chalice

ASX Announcement

6 May 2025

Further process flowsheet improvements at Gonneville

Significant increases in metal recoveries achieved from flotation and CIL leach processes, plus a potentially new iron byproduct produced in testwork

Highlights

- Further to the metallurgical breakthrough and flowsheet simplification announced on 17 February 2025, Chalice has now completed testwork and mass balances on all Gonneville sulphide mine composites, with a further improvement in overall recoveries confirmed:

Testwork	Type	Period	Overall metal recovery (%)					
			Pd	Ni	Cu	Co	Pt	Au
Prev Feb-25	**Fresh Sulphide**	**Yr1-4**	76-81	45-47	74-82	48-63	26-44	81-86
		Yr5+	70-75	25-40	68-77	27-48	24-41	84-88
New Apr-25	**Fresh Sulphide**	**Yr1-4**	80-85	50-56	79-87	43-58	25-43	76-81
		Yr5+	72-77	30-45	68-77	32-53	26-43	87-91
Difference		**Yr1-4**	**+4%**	**+7%**	**+5%**	**-5%**	**-1%**	**-5%**
		Yr5+	**+2%**	**+5%**	**-**	**+5%**	**+2%**	**+3%**

- Testwork using simple, low-cost, low intensity magnetic separation (LIMS) prior to CIL leaching unexpectedly demonstrates the **potential to create a saleable iron byproduct:**
  - **Saleable iron product** (predominantly magnetite) confirmed on assessment by an independent, specialist, technical magnetite marketing advisor.
  - Products grading **64-66% Fe**, with acceptable low levels of impurities including <4% SiO_2 and <0.35% Al_2O_3.
  - **3-5% total mass pull** to iron product across all sulphide mine composites, with minimal (<3%) palladium losses.
  - Magnetic separation already part of the flowsheet to reduce CIL reagent consumption, so **minimal additional processing costs expected**.
- Project **margins for a bulk open-pit mine plan are expected to improve further** relative to the 2023 Scoping Study (using conservative, consistent macro-economic assumptions) as a result of all recent process flowsheet optimisations.
- Geological modelling to better quantify iron/magnetite in the deposit is underway, which dictates PFS completion in Q4 CY25, but no change to overall project schedule.
- Chalice remains in a strong financial position with **A$83 million in cash and listed investments.**[1]

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[1] As of 31 March 2025

Registered Office
ABN 47 116 648 956

Level 3, 46 Colin Street
West Perth, Western Australia
PO Box 480, West Perth WA 6872

T: +61 8 9322 3960

info@chalicemining.com
www.chalicemining.com

@chalicemining
chalice-mining

Chalice's Managing Director and CEO Alex Dorsch said: *"We have now achieved several step-changes in process performance in the last few months, which is a credit to the Chalice technical team. These cumulative improvements in recoveries, operating costs, and now potentially a new iron byproduct, represent likely game-changers for the world-class Gonneville Project.*

"As expected, given the unique scale and polymetallic nature of the Gonneville deposit, it was going to take some time to fully understand and extract maximum value from the process flowsheet. We have persisted in this endeavour through unsustainable market conditions and we now have a much clearer pathway to develop the Project.

"We have now established a far superior flowsheet that opens up a bulk open pit mine plan, with a very low strip ratio, at bottom-of-the-cycle metals prices. This means we have further improved the competitiveness of the asset and reduced the incentive price levels required to develop the Project."

Chalice's COO Dan Brearley said: *"Coming into the Chalice team I have been impressed by the level of rigour and technical de-risking undertaken to date on the Project. As a result, I believe there are fantastic foundations in place to support a multi-generational mining asset. These latest results give me confidence that we have a serious project to develop.*

"The Pre-Feasibility Study is now well advanced in terms of processing and mining parameters, with the focus now on quantifying the iron byproduct, finalising plant capital and operating costs and finalising options and costing of supporting infrastructure. There are no significant technical impediments remaining to developing this Project.

"Environmental modelling based on the preferred staged development case is now well underway, ahead of full-form regulatory submissions early next year. We have secured very strong support from government at all levels, which gives us confidence there is a clear pathway to securing all approvals in a timely manner."

Overview

Chalice Mining Limited ("Chalice" or the "the Company", ASX: CHN) is pleased to provide an update on the ongoing Pre-Feasibility Study ("PFS") for the 100%-owned **Gonneville PGE-Ni-Cu-Co Project** ("Project"), located on Chalice-owned farmland ~70km north-east of Perth in Western Australia.

Chalice's strategy for the Gonneville Project (the "Project") is to progress development studies and regulatory approvals to deliver an optimised, staged development plan for the Project. In parallel, Chalice also continues to engage with potential strategic offtake/financing partners for the Project.

The Pre-Feasibility Study (PFS) commenced in mid-2023 with the key objectives being to assess the technical viability of the Project, select a preferