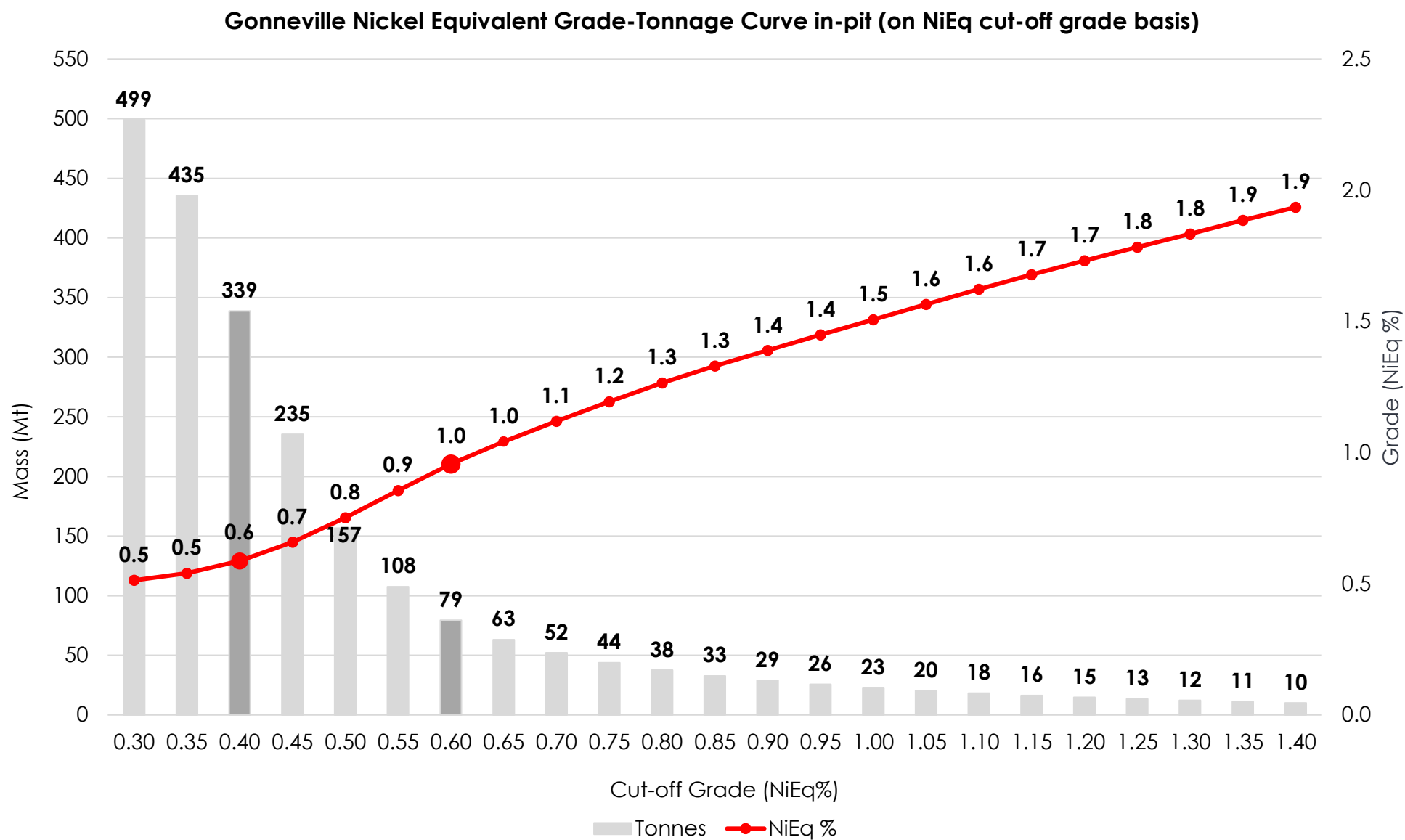


Figure 3. Gonneville NiEq grade-tonnage curve for pit-constrained sulphide mineralisation on a NiEq cut-off grade basis.



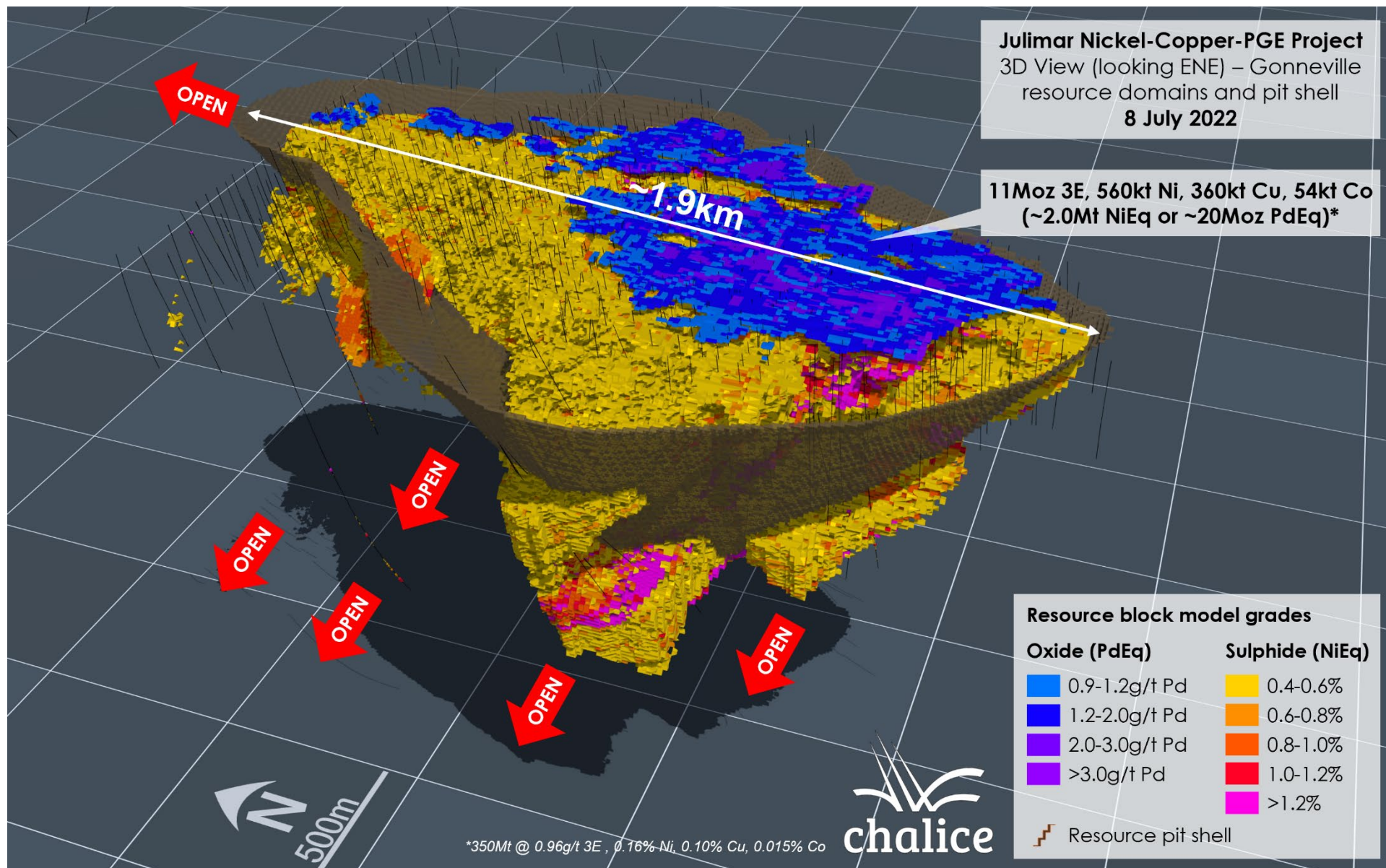


Figure 4. 3D view (looking ENE) of Gonneville block model (all domains) and Resource pit shell.

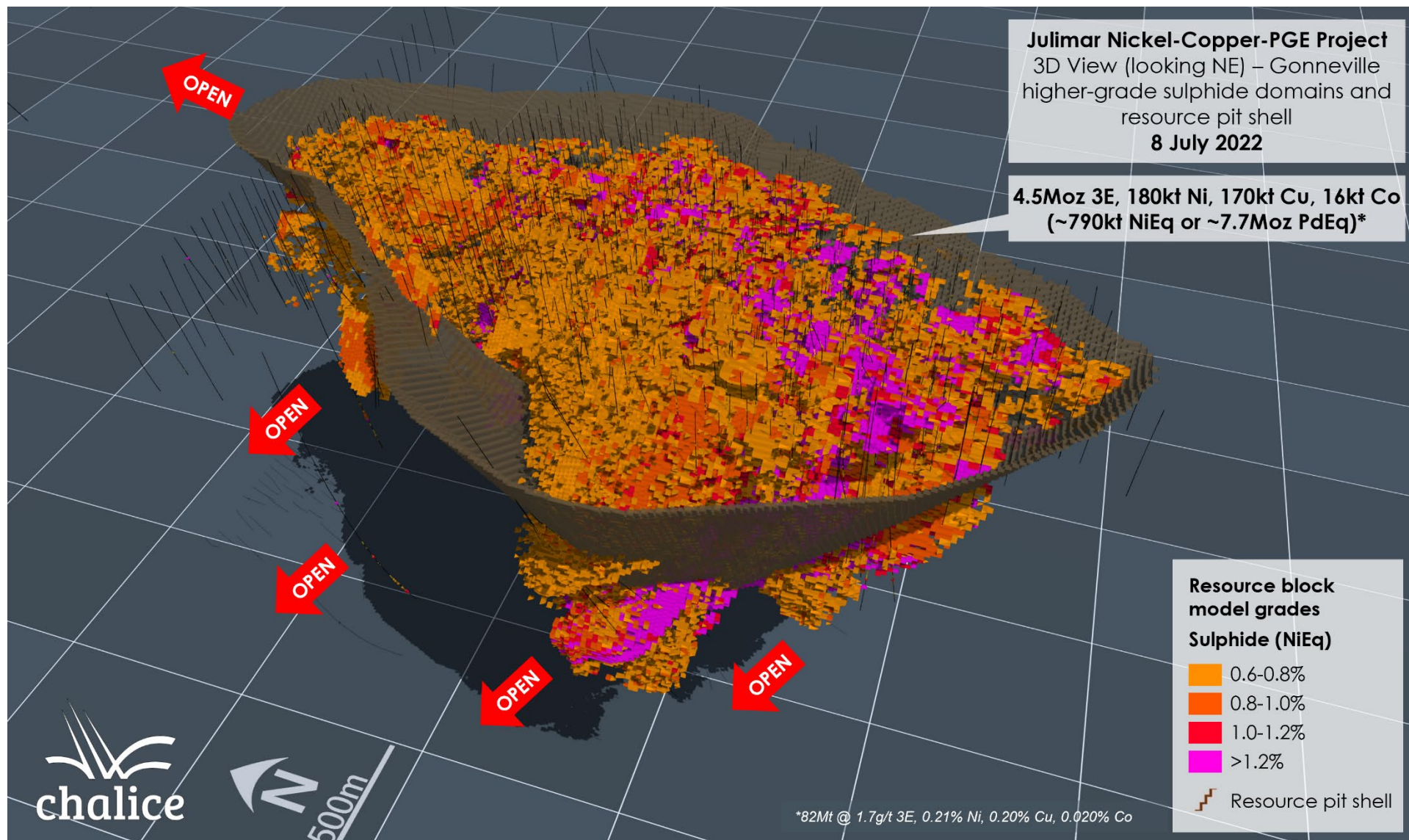


Figure 5. 3D view (looking NE) of Gonnevillle higher-grade sulphide block model (>0.6% NiEq) and Resource pit shell.



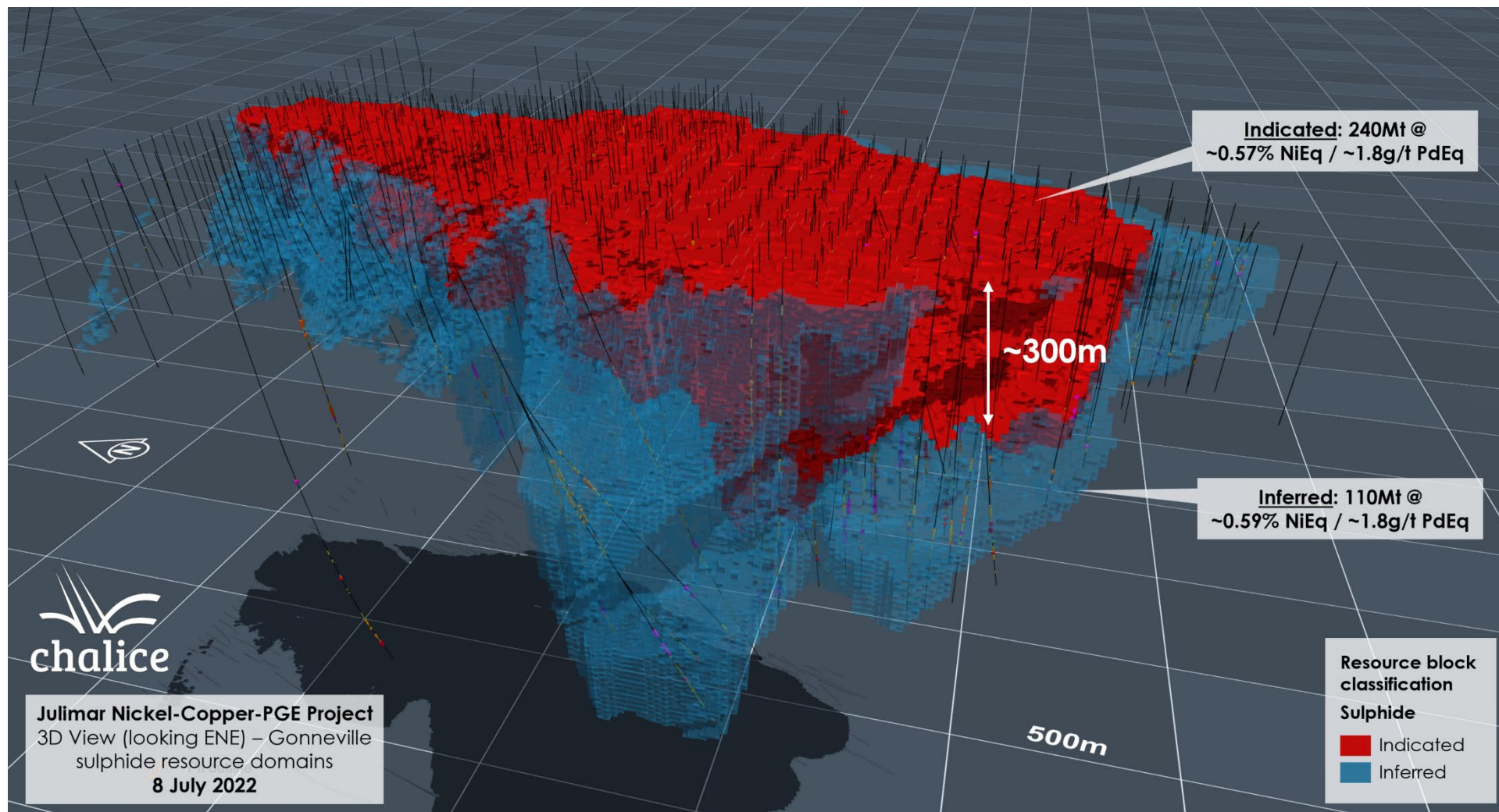


Figure 6. 3D view (looking NE) of Gonnevillle Indicated and Inferred category blocks (sulphide domains only).

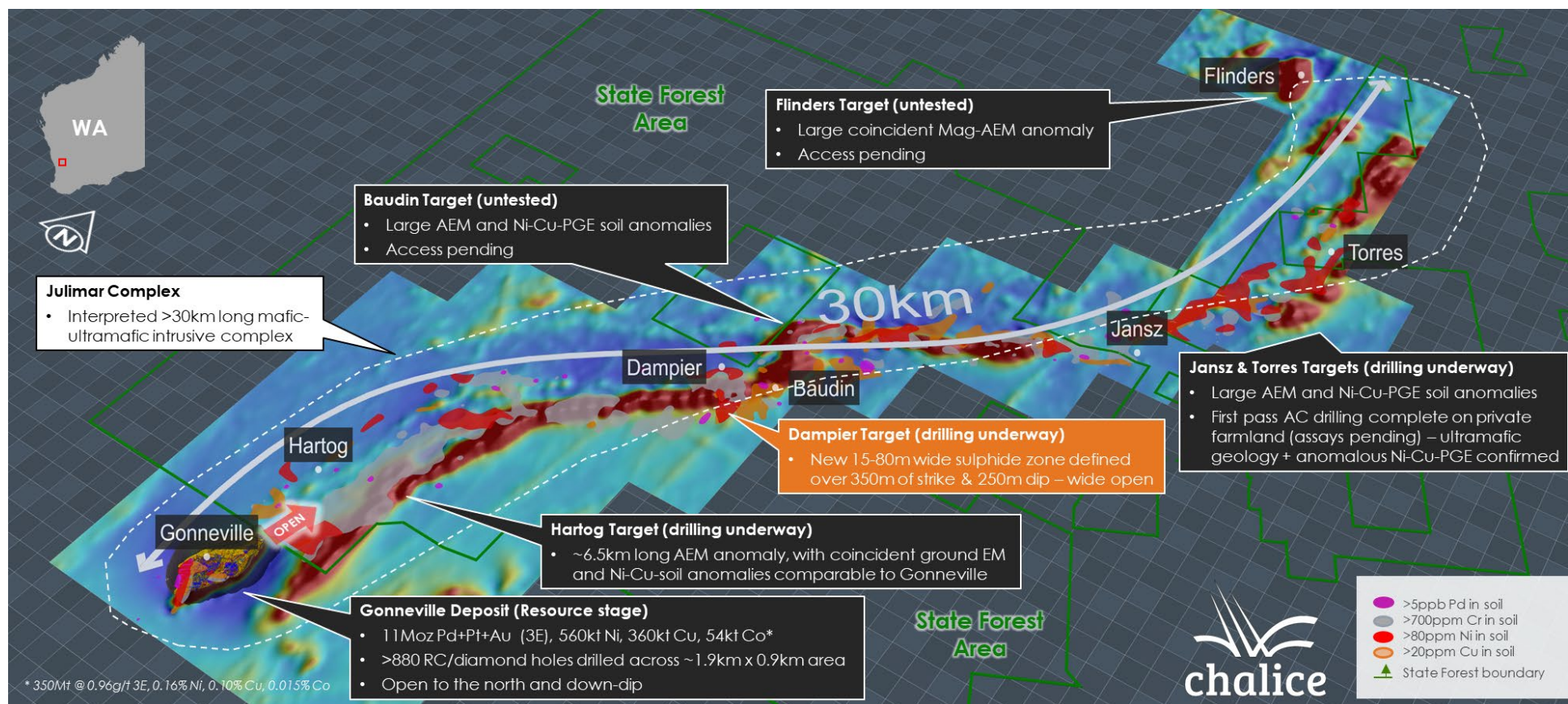


Figure 7. Julimar Complex 3D View (looking NW) – Gonnevillle Deposit, targets, soil geochemistry over regional magnetics.



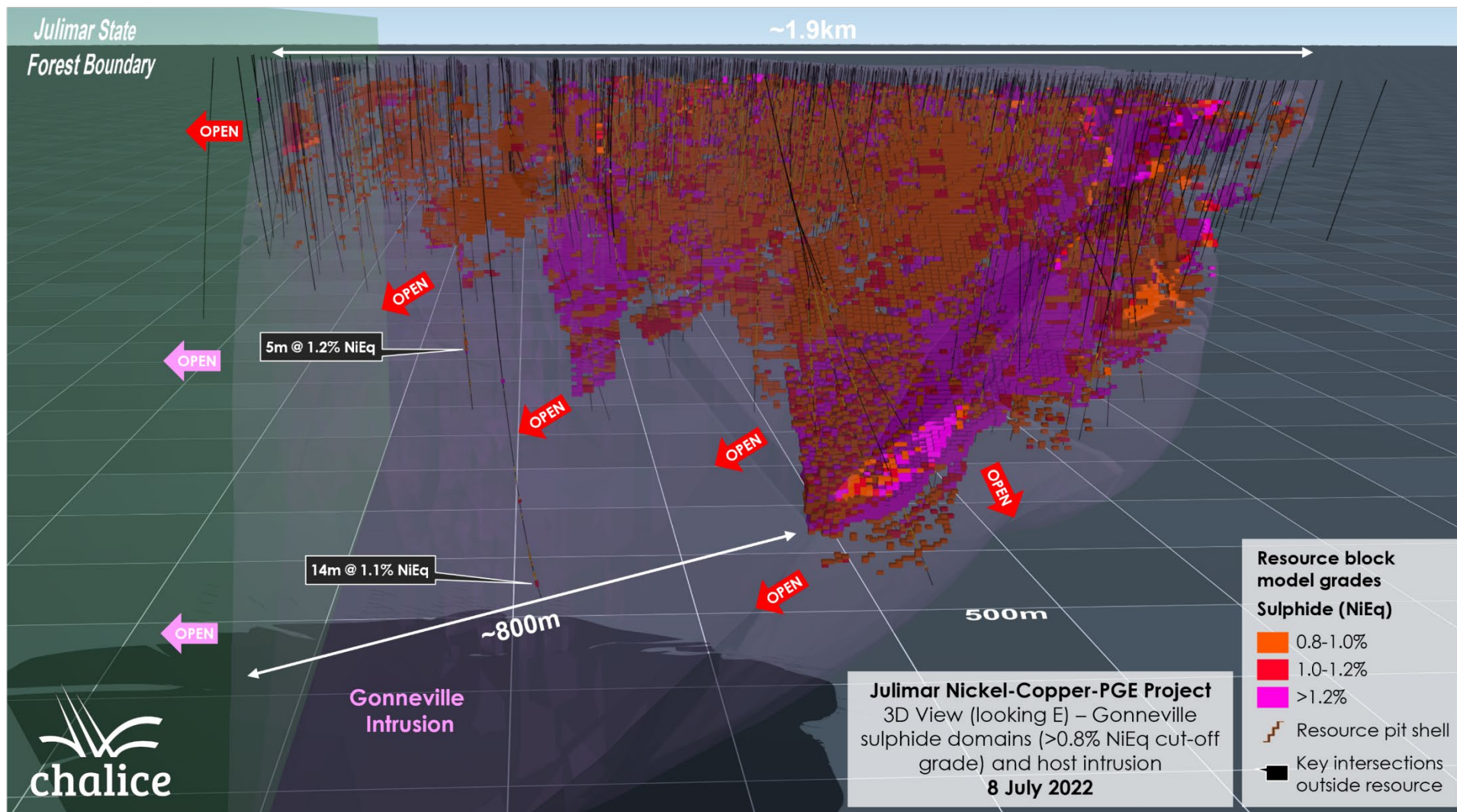


Figure 8. 3D view (looking E) of Gonneville higher-grade sulphide block model (>0.8% NiEq) and host intrusion.

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## Resource growth potential

The updated Mineral Resource for Gonneville is interpreted to cover just ~7% of the >30km long Julimar Complex (Figure 7). Drilling has commenced testing a series of co-incident EM-gravity-soil targets north of Gonneville along the Julimar Complex, with four diamond rigs currently operating.

Initial diamond drill testing of the greenfield Dampier Target, located 10km north of Gonneville, has generated promising early visual results. A ~15m to 80m wide zone of disseminated sulphides (avg. 1-3% sulphide), with locally abundant matrix sulphides (up to 20-30% sulphide), has been intersected in ultramafic-mafic intrusive rocks (pyroxenite, lesser gabbro/peridotite) in three wide-spaced holes (HD009, 010 & HD013).

This is the first significant indication of orthomagmatic sulphide mineralisation outside of the Gonneville Deposit itself and is considered an encouraging result, which demonstrates the highly prospective nature of the largely untested >30km long Julimar Complex, with several nearby targets located along strike now prioritised for immediate drilling.

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## Forward plan

The next major milestone for the Julimar Project is the Gonneville Scoping Study, which is targeted for completion in Q3 2022. The Company continues to progress development studies for the Gonneville Deposit in parallel to initial exploration activities across the >30km long Julimar Complex.

The following activities are ongoing or planned at the Project:

- « Exploration drilling at the Hartog-Dampier Targets within the Julimar State Forest – four diamond drill rigs are currently operational and expected to continue for the foreseeable future. Existing approvals allow multiple holes to be drilled from each of the ~70 planned sites.
- « Moving Loop Electromagnetic (MLEM) and Down-hole EM surveys are continuing across the Julimar Complex.
- « Resource definition and exploration RC/diamond drilling at the Gonneville Deposit – three rigs are operational, largely focused on wide-spaced extensional/exploration drilling which is expected to continue for an extended period.
- « Processing of the initial 2D seismic survey of the Gonneville-Hartog area is underway, which was acquired to assess the overall architecture of the intrusive complex at depth – results are expected in Q3.
- « Mine development studies to support a Scoping Study for the initial development stage of the Gonneville Deposit.
- « Baseline surveys of ground water, surface water, flora, fauna and dieback, as part of a long-term baseline and monitoring program to support engineering studies and environmental assessments (ongoing).

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## Technical overview

The following is a material information summary relating to the Resource, consistent with ASX Listing Rule 5.8.1 requirements. Further details are provided in JORC Code Table 1, which is included as Appendix A.

### Geology and geological interpretation

The Gonneville Deposit is the first major PGE-rich orthomagmatic sulphide discovery in Australia. The deposit is hosted within an Archaean age mafic-ultramafic intrusive complex, known as the Julimar Complex, which is interpreted to be >30km long.

Gonneville is located within a ~1.9km x 0.9km x >0.8km section of the Julimar Complex, known as the Gonneville Intrusion, which has a north-north-east strike, maximum thickness of approximately 650m, and 45° west-north-west dip.

The Gonneville Intrusion is composed predominantly of serpentinitised olivine peridotite / harzburgite (serpentine-magnetite-amphibole-chromite) with lesser intervals of pyroxenite (amphibole-chlorite), gabbro and leucogabbro (clinozoisite-amphibole) divided into a series of eight litho-geochemical domains (Figure 9). The litho-geochemical domains broadly parallel the strike and dip of the Gonneville Intrusion and are interpreted to represent discrete magma influxes and associated fractionation units. The intrusion is crosscut by a later granite body, which broadly parallels the dip and strike orientation of the mafic-ultramafic package. Crosscutting the entire intrusive package is a series of sub vertical, north-east to north-west striking, dolerite dykes. Both the granite body and dolerite dykes are un-mineralised with respect to Ni-Cu-PGE. A package of meta-sedimentary rocks surrounds the Gonneville intrusion.

Although texturally the intrusive rock-types within the complex are moderately well preserved, permitting the use of igneous terminology, all rock units have been replaced by mineral assemblages characteristic of upper greenschist to lower amphibolite facies metamorphism.

The Gonneville Intrusion is bounded to the west (Hanging wall) by felsic gneiss/metasediment and to the east (Footwall) by a succession comprising metasediments (sulphidic pelite) and amphibolite of uncertain parentage.

Primary Ni-Cu-PGE sulphide mineralisation occurs principally within the ultramafic domains of the Gonneville Intrusion and to a lesser extent in gabbro subunits. Mineralisation is present as sub-parallel sulphide-rich zones (>20% sulphides), typically 5–40 m wide, that occur within broader intervals (~100–150 m wide) of weakly disseminated sulphides. The orientation of the higher-grade mineralised sulphide zones suggests an association with the litho-chronological domains within the intrusion (Figure 10).

There are four typical sulphide ore types recognised at Gonneville:

- « Massive sulphides: >75% (by volume) sulphide,
- « Matrix sulphides: 40% to 75% sulphide; also referred to as net-textured, typically occurs as interconnected pyrrhotite-pentlandite-chalcopyrite mineralisation with silicate gangue,
- « Stringer sulphides: 10% to 75% sulphide. Stringer sulphide mineralisation is typically observed around faults or lithological contacts, and
- « Disseminated sulphides: <40% sulphide. Disseminated sulphide mineralisation occurs as either heavily disseminated chalcopyrite or disseminated/blebby sulphides with 0.5 cm to 1.0 cm diameter sulphide blebs with variable pyrrhotite, chalcopyrite and pentlandite contents.

Although the ratio between the primary sulphide phases changes between, and within, the sulphide-rich and sulphide-poor zones, sulphide mineralisation consists of a consistent assemblage of pyrrhotite-pentlandite-chalcopyrite +/- pyrite. Sulphide content and metal grade are well correlated, with higher sulphide concentration corresponding to higher metal content.










The weathering profile in the area extends to approximately 30–40 m below surface. A well-developed laterite and saprolite profile is present which contains elevated PGE grades from near surface to a depth of approximately 25m. There is a narrow transition zone between the oxide and sulphide zones, which is generally <15m thick.





 Resource Pit Shell (July 2022)

**Geology (chronological order)**

-  Dolerite
-  Gonneville Domain 8 (Anorthosite – Gabbro-norite)
-  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)

**Mineralisation**

-  Sulphide zones

**Julimar Nickel-Copper-PGE Project**

Gonneville Intrusion 3D View  
(looking North-Northeast)  
8 July 2022

0 200 400m

Figure 9. Gonneville 3D view (looking NNE) – local geology and resource pit shell.



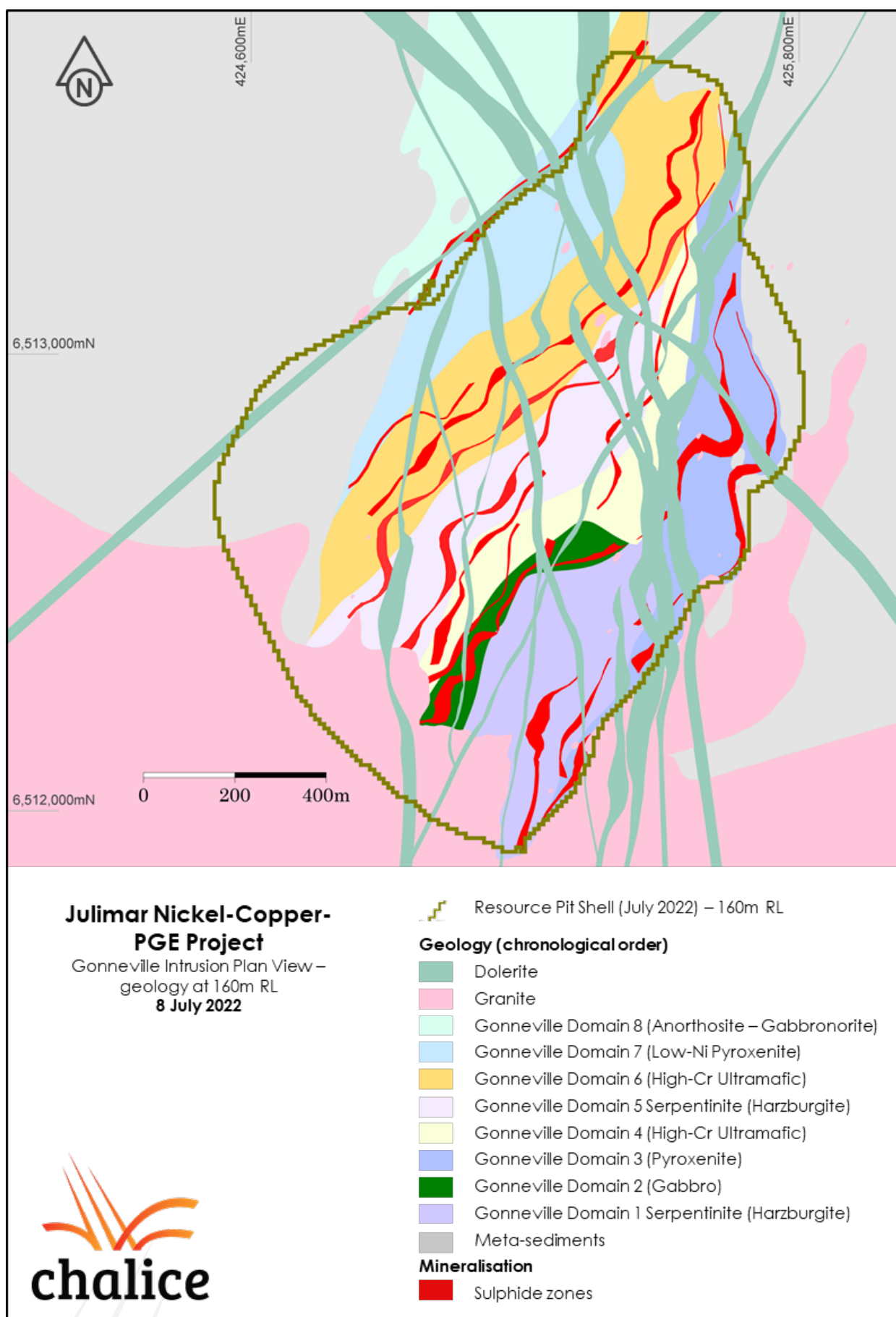


Figure 10. Gonneville Plan View – local geology and resource pit outline at depth of ~80m.

## Drilling techniques

The drilling database for the Deposit includes data collected by diamond (DD), reverse circulation (RC) and air-core (AC) drilling techniques. The drilling database has been compiled from holes drilled by the Company between 12 March 2020 and 18 March 2022.

A total of 287 DD holes (including wedges) 478 RC drill holes (including RC pre-collars with DD tails), and 106 shallow AC holes for 211,000m were included in the resource.

Nominal drill hole spacing at Gonnevile is ~40m over the majority of the deposit. The 40m spaced infill drilling has been undertaken to a depth of ~200m. Deeper extensional drilling has been carried out typically on an 80m spacing at irregular intervals throughout the intrusion. The vast majority of DD and RC holes have been drilled towards the east at a dip of -60° and hence provide representative samples. AC holes have been drilled vertically which is the optimal sampling orientation for the sub-horizontal oxide mineralisation.

A total of 55 RC holes (including RC pre-collars with diamond tails) and 61 DD holes (including wedges) have been completed subsequent to the holes included in the Resource. A total of ~235,000m has been drilled to date at the project.

## Sampling and sub-sampling

Diamond drill core was predominantly HQ diameter with a small number of NQ2 diameter holes drilled. Quarter core samples for HQ and half core samples for NQ were taken for analysis over intervals ranging from 0.2m to 1.2m (typically 1.0m) based on geology, with the same quarter of the drill core consistently sampled. Field duplicates were collected as ¼ core samples. Individual recoveries of diamond core samples were recorded on a quantitative basis. Generally sample weights were comparable and any bias is considered negligible. Core recovery was excellent, generally >95%.

RC drilling samples were collected as 1m samples from a rig mounted cone splitter. Two 1m assay samples were collected with one sample being sent to the laboratory and the other either kept for reference or used as a duplicate.

AC drilling samples were collected as 1m samples from a rig mounted cone splitter. A single 1m assay sample was collected and sent to the laboratory. The remainder of the sample was bagged and either kept for reference or used as a duplicate.

Samples were collected in polyweave bags either at the drill rig (RC and AC samples) or at the core cutting facility (DD samples). The polyweave bags contain five samples each and are cable tied; samples potentially containing fibrous minerals were segregated into separate bags.

Filled bags were collected into palletised bulka bags at the field office and delivered directly from site to ALS laboratories in Wangara, Perth by a Chalice contractor several times weekly. Certified Reference Materials (CRMs) and blank material were inserted in the sample stream to monitor analytical bias and carry-over contamination, respectively. No unresolved issues were identified through this monitoring.

## Sampling analysis and methods

DD, RC and AC samples underwent sample preparation and geochemical analysis by ALS Perth. Au-Pt-Pd was analysed by 50g fire assay fusion with an ICP-AES finish (ALS Method code PGM-ICP24). A 48-element suite was analysed by ICP-MS following a four-acid digest (ALS method code ME-MS61) for holes up to and including JD023 and JRC122.

Later holes were analysed using four-acid digest for 34 elements (ALS method code ME-ICP61) including Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn, Zr. Additional analysis was performed on higher grade material as required for

elements reporting out of range for Ni, Cr, Cu (ALS method code ME-OG-62) and Pd, Pt (ALS method code PGM-ICP27).

Selected samples were sent to Intertek Genalysis for analysis of other PGEs (Ru, Rh, Os, Ir). These were analysed using nickel sulphide collection fire assay with a 1ppb detection limit (IntertekGenalysis method code NS25/MS). Results for these are all routinely low with maximum values of 75ppb, 333ppb, 21ppb, 92ppb respectively and hence Gonville contains no appreciable quantities of these metals.

Certified reference materials (CRMs), duplicates and blanks were inserted at rates of approximately 1:10 for all samples. Samples from ~5% of the samples >0.1g/t Pd were sent to Intertek Genalysis laboratory in Perth for cross laboratory checks. All QA/QC samples display results within acceptable levels of accuracy and no significant carry over contamination was observed.

Sample density determinations were carried out on site using the water displacement method. Incompetent oxide core samples from the weathering profile were wax-coated prior to density determination. Density determinations were carried out on all fresh rock core samples, and representative oxide samples resulting in ~80% of total drilled diamond core intervals having had density determinations completed. These were then used to assign a bulk density to the block model using a combination of assignment by geological domain, and spatial estimation from sample density determinations from de-surveyed drill holes.

### Resource estimation methodology

All geological wireframe interpretations used in the Resource were constructed by Chalice using a combination of Leapfrog and Micromine software. Geological wireframes provided by Chalice include weathering, lithological, litho-geochemical and supergene/dispersion zone interpretations. Block modelling and grade estimation was carried out by Cube Consulting using Surpac and Isatis software. Statistical analysis was carried out by Cube Consulting using Geoaccess Professional and Isatis software. Prior to estimation, variables with below detection limit assays were assigned a positive value equal to half of the detection limit for the relevant grade variable. Intentionally unsampled intervals were retained as absent grade values. The vast majority of the intentionally unsampled intervals occur outside of the host intrusion lithology, and therefore have no bearing on the grade estimates. Absent density values have been retained as absent values, as density determinations were not taken for these intervals.

All drillhole samples were flagged according to the geological domain interpretations provided by Chalice. Sample populations were statistically analysed to derive geostatistical domain groupings for Pd, Pt, Ni, Co, Cu, Au, As, S and density. Statistical analysis included comparison of global grade distributions, derivation of statistical correlations between grade variables and contact analysis of grade variables across the various geological domains. From this analysis, estimation domains were determined for Pd/Pt/Ni/Co/Cu/Au, As, S and density variable groupings.

For primary Pd, Pt, Ni, Co, Cu, Au mineralisation located within the Ultramafic intrusion, grade interpolation was undertaken using Ordinary Kriging (OK) within high sulphide/high Pd zones (G Zones) and surrounding lower-grade general Ultramafic zone. The latter was divided into a low-to-moderate grade "Main" sub-domain and very low-grade northwest sub-domain. The OK interpolations for the economically material Pd, Ni and Cu variables were subsequently post-processed to derive a Localised Uniform Conditioning (LUC) final grade estimate in the Ultramafic volume outside of the higher grade mineralised G Zones. OK estimates for the granite, dolerite and sediment lithologies were also undertaken, but using restrictive high-grade distance limiting parameters to curtail the propagation of rare high-grade samples. These high-grade samples are believed to be due mainly to xenoliths of Ultramafic material in the case of the granite, and dolerite dykes, and re-mobilisation of mineralisation into the surrounding sediments. The mineralisation modelled outside of the Ultramafic envelope has not been classified as a Mineral Resource for reporting purposes.

For the secondary mineralisation, most notably in the supergene horizon, grade interpolation was undertaken using OK.

Indicator kriging was used to model the geometry of dyke material that was logged in the drill holes, typically represented by short and discontinuous intercepts, but which fell outside of the dyke Leapfrog wireframes. This additional dyke volume comprises approximately 3% of the total volume within the estimated Ultramafic intrusion envelope. Detection limit grades were assigned for all elemental variables and density was assigned based on density sample statistics.

OK estimates were run into 20mE x 20mN x 10mRL parent blocks, which is approximately half the width of the nominal 40m infill drill spacing. LUC estimates, where undertaken, were progressed to smaller 10mE x 10mN x 5mRL blocks.

A variable variogram and search ellipse orientation strategy was implemented using Isatis' Dynamic Anisotropy (DA) functionality during grade interpolation to honour the local undulations in the mineralisation orientation. The hangingwall and footwall surfaces for the G Zones were used to define the DA within the envelope of the Ultramafic intrusion in the primary zone. In the secondary zone, including the Supergene unit, the topographic, bottom of complete oxidation and top of fresh surfaces were used for DA.

Once estimation domains for grade interpolation were defined, composited drill hole sample populations were statistically analysed to derive grade capping values. Grade capping was observed to have an immaterial impact on global grades. Boundary/contact analysis showed that the G Zones have hard boundaries with respect to the surrounding, lower-grade general Ultramafic zone and so hard grade boundaries were applied to this contact for grade interpolation. A general ultramafic Main-NW sub-domain estimation boundary was also defined for economic element and sulphur interpolation, based on a large change in the grade distribution, and was treated as soft during interpolation, although different capping, variogram and search parameters were implemented either side of this boundary.

Search strategy for primary mineralisation Pd, Pt, Ni, Co, Cu, Au and S (within Ultramafic unit and high grade Pd/sulphide zones): A minimum of 6 and maximum of 16 to 20 samples per estimate into a parent block size of 20 mE x 20 mN x 10 mRL. The maximum limit was allowed to be exceeded in cases where samples are situated within any given block, since the condition was set whereby the OK would by default use all samples within the block. The maximum number of samples per drillhole was limited by using anisotropic distances for sample selection in combination with a maximum of 4 to 5 samples per search ellipse quadrant. A single search pass was used. Block discretisation scheme was 5pts(E) x 5pts(N) x 2pts(RL). LUC post-processing of Pd, Ni, Cu and S was into a Selective Mining Unit (SMU) block size of 10mE x 10mN x 5mRL.

Search strategy for secondary mineralisation Pd, Pt, Ni, Co, Cu, Au and S (within the Ultramafic, G Zones and Supergene unit): A minimum of 3 to 6 and maximum of 12 to 16 samples per estimate into a parent block size of 20mE x 20mN x 10mRL. The maximum limit was allowed to be exceeded in cases where samples are situated within any given block, since the condition was set whereby the OK would by default use all samples within the block. The maximum number of samples per drillhole was limited by using anisotropic distances for sample selection in combination with a maximum of 4 to 5 samples per search ellipse quadrant. A single search pass was used. The block discretisation scheme was 5pts(E) x 5pts(N) x 2pts(RL).

For Pd, Pt, Ni, Co, Cu, Au and S, un-estimated blocks have been assigned grades equal to the mean estimated block grade per estimation domain within the Ultramafic and high Pd/sulphide zones. Outside of the Ultramafic envelope, un-estimated blocks were assigned half detection limit for each grade variable. None of the ex-ultramafic blocks, whether interpolated or assigned, have been classified as Mineral Resource.

Density was modelled using OK within the transitional + fresh portion of the Ultramafic intrusion, granite, gabbro, dyke and sediment lithologies. Constant density assignments were made in the



oxide zone, where the paucity of data did not justify using geostatistical interpolation. For un-estimated blocks, default density values were assigned based on applicable sample statistics.

Final block values for Pd, Pt, Ni, Co, Cu, Au, S and density were validated by way of visual review of plans and cross sections (block model and drill samples presented with same colour legend), swath plots, and comparison of estimation domain mean grades with the input grade distribution data. Simple Inverse Distance Squared (ID2) check estimates were also run for Pd, Ni and Cu within the Supergene, Ultramafic and G Zone domains, which account for the overwhelming majority of the economic mineralisation in the Gonneville deposit. The ID2 check estimates were comparable to the main OK/LUC estimates.

### Classification criteria

The Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC Code 2012 Table 1. The Resource has been classified as either Indicated or Inferred based on data quality, sample spacing, mineralisation continuity, confidence in the geological interpretations, quality of the grade estimations and metallurgical processing knowledge. No Measured material has been defined for this Resource Estimate.

Primary mineralisation within the host Ultramafic intrusion has been classified as a combination of Indicated and Inferred. Indicated and Inferred wireframe volumes were developed from sectional interpretation strings, and model cells then coded with Resource Classification codes directly from the wireframe volumes.

All fresh and transitional material within the Ultramafic intrusion envelope informed by a reasonably consistent drill spacing of 80m has been classified as Inferred, except around the periphery of the drilling pattern, where extrapolation results in lower quality estimates and Pd grade variography has informed a decision to limit the extrapolation of the Inferred material to between 40m and 50m.

The 80m drill spacing corresponds to the nominal exploration drill hole spacing used for the deposit.

An 80m drill spacing is considered by the Competent Persons as being sufficient to imply, but not verify, geological and grade continuity for the deposit style.

All fresh and transitional material within the Ultramafic intrusion, excluding the mostly barren granite, and dolerite dyke units, informed by a consistent drill spacing of 40m has been classified as Indicated. The selection of a 40m drill spacing distance for Indicated was based on:

- « Results from a simulation-based drill hole spacing study carried out for the deposit indicating that the resource definition drill-out be conducted on a 40m x 40m drill spacing.
- « Variogram ranges of the main economic grade variable, Pd, indicating that grade continuity does not exceed 40m to 50m within the high Pd/sulphide zones.
- « Estimation quality metrics, such as slope of regression and average distance to sample were considered during the classification process.

A 40m drill spacing is considered by the Competent Persons as being sufficient to allow estimation of the deposit physical characteristics with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

With the exception of the Supergene unit, which has been classified as per the fresh and transitional material, the erratically mineralised secondary zone has been classified as Inferred within the bounds of the Ultramafic envelope and is unclassified outside of the envelope.

### Reasonable prospects for eventual economic extraction

The Resource is considered to have reasonable prospects for eventual economic extraction (RPEEE) on the following basis:

- « The deposit is located in a favourable mining jurisdiction, with no known impediments to land access and tenure status;
- « The volume, orientation and grade of the Mineral Resource is amenable to mining extraction via traditional open pit mining methodologies;
- « Available metallurgical test work indicates that the Mineral Resource is amenable to metallurgical extraction via flotation and/or leaching.

## Cut-off grades

A cut-off grade of 0.9g/t Pd has been used for all oxide material.

The cut-off grade for transitional and sulphide material was selected using nickel equivalent (NiEq) to take into account the contribution of multiple potentially payable metals. Metal equivalent formulae are discussed in more detail below.

A cut-off grade of 0.4% NiEq was selected for transitional and fresh mineralisation in-pit, as this is the approximate marginal economic cut-off grade estimated by the Whittle shell optimisation.

The grade-tonnage plots generated for all sulphide material (Indicated and Inferred) within the optimised pit shell (Figure 3 and Figure 4) were then used to select a suitable higher cut-off grade of 0.60% NiEq for the 'higher-grade sulphide component' (Table 2).

Mineralisation outside the pit shell has been reported within selective mining shapes created by Datamine's Mineable Stope Optimiser software (MSO). The MSO optimisation defined reasonable shapes that could be extracted by underground mining methods.

## Mining and metallurgical methods and parameters

Leaching test work on oxide material using a variety of lixiviants has shown similar levels of leach extraction of palladium for each, typically 70% to 80%. Work is ongoing to optimise reagent consumption and to assess methods for recovery of the palladium from solution. Engineering studies are continuing to confirm potential capital and operating costs.

Limited testwork has been completed on the transitional domain because of the limited amount of transitional material currently available. Preliminary work indicates the need to further define the degree of oxidation with some transitional material to be reclassified as more suitable for treatment by leaching.

Comminution and flotation testwork, together with geometallurgical characterisation, has been completed on 15 sulphide composite samples from several geological domains (including higher-grade and lower-grade samples). It should be cautioned though that variability testwork is continuing in order to generate representative geometallurgical algorithms for all domains.

Processing options include the generation of separate copper and nickel concentrates, each containing PGEs and suitable for potential sale to smelters, together with local enrichment of lower grade nickel concentrates to produce higher grade intermediate products for potential sale to battery producers.

Data from this work has been used to inform metallurgical recovery assumptions for the Resource. Recoveries for each major element vary with grade and define a recovery algorithm. This algorithm has been used to define a metallurgical recovery value for each element in each resource block based on the grade. The range of recoveries and average predicted recoveries for each metal using a concentrate enrichment flowsheet are provided in Table 3.

The flotation data is based on locked cycle flotation tests whilst the recoveries from enrichment are based on indicative testing on a Julimar concentrate sample and published data for similar approaches.

**Table 3. Metallurgical recoveries – sulphide (fresh) domain, concentrate enrichment flowsheet (copper-PGE concentrate and nickel-cobalt MHP).**

Metal	Metallurgical recovery range (%)	>0.4% NiEq cut-off		>0.6% NiEq cut-off	
		Avg Resource grade	Predicted metallurgical recovery (%)	Avg Resource grade	Predicted metallurgical recovery (%)
Palladium	55% to 90%	0.72g/t	60%	1.31g/t	67%
Platinum	55% to 90%	0.16g/t	61%	0.29g/t	68%
Gold	30% to 65%	0.03g/t	62%	0.07g/t	62%
Nickel	40% to 80%	0.16%	49%	0.21%	55%
Copper	88% to 95%	0.11%	90%	0.20%	92%
Cobalt <sup>1</sup>	40% to 80%	0.02%	49%	0.02%	55%

<sup>1</sup> Cobalt is associated with nickel and hence recoveries reflect the nickel grade

Recoveries are robust at higher grades and good quality copper and nickel concentrates can be produced.

Copper and PGE recoveries are robust at lower grades, however more work is required to optimise flotation recovery of nickel and cobalt (and corresponding PGEs which report to the nickel concentrate) at lower grades. This may entail some form of concentrate enrichment to produce higher grade intermediates in order to maximise recovery, a flowsheet which is currently being investigated. Other investigations underway include:

- « Detailed mineralogy to better understand the deportment of nickel and cobalt other than in pentlandite. Non-sulphide nickel content in composites tested to date indicates a range of 10-20% and as such further mineralogical investigation is required;
- « Finer grinding to improve concentrate grades and recovery of associated PGE's; and
- « Production of bulk concentrates at lower nickel grades (further discussions underway with potential offtake customers to determine terms).

Recovery algorithms will continue to be updated using geometallurgical approaches to refine understanding and definition of variability.

### Independent review and audit

No independent audit has been completed on the Resource, however, the results of this Resource are consistent with the maiden MRE (refer to ASX release dated 9 November 2021) when taking into account the extra drilling, change in input assumptions and differing estimation methodology (previously Categorical Indicator Kriging).

Chalice also engaged Mark Noppé, Corporate Consultant with SRK Consulting and an expert in resource estimation, to complete an assurance review of Chalice and CSA Global procedures, as well as the mineral resource estimation process. This did not identify any material issues with the Cube Consulting estimation process.

### Metal equivalents

The Gonneville Resource is quoted in both nickel equivalent (NiEq) and palladium equivalent (PdEq) terms to take into account the contribution of multiple potentially payable metals. The cut-off grade for the sulphide domain was determined using NiEq in preference over PdEq, due to the assumed requirement for sulphide flotation to recover the metals.

PdEq is quoted given the relative importance of palladium by value at the assumed prices. Separate metal equivalent calculations are used for the oxide and transitional/sulphide zones to take into account the differing metallurgical recoveries in each zone.

### Oxide Domain

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:

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

« 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

### Transitional and Fresh Sulphide Domains

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:

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

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

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\$22,00/t Ni, US\$10,500/t Cu and US\$75,000/t Co.

Authorised for release by the Disclosure Committee.

**For further information or to view the interactive 3D model of the Julimar Project, please visit [www.chalicemining.com](http://www.chalicemining.com), or contact:**

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## Competent Persons and Qualifying Persons Statement

The information in this announcement that relates to **Exploration Results** in relation to the Julimar Nickel-Copper-PGE Project is based on and fairly represents information and supporting documentation compiled by Mr. Bruce Kendall BSc (Hons), a Competent Person, who is a Member of the Australian Institute of Geoscientists. Mr. Kendall is a full-time employee of the Company and is entitled to participate in the Chalice Performance Rights Plan. Mr Kendall has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Mr Kendall consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to **Mineral Resources** in relation to the Julimar Nickel-Copper-PGE Project is based on and fairly represents information and supporting documentation compiled by Mike Millad and Mike Job. Mr Millad is a full time employee and director of Cube Consulting and is a member in good standing of the Australian Institute of Geoscientists (#5799). Mr Millad has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. Mr Millad consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears. Mr Job is a full time employee and director of Cube Consulting and is a Fellow in good standing of the Australasian Institute of Mining and Metallurgy (#201978). Mr Job has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and is a Qualified Person under National Instrument 43-101 – 'Standards of Disclosure for Mineral Projects'. Mr Job consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

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

- « "Significant high-grade PGE-Cu-Au extensions at Julimar", 18 November 2020; and,
- « "New Results Highlight Underground Potential at Julimar", 2 March 2022.
- « "New Mineralised Zone Intersected at Dampier Target", 7 July 2022

The above announcements are available to view on the Company's website at [www.chalicemining.com](http://www.chalicemining.com). The Company confirms that it is not aware of any new information or data that materially affects the exploration results included in the relevant original market announcements. The Company confirms that the form and context in which the Competent Person and Qualified Person's findings are presented have not been materially modified from the relevant original market announcements.

## Forward Looking Statements

This announcement may contain forward-looking information, including forward looking information within the meaning of Canadian securities legislation and 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 report 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 exploration success; the timing of planned exploration activities on the Company's projects; access to sites for planned drilling activities; and the success of future potential mining operations; the timing of the receipt of exploration results.

In certain cases, forward-looking statements can be identified by the use of words such as, "affords", "believe", "considered", "continue", "could", "estimate", "expected", "for", "future", "interpreted", "likely", "looking", "may", "open", "optionality", "plan" or "planned", "potential", "provides", "robust", "targets", "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; 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; grade or recovery rates; 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 SEDAR at [sedar.com](https://www.sedar.com), ASX at [asx.com.au](https://www.asx.com.au) and OTC Markets at [otcmarkets.com](https://www.otcmarkets.com). The Company also refers to the "Key Risks" section of its institutional capital raise presentation released to the ASX on 24 May 2022.

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.

## 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 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.

As a designated reporting issuer in the province of Ontario, Chalice is also subject to certain Canadian disclosure requirements and standards, including the requirements of NI 43-101. The Julimar Project is a material mineral project for the purposes of NI43-101. The confidence categories assigned under the JORC Code were reconciled to the confidence categories in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards – for Mineral Resources and Mineral Reserves May 2014. As the confidence category definitions are the same, no modifications to the confidence categories were required.

Mineral Resources that are not Ore Reserves do not have demonstrated economic viability. Due to lower certainty, the inclusion of Mineral Resources should not be regarded as a representation by Chalice that such amounts can necessarily be economically exploited, and investors are cautioned not to place undue reliance upon such figures. No assurances can be given that the estimates of Mineral Resources presented in this announcement will be recovered at the tonnages and grades presented, or at all.

## A-1 Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	<ul style="list-style-type: none"> <li>HQ diamond core was quarter cored and NQ2 was half cored with samples taken over selective intervals ranging from 0.2m to 1.2m (typically 1.0m).</li> <li>Reverse Circulation (RC) drilling samples were collected as 1m samples from a rig mounted cone splitter.</li> <li>Aircore (AC) drilling samples were collected as 1m samples.</li> </ul>
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	<ul style="list-style-type: none"> <li>Qualitative care taken when sampling diamond drill core to sample the same half of the drill core.</li> <li>For RC, two 1m assay samples were collected as a split from the rig cyclone using a cone splitter with the same split consistently sent to the laboratory for analysis.</li> <li>For AC, one 1m assay sample was collected as a split from the rig cyclone using a cone splitter with the same split consistently sent to the laboratory for analysis.</li> </ul>
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg. submarine nodules) may warrant disclosure of detailed information.	<ul style="list-style-type: none"> <li>Mineralisation is easily recognised by the presence of sulphides. In diamond core sample intervals were selected on a qualitative assessment of sulphide content</li> </ul>
Drilling techniques	Drill type (eg. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul style="list-style-type: none"> <li>Drilling has been undertaken by diamond, Reverse Circulation (RC) and Aircore (AC) techniques.</li> <li>Diamond drill core is predominantly HQ size (63.5mm diameter). Limited NQ2 (47.6mm diameter) drilling and PQ (85mm) has also been completed. Triple tube has been used from surface until competent bedrock and then standard tube thereafter.</li> <li>Core orientation is by an ACT Reflex (ACT III RD) tool</li> <li>RC Drilling uses a face-sampling hammer drill bit with a diameter of 5.5 inches (140mm).</li> <li>AC drilling used a bladed 100mm bit and was only used in the oxide</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	<ul style="list-style-type: none"> <li>Individual recoveries of diamond drill core samples were assessed quantitatively by comparing measured core length with expected core length from drillers mark. Generally core recovery was excellent in fresh rock and approaching 100%. Core recovery in oxide material is often poor due to sample washing out. Core recovery in the oxide zone averages 60%</li> <li>Individual recoveries for RC composite samples were recorded on a qualitative basis. Sample weights were observed to be slightly lower through transported cover whereas drilling through bedrock yielded samples with more consistent weights. Two separate studies were completed where all the sample was weighed and compared with the expected weight. These indicated that as with the diamond core, sample recovery in the oxide is moderate and good in the fresh rock</li> <li>Individual recoveries for AC composite samples were recorded on a qualitative basis. Bag weighing was completed on every 5th hole to verify the recovery and provide a basis on which to estimate the sample recovery in other holes.</li> </ul>
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	<ul style="list-style-type: none"> <li>With diamond drilling triple tube coring in the oxide zone is undertaken to improve sample recovery. This results in better recoveries but recovery is still only moderate to good</li> <li>Diamond core samples were consistently taken from the same side of the core and RC samples were consistently taken from the same split on the cyclone</li> <li>AC drilling was focused on sample recovery by using low air pressure. Bag weighing was completed on every 5th hole to verify the recovery</li> </ul>
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<ul style="list-style-type: none"> <li>There is no evidence of a sample recovery and grade relationship in unweathered material.</li> <li>Paired statistical analyses comparing AC, RC and DD samples show that there isn't a statistically significant difference between these sample types. RC grades are observed to be slightly higher than DD grades, but mostly in the &lt;0.1ppm Pd range, which means that the impact on the resource would be immaterial. All three sample types were therefore considered</li> </ul>



