chalice

ASX Announcement

9 November 2021

Tier-1 scale maiden Mineral Resource for Gonneville – 10Moz Pd+Pt+Au (3E), 530kt Ni, 330kt Cu and 53kt Co

Largest nickel sulphide discovery in over 20 years and largest PGE discovery in Australian history establishes foundation for world-class 'green metals' project

Highlights

- **Maiden Indicated and Inferred, pit constrained, mineral resource estimate** (Resource) defined 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:
  - **330Mt @ 0.94g/t 3E[1], 0.16% Ni, 0.10% Cu, 0.016% Co** (**~0.58% NiEq[2]** or **~1.6g/t PdEq[3])**;
  - Containing **10Moz 3E, 530kt Ni, 330kt Cu, 53kt Co** (**~1.9Mt NiEq** or **~17Moz PdEq**);
  - ~150Mt (45%) is within the Indicated category (55% within the Inferred category);
  - Resource is constrained within a pit shell and reported above a 0.4% NiEq cut-off grade (sulphide) and 0.9g/t Pd cut-off grade (oxide).
- The pit-constrained Resource includes a significant **higher-grade sulphide** component above a 0.6% NiEq cut-off grade, starting from a depth of ~30m:
  - **74Mt @ 1.8g/t 3E, 0.22% Ni, 0.21% Cu, 0.021% Co** (**~1.0% NiEq** or **~2.8g/t PdEq**);
  - Containing **4.2Moz 3E, 160kt Ni, 150kt Cu, 15kt Co** (**~760kt NiEq** or **~6.6Moz PdEq**);
  - This higher-grade component affords the project **significant optionality** in development and could potentially **materially enhance project economics** in the initial years of operations.
- Gonneville is already the **largest nickel sulphide discovery worldwide since 2000[4] (>20 years)**, and the **largest PGE discovery in Australian history**.
- The Deposit **remains open to the north** and at depth, demonstrating the **potential for material growth with ongoing drilling**.
  - High-grade mineralisation **begins at surface** and has already been intersected **~60m below the limit of the Resource pit**;
  - Wide-spaced extensional drilling is continuing down-plunge, with **>1,000m of potential plunge extent** yet to be fully tested on Chalice-owned farmland.
- The maiden Resource, which is interpreted to cover just **~7% of the 26km long Julimar Complex**, confirms the **world-class nature** of the Julimar Project, and demonstrates the potential for the project to become a **strategic, long-life 'green metals' asset.**

---

1 3E = Palladium (Pd) + Platinum (Pt) + Gold (Au), with an average in-situ ratio of ~4:1:0.04 (Pd:Pt:Au)
2 NiEq (Nickel Equivalent %) = Ni (%) + 0.37xPd (g/t) + 0.24xPt (g/t) + 0.25xAu (g/t) + 0.65xCu (%) + 3.24xCo (%)
3 PdEq (Palladium Equivalent g/t) = Pd (g/t) + 0.66xPt (g/t) + 0.67xAu (g/t) + 2.71xNi (%) + 1.76xCu (%) + 8.78xCo (%)
4 Source: S&P Global Market Intelligence, Capital IQ

Registered Office
ABN 47 116 648 956

Level 3, 46 Colin Street
West Perth, Western Australia
PO Box 428, West Perth 6872

T: +61 8 9322 3960

info@chalicemining.com
www.chalicemining.com

@chalicemining
chalice-mining

Overview

Chalice Mining Limited ("Chalice" or "the Company", ASX: CHN | OTCQB: CGMLF) is pleased to report its maiden 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 Company has defined a tier-1 scale, pit-constrained maiden Resource for Gonneville on Chalice-owned farmland, which includes a mix of oxide, transitional and sulphide mineralisation. The sulphide mineralisation is reported at two different cut-off grades in order to highlight the scale and development optionality the Deposit affords.

The robust nature of the Resource is demonstrated by the relatively flat grade-tonnage curves (Figure 2 and Figure 3), which highlight the significant quantity of sulphide mineralisation at higher cut-off grades. The significant high-grade component of the Resource provides excellent optionality for any future development, could potentially materially improve project economics in the initial years of operation and will be a key focus of the project Scoping Study, which is currently in progress. Note, the grade-tonnage curves for the Resource include material classified as Inferred, where data are insufficient to allow the geological grade and continuity to be confidently interpreted.

Drilling is continuing at the ~1.9km x 0.9km Deposit outside the maiden Resource, with assays pending for ~160 drill holes and five rigs continuing to test for extensions of high-grade mineralisation. Gonneville remains open at the Julimar State Forest boundary to the north, where approval to drill over a further ~10km of strike length is anticipated to be received shortly. The Deposit also remains open beyond a depth of ~630m.

The completion of the maiden Resource is a significant milestone for the Julimar Project and provides a strong foundation for the ongoing Scoping Study, which is scoping the initial mine development options at Gonneville, and is expected to be completed in Q2 2022.

> Commenting on the maiden Resource, Chalice Managing Director & Chief Executive Officer, Alex Dorsch, said: *"This is a major milestone for Chalice, coming just 18 months after our stunning first hole discovery at Julimar. Since then, we have completed more than 175,000m of diamond and RC drilling and now defined a genuine tier-1 scale deposit of critical minerals, with exceptional growth potential.*
>
> *"The Resource confirms that Gonneville is the largest nickel sulphide discovery globally in over two decades, and the largest PGE discovery in Australia's history – a remarkable achievement considering that this is the first discovery in what we consider to be an entirely new district, Julimar, within a new nickel-copper-PGE province, the West Yilgarn.*
>
> *"Given its sheer scale, the attractive suite of six payable metals it contains and its premier location close to world-class infrastructure and services in Perth, Chalice clearly has the potential to become a leading global player in the green metals space.*
>
> *"The high-grade sulphide component of the maiden Resource is very important to the project, as it provides a degree of optionality for mine development that is not often seen in mining projects of this nature. The vast majority of competitor projects worldwide are narrow, high-grade underground deposits, whereas high-grade mineralisation at Gonneville starts near surface, which could be a material factor when considering project economics in the initial years of operation.*
>
> *"It is also important to emphasise that the current Resource covers just 7% of the Julimar Intrusive Complex, which has been interpreted to cover a strike length of more than 26km. We know that the deposit remains open along strike to the north, and we are very much looking forward to receiving the final clearances to commence our initial low impact drilling program in the Julimar State Forest.*

"In the meantime, we are continuing to test the extent of the high-grade sulphide zones with step-out drilling down-plunge, and we continue to see strong potential for underground development in the longer term. The Scoping Study for Gonneville is progressing well and is on track to be completed in the second quarter of next year.

"We are continuing to consult closely with local communities as well as governments at both the State and Federal level, to ensure we build trust and secure our social licence to operate. We consider it very important that the broader project stakeholders understand the project and the immense opportunity in front of us."

Commenting on the Resource and current exploration activities at Julimar, Chalice General Manager – Development, Bruce Kendall, said: *"This is an exceptional result for a maiden Resource, with approximately 60% of the total sulphide tonnes in the top 250m already contained in the Indicated Resource category. This reflects the significant amount of infill drilling we have already undertaken at Gonneville and provides an outstanding base from which to complete the ongoing Scoping Study.*

"The Resource pit shell is largely drill constrained at the southern end of the Deposit, where the highest grades occur, with few holes drilled thus far beneath the pit shell in this area. As our infill drilling has progressed it has shown that higher grade zones of mineralisation are more prevalent and more continuous than initial broad spaced drilling suggests. This is an important characteristic of the deposit which highlights the potential upside.

"Deep drilling targeting higher grade extensions and infilling drilling in the northern part of the Deposit, where most of the Inferred Resources are located, will be a focus in the coming months.

"Mineralisation is still open to the north within the Julimar State Forest, and we eagerly await the necessary approvals so that we can start drilling the Hartog target where soil sampling and moving loop EM has identified a number of compelling anomalies for drill testing.

"Despite the scale and significance of the maiden Gonneville Resource, we believe that the broader Julimar Project is still at a very early stage in its discovery history – and we are very excited about the discovery and growth opportunities within the extensive Julimar Complex."

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, >26km 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 1).

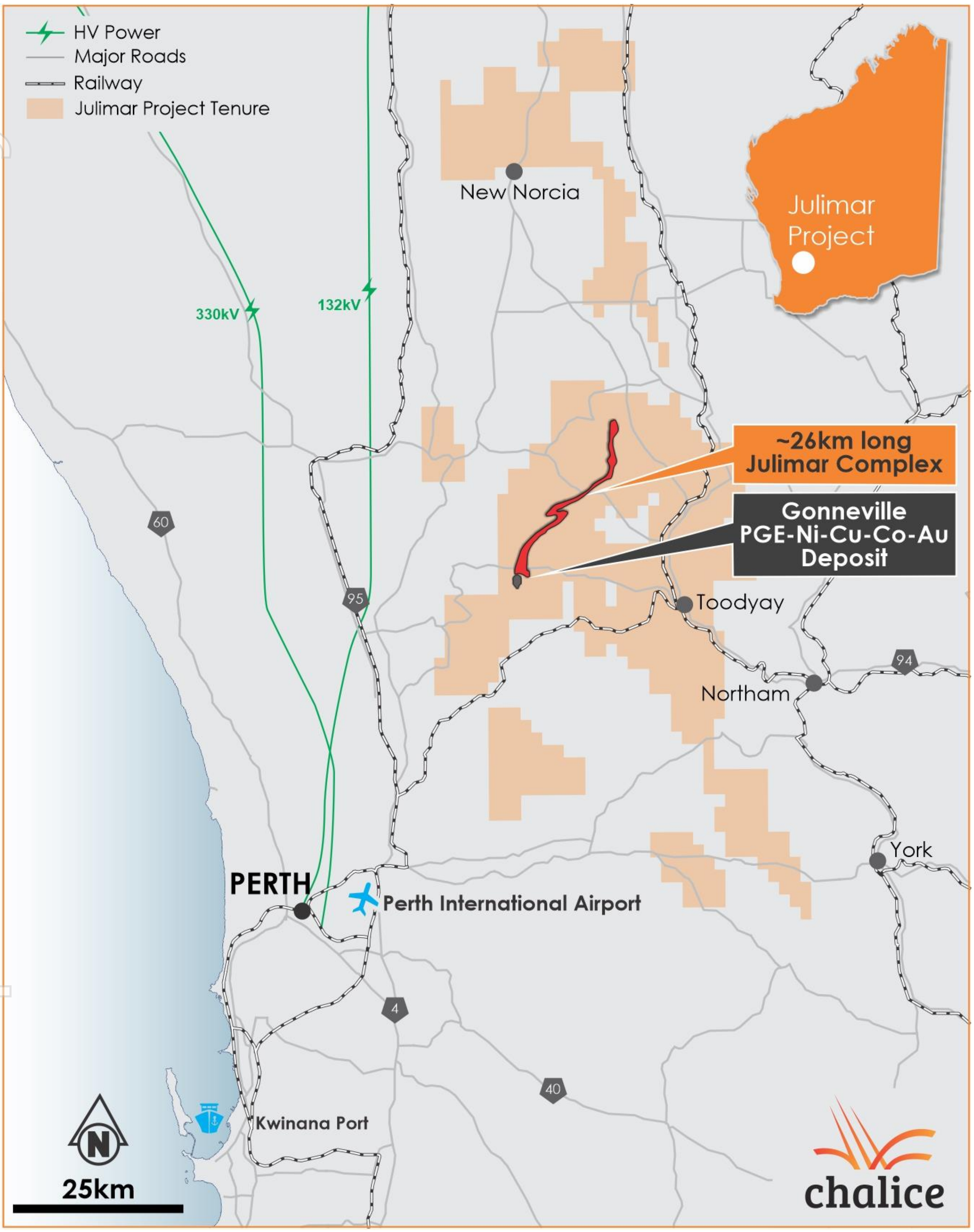

Figure 1. Julimar Complex, Gonneville discovery, Project tenure (including licence applications) and nearby infrastructure.

Maiden Gonneville Resource overview

Chalice engaged CSA Global Pty Ltd (CSA Global), an ERM Group company, to prepare a mineral resource estimate (Resource) for Gonneville. The Resource has been reported in accordance with the JORC Code (2012), is effective 9 November 2021, and is shown in full in Table 1.

CSA Global 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 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.

The Resource is reported within a pit shell using metal price assumptions of US$1,700/oz Pd, US$1,300/oz Pt, US$18,500/t Ni, US$9,000/t Cu, US$60,000/t Co and is reported above a 0.4% NiEq cut-off grade.

The metal prices used were obtained from long-term consensus analyst estimates[5] (typically 2025 onwards), selecting a rounded figure within the P20-P30 range of the distribution (20-30% of values were above the selected figures). Chalice and CSA Global believe this is a reasonable approach, considering the expected mine life and considerations for reporting Mineral Resources in accordance with the JORC Code.

The block model continues beyond the limit of the Resource pit shell, however this material is not included in the maiden Resource. The Resource is reported according to domain (oxide, transitional or fresh) as well as geological confidence level (Indicated or Inferred) (Table 1).

[5] Source: S&P Global Market Intelligence, Capital IQ

Table 1. Gonneville Maiden Mineral Resource Estimate (JORC Code 2012), 9 November 2021.

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																	
		Inferred	8.8	1.8		0.06					1.9	0.51		0.02					0.52
		Subtotal	**8.8**	**1.8**		**0.06**					**1.9**	**0.51**		**0.02**					**0.52**
Sulphide (Transitional)	0.4% NiEq	Indicated	7.7	0.68	0.16	0.03	0.18	0.11	0.019	0.60	1.6	0.17	0.04	0.01	14	8.1	1.5	46	0.40
		Inferred	8.0	0.97	0.25	0.03	0.17	0.14	0.029	0.79	2.1	0.25	0.06	0.01	14	11	2.3	63	0.55
		Subtotal	**16**	**0.83**	**0.20**	**0.03**	**0.18**	**0.12**	**0.024**	**0.70**	**1.9**	**0.42**	**0.10**	**0.02**	**27**	**19**	**3.8**	**110**	**0.95**
Sulphide (Fresh)	0.4% NiEq	Indicated	150	0.74	0.18	0.03	0.16	0.10	0.016	0.61	1.6	3.5	0.82	0.14	240	150	23	890	7.7
		Inferred	160	0.69	0.16	0.02	0.16	0.10	0.016	0.58	1.6	3.6	0.82	0.12	270	160	26	940	8.2
		Subtotal	**310**	**0.72**	**0.17**	**0.03**	**0.16**	**0.10**	**0.016**	**0.59**	**1.6**	**7.1**	**1.6**	**0.26**	**510**	**310**	**49**	**1,800**	**16**
All		Indicated	150	0.74	0.17	0.03	0.17	0.10	0.016	0.61	1.6	3.7	0.86	0.15	250	160	25	930	8.1
		Inferred	180	0.76	0.15	0.03	0.16	0.09	0.016	0.56	1.6	4.4	0.89	0.15	280	170	28	1,000	9.3
		Total	**330**	**0.75**	**0.16**	**0.03**	**0.16**	**0.10**	**0.016**	**0.58**	**1.6**	**8.1**	**1.7**	**0.30**	**530**	**330**	**53**	**1,900**	**17**

Note some numerical differences may occur due to rounding to 2 significant figures.
NiEq (%) = Ni (%) + 0.37 x Pd (g/t) + 0.24 x Pt (g/t) + 0.25 x Au (g/t) + 0.65 x Cu (%) + 3.24 x Co (%).
PdEq (g/t) = Pd (g/t) + 0.66 x Pt (g/t) + 0.67 x Au (g/t) + 2.71 x Ni (%) + 1.76 x Cu (%) + 8.78 x Co (%).
Includes drill holes drilled up to and including 31 July 2021.

Table 2. Higher-grade sulphide component of Gonneville Resource, 9 November 2021.

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)	0.60% NiEq	Indicated	1.8	1.2	0.28	0.05	0.27	0.19	0.030	1.0	2.8	0.07	0.02	0	4.9	3.4	0.55	18	0.16
		Inferred	3.8	1.5	0.39	0.05	0.21	0.19	0.044	1.1	3.0	0.18	0.05	0.01	7.9	7.2	1.7	42	0.37
		Subtotal	**5.6**	**1.4**	**0.35**	**0.05**	**0.23**	**0.19**	**0.040**	**1.1**	**3.0**	**0.25**	**0.06**	**0.01**	**13**	**11**	**2.2**	**61**	**0.53**
High-grade Sulphide (Fresh)	0.60% NiEq	Indicated	36	1.4	0.35	0.07	0.21	0.21	0.019	1.0	2.8	1.6	0.40	0.08	76	76	6.9	370	3.2
		Inferred	32	1.3	0.30	0.06	0.22	0.21	0.019	1.0	2.7	1.4	0.32	0.06	73	67	6.3	320	2.8
		Subtotal	**68**	**1.4**	**0.33**	**0.06**	**0.22**	**0.21**	**0.019**	1.0	2.8	**3.0**	**0.72**	**0.14**	**150**	**140**	**13**	**700**	**6.0**
All	0.60% NiEq	Indicated	38	1.4	0.35	0.07	0.22	0.21	0.020	1.0	2.8	1.7	0.42	0.08	81	80	7.4	390	3.4
		Inferred	36	1.4	0.31	0.06	0.22	0.21	0.022	1.0	2.8	1.6	0.36	0.06	80	74	8.0	370	3.2
		Total	**74**	**1.4**	**0.33**	**0.06**	**0.22**	**0.21**	**0.021**	**1.0**	**2.8**	**3.3**	**0.78**	**0.15**	**160**	**150**	**15**	**760**	**6.6**

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 (%) = Ni (%) + 0.37 x Pd (g/t) + 0.24 x Pt (g/t) + 0.25 x Au (g/t) + 0.65 x Cu (%) + 3.24 x Co (%).
PdEq (g/t) = Pd (g/t) + 0.66 x Pt (g/t) + 0.67 x Au (g/t) + 2.71 x Ni (%) + 1.76 x Cu (%) + 8.78 x Co (%).
Includes drill holes drilled up to and including 31 July 2021.

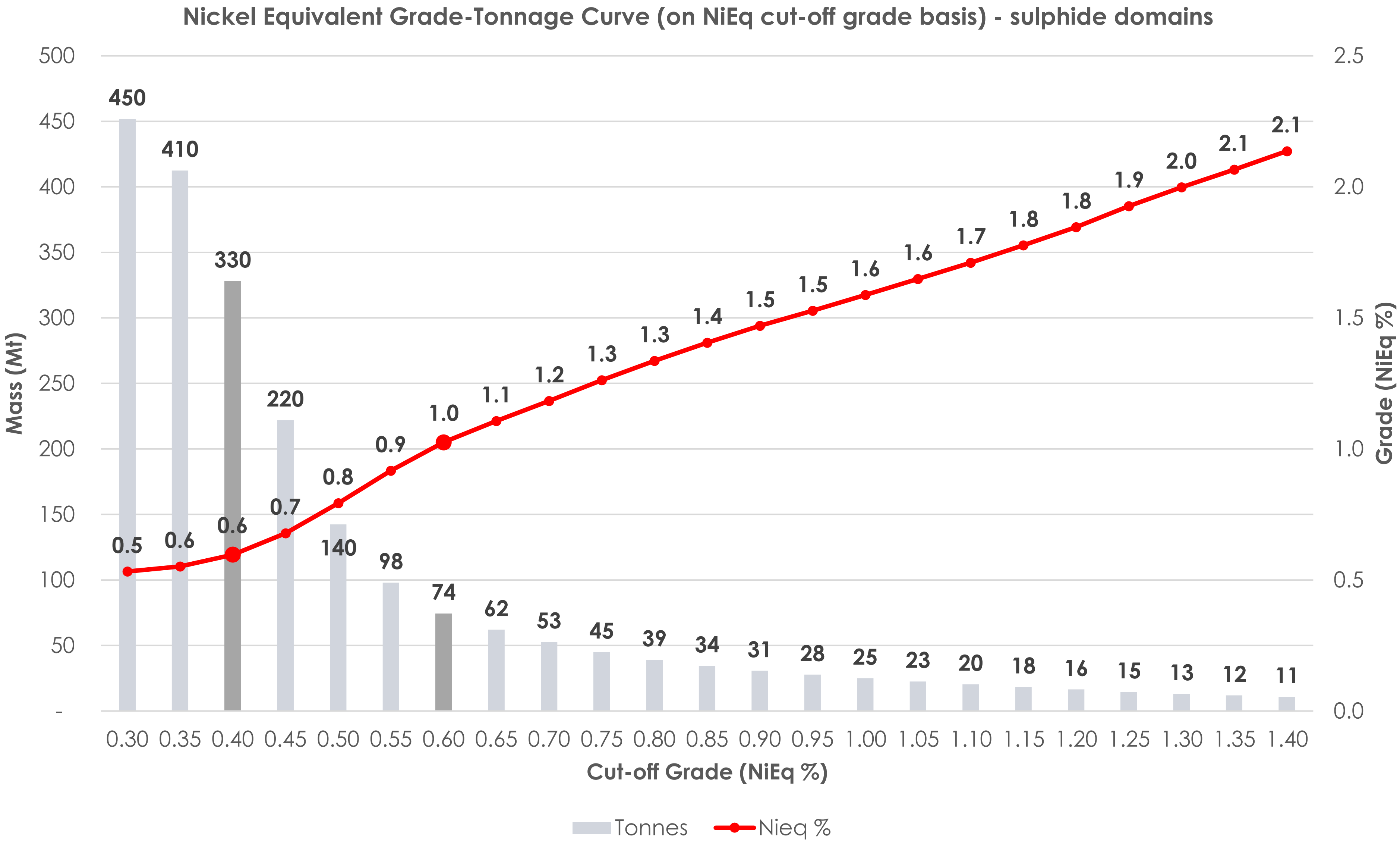

Figure 2. Gonneville NiEq grade-tonnage curve for pit-constrained sulphide mineralisation on a NiEq cut-off grade basis.

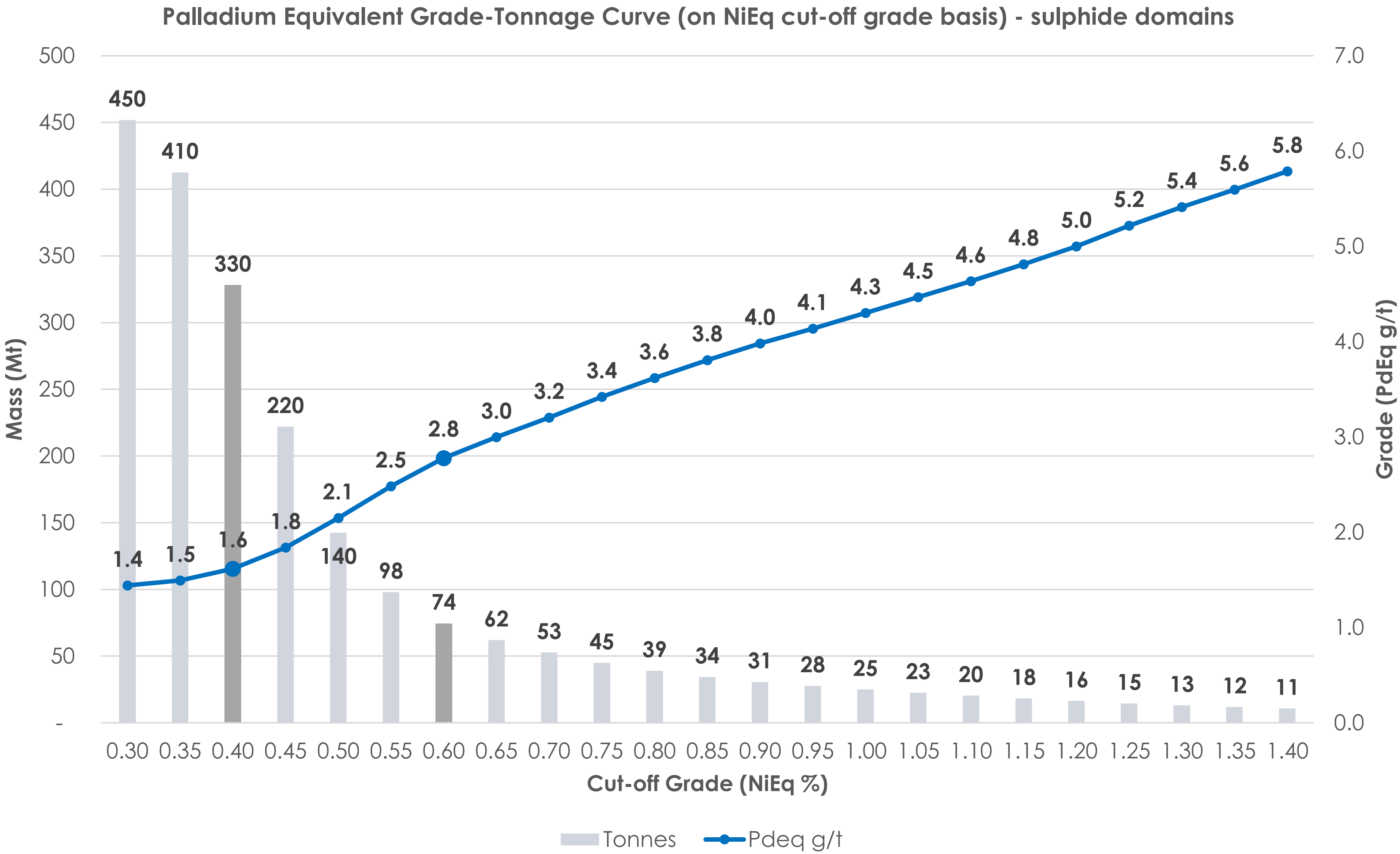

Figure 3. Gonneville PdEq grade-tonnage curve for pit-constrained sulphide mineralisation on a NiEq cut-off grade basis.

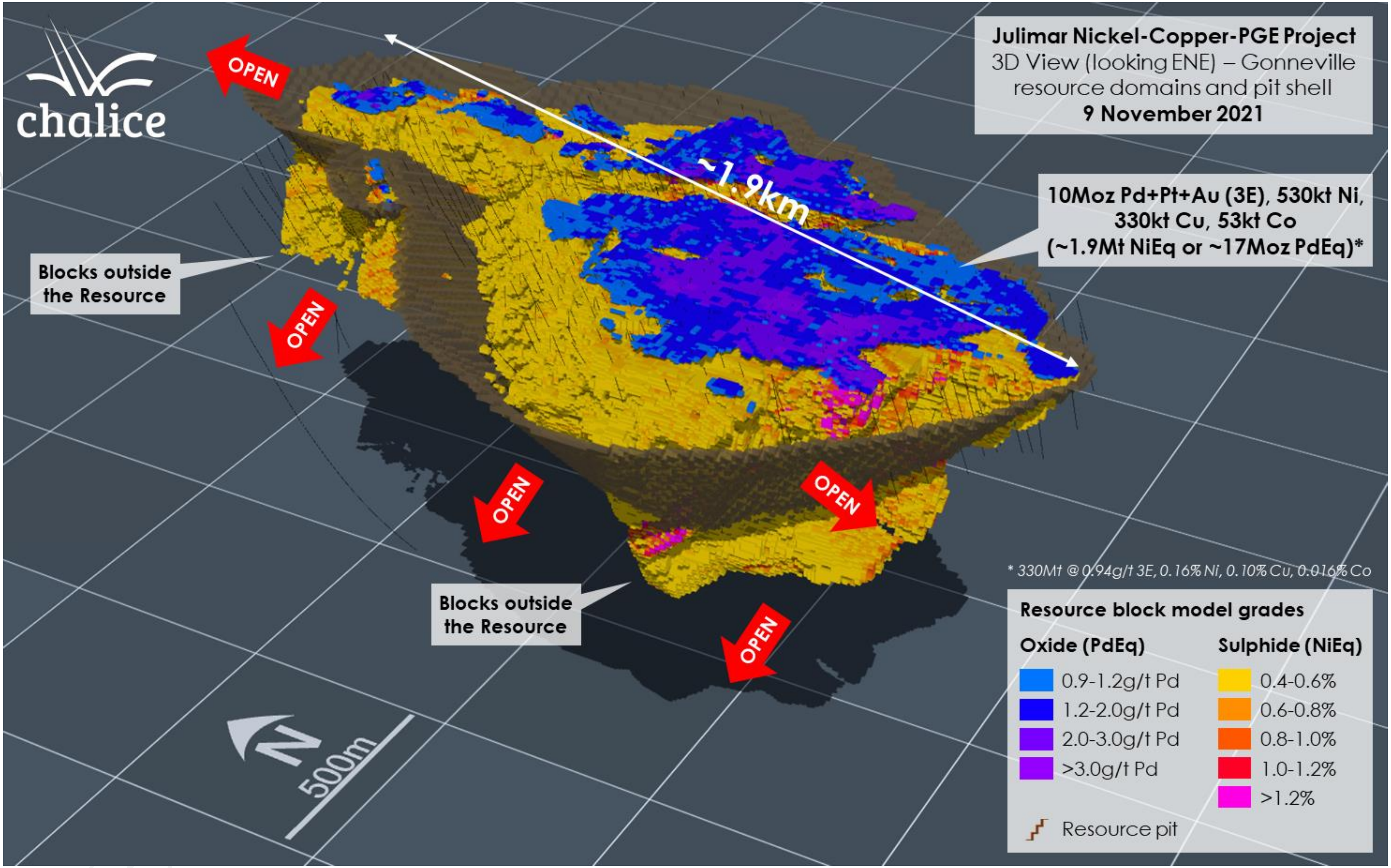

Figure 4. 3D view (looking ENE) of Gonneville block model (all domains) and Resource pit shell.

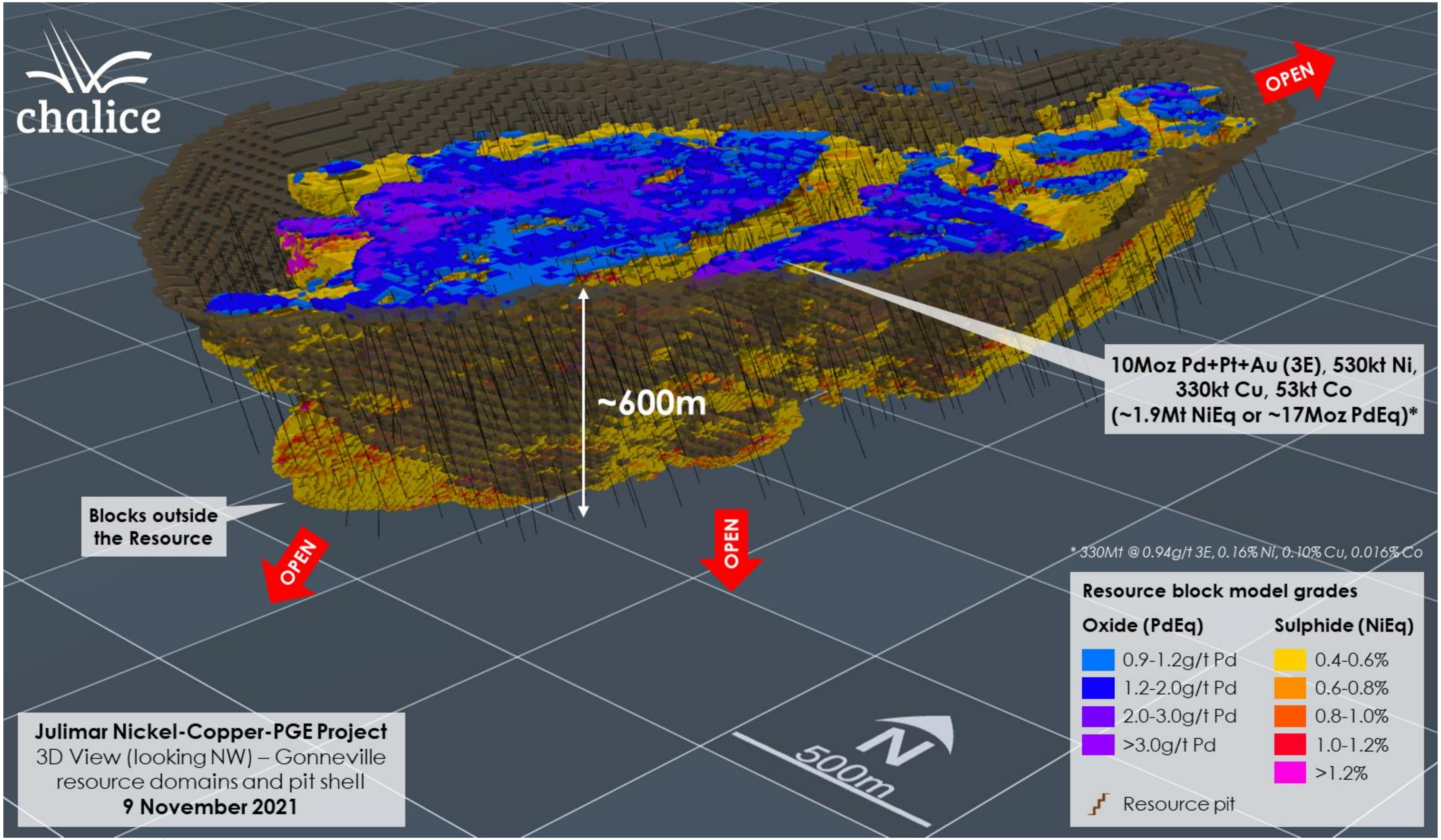

Figure 5. 3D view (looking NW) of Gonneville block model (all domains) and Resource pit shell.

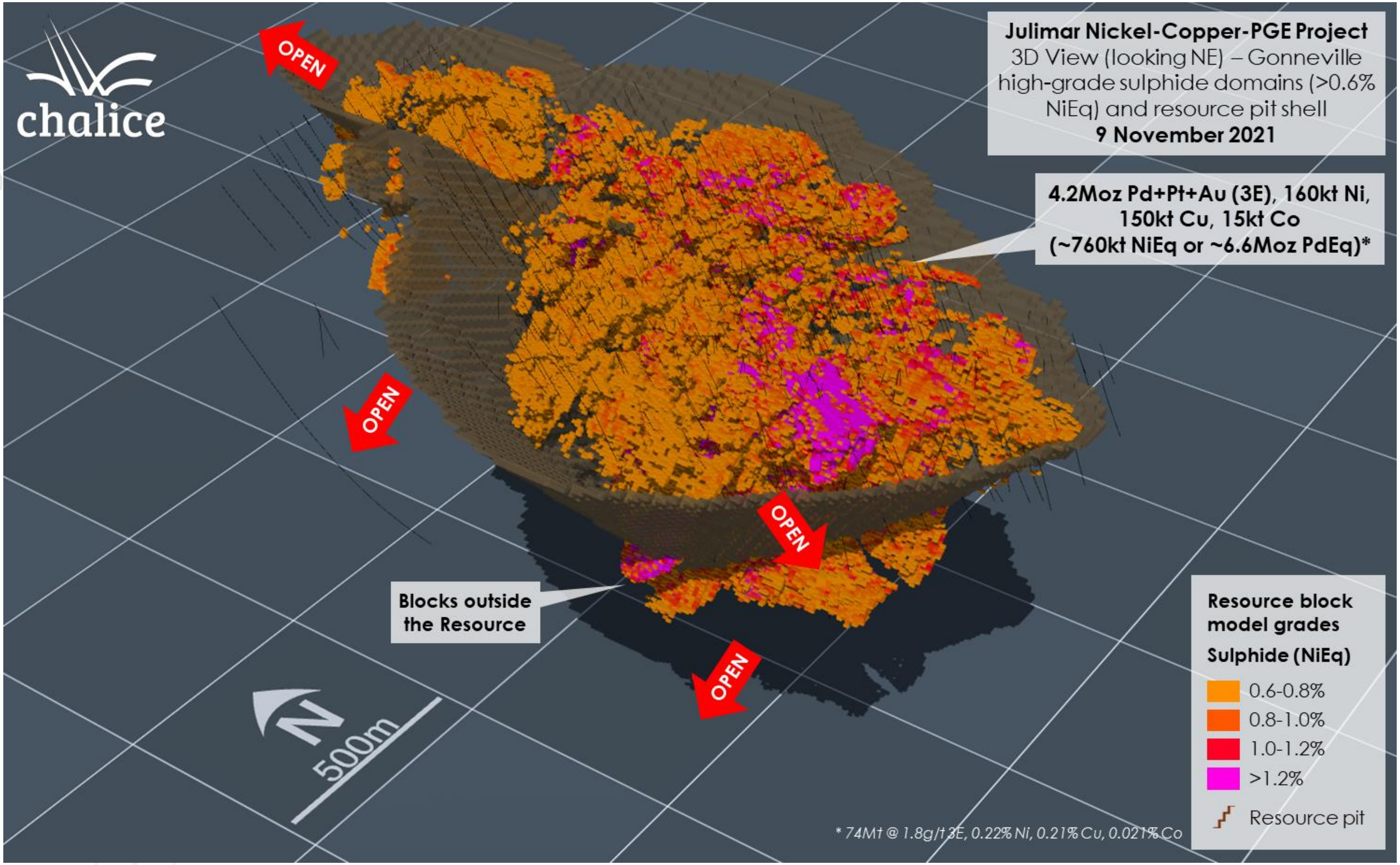

Figure 6. 3D view (looking NE) of Gonneville higher-grade sulphide block model (>0.6% NiEq) and Resource pit shell.