Criteria	JORC Code explanation	Commentary
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<p>compatible for use in the grade interpolation.</p> <ul style="list-style-type: none"> <li>All drill holes were logged geologically including, but not limited to; weathering, regolith, lithology, structure, texture, alteration and mineralisation. Logging was at an appropriate quantitative standard for infill drilling and resource estimation.</li> </ul>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	<ul style="list-style-type: none"> <li>Logging is considered qualitative in nature.</li> <li>Diamond drill core is photographed wet before cutting.</li> </ul>
	The total length and percentage of the relevant intersections logged.	<ul style="list-style-type: none"> <li>All holes were geologically logged in full.</li> </ul>
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	<ul style="list-style-type: none"> <li>For fresh rock, diamond core was sawn in half and one-half quartered and sampled over 0.2-1.2m intervals (mostly 1m). In the oxide zone where core could not be reliably cut, diamond core was split with a chisel and the equivalent of quarter core sampled.</li> </ul>
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	<ul style="list-style-type: none"> <li>RC assay samples were collected as two 1m splits from the rig cyclone via a cone splitter. The cone splitter was horizontal to ensure sample representivity. Wet or damp samples were noted in the sample logging sheet. A majority of samples were dry.</li> <li>AC assay samples were collected as 1m splits from the rig cyclone via a cone splitter. The cone splitter was horizontal to ensure sample representivity. Wet or damp samples were noted in the sample logging sheet. There was a higher percentage of wet samples than in the RC drilling, but a review of the assay results do not indicate any downhole smearing of samples</li> </ul>
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<ul style="list-style-type: none"> <li>Sample preparation is industry standard and comprises oven drying, jaw crushing and pulverising to -75 microns (80% pass).</li> </ul>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<ul style="list-style-type: none"> <li>Field duplicates were collected from AC, RC and diamond drilling at an approximate ratio of one in twenty five.</li> <li>Diamond drill core field duplicates collected as 1/4 core.</li> <li>RC Field duplicates were collected from selected sulphide zones as a second 1m split directly from the cone splitter.</li> <li>AC field duplicates were selected randomly from the bulk sample.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	<ul style="list-style-type: none"> <li>In the majority of cases the entire hole has been sampled and assayed.</li> <li>Duplicate sample results were compared with the original sample results and there is no bias observed in the data.</li> </ul>
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul style="list-style-type: none"> <li>Drill sample sizes are considered appropriate for the style of mineralisation sought and the nature of the drilling program.</li> </ul>
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	<ul style="list-style-type: none"> <li>Diamond drill core, RC and AC samples underwent sample preparation and geochemical analysis by ALS Perth. Au-Pt-Pd was analysed by 50g fire assay fusion with an ICP-AES finish (ALS Method code PGM-ICP24). A 48-element suite was analysed by ICP-MS following a four-acid digest (ALS method code ME-MS61) for holes up to and including JD023 and JRC122. Later holes including all AC holes were analysed using four-acid digest for 34 elements (ALS method code ME-ICP61) including Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn, Zr. Additional ore-grade analysis was performed as required for elements reporting out of range for Ni, Cr, Cu (ALS method code ME-OG-62) and Pd, Pt (ALS method code PGM-ICP27).</li> <li>These techniques are considered total digests.</li> </ul>
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	<ul style="list-style-type: none"> <li>Not applicable as no such tools or instruments were used</li> </ul>
	Nature of quality control procedures adopted (eg. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie. lack of bias) and precision have been established.	<ul style="list-style-type: none"> <li>Certified analytical standards, blanks and duplicates were inserted at appropriate intervals for diamond, RC and AC drill samples with an insertion rate of &gt;10%. Approximately 5% of &gt;0.1g/t Pd assays were sent for cross laboratory checks. All QAQC samples display results within acceptable levels of accuracy and precision.</li> </ul>
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	<ul style="list-style-type: none"> <li>Significant drill intersections are checked by the Project Geologist and then by the General Manager Exploration. Significant intersections are cross-checked with the logged geology and drill core after final assays are received.</li> </ul>
	The use of twinned holes.	<ul style="list-style-type: none"> <li>Eight sets of twinned holes (RC versus Diamond) have been drilled to provide</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>a comparison between grade/thickness variations over a maximum of 5m separation between drill holes.</p> <ul style="list-style-type: none"> <li>• Palladium assays have been focused on as part of twin hole comparisons for six sets, with no significant grade bias observed.</li> <li>• Two sets of twins have been analysed for Pd, Ni and Cu with no significant grade bias apparent.</li> <li>• Assays correlate well between holes. In detail there is variation for higher grade samples in terms of both location and grade. There is no discernible bias between drill types.</li> </ul>
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	<ul style="list-style-type: none"> <li>• Primary drill data was collected digitally using OCRIS software before being transferred to the master SQL database.</li> <li>• All procedures including data collection, verification, uploading to the database etc are captured in detailed procedures and summarised in a single document.</li> </ul>
	Discuss any adjustment to assay data	<ul style="list-style-type: none"> <li>• No adjustments were made to the lab reported assay data.</li> </ul>
<b>Location of data points</b>	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<ul style="list-style-type: none"> <li>• Diamond, RC and AC drill hole collar locations are initially recorded by Chalice employees using a handheld GPS with a +/- 3m margin of error and then picked up with an RTK-DGPS.</li> <li>• RTK-DGPS collar pick-ups replace handheld GPS collar pick-ups and have +/-20 mm margin of error.</li> <li>• Planned and final hole coordinates are compared after pick up to ensure that the original target has been tested.</li> </ul>
	Specification of the grid system used.	<ul style="list-style-type: none"> <li>• The grid system used for the location of all drill holes is GDA94 - MGA (Zone 50).</li> </ul>
	Quality and adequacy of topographic control.	<ul style="list-style-type: none"> <li>• RLs for reported holes were derived from RTK-DGPS pick-ups.</li> </ul>
<b>Data spacing and distribution</b>	Data spacing for reporting of Exploration Results.	<ul style="list-style-type: none"> <li>• Drill hole spacing varies from between 40m x 40 m in the south to 80m x 40m in the north and west.</li> </ul>
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	<ul style="list-style-type: none"> <li>• Results from the drilling to date are considered sufficient to assume geological or grade continuity appropriate for Mineral Resource estimation procedure(s) and classifications.</li> </ul>
	Whether sample compositing has been applied.	<ul style="list-style-type: none"> <li>• No compositing undertaken for diamond drill core or RC samples.</li> </ul>
<b>Orientation of data in relation to</b>	Whether the orientation of sampling achieves unbiased sampling of possible	<ul style="list-style-type: none"> <li>• RC and Diamond drill holes were typically oriented within 15° of orthogonal to the interpreted dip and</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>geological structure</b>	structures and the extent to which this is known, considering the deposit type.	strike of the known zone of mineralisation. However, several holes were drilled at less optimal azimuths due to site access constraints or to test for alternative mineralisation orientations.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	<ul style="list-style-type: none"> <li>The orientation of the drilling is not considered to have introduced sampling bias.</li> </ul>
<b>Sample security</b>	The measures taken to ensure sample security.	<ul style="list-style-type: none"> <li>Samples were collected in polyweave bags either at the drill rig (RC and AC samples) or at the core cutting facility (diamond samples). The polyweave bags have five samples each and are cable tied.</li> <li>Filled bags were collected into palletised bulk bags at the field office and delivered directly from site to ALS laboratories in Wangara, Perth by a Chalice contractor several times weekly.</li> </ul>
		<ul style="list-style-type: none"> <li>Cube Consulting conducted a site visit and review of the sampling techniques and data as part of this Resource Estimate on 12 May 2022.</li> <li>SRK completed an independent assurance review of the Chalice procedures and documentation in 2021, which continue to apply in 2022, and the appropriateness of Cube Consulting estimation methods employed</li> </ul>
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	

## A-2 Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	<ul style="list-style-type: none"> <li>Exploration activities are ongoing over E70/5118 and 5119 and the tenements are in good standing. The holder CGM (WA) Pty Ltd is a wholly owned subsidiary of Chalice Mining Limited with no known encumbrances.</li> </ul>
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul style="list-style-type: none"> <li>Current drilling is on private land all of which is owned by the Company.</li> <li>E70/5119 partially overlaps ML1SA, a State Agreement covering Bauxite mineral rights only.</li> </ul>
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	<ul style="list-style-type: none"> <li>There is no previous exploration at Gonnevillie and only limited exploration has been completed by other exploration parties in the vicinity</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>of the targets identified by Chalice to date.</p> <ul style="list-style-type: none"> <li>Chalice has compiled historical records dating back to the early 1960's which indicate only three genuine explorers in the area, all primarily targeting Fe-Ti-V mineralisation.</li> <li>Over 1971-1972, Garrick Agnew Pty Ltd undertook reconnaissance surface sampling over prominent aeromagnetic anomalies in a search for 'Coates deposit style' vanadium mineralisation. Surface sampling methodology is not described in detail, nor were analytical methods specified, with samples analysed for V2O5, Ni, Cu, Cr, Pb and Zn, results of which are referred to in this announcement.</li> <li>Three diamond holes were completed by Bestbet Pty Ltd targeting Fe-Ti-V situated approximately 3km NE of JRC001. No elevated Ni-Cu-PGE assays were reported.</li> <li>Bestbet Pty Ltd undertook 27 stream sediment samples within E70/5119. Elevated levels of palladium were noted in the coarse fraction (-5mm+2mm) are reported in this release. Finer fraction samples did not replicate the coarse fraction results.</li> <li>A local AMAG survey was flown in 1996 by Alcoa using 200m line spacing which has been used by Chalice for targeting purposes.</li> </ul>
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	<ul style="list-style-type: none"> <li>The target deposit type is an orthomagmatic Ni-Cu-PGE sulphide deposit, within the Yilgarn Craton. The style of sulphide mineralisation intersected consists of massive, matrix, stringer and disseminated sulphides typical of metamorphosed and structurally overprinted orthomagmatic Ni sulphide deposits.</li> </ul>
<b>Drill hole Information</b>	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</p> <p>Easting and northing of the drill hole collar</p> <p>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</p> <p>Dip and azimuth of the hole</p> <p>Down hole length and interception depth hole length.</p>	<ul style="list-style-type: none"> <li>Not applicable for this report. No previously unreleased exploration results included.</li> </ul>

Criteria	JORC Code explanation	Commentary
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	<ul style="list-style-type: none"> <li>No material information has been excluded.</li> </ul>
<b>Data aggregation methods</b>	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg. cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</p>	<ul style="list-style-type: none"> <li>Significant intercepts are reported using a &gt;0.5g/t Pd length-weighted cut off for oxide and &gt;0.4% NiEq length-weighted cut off for sulphide material. A maximum of 4m internal dilution has been applied.</li> <li>Higher grade intervals are reported using a &gt;0.9g/t Pd length-weighted cut off for oxide and &gt;0.6% NiEq length-weighted cut off. Some intercepts are also reported above a &gt;0.8% NiEq length-weighted cut off where the grade is very high or the intercept is deep and beyond the optimised pit shell used to constrain the Mineral Resource estimate. A maximum of 2m internal dilution has been applied for intercepts calculated using &gt;0.6% NiEq or &gt;0.8% NiEq cut offs.</li> </ul>
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	<ul style="list-style-type: none"> <li>Metal price assumptions used in the metal equivalent calculations are: 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, US\$75,000/t Co.</li> <li>Metallurgical recovery assumptions used in the metal equivalent calculation for the oxide material are: Pd – 75%, Au – 95%.</li> <li>Hence for the oxide material PdEq (g/t) = Pd (g/t) + 1.27 x Au (g/t).</li> <li>Metallurgical recovery assumptions used in the metal equivalent calculation for the sulphide (fresh) material are: Pd – 70%, Pt – 70%, Au – 60%, Ni – 55%, Cu – 90%, Co – 55%.</li> <li>Hence for the sulphide material NiEq = Ni (%) + 0.33x Pd(g/t) + 0.24x Pt(g/t) + 0.29x Au(g/t) + 0.78x Cu(%) + 3.41x Co(%) and PdEq = Pd (g/t) + 0.72x Pt(g/t) + 0.86x Au(g/t) + 2.99x Ni(%) + 2.33x Cu(%) + 10.18x Co(%)</li> <li>The volume of transitional material is small and considered unlikely to materially affect the overall metal equivalent calculation.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results.	<ul style="list-style-type: none"> <li>RC and Diamond drill holes were typically oriented within 15° of orthogonal to the interpreted dip and strike of the known zone of mineralisation. However, several holes were drilled at less optimal azimuths</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg. 'down hole length, true width not known').</p>	<p>due to site access constraints or to test for alternative mineralisation orientations.</p> <ul style="list-style-type: none"> <li>All widths are quoted down-hole. True widths vary depending on the orientation of the hole and the orientation of the mineralisation. For low grade intercepts (&gt; 0.40% NiEq) true width approximates downhole width. For high grade intercepts (&gt;0.6% NiEq) true width is generally between 80 and 100% of the downhole width.</li> </ul>
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul style="list-style-type: none"> <li>Refer to figures in the body of text.</li> </ul>
<b>Balanced reporting</b>	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul style="list-style-type: none"> <li>No new exploration intercepts reported.</li> </ul>
<b>Other substantive exploration data</b>	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul style="list-style-type: none"> <li>Not applicable. All meaningful data relating to the Mineral Resource has been included</li> </ul>
<b>Further work</b>	The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).	<ul style="list-style-type: none"> <li>Diamond and RC drilling will continue to test high-priority targets including EM conductors. Further drilling along strike and down dip may occur at these and other targets depending on results.</li> <li>Scoping study work has commenced including additional metallurgical testwork, mining studies, tailings studies and waste rock characterisation etc.</li> </ul>
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	<ul style="list-style-type: none"> <li>Any potential extensions to mineralisation are shown in the figures in the body of the text.</li> </ul>

## A-3 Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	<ul style="list-style-type: none"> <li>• OCRIS data logging software is used by Chalice for front end data collection and has in-built validation for all geological logging and sampling.</li> <li>• All logging, sampling and assay files are stored in a SQL Server database using DataShed (industry standard drill hole database management software).</li> <li>• User access to the database is regulated by specific user permissions. Only the Database Manager can overwrite data.</li> <li>• All data has passed a validation process; any discrepancies have been checked by Chalice personnel before being updated in the database.</li> </ul>
	Data validation procedures used.	<ul style="list-style-type: none"> <li>• Cube Consulting completed validation checks on the drill hole data extraction provided by Chalice for use in the Mineral Resource Estimate.</li> <li>• Multiple collar entries, potentially suspect collar and downhole survey results, absent survey or assay data, overlapping intervals, negative sample lengths, out of range assay values and sample intervals which extended beyond the hole depth defined in the collar table were reviewed.</li> <li>• Only minor validation issues were detected which were communicated to Chalice and corrected prior to the preparation of the Mineral Resource estimate.</li> </ul>
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	<ul style="list-style-type: none"> <li>• A site visit to the Julimar Project was completed by Mike Job (Principal Geologist/Geostatistician at Cube Consulting) and Mike Millad (Principal Geologist/Geostatistician at Cube Consulting) on 12 May 2022, and an inspection of the ALS sample preparation and analytical laboratories was undertaken by Mike Job on 2 June 2022. Mike Job and Mike Millad assume Competent Persons status for the Mineral Resource estimate.</li> <li>• During the Julimar site visit, the drilling, sampling, geological logging, density measurement and sample storage facilities, equipment and procedures were witnessed, and discussions held with Chalice representatives. The facilities and equipment were appropriate, and the procedures were well-designed and being implemented consistently. The sample preparation and analytical laboratories were well equipped and were operated to a very high standard. In the Competent Persons' opinion, the geological and</li> </ul>