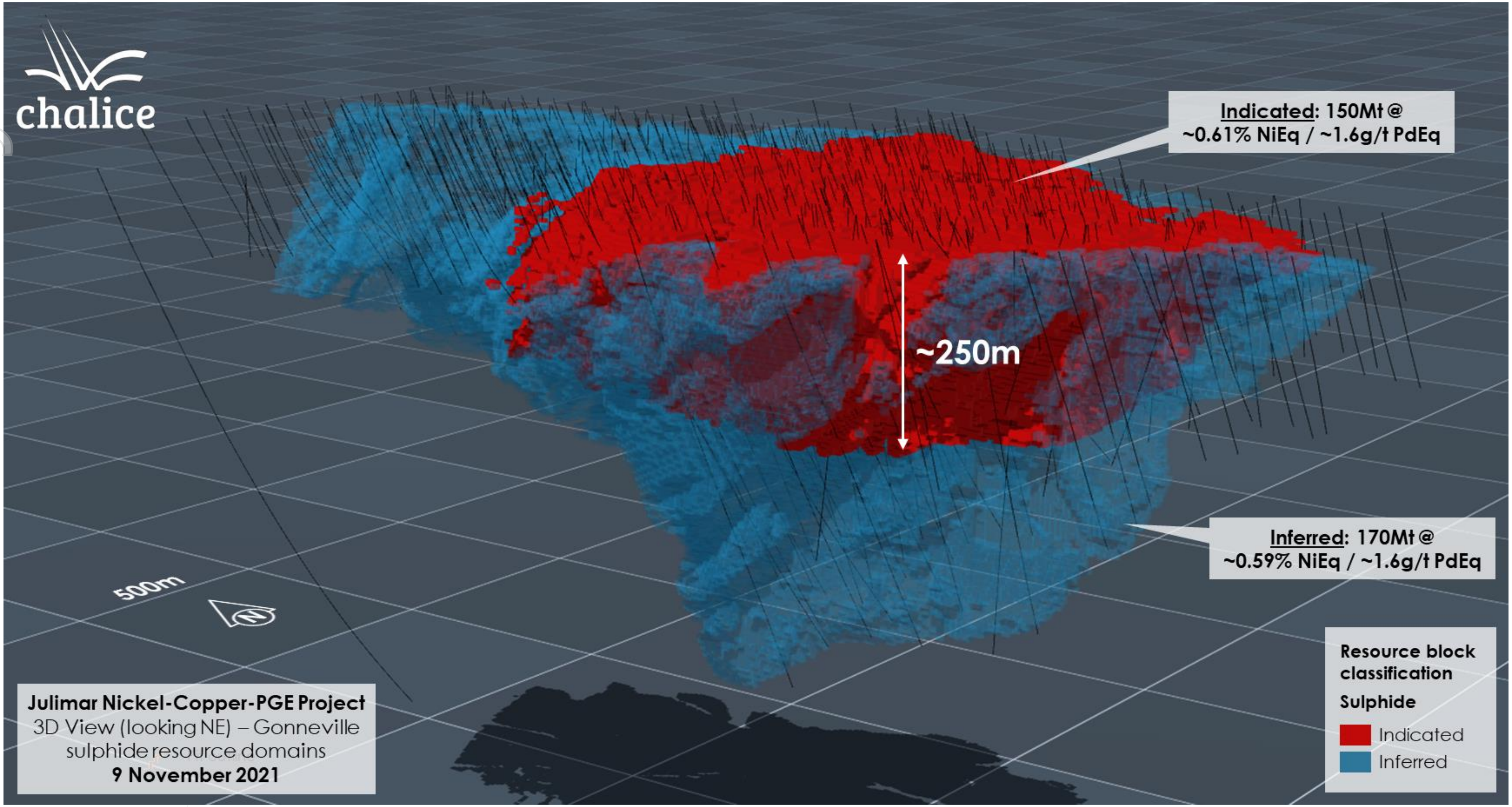

Figure 7. 3D view (looking NE) of Gonneville Indicated and Inferred category blocks (sulphide domains only).

Resource growth potential

The maiden Resource for Gonneville is interpreted to cover just ~7% of the 26km long Julimar Complex (Figure 8 and Figure 9).

Chalice has identified a series of co-incident EM-gravity-soil targets north of Gonneville along the Julimar Complex, which are yet to be drilled. The highest priority target is Hartog, immediately north of Gonneville, which is a ~6.5km long gravity-AEM anomaly with multiple late-time ground EM conductors, some with coincident Ni-Cu-Pd anomalism in soils.

Access approval for initial low-impact reconnaissance drilling within the Julimar State Forest has been sought and is anticipated shortly.

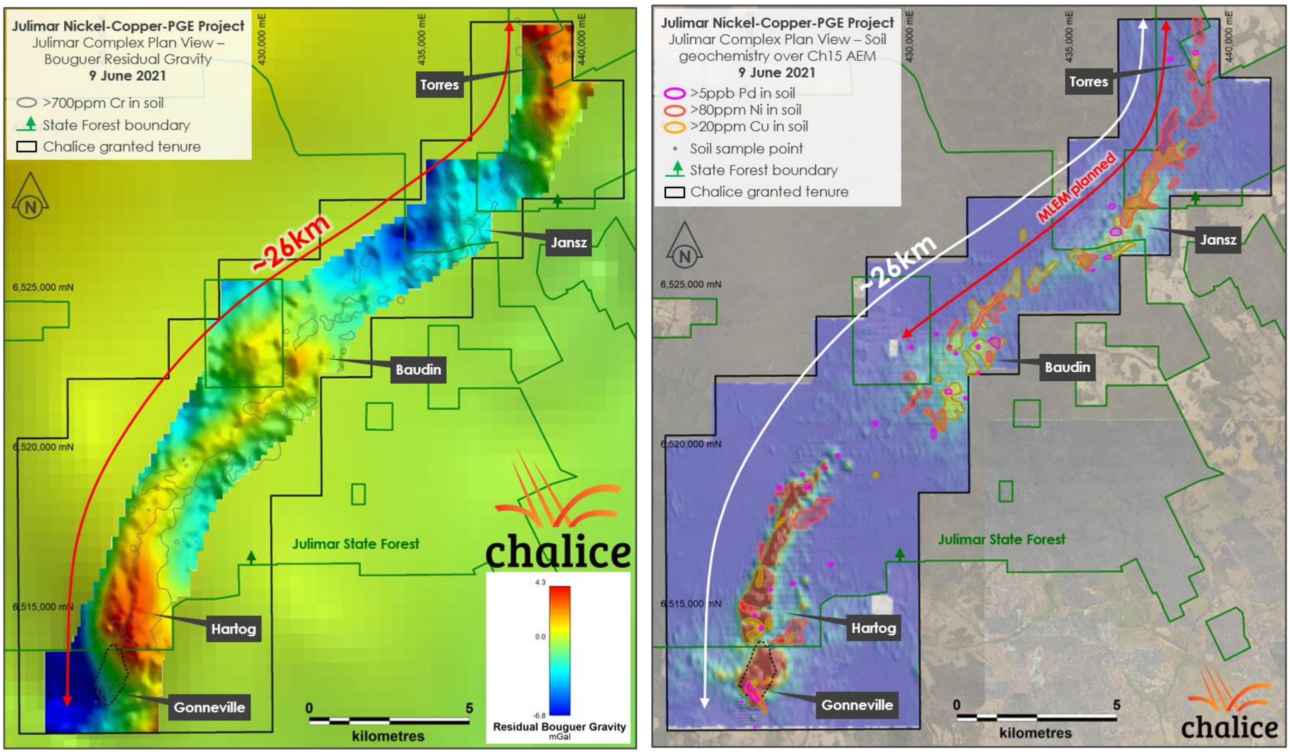

Figure 8. Julimar Complex residual bouguer gravity (left) and airborne EM / soil geochemistry (right).

In addition to being open at the north, Gonneville is also open at the southern end, where there is limited drilling thus far below and along strike from the resource pit (Figure 10). Results from drilling outside the Resource pit shell include (refer to ASX Announcements on 6 October 2020, 18 November, 2020 and 28 September 2021):

- **6m @ 7.8g/t Pd**, 0.1g/t Pt, 0.2% Ni, 0.1% Cu, 0.02% Co from 197m (JRC040);
- **10m @ 3.9g/t Pd**, 0.7g/t Pt, 0.1g/t Au, 0.3% Ni, 0.3% Cu, 0.02% Co from 225m (JRC301);
- **18.1m @ 1.6g/t Pd**, 0.4g/t Pt, 0.2g/t Au, 0.3% Ni, **0.7% Cu**, 0.02% Co from 600.2m (JD121);
- **10m @ 1.7g/t Pd**, 0.6g/t Pt, 0.1g/t Au, 0.2% Ni, 0.1% Cu, 0.02% Co from 93m (JRC299);
- **4.5m @ 2.1g/t Pd**, 0.7g/t Pt, 0.2% Ni, **1.10% Cu** from 393m (JD014);
- **7m @ 1.2g/t Pd**, 0.2g/t Pt, 0.3% Ni, 0.2% Cu, 0.03% Co from 253m (JRC311);
- **3m @ 2.0g/t Pd**, 0.5g/t Pt, 0.5g/t Au, 0.2% Ni, **0.5% Cu**, 0.02% Co from 884m (JD018) – cut by dolerite; and,
- **5m @ 1.7g/t Pd**, 0.6g/t Pt, 0.2g/t Au, 0.2% Ni, 0.2% Cu, 0.02% Co from 455m (JD018).

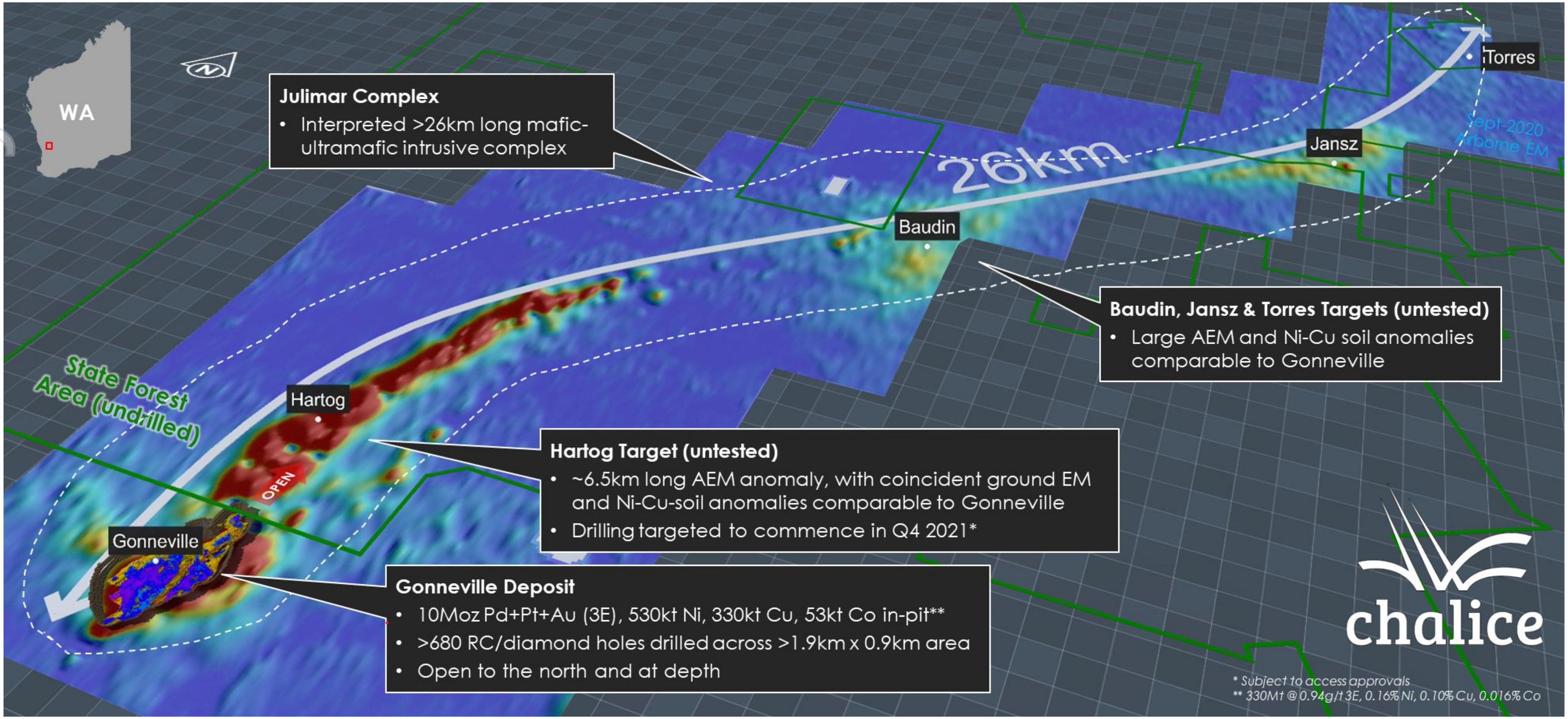

Figure 9. Julimar Complex airborne EM (Sept 2020), Julimar State Forest outline, targets and Gonneville Deposit.

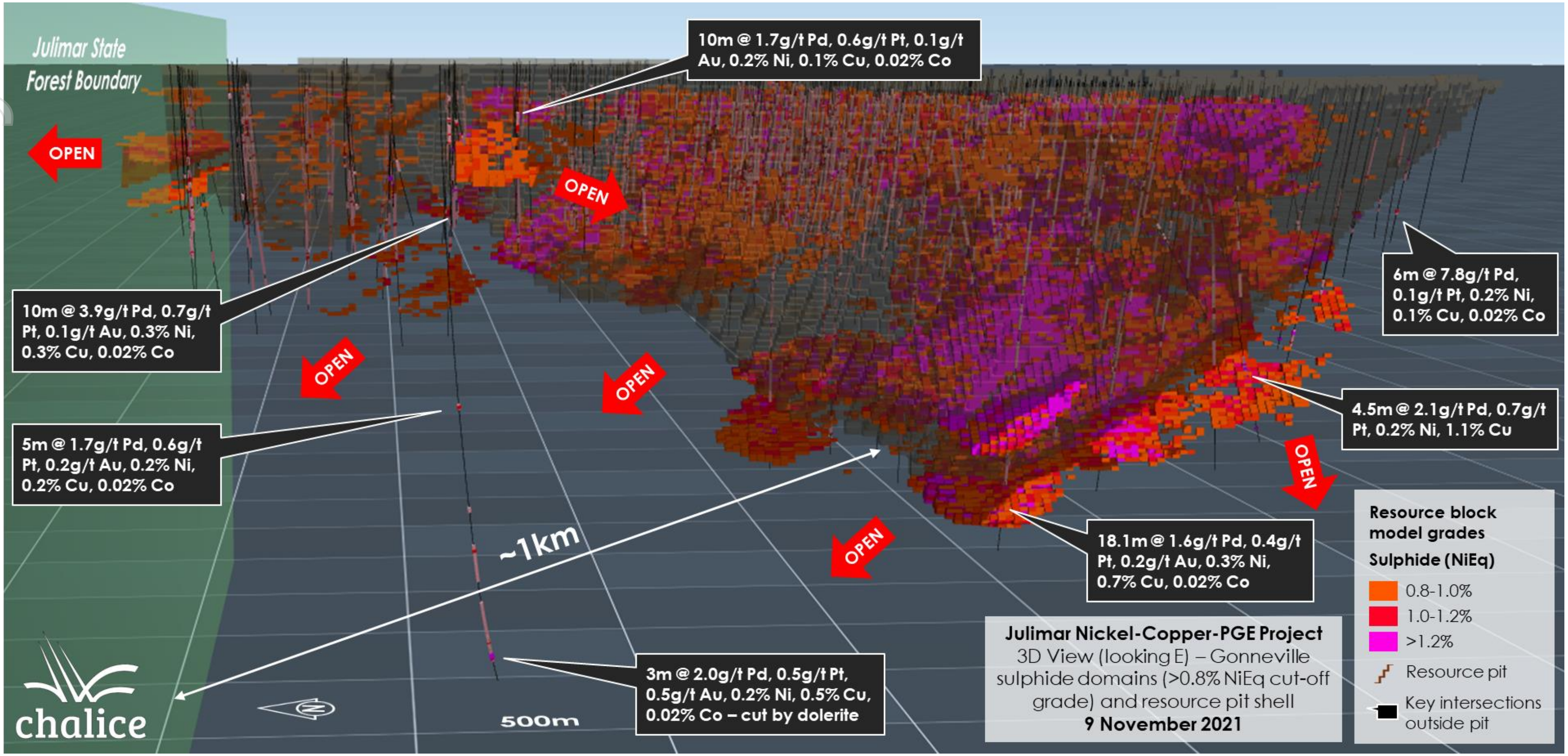

Figure 10. 3D view (looking E) of Gonneville higher-grade sulphide block model (>0.8% NiEq), resource pit shell and key drill intersections outside pit.

Forward plan

Chalice's Julimar Project strategy is to concurrently advance studies for an initial mining development at Gonneville on private farmland while continuing to define the full extent of mineralisation along the >26km long Julimar Complex.

Ongoing and planned activities at Julimar include:

- **Exploration and resource definition drilling (Gonneville)** – Further infill RC and diamond drilling is planned to improve the confidence level in Inferred areas less than 200m deep. Detailed infill drilling may be undertaken in some areas to test the short-range variability of mineralisation and indicate whether current assumptions on the continuity of mineralisation need to be updated. Deeper step-out diamond drilling on a nominal ~80m spacing is expected to continue until ~Q1 2022, subject to results.
- **Geotechnical, metallurgical, hydrogeological and infrastructure drilling (Gonneville)** – AC/RC/diamond drilling to support studies for Gonneville will commence once resource drilling is complete and will continue until ~Q1 2022.
- **Metallurgical testwork (Gonneville)** – ongoing testwork is now focused on the optimisation of disseminated sulphide flotation performance and continuing leach testwork on oxide composites. Investigation into bulk concentrate enrichment alternatives has commenced for the disseminated sulphide mineralisation as part of the recent $2.9M grant from the Australian Government's Co-operative Research Centre Projects (CRC-P) Program. Initial waste rock and tailings characterisation testwork continues.
- **Studies (Gonneville)** – Work is underway to support studies for the project, which will assess potential mine development scenarios for the Gonneville Deposit. The Company anticipates that a Scoping Study for the initial stage of development at Gonneville will be completed in Q2 2022. The large Resource includes a high proportion of Indicated Resources that are near surface, which provides a strong basis for studies.
- **Low Impact reconnaissance drilling at the Hartog-Baudin targets within the Julimar State Forest** – First-pass low-impact drilling utilising small track-mounted diamond rigs is planned to commence immediately once access and permitting approvals have been secured, which is expected shortly. A total of ~70 drill sites are planned across the ~10km strike length, with the ability to drill multiple angled holes at each site. No mechanised vegetation clearance is required to complete this first pass of drilling.
- **Reconnaissance drilling at the Jansz-Torres targets at the northern end of the Julimar Complex** – First-pass AC drilling is planned on private farmland in Q4 2021.

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 >26km 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 intrusion is composed predominantly of serpentinised olivine peridotite / harzburgite (serpentine-magnetite-amphibole-chromite), with lesser intervals of pyroxenite (amphibole-chlorite), gabbro and leucogabbro (clinozoisite-amphibole). It 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. Several litho-chronological domains are recognised within the overall intrusion that are interpreted to represent discrete magma influxes and associated fractionation units (Figure 11). The litho-chronological domains broadly parallel the strike and dip of the Gonneville Intrusion.

Primary Ni-Cu-PGE sulphide mineralisation at Gonneville occurs mostly within the ultramafic domains (harzburgite, pyroxenite), and also within the minor gabbroic domains within the intrusion. 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 12).

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.

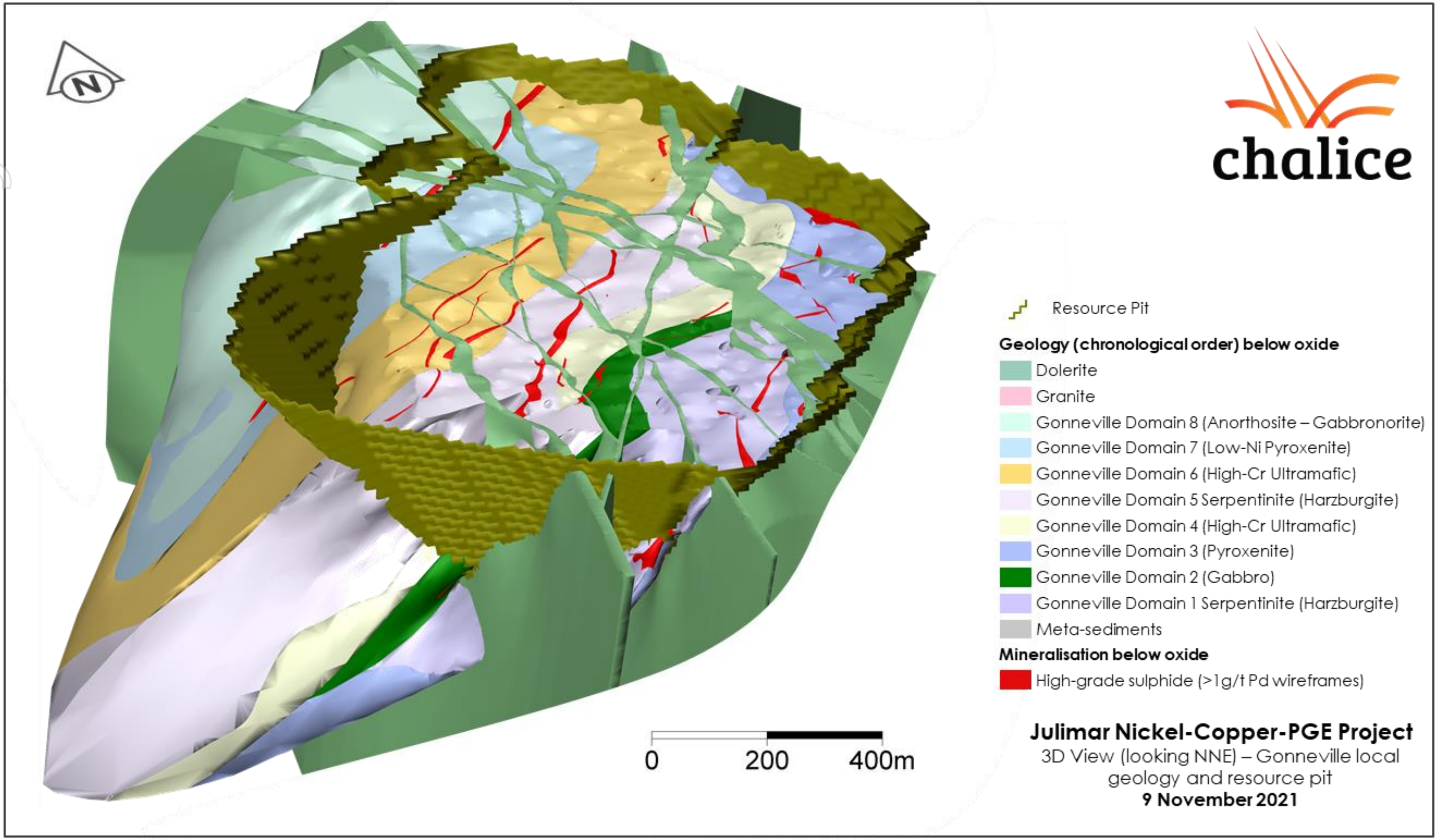

Figure 11. Gonneville 3D view (looking NNE) – local geology and resource pit shell.