Criteria	JORC Code explanation	Commentary
		analytical data being produced is appropriate for use in a Mineral Resource Estimate.
	If no site visits have been undertaken indicate why this is the case.	<ul style="list-style-type: none"> <li>Not applicable (see above)</li> </ul>
<b>Geological interpretation</b>	Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.	<ul style="list-style-type: none"> <li>The location and orientation of the primary Ni-Cu-PGE mineralisation within the Ultramafic host unit are reasonably well understood and have been developed over the course of the drill-out phase of the project.</li> <li>Geological controls on the supergene/dispersion zone material are reasonably simple and well understood.</li> <li>Confidence in the orientations of the barren Dolerite dyke lithology is variable over the footprint of the deposit, due to the geological complexity shown by this lithology unit. However, volumetrically the unit is considered as having been appropriately captured in the geological interpretation and by geostatistical interpolation of minor dolerite intervals not captured in the Leapfrog wireframes generated by Chalice. Work on improving definition of, and confidence in, the Dolerite lithology by Chalice is ongoing.</li> </ul>
	Nature of the data used and of any assumptions made.	<ul style="list-style-type: none"> <li>Sample intercept logging and assay results from drill core and RC samples form the basis for the geological interpretations.</li> <li>A criterion of &gt; 0.9ppm Pd have been used by Chalice to construct the supergene/dispersion zone mineralised zone wireframe. The logged oxide-transition boundary in the weathering profile was taken into account when developing the interpretation. A minimum intersection width of 2m was applied. The same criteria were applied to wireframe modelling of high-grade, sulphide-rich horizons termed "G Zones" within the Ultramafic host. The G Zones are broadly concordant with litho-geochemical domain boundaries defined using geochemical thresholds within the Ultramafic body, which are reflective of the evolution of the magma and other igneous processes. The G Zones are also considered to be reliable guides to the overall orientation and geometry of mineralisation continuity.</li> </ul>
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	<ul style="list-style-type: none"> <li>Alternative interpretations are likely to materially impact on the Mineral Resource estimate on a local, but not global, basis.</li> </ul>

Criteria	JORC Code explanation	Commentary
	The use of geology in guiding and controlling Mineral Resource estimation.	<ul style="list-style-type: none"> <li>The litho-geochemical domains within the host Ultramafic unit are known to have an association with the orientation of the primary mineralisation zones (i.e. the G Zones). The grades of the economic elements and geological interpretations for these features have been incorporated into the resource estimation approach via the development of trend surfaces informing a variable variogram and search ellipse orientation strategy (Dynamic Anisotropy (DA)).</li> </ul>
	The factors affecting continuity both of grade and geology.	<ul style="list-style-type: none"> <li>The deposit represents part of a large layered intrusion. Sulphide content and metal grade are well correlated, with higher sulphide concentration generally corresponding to higher metal content within the Ultramafic intrusion.</li> <li>On a global scale the mineralisation displays good geological and grade continuity, which is largely governed by magmatic fractionation processes within the host intrusion. On a local scale geological and grade continuity is disrupted by the presence of variably oriented barren dolerite dykes and granite inclusions, both of which post-date and therefore overprint the mineralisation.</li> </ul>
<b>Dimensions</b>	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<ul style="list-style-type: none"> <li>The main part of the Mineral Resource within the Ultramafic extends for a strike length of approximately 1.8km and is 600 to 800 m thick. Plan width of the sub-parallel, sulphide-rich G Zones varies from 5 to 40m. Plan width of the encompassing sulphide poor zones varies from 100 to 150m. The reported Indicated Mineral Resource is within approximately 400m below surface. The reported Inferred Mineral Resource is within approximately 600m below surface.</li> </ul>
<b>Estimation and modelling techniques</b>	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	<ul style="list-style-type: none"> <li>All geological wireframe interpretations used in the Resource were constructed by Chalice using a combination of Leapfrog and Micromine software. Geological wireframes provided by Chalice include weathering, lithological, litho-geochemical and supergene/dispersion zone interpretations. Block modelling and grade estimation was carried out by Cube Consulting using Surpac and Isatis software. Statistical analysis was carried out by Cube Consulting using Geoaccess Professional and Isatis software.</li> <li>Prior to estimation of variables, below detection limit assays were assigned a</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>positive value equal to half of the detection limit for the relevant grade variable. Intentionally unsampled intervals were retained as absent grade values. The vast majority of the intentionally unsampled intervals occur outside of the host intrusion lithology, and therefore have no bearing on the grade estimates. Absent density values have been retained as absent values, as density determinations were not taken for these intervals.</p> <ul style="list-style-type: none"> <li>• All drillhole samples were flagged according to the geological domain interpretations provided by Chalice. Sample populations were statistically analysed to derive geostatistical domain groupings for Pd, Pt, Ni, Co, Cu, Au, As, S and density. Statistical analysis included comparison of global grade distributions, derivation of statistical correlations between grade variables and contact analysis of grade variables across the various geological domains. From analysis, estimation domains were determined for Pd/Pt/Ni/Co/Cu/Au, As, S and density variable groupings. Information regarding the in-situ mineral chemistry of the various mineral species for the deposit is currently not available. Mineral speciation was therefore not incorporated into the definition of the geostatistical domains.</li> <li>• For primary Pd, Pt, Ni, Co, Cu, Au mineralisation located within the Ultramafic intrusion, grade interpolation was undertaken using Ordinary Kriging (OK) within the G Zones and surrounding lower-grade general Ultramafic zone. The latter was divided into a low-to-moderate grade "Main" sub-domain and very low-grade northwest sub-domain. The OK interpolations for the economically material Pd, Ni and Cu variables were subsequently post-processed to derive a Localised Uniform Conditioning (LUC) final grade estimate in the Ultramafic volume outside of the G Zones. OK estimates for the granite, gabbro, dyke and sediment lithologies were also undertaken, but using restrictive high-grade distance limiting parameters to curtail the propagation of rare high-grade samples. These high-grade samples are believed to be due mainly to xenoliths of Ultramafic material in the case of the granite, gabbro and dykes, and re-mobilisation of mineralisation into especially the surrounding sediments. The mineralisation modelled outside of the Ultramafic envelope has not been</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>classified as a Mineral Resource for reporting purposes.</p> <ul style="list-style-type: none"> <li>Indicator kriging was used to model the geometry of dyke material that was logged in the drill holes, typically represented by short and discontinuous intercepts, but which fell outside of the dyke Leapfrog wireframes. This additional dyke volume comprises approximately 2.8% of the total volume within the estimated Ultramafic intrusion envelope. Detection limit grades were assigned for all elemental variables and density was assigned based on density sample statistics.</li> <li>Arsenic only occurs in very low abundances and was modelled using OK throughout. In contrast to the economic elements, As is of higher grade in the southeast of the Ultramafic intrusion, and of lower grade to the north of this, hence a Main-SE subdivision was implemented.</li> <li>Sulphur was modelled initially using OK and then post-processed using LUC in the Ultramafic volume outside of the G Zones. S estimation domains differed slightly from the economic elements, in that the litho-geochemical units were split about the top-of-fresh surface whereas the economic elements were split about the base of complete oxidation surface. The Main vs northwest subdivision of the fresh Ultramafic zone was used for S modelling, similar to the economic elements. S was also interpolated using OK in the granite, gabbro, dyke and sediment lithologies, with appropriate high grade distance limits applied. It is noteworthy that in the immediate hangingwall and footwall of the Ultramafic intrusion, within the sediment lithological unit, S grades are elevated, which may have environmental implications for waste disposal.</li> <li>Density was modelled using OK within the transitional + fresh portion of the Ultramafic intrusion, granite, gabbro, dyke and sediment lithologies. Constant density assignments were made in the oxide zone, where the paucity of data did not justify using geostatistical interpolation.</li> <li>All of the estimated variables were modelled independently using OK in the Supergene enrichment zone.</li> <li>Variogram models for Pd, Pt, Ni, Cu, Au, As and S were produced by first transforming the composite grades to Gaussian space in order to elucidate the</li> </ul>



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		<p>true underlying spatial structure, before back-transforming to real space for use in interpolation. Ni and Co are strongly correlated and therefore the Ni variograms were used to interpolate Co. For the density variable, statistical and spatial variability is low within individual estimation domains, and hence variogram models could be produced directly in real space. The variography is generally characterised by strong anisotropy between the semi-major/major axis plane of mineralisation (parallel to the tabular mineralised zones) and the perpendicular, shorter-range minor axis. Practical ranges for the main economic elements in the plane of mineralisation is generally of the order of 100m, while in the high-grade G Zones it is most often between 40m and 50m. Variogram modelling was undertaken on capped grade values.</p> <ul style="list-style-type: none"> <li>Once estimation domains for grade interpolation were defined, composited drill hole sample populations were statistically analysed to derive grade capping values. It was observed that grade capping for the economic elements had an immaterial impact on the global grade. Boundary/contact analysis showed that the G Zones have hard boundaries with respect to the surrounding, lower-grade Ultramafic zone and so hard grade boundaries were applied to this contact. The Main-NW sub-domain contact for economic element and S interpolation was treated as soft during interpolation, although different capping, variogram and search parameters were implemented either side of this boundary. In addition to the grade caps, distance based grade thresholds were also chosen and implemented for interpolation those zones where mineralisation is highly discontinuous (i.e. granite, gabbro, dyke and sediment). This was based on observed inflexions in the grade histograms that are interpreted as representing the onset of the anomalous high grade sub-population. Again it is noted that these largely barren zones have not been classified as resources, and were modelled only to provide some indication in the block model of where these patches of mineralisation occur.</li> <li>Density bottom and top truncations have been applied, based on examination of density histograms, therefore completely excluding the outliers from the estimation process.</li> </ul>

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		<ul style="list-style-type: none"> <li>Estimation of Pd, Pt, Ni, Co, Cu, Au, As and S was subsequently undertaken by OK for the primary and secondary mineralisation. As previously mentioned, the OK estimates were progressed to LUC estimates for Cu, Ni, Pd and S in the transitional + fresh portion of the Ultramafic intrusion outside of the G Zones. Geostatistical interpolation of density was restricted to the transitional + fresh zones, with assignments being made in the oxide zone. A variable variogram and search ellipse orientation strategy was implemented using Isatis' DA functionality during grade interpolation to honour the local undulations in the mineralisation orientation. The hangingwall and footwall surfaces for the G Zones were used to define the DA within the envelope of the Ultramafic intrusion in the primary zone. The Ultramafic contact was used for DA in the granite and sediment units. Constant rotations were used in the two gabbro units, as these have relatively uniform dip and strike. The dyke hangingwall surfaces were used to inform the DA parameters within the dyke units. In the secondary zone, including the Supergene unit, the topographic, bottom of complete oxidation and top of fresh surfaces were used for DA.</li> <li>Search and block plans were as follows:</li> <li>Primary mineralisation Pd, Pt, Ni, Co, Cu, Au and S (within Ultramafic unit and G Zones) - A minimum of 6 and maximum of 16 to 20 samples per estimate into a parent block size of 20 m(E) x 20 m(N) x 10 m(RL). The maximum limit was allowed to be exceeded in cases where samples are situated within any given block, since the condition was set whereby the OK would by default use all samples within the block. The maximum number of samples per drillhole was limited by using anisotropic distances for sample selection in combination with a maximum of 4 to 5 samples per search ellipse quadrant. A single search pass was used. Block discretisation scheme was 5 pts(E) x 5 pts(N) x 2 pts(RL). LUC post-processing of Pd, Ni, Cu and S was into a Selective Mining Unit (SMU) block size of 10 m(E) x 10 m(N) x 5 m(RL).</li> <li>Secondary mineralisation Pd, Pt, Ni, Co, Cu, Au and S (within the Ultramafic, G Zone and Supergene unit) used a minimum of 3 to 6 and maximum of 12 to 16 samples per estimate into a parent block size of 20 m(E) x 20 m(N) x 10 m(RL). The maximum limit was allowed to</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>be exceeded in cases where samples are situated within any given block, since the condition was set whereby the OK would by default use all samples within the block. The maximum number of samples per drillhole was limited by using anisotropic distances for sample selection in combination with a maximum of 4 to 5 samples per search ellipse quadrant. A single search pass was used. The block discretisation scheme was 5 pts(E) x 5 pts(N) x 2 pts(RL).</p> <ul style="list-style-type: none"> <li>• For the primary and secondary zone As, a minimum of 3 to 6 and maximum of 12 to 20 samples per estimate were used into a parent block size of 20 m(E) x 20 m(N) x 10 m(RL). The maximum number of samples per drillhole was limited by using anisotropic distances for sample selection in combination with a maximum of 3 to 5 samples per search ellipse quadrant. A single search pass was used. High grade distance limiting was implemented in addition to grade capping in the largely barren units. The block discretisation scheme was 5 pts(E) x 5 pts(N) x 2 pts(RL).</li> <li>• For the primary zone density, a minimum of 4 and maximum of 16 samples per estimate were used into a parent block size of 20 m(E) x 20 m(N) x 10 m(RL). The maximum number of samples per drillhole was limited by using anisotropic distances for sample selection in combination with a maximum of 4 samples per search ellipse quadrant. The maximum limit was allowed to be exceeded in cases where samples are situated within any given block, since the condition was set whereby the OK would by default use all samples within the block. A single search pass was used. The block discretisation scheme was 5 pts(E) x 5 pts(N) x 2 pts(RL).</li> <li>• For Pd, Pt, Ni, Co, Cu, Au, and S un-estimated blocks have been assigned grades equal to the mean estimated block grade per estimation domain within the Ultramafic and G Zones. Outside of the Ultramafic envelope, un-estimated blocks were assigned half detection limit for each grade variable. None of these assigned blocks have been classified as Mineral Resource.</li> <li>• For As un-estimated blocks have been assigned half detection limit.</li> <li>• For density, un-estimated blocks, inclusive of all secondary estimation domains, were assigned values based on applicable sample statistics.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Final block values for Pd, Pt, Ni, Co, Cu, Au, S and density were validated by way of visual review of plans and cross sections (block model and drill samples presented with same colour legend), swath plots, and comparison of estimation domain mean grades with the input grade distribution data. Simple Inverse Distance Squared (ID2) check estimates were also run for Pd, Ni and Cu within the Supergene, Ultramafic and G Zone domains, which account for the overwhelming majority of the economic mineralisation in the Gonnevillite deposit. The ID2 check estimates were comparable to the main OK/LUC estimates.</li> </ul>
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	<ul style="list-style-type: none"> <li>The Mineral Resource estimate was compared to the previous estimate undertaken by CSA in October 2021.</li> <li>No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.</li> <li>The Mineral Resource model has been peer reviewed internally at Cube Consulting, and Mr Mark Noppe of SRK has undertaken periodic high-level reviews of the estimation process on an in-stream basis.</li> </ul>
	The assumptions made regarding recovery of by-products.	<ul style="list-style-type: none"> <li>Gonneville is a polymetallic deposit, and the assumption based on metallurgical testwork to date has been made that all reported constituents are recovered and are able to be sold.</li> </ul>
	Estimation of deleterious elements or other non-grade variables of economic significance (eg. sulphur for acid mine drainage characterisation).	<ul style="list-style-type: none"> <li>Sulphur and arsenic have been estimated. As is observed to generally be of very low grade, while S is notably enriched in the immediate hangingwall and footwall sediments of the Ultramafic intrusion, and especially so on the footwall side.</li> <li>No other deleterious variables have been estimated but to date there are no indications of any deleterious elements in concentrate samples.</li> </ul>
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	<ul style="list-style-type: none"> <li>A 20 m E x 20 m N x 10 m RL parent cell size was used for grade estimation. Infill drilling has been undertaken to approximately 40 m spacing in the upper section of the deposit. The block size therefore represents approximately half the drillhole spacing.</li> </ul>
	Any assumptions behind modelling of selective mining units.	<ul style="list-style-type: none"> <li>Within the Ultramafic unit exclusive of the G Zones, the LUC modelling process for Pd, Ni, Cu and S has assumed an SMU size of 10 m E x 10 m N x 5 m RL.</li> </ul>