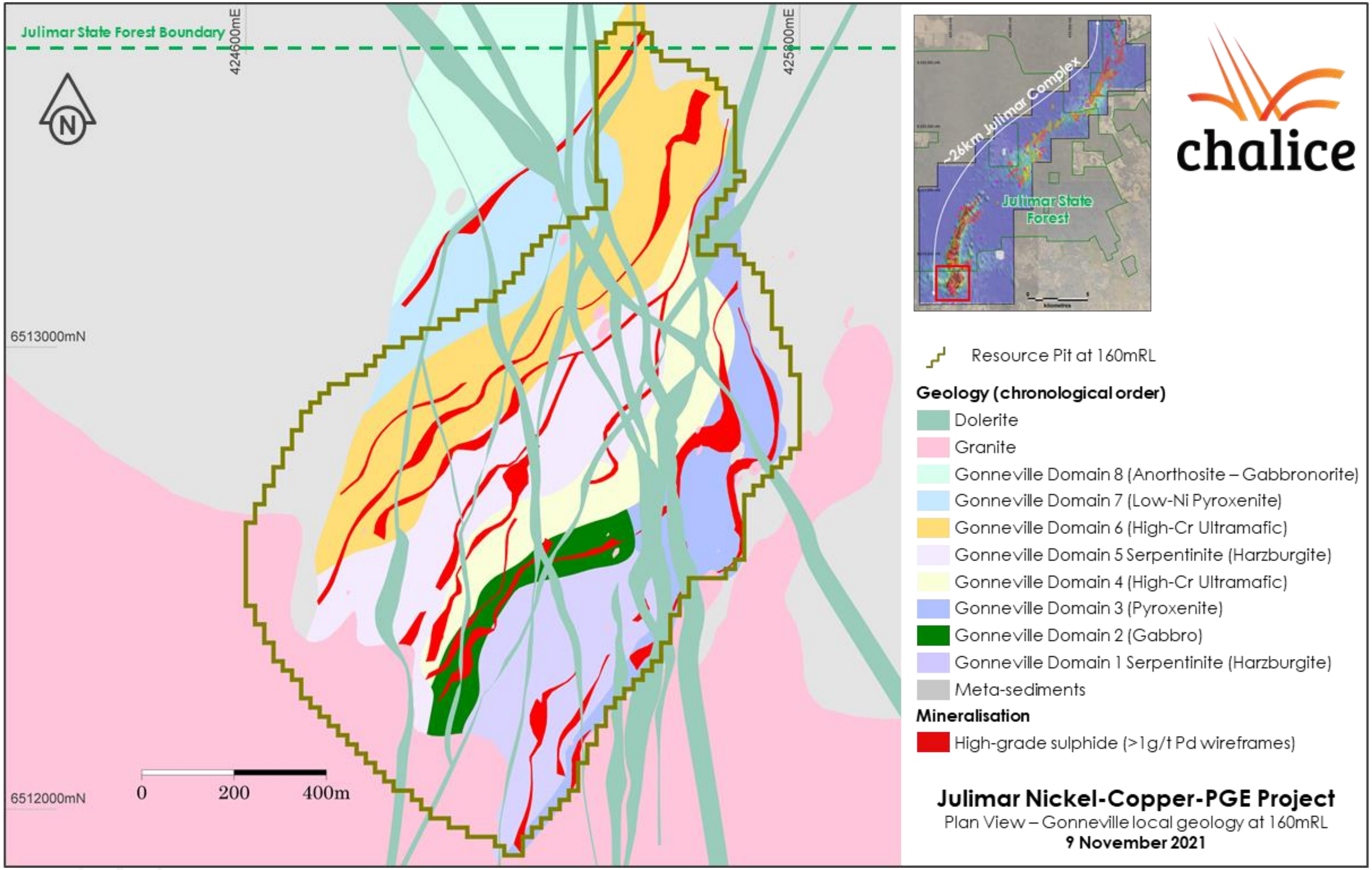

Figure 12. Gonneville Plan View – local geology and resource pit outline at depth of ~80m.

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 31 July 2021.

A total of 133 DD holes (including wedges) 387 RC drill holes (including RC pre-collars with DD tails), and 106 shallow AC holes for 139,000m were included in the maiden resource.

Nominal drill hole spacing at Gonneville is ~80m at the margins and northern portion of the host intrusion. Infill drilling at the southern portion of the intrusion is at a nominal 40m spacing. 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 81 RC holes (including RC pre-collars with diamond tails) and 87 DD holes (including wedges) have been completed subsequent to the holes included in the Resource. A total of ~178,000m 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 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 Gonneville contains no appreciable quantities of these metals.

Certified reference materials (CRMs) and blanks were inserted at rates of approximately 1:20 for all samples. Samples from ~5% of the significant drill intersections 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-chronological and supergene/dispersion zone interpretations. Block modelling and grade estimation was carried out by CSA Global using Datamine software. Statistical analysis was carried out by CSA Global using a combination of Phinar Software's X10-GEO software (version 1.4.18.19) and Snowden's Supervisor software (version 8.14.3.0).

Prior to estimation of variables 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, 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. 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.

For primary Pd, Pt, Ni, Co, Cu, Au mineralisation, located within the host intrusion, geostatistical domains for estimation were defined via a Categorical Indicator Kriging (CIK) process. In the CIK process, assays were composited to the nominal sample length of 1m, and appropriate mineralised grade threshold values selected to create indicator variables in the composited drillhole file. Variograms were modelled for each of the grade-based indicator variables to facilitate their estimation into a small-cell block model (2.5m(E) x 2.5m(N) x 2.5m(RL)) using Ordinary Kriging (OK).

A variable search ellipse orientation strategy was implemented via Datamine Studio's Dynamic Anisotropy (DA) functionality during estimation to honour the local undulations in the mineralisation orientation as interpreted in the underlying geological model of the higher-grade mineralised sulphide zones and primary litho-chronological domains within the intrusion. Application of DA involved creating 'structural trend surfaces' based on the litho-chronological domain wireframe interpretations, logged sulphide content, and palladium grade trends in drillhole data to inform the block search orientations.

After estimation of the indicator variables, a block probability limit, based on optimisation of sample misclassification, was selected to define the sulphide rich (high grade) zones and the sulphide poor (low grade) zones in the model cells. The sulphide rich (high grade) and sulphide poor (low grade) model cells were then used to select and code the composited drillhole data to create matching domaining in blocks and samples. Resolution of the small-cell block model was then reset to a larger parent cell size (20m(E) x 20m(N) x 10m(RL)) suitable for subsequent grade estimation, with the final model being sub-blocked (2.5m(E) x 2.5m(N) x 2.5m(RL)) to respect the sulphide rich (high grade) and the sulphide poor (low grade) coding created during the CIK process.

For secondary mineralisation, located within the weathering profile, geostatistical domains for estimation were defined based on the Chalice geological wireframes represented by the supergene/dispersion zone and base of transported and base of oxidation wireframe interpretations.

Once geostatistical domains for grade estimation were defined, composited drill hole sample populations were statistically analysed to derive grade capping values. Contact analysis of grade variable distributions across the sulphide rich (high grade) and the sulphide poor (low grade) domain codes indicates that sample sharing across the boundaries is not warranted. Variograms were then modelled from the capped composite data for each of the grade variables.

Quantitative kriging neighbourhood analysis (KNA) was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates in order to inform the estimation search plan. Kriging efficiency and slope of regression were determined for a range of block sizes, minimum/maximum samples, search ellipse dimensions and block discretisation grids.

Estimation of Pd, Pt, Ni, Co, Cu, Au and S was subsequently undertaken by OK for the primary and secondary mineralisation. Estimation of density was restricted to the primary mineralisation within the host intrusion. A variable search ellipse orientation strategy was implemented via Datamine Studio's DA functionality during grade estimation to honour the local undulations in the mineralisation orientation. The variable search ellipse orientations used for grade estimation correspond to the orientations applied in the CIK domaining process.

A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not select sufficient data for the block estimate. Initial search ellipse dimensions were set to honour the maximum variogram ranges determined in the three principal directions for each grade variable. Search ellipse expansion for second and third pass interpolations were set to two times and four times the initial search ellipse ranges respectively. Maximum samples per drillhole restrictions have been applied to limit across strike smearing of estimated grades as search volume pass increases.

For Pd, Pt, Ni, Co, Cu, Au and S un-estimated blocks have been assigned default grades of half detection limit for each grade variable. For density, un-estimated blocks within the intrusion have been assigned a default value equal to the average value of the capped composite sample data for the relevant domain. For domains other than the intrusion, where density was not estimated, a default density value equal to the average density of the capped composite sample data for the relevant domain has been applied.

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.

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 the maiden Resource.

Primary mineralisation within the host 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 intrusion informed by a reasonably consistent drill spacing of 80m has been classified as Inferred. The selection of an 80m drill spacing for Inferred was based on:

- The drill spacing corresponds to the nominal exploration drill hole spacing used for the deposit;
- 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.

All fresh and transitional material within the intrusion informed by a consistent drill spacing of 40m has been classified as Indicated. The selection of a 40m drill spacing 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 55m within the sulphide-rich zones;
- Estimation quality metrics, such as slope of regression and kriging efficiency, decrease rapidly in the sulphide-rich zones towards drill spacings approaching the nominal 80m exploration drill hole spacing;
- A 40m 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.

Secondary mineralisation constrained within the supergene/dispersion zone domain in the weathering profile has been classified as Inferred. The Inferred classification has been assigned directly to the model cells based on the supergene/dispersion zone domain code in the block model. While the supergene/dispersion zone material is reasonably well drilled, approaching a regular 40m drill spacing, details regarding processing requirements and metallurgical performance for this material are still to be finalised. In the opinion of the Competent Person, this material should remain classified as Inferred until such time as the metallurgical processing knowledge is more complete.

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 preliminary metallurgical test work indicates that the Mineral Resource is amenable to metallurgical extraction via flotation.

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 2 and Figure 3) were then used to select a suitable higher cut-off grade of 0.60% NiEq for the 'higher-grade sulphide component' (Table 2).

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.

No testwork has been completed on the transitional domain because of the limited amount of transitional material currently available.

Preliminary metallurgical testwork has demonstrated that the sulphide mineralisation is amenable to processing via sulphide flotation. Metallurgical recoveries are based on 6 initial locked cycle flotation tests on high-grade zones, with limited locked cycle testwork completed on low-grade disseminated sulphide mineralisation.

No mining dilution or ore loss modifying factors were applied to the reported Resource. Further modifying factors will be considered during the economic studies for the project.

Analysis of a single sample of copper and nickel concentrate produced from metallurgical testwork did not identify any deleterious elements.

Independent review and audit

No independent audit has been completed on the Resource, however a review of a previous preliminary grade-tonnage estimate (not prepared for reporting under the JORC Code) by Cube Consulting stated that the estimation methodology used by CSA Global was appropriate for the style of mineralisation at Gonneville.

Cube Consulting also completed an independent grade-tonnage estimate based on the same data as the CSA Global grade-tonnage estimate using a different estimation methodology (Localised Uniform Conditioning). This estimate gave very similar results in terms of global (total) tonnes and grade reported above selected cut-off grades, supporting the results of the subsequent CSA Global Mineral Resource Estimate.

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 CSA Global 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:

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

- Metal recoveries based on limited metallurgical test work completed to date:
  - Pd – 75%, Au – 95%.
- Metal prices used are consistent with those used in the pit optimisation:
  - US$1,700/oz Pd, US$1,700/oz Au

Transitional and Fresh Sulphide Domains

Based on limited 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.

No 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:

- NiEq (%) = Ni (%) + 0.37 x Pd (g/t) + 0.24 x Pt (g/t) + 0.25 x Au (g/t) + 0.65 x Cu (%) + 3.24 x Co (%);
- PdEq (g/t) = Pd (g/t) + 0.66 x Pt (g/t) + 0.67 x Au (g/t) + 2.71 x Ni (%)+ 1.76 x Cu (%) + 8.78 x Co (%).

Metal recoveries used in the metal equivalent calculations are at the lower end of the range for all metals in the sulphide domain based on limited metallurgical testwork (refer to ASX Announcement on 28 September 2021). It is cautioned that the majority of metallurgical testwork samples had average grades higher than those reported in the Resource and there is insufficient testwork on lower grade material to indicate whether these recoveries are achievable at lower grades. Metal recoveries used in the metal equivalent calculations are listed below:

- Pd – 75%, Pt – 65%, Au – 50%, Ni – 60%, Cu – 80%, Co – 60%.

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

- US$1,700/oz Pd, US$1,300/oz Pt, US$1,700/oz Au, US$18,500/t Ni, US$9,000/t Cu and US$60,000/t Co.

Authorised for release by the Chalice Board of Directors.

For further information or to view the interactive 3D model of the Julimar Project, please visit www.chalicemining.com, or contact:

Corporate Enquiries

Alex Dorsch
Managing Director & CEO
Chalice Mining Limited
+61 8 9322 3960
info@chalicemining.com

Media Enquiries

Nicholas Read
Principal and Managing Director
Read Corporate Investor Relations
+61 8 9388 1474
info@readcorporate.com.au

Follow our communications

LinkedIn: chalice-mining
Twitter: @chalicemining

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 Phil Jankowski. Mr Jankowski is a full time employee of CSA Global and is a Member of the Australasian Institute of Mining and Metallurgy and a Chartered professional (Geology). Mr Jankowski 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 Jankowski 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 new PGE-copper-gold horizon defined at Julimar", 6 October 2020;

« "Significant high-grade PGE-Cu-Au extensions at Julimar", 18 November; and,

« "Gonneville High-Grade Zones Extended at Depth", 28 September 2021.

The above announcements are available to view on the Company's website at 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; the estimated timing of drilling in the Julimar State Forest; the Company's intended activities at the Julimar Project; and the success of future mining operations.

In certain cases, forward-looking statements can be identified by the use of words such as, "affords", "anticipates", "believe", "considered", "continue", "could", "establishes", "estimate", "expected", "future", "interpreted", "likely", "looking", "may", "open", "plan" or "planned", "potential", "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; obtaining appropriate access to undertake additional ground disturbing exploration work on EM anomalies located in the Julimar State Forrest; the results from testing EM anomalies; 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, ASX at asx.com.au and OTC Markets at otcmarkets.com.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

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.

Appendix A JORC Table 1

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.	• HQ 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). • Reverse Circulation (RC) drilling samples were collected as 1m samples. • Aircore (AC) drilling samples were collected as 1m samples.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Qualitative care taken when sampling diamond drill core to sample the same half of the drill core. • 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. • 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.
	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.	• Mineralisation is easily recognised by the presence of sulphides. In diamond core sample intervals were selected on a qualitative assessment of sulphide content
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).	• Drilling has been undertaken by diamond, Reverse Circulation (RC) and Aircore (AC) techniques. • Diamond drill core is predominantly HQ size (63.5mm diameter). Limited NQ2 (47.6mm diameter) drilling has also been completed. Triple tube has been used from surface until competent bedrock and then standard tube thereafter. • Core orientation is by an ACT Reflex (ACT II RD) tool • RC Drilling uses a face-sampling hammer drill bit with a diameter of 5.5 inches (140mm). • AC drilling used a bladed 100mm bit and was only used in the oxide

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	• Individual recoveries of diamond drill core samples were assessed quantitively 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% • 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 • 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.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	• 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 • 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 • AC drilling was focused on sample recovery by using low air pressure. Bag weighing was completed on every 5th hole to verify the recovery
	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.	• There is no evidence of a sample recovery and grade relationship in unweathered material. • A program of aircore drilling which focused on sample recovery returned slightly higher grades on average than adjacent RC and diamond samples suggesting that there may be some minor loss of Pd mineralisation in the fine material when sample recovery is poor. However, overall it is unlikely to have a material impact on the Resource

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.	• 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.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• Logging is considered qualitative in nature. • Diamond drill core is photographed wet before cutting.
	The total length and percentage of the relevant intersections logged.	• All holes were geologically logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	• Diamond core was sawn in half and one-half quartered and sampled over 0.2-1.2m intervals (mostly 1m).
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• 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. • 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
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• Sample preparation is industry standard and comprises oven drying, jaw crushing and pulverising to -75 microns (80% pass).
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• Field duplicates were collected from AC, RC and diamond drilling at an approximate ratio of one in twenty five. • Diamond drill core field duplicates collected as ¼ core. • RC Field duplicates were collected from selected sulphide zones as a second 1m split directly from the cone splitter. • AC field duplicates were selected randomly from the bulk sample.
	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.	• In the majority of cases the entire hole has been sampled and assayed. • Duplicate sample results were compared with the original sample results and there is no bias observed in the data.

Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	• Drill sample sizes are considered appropriate for the style of mineralisation sought and the nature of the drilling program.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	• 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). • These techniques are considered total digests.
	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.	• Not applicable as no such tools or instruments were used
	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.	• Certified analytical standards and blanks were inserted at appropriate intervals for diamond, RC and AC drill samples with an insertion rate of >5%. Approximately 5% of significant intercepts were sent for cross laboratory checks. All QAQC samples display results within acceptable levels of accuracy and precision.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	• Significant drill intersections are checked by the Project Geologist and then by the General Manager Development. Significant intersections are cross-checked with the logged geology and drill core after final assays are received.
	The use of twinned holes.	• Six sets of twinned holes (RC versus Diamond) have been drilled to provide a comparison between grade/thickness variations over a 5m separation between drill holes. • Only Palladium assays have been analysed as part of this twin hole comparison. Ni and Cu grades are very low level in the selected holes (~0.1 –

Criteria	JORC Code explanation	Commentary
		0.2% Ni and <0.1% Cu), so no meaningful correlation can be obtained. • Intervals correlate well between holes although in detail there is variation between them for higher grade samples in terms of both location and grade. However, there is no discernible grade bias between drill types.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Primary drill data was collected digitally using OCRIS software before being transferred to the master SQL database. • All procedures including data collection, verification, uploading to the database etc are captured in detailed procedures and summarised in a single document.
	Discuss any adjustment to assay data	• No adjustments were made to the lab reported assay data.
Location of data points	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.	• 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. • RTK-DGPS collar pick-ups replace handheld GPS collar pick-ups and have +/-20 mm margin of error. • Planned and final hole coordinates are compared after pick up to ensure that the original target has been tested.
	Specification of the grid system used.	• The grid system used for the location of all drill holes is GDA94 - MGA (Zone 50).
	Quality and adequacy of topographic control.	• RLs for reported holes were derived from RTK-DGPS pick-ups.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	• Drill hole spacing varies from between 40m x 40 m in the south to 160m x 80m in the north and west.
	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.	• Results from the drilling to date are considered sufficient to assume geological or grade continuity appropriate for Mineral Resource estimation procedure(s) and classifications.
	Whether sample compositing has been applied.	• No compositing undertaken for diamond drill core or RC samples.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• 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 due to site access constraints or to test for alternative mineralisation orientations.

Criteria	JORC Code explanation	Commentary
	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.	• The orientation of the drilling is not considered to have introduced sampling bias.
Sample security	The measures taken to ensure sample security.	• 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. • 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.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• CSA Global conducting a site visit and review of the sampling techniques and data as part of the Resource. • SRK completed an independent assurance review of the Chalice and CSA Global procedures including documentation and appropriateness of methods employed.

A-2 Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	• 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.
	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.	• Current drilling is on private land all of which is owned by the Company. • E70/5119 partially overlaps ML1SA, a State Agreement covering Bauxite mineral rights only.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• There is no previous exploration at Gonneville and only limited exploration has been completed by other exploration parties in the vicinity of the targets identified by Chalice to date. • 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.

Criteria	JORC Code explanation	Commentary
		• 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. • 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. • 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. • A local AMAG survey was flown in 1996 by Alcoa using 200m line spacing which has been used by Chalice for targeting purposes.
Geology	Deposit type, geological setting and style of mineralisation.	• 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.
Drill hole Information	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: Easting and northing of the drill hole collar Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar Dip and azimuth of the hole Down hole length and interception depth hole length.	• Not applicable for this report. No previously unreleased exploration results included.
	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.	• No material information has been excluded.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	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.	• Significant intercepts are reported using a >0.3g/t Pd length-weighted cut off. A maximum of 4m internal dilution has been applied.
	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.	• Higher grade intervals are reported using a >1.0g/t Pd and >1.0g/t Pd & >0.5% Ni+Cu length-weighted cut off. A maximum of 2m internal dilution has been applied.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Metal price assumptions used in the metal equivalent calculations are: US$1,700/oz Pd, US$1,300/oz Pt, US$1,700/oz Au, US$18,500/t Ni, US$9,000/t Cu, US$60,000/t Co. • Metallurgical recovery assumptions used in the metal equivalent calculation for the oxide material are: Pd – 75%, Au – 95%. • Hence for the oxide material PdEq (g/t) = Pd (g/t) + 1.27 x Au (g/t). • Metallurgical recovery assumptions used in the metal equivalent calculation for the sulphide (fresh) material are: Pd – 75%, Pt – 65%, Au – 50%, Ni – 60%, Cu – 80%, Co - 60%. • Hence for the sulphide material NiEq = Ni % + 0.37x Pd g/t + 0.24 x Pt g/t + 0.25 x Au g/t + 0.65 x Cu % +3.24 x Co % and PdEq = Pd g/t + 0.66 x Pt g/t + 0.67 x Au g/t + 2.71 x Ni % + 1.76 x Cu % + 8.78 x Co %. • The volume of transitional material is small and considered unlikely to materially affect the overall metal equivalent calculation.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	• 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 due to site access constraints or to test for alternative mineralisation orientations.
	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').	• 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 (> 0.3g/t Pd) true width approximates downhole width. For high grade intercepts (>1g/t Pd) true width is generally between 80 and 100% of the downhole width.

Criteria	JORC Code explanation	Commentary
Diagrams	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.	• Refer to figures in the body of text.
Balanced reporting	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.	• No new exploration intercepts reported.
Other substantive exploration data	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.	• Not applicable. All meaningful data relating to the Mineral Resource has been included
Further work	The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale step-out drilling).	• 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. • Scoping study work has commenced including additional metallurgical testwork, mining studies, tailings studies and waste rock characterisation etc.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Any potential extensions to mineralisation are shown in the figures in the body of the text.

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.	• OCRIS data logging software is used by Chalice for front end data collection and has in-built validation for all geological logging and sampling. • All logging, sampling and assay files are stored in a SQL Server database using DataShed (industry standard drill hole database management software). • User access to the database is regulated by specific user permissions. Only the Database Manager can overwrite data.

Criteria	JORC Code explanation	Commentary
		• All data has passed a validation process; any discrepancies have been checked by Chalice personnel before being updated in the database.
	Data validation procedures used.	• CSA Global completed numerous validations on the drill hole data extraction provided by Chalice for use in the Mineral Resource Estimate. • Absent collar data, multiple collar entries, suspect, downhole survey results, absent survey data, overlapping, intervals, negative sample lengths and sample intervals which extended beyond the hole depth defined in the collar table were reviewed. • Only minor validation errors were detected which were communicated to Chalice and corrected prior to the preparation of the Mineral Resource estimate.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	• A site visit to the Julimar Project was completed by Phil Jankowski (Principal Consultant, Resource Geology at CSA Global) and Aaron Green (Business Unit Managing Partner at CSA Global), on 15 September 2021, and an inspection of the ALS sample preparation and analytical laboratories on 6 September 2021. Phil Jankowski assumes Competent Person status for the Mineral Resource estimate. • 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 Person's opinion, the geological and 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.	• Not applicable (see above)
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	• 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. • Information regarding the in-situ mineral chemistry and spatial distribution of the various mineral species within the

Criteria	JORC Code explanation	Commentary
		primary Ni-Cu-PGE mineralisation is currently not available and has therefore not been incorporated into the geological interpretation for the deposit. • Geological controls on the supergene/dispersion zone material are reasonably simple and well understood. • 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. Work on improving definition of, and confidence in, the Dolerite lithology by Chalice is ongoing.
	Nature of the data used and of any assumptions made.	• Sample intercept logging and assay results from drill core form the basis for the geological interpretations. • A criterion of > 0.9ppm Pd and < 0.3% S 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 effect, if any, of alternative interpretations on Mineral Resource estimation.	• Alternative interpretations are likely to materially impact on the Mineral Resource estimate on a local, but not global, basis.
	The use of geology in guiding and controlling Mineral Resource estimation.	• The litho- chronological domains within the host Ultramafic unit are known to have an association with the orientation of the primary mineralisation 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).
	The factors affecting continuity both of grade and geology.	• The deposit represents part of a large layered intrusion. Sulphide content and metal grade are well correlated, with higher sulphide concentration corresponding to higher metal content. • 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

Criteria	JORC Code explanation	Commentary
		oriented barren dolerite dykes, which overprint the mineralisation.
Dimensions	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.	• The main part of the Mineral Resource extends for a strike length of approximately 1.8km. Plan width of the sub-parallel sulphide rich 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 280m below surface. The reported Inferred Mineral Resource is within approximately 580m below surface.
Estimation and modelling techniques	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.	• 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-chronological and supergene/dispersion zone interpretations. Block modelling and grade estimation was carried out by CSA Global using Datamine software. Statistical analysis was carried out by CSA Global using a combination of Phinar Software's X10-GEO software (version 1.4.18.19) and Snowden's Supervisor software (version 8.14.3.0). • Prior to estimation of variables 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, 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 domains were determined for Pd/Pt, Ni/Co, Cu/Au, S and density variable groupings. Information regarding the in-situ mineral chemistry of the various mineral species for the