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	Any assumptions about correlation between variables.	<ul style="list-style-type: none"> <li>The high degree of observed correlation between Ni and Co grade meant that Ni variograms were used for Co interpolation. These elements are mostly bound together in pentlandite, hence the close relationship.</li> </ul>
	Description of how the geological interpretation was used to control the resource estimates.	<ul style="list-style-type: none"> <li>The litho- geochemical domains within the host Ultramafic unit are known to have an association with the orientation of the primary mineralisation zones (i.e. the G Zones). Geological interpretations for these features, along with logged sulphide content from drill hole intersections, have been incorporated into the resource estimation approach via the development of trend surfaces informing a variable search ellipse orientation strategy (Dynamic Anisotropy).</li> <li>The geological interpretation for the supergene/dispersion zone has been used to constrain the resource estimate for the reported weathering zone material. a variable search ellipse orientation strategy (Dynamic Anisotropy) was employed to capture local undulations in the supergene/dispersion zone during grade estimation.</li> </ul>
	Discussion of basis for using or not using grade cutting or capping.	<ul style="list-style-type: none"> <li>The need for grade capping was assessed for all estimated variables on a per estimation domain basis prior to estimation.</li> <li>Histograms and log-probability plots were used to review composited sample grade distributions graphically. Additionally, a visual inspection was carried out in Surpac for potential clustering of very high-grade sample data prior to selecting a capping value.</li> <li>Capping values, where deemed necessary, were applied to the composited sample grades.</li> <li>In addition to the grade caps, high grade distance limiting was implemented for high grade sub-populations in the largely barren domains.</li> <li>Bottom and top truncations were applied to density composites on a per estimation domain basis.</li> </ul>
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<ul style="list-style-type: none"> <li>Final block values for Pd, Pt, Ni, Co, Cu, Au, As, S and density were validated by way of visual review of plans and cross sections (block model and drill samples presented with same colour legend), swath plots, and comparison of estimation domain mean grades with the input grade distribution data. Check</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>ID2 estimates were undertaken for Pd, Ni and Cu. The block model reflected the tenor of the grades in the drillhole samples both globally and locally.</p> <ul style="list-style-type: none"> <li>No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.</li> </ul>
<b>Moisture</b>	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis. No moisture data are available.</li> </ul>
<b>Cut-off parameters</b>	The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul style="list-style-type: none"> <li>Any oxide block within the optimisation pit shell above a palladium cut-off of 0.9 g/t is considered as Mineral Resource.</li> <li>Any transitional or fresh block within the optimised pit shell above a nickel equivalent cut-off of 0.4% is considered as Mineral Resource.</li> </ul>
<b>Mining factors or assumptions</b>	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul style="list-style-type: none"> <li>This Mineral Resource estimate is based on conventional open cut drill, blast, load, and haul mining methods.</li> <li>The pit optimisations prepared to support reasonable prospects for eventual economic extraction had appropriate mining dilution and ore loss applied.</li> <li>The Mineral Resource estimate itself is reported without mining dilution or ore loss.</li> <li>Floating stope optimisation defined reasonable shapes that could be extracted by underground mining methods. Appropriate mining cost and commodity prices have been used.</li> </ul>
<b>Metallurgical factors or assumptions</b>	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	<ul style="list-style-type: none"> <li>Metallurgical test work on oxide material conducted includes: <ul style="list-style-type: none"> <li>Detailed QEMSCAN and XRD mineralogy on composites.</li> <li>Approximately 60 laboratory batch leach tests using a variety of reagent suites to assess potential extraction.</li> <li>Metallurgical test work on sulphide material conducted includes:</li> <li>Detailed QEMSCAN and XRD mineralogy on 12 composites and a further 4 sets of mineralogy of flotation test products.</li> <li>Comminution testing includes 17 SMC SAG milling tests plus Ball Mill Work Indices.</li> <li>Flotation testwork on a suite of six ore type composites and four mining composites comprising</li> </ul> </li> </ul>

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		<p>over 200 individual tests, over 20 locked cycle tests (LCT).</p> <ul style="list-style-type: none"> <li>○ LCT results were used as a basis for estimating metallurgical recovery.</li> <li>○ Recovery of intermediate products (enriched Cu/PGE concentrate and Ni/Co MHP) from concentrate enrichment of low grade nickel concentrates has been estimated using pilot plant data from similar projects and a scouting test on a sample from Julimar.</li> <li>○ The base case assumption is for sequential flotation to produce copper and nickel concentrates. A saleable copper concentrate is readily achievable even from very low Cu head grades. A saleable nickel concentrate has been produced in tests at low head grades. Palladium recovery was predominantly into the copper concentrate. Cobalt is mineralogically associated with nickel and can be assumed to behave in a similar manner.</li> </ul> <ul style="list-style-type: none"> <li>• Metallurgical recoveries used in the pit optimisation are based on testwork completed to date. Recovery algorithms calculated for each element were used as inputs into the pit optimisation.</li> <li>• For the purposes of metal equivalent calculations, metallurgical recovery assumptions for the oxide material are: Pd – 75%, Au – 95% and for sulphide are: Pd – 70%, Pt – 70%, Au – 60%, Ni – 55%, Cu – 90%, Co – 55%.</li> </ul>
<b>Environmental factors or assumptions</b>	<p>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</p>	<ul style="list-style-type: none"> <li>• The Julimar Project is at a very early stage. Hence environmental considerations for potential mining have not yet been evaluated in detail. At this stage Chalice is unaware of any specific environmental issues that would preclude potential eventual economic extraction, subject to government approvals.</li> </ul>

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	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	<ul style="list-style-type: none"> <li>Sample density determinations were carried out using the water displacement method.</li> <li>Incompetent oxide core samples from the weathering profile are wax-coated prior to density determination.</li> <li>Density standards are employed in the density determination process.</li> <li>Sample density determinations were carried out on all fresh rock core samples, and representative oxide samples resulting in ~80% of total drilled diamond core intervals having had density determinations completed.</li> </ul>
<b>Bulk density</b>	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	<ul style="list-style-type: none"> <li>Incompetent oxide core samples are wax-coated prior to density determination.</li> </ul>
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	<ul style="list-style-type: none"> <li>Sample density determinations were used to assign a bulk density value to the block model using a combination of assignment by geostatistical domain, and spatial estimation from density determinations from de-surveyed drillholes.</li> <li>Model tonnages are subsequently estimated on a dry basis.</li> </ul>
		<ul style="list-style-type: none"> <li>The Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC Code 2012 Table 1. The Resource has been classified as either Indicated or Inferred based on data quality, sample spacing, mineralisation continuity, confidence in the geological interpretations, quality of the grade estimations and metallurgical processing knowledge. No Measured material has been defined for this Resource Estimate.</li> </ul>
<b>Classification</b>	The basis for the classification of the Mineral Resources into varying confidence categories.	<ul style="list-style-type: none"> <li>Primary mineralisation within the host Ultramafic intrusion has been classified as a combination of Indicated and Inferred. Indicated and Inferred wireframe volumes were developed from sectional interpretation strings, and model cells then coded with Resource Classification codes directly from the wireframe volumes.</li> <li>All fresh and transitional material within the Ultramafic intrusion envelope informed by a reasonably consistent drill spacing of 80 m has been classified as Inferred, except around the periphery of the drilling pattern, where extrapolation results in lower quality estimates and Pd grade variography has informed a</li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>decision to limit the extrapolation of the Inferred material to between 40m and 50m.</p> <ul style="list-style-type: none"> <li>• The 80m drill spacing corresponds to the nominal exploration drill hole spacing used for the deposit.</li> <li>• An 80m drill spacing is considered by the Competent Person as being sufficient to imply, but not verify, geological and grade continuity for the deposit style.</li> <li>• All fresh and transitional material within the Ultramafic intrusion, excluding the mostly barren granite, gabbro and dyke units, informed by a consistent drill spacing of 40 m has been classified as Indicated. The selection of a 40 m drill spacing distance for Indicated was based on: <ul style="list-style-type: none"> <li>◦ Results from a simulation-based drill hole spacing study carried out for the deposit indicating that the resource definition drill-out be conducted on a 40 m x 40 m drill spacing.</li> <li>◦ Variogram ranges of the main economic grade variable, Pd, indicating that grade continuity does not exceed 40 m to 50 m within the G Zones.</li> <li>◦ Estimation quality metrics, such as slope of regression and average distance to sample were considered during the classification process.</li> </ul> </li> <li>• A 40 m drill spacing is considered by the Competent Person as being sufficient to allow estimation of the deposit physical characteristics with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.</li> <li>• With the exception of the Supergene unit, which has been classified as per the fresh and transitional material, the erratically mineralised secondary zone has been classified as Inferred within the bounds of the Ultramafic envelope and is unclassified outside of the envelope.</li> </ul>
	Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	<ul style="list-style-type: none"> <li>• Appropriate account has been taken of all relevant criteria including data quality, sample spacing, mineralisation continuity, confidence in the geological interpretations, quality of the grade estimations and the availability of Modifying Factors.</li> </ul>
	Whether the result appropriately reflects the Competent Person's view of the deposit.	<ul style="list-style-type: none"> <li>• The Mineral Resource appropriately reflects the Competent Person's views of the deposit.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Audits or reviews</b>	The results of any audits or reviews of Mineral Resource estimates.	<ul style="list-style-type: none"> <li>In addition to Cube Consulting internal peer reviews, in-stream reviews have been undertaken by Mr Mark Noppe of SRK Consulting.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	<ul style="list-style-type: none"> <li>The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource. The Resource has been classified in accordance with the JORC Code (2012 Edition) using a qualitative approach.</li> <li>All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this table.</li> </ul>
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	<ul style="list-style-type: none"> <li>The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.</li> </ul>
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	<ul style="list-style-type: none"> <li>No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.</li> </ul>