Criteria	JORC Code explanation	Commentary
		deposit is currently not available. Mineral speciation was therefore not incorporated into the definition of the geostatistical domains. • For primary Pd, Pt, Ni, Co, Cu, Au mineralisation, located within the Ultramafic intrusion, geostatistical domains for estimation were defined via a Categorical Indicator Kriging (CIK) process. In the CIK process, assays were composited to the nominal sample length of 1m, and appropriate mineralised grade threshold values selected to create indicator variables in the composited drillhole file. For the Pd/Pt variable grouping a 0.9ppm Pd threshold was determined. For the Ni/Co variable grouping a 2,500ppm Ni threshold was determined. For the Cu/Au variable grouping a 1,500ppm Cu threshold was determined. Variograms were modelled for each of the grade-based indicator variables to facilitate indicator estimation into a small-cell block model (2.5m (E) x 2.5m (N) x 2.5m (RL)) using Ordinary Kriging (OK). No transformation other than the indicator transform was applied to the data for variogram modelling. A variable search ellipse orientation strategy was implemented via Datamine Studio's Dynamic Anisotropy (DA) functionality during estimation to honour the local undulations in the mineralisation orientation. Application of DA involved creating "structural trend surfaces" in Datamine software by creating 2D DTM's from interpretation points snapped to drill hole intercepts. The DTM's were based on the litho-chronological domain wireframe interpretations, logged sulphide content, and palladium grade trends in drillhole data to inform the block search orientations. After estimation of the indicator variables a block probability limit, based on optimisation of sample misclassification, as determined from sample misclassification plots for the Pd/Pt Ni/Co and Cu/Au variable groupings, was selected to define the sulphide rich (high grade) zones and the sulphide poor (low grade) zones in the model cells. The sulphide rich (high grade) and sulphide poor (low grade) model cells were then used to select and code the composited drillhole data to create matching domaining in blocks and samples for the Pd/Pt, Ni/Co and Cu/Au variable groupings. Resolution of the small-cell block model was then reset to a larger parent cell size (20m(E) x 20m(N)

Criteria	JORC Code explanation	Commentary
		x 10m(RL)) suitable for subsequent grade estimation, with the final model being sub-blocked (2.5m(E) x 2.5m(N) x 2.5m(RL)) to honour the respective sulphide rich (high grade) and the sulphide poor (low grade) coding created during the CIK process. • For secondary mineralisation, located within the weathering profile, geostatistical domains for estimation were defined based on the geological wireframes represented by the supergene/dispersion zone and base of transported and base of oxidation wireframe interpretations. Pd, Pt, Ni, Co, Cu, Au and S have all been estimated based on the geological wireframes represented by the lithological and weathering interpretations, and no further sub-domaining, i.e,. CIK, has taken place in the weathering profile. • Once geostatistical domains for grade estimation were defined, composited drill hole sample populations were statistically analysed to derive grade capping values. Contact analysis of grade variable distributions across the sulphide rich (high grade) and the sulphide poor (low grade) domain codes indicates that sample sharing across the respective domain boundaries is not warranted, and all geostatistical domains have "hard" boundaries for data analysis and estimation. After application of capping values were applied variograms were modelled from the capped composite data for each of the grade variables. A normal scores transform was applied for variogram modelling, with a back-transform to real space applied before using the variogram models in grade estimation. Quantitative kriging neighbourhood analysis (KNA) was undertaken to assess the effect of changing key kriging neighbourhood parameters on block grade estimates in order to develop the estimation search plan. Kriging efficiency and slope of regression were determined for a range of block sizes, minimum/maximum samples, search ellipse dimensions and block discretisation grids. • Estimation of Pd, Pt, Ni, Co, Cu, Au and S was subsequently undertaken by OK for the primary and secondary mineralisation. Estimation of density was restricted to the primary mineralisation within the host Ultramafic intrusion. A variable search ellipse orientation strategy was implemented via Datamine Studio's DA functionality during grade

Criteria	JORC Code explanation	Commentary
		estimation to honour the local undulations in the mineralisation orientation. The variable search ellipse orientations used for grade estimation correspond to the orientations applied in the CIK domaining process. A three-pass search ellipse strategy was adopted whereby search ellipses were progressively increased if search criteria could not select sufficient data for the block estimate. Initial search ellipse dimensions were set to honour the maximum variogram ranges determined in the three principal directions for each grade variable. Search ellipse expansion for second and third pass interpolations were set to two times and four times the initial search ellipse ranges respectively. Maximum samples per drillhole restrictions have been applied to limit across strike smearing of estimated grades as search volume pass increases. • QKNA estimation search plans determined: • Primary mineralisation Pd/Pt, Ni/Co, Cu/Au and S- A minimum of 12 and maximum of 24 samples per estimate into a parent block size 20m(E) x 20m(N) x 10m(RL). Maximum number of samples per drillhole of 8. Search pass ellipse size equal to the variogram ranges. Block discretisation scheme 4pts(E) x 4pts(N) x 2pts(RL). • Primary mineralisation density - A minimum of 8 and maximum of 16 samples per estimate into a parent block size 20m(E) x 20m(N) x 10m(RL). Maximum number of samples per drillhole of 6. Search pass ellipse size equal to the variogram ranges. Block discretisation scheme 4pts(E) x 4pts(N) x 2pts(RL). • Secondary mineralisation Pd, Pt, Ni, Co, Cu, Au - A minimum of 12 and maximum of 24 samples per estimate into a parent block size 20m(E) x 20m(N) x 10m(RL). Maximum number of samples per drillhole of 8. Search pass ellipse size equal to the variogram range. Block discretisation scheme 4pts(E) x 4pts(N) x 2pts(RL). • Secondary mineralisation S - A minimum of 12 and maximum of 16 samples per estimate into a parent block size 20m(E) x 20m(N) x 10m(RL). Maximum number of samples per drillhole of 8. Search pass ellipse size equal to the variogram range. Block discretisation scheme 4pts(E) x 4pts(N) x 2pts(RL). • For Pd, Pt, Ni, Co, Cu, Au and S un-estimated blocks have been assigned

Criteria	JORC Code explanation	Commentary
		default grades of half detection limit for each grade variable. For bulk density, un-estimated blocks within the Ultramafic intrusion have been assigned a default value equal to the average value of the capped composite sample data for the relevant domain. For domains other than the Ultramafic intrusion, where density was not estimated, a default density value equal to the average density of the capped composite sample data for the relevant domain has been applied. • 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.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	• No previous Mineral Resource estimates reported in accordance with the JORC Code were available for comparison. • No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates. • In addition to CSA Global internal QAQC process, a check estimate was completed by Cube Consulting on a previous grade-tonnage estimate (not prepared for reporting under the JORC Code) but not the current MRE.
	The assumptions made regarding recovery of by-products.	• 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.
	Estimation of deleterious elements or other non-grade variables of economic significance (eg. sulphur for acid mine drainage characterisation).	• Sulphur has been estimated as part of the Mineral Resource estimate • No deleterious variables have been estimated but to date there are no indications of any deleterious elements in concentrate samples.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	• A 20m E x 20m N x 10m RL parent cell size was used for grade estimation. Infill drilling has been undertaken to approximately 40m spacing in the upper section of the deposit. The block size therefore represents approximately half the drillhole spacing.
	Any assumptions behind modelling of selective mining units.	• No assumptions have been made regarding selective mining units.
	Any assumptions about correlation between variables.	• No assumptions were made regarding correlation between variables.

Criteria	JORC Code explanation	Commentary
	Description of how the geological interpretation was used to control the resource estimates.	• The litho- chronological domains within the host Ultramafic unit are known to have an association with the orientation of the primary mineralisation 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). • 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.
	Discussion of basis for using or not using grade cutting or capping.	• The need for grade capping was assessed for all estimated variables on a per geostatistical domain basis prior to estimation. • Histograms and log-probability plots were used to review composited sample grade distributions graphically. Additionally, a visual inspection was carried out in Datamine for potential clustering of very high-grade sample data prior to selecting a capping value. • Capping values, where deemed necessary, were applied to the composited sample grades.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• 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. The block model reflected the tenor of the grades in the drillhole samples both globally and locally. • No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• Tonnages are estimated on a dry basis. No moisture data is available.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• Any oxide block within the optimisation pit shell above a palladium cut-off of 0.9 g/t is considered as Mineral Resource.

Criteria	JORC Code explanation	Commentary
		• Any transitional or fresh block within the optimised pit shell above a nickel equivalent cut-off of 0.4% is considered as Mineral Resource.
Mining factors or assumptions	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.	• This Mineral Resource estimate is based on conventional drill, blast, load, and haul mining methods. • The pit optimisations prepared to support reasonable prospects for eventual economic extraction had appropriate mining dilution and ore loss applied. • The Mineral Resource estimate is reported without mining dilution or ore loss.
Metallurgical factors or assumptions	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.	• Metallurgical test work on oxide material conducted includes: • Detailed QEMSCAN and XRD mineralogy on composites. • Approximately 60 laboratory batch leach tests using a variety of reagent suites to assess potential extraction. • Metallurgical test work on sulphide material conducted includes: • Detailed QEMSCAN and XRD mineralogy on 12 composites and a further 4 sets of mineralogy of flotation test products. • Comminution testing includes 12 SMC SAG milling tests plus 48 Ball Mill Work Indices. • Flotation testwork on a suite of six ore type composites and four mining composites comprising over 130 individual tests, including 9 locked cycle tests (LCT). • These composite samples are focussed on the higher grade zones of the deposit and only limited work has been undertaken on lower grade, especially disseminated, ore types. • LCT results were used as a basis for estimating metallurgical recovery. • 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; scouting test work is currently underway. • 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

Criteria	JORC Code explanation	Commentary
		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. • 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. • For the purposes of metal equivalent calculations, metallurgical recovery assumptions for the oxide material are: Pd – 75%, Au – 95% and for sulphide are: Pd – 75%, Pt – 65%, Au – 50%, Ni – 60%, Cu – 80%, Co - 60%.
Environmental factors or assumptions	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.	• This is the maiden Resource for the Julimar Project and the 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.
Bulk density	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.	• Sample density determinations were carried out using the water displacement method. • Incompetent oxide core samples from the weathering profile are wax-coated prior to density determination. • Density standards are employed in the density determination process. • 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.
	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.	• Incompetent oxide core samples are wax-coated prior to density determination.

Criteria	JORC Code explanation	Commentary
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• 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. • Model tonnages are subsequently estimated on a dry basis.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	• 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 the maiden Resource. • 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 informed by a reasonably consistent drill spacing of 80 m has been classified as Inferred. The selection of an 80 m drill spacing distance for Inferred was based on: • The drill spacing corresponds to the nominal exploration drill hole spacing used for the deposit. • 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. • All fresh and transitional material within the Ultramafic intrusion 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: • 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. • Variogram ranges of the main economic grade variable, Pd, indicating that grade continuity does not exceed 55m within the sulphide-rich zones.

Criteria	JORC Code explanation	Commentary
		• Estimation quality metrics, such as slope of regression and kriging efficiency, decrease rapidly in the sulphide-rich zones towards drill spacings approaching the nominal 80m exploration drill hole spacing. • A 40m 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. • Secondary mineralisation constrained within the supergene/dispersion zone domain in the weathering profile has been classified as Inferred. The Inferred classification has been assigned directly to the model cells based on the supergene/dispersion zone domain code in the block model. While the supergene/dispersion zone material is reasonably well drilled, approaching a regular 40m drill spacing, details regarding processing requirements and metallurgy performance for this material are still to be finalised. In the opinion of the competent person, this material should remain classified as Inferred until such time as the metallurgical processing knowledge is more complete.
	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).	• 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 metallurgical processing knowledge.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	• The Mineral Resource appropriately reflects the Competent Person's views of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	• In addition to CSA Global internal checks, a check estimate was completed by Cube Consulting on a previous grade-tonnage estimate (not prepared for reporting under the JORC Code) but not the current Resource. A review of inputs, assumptions and estimation methodology was completed by SRK prior to completion and reporting of the Resource.
Discussion of relative accuracy/ confidence	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	• The Mineral Resource accuracy is communicated through the classification assigned to this Mineral Resource. The Resource has been classified in accordance with the JORC

Criteria	JORC Code explanation	Commentary
	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.	Code (2012 Edition) using a qualitative approach. • All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this table.
	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.	• The Mineral Resource statement relates to a global tonnage and grade estimate. Grade estimates have been made for each block in the block model.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• No previous mining has taken place at the project, and production data is not available to reconcile against the block model estimates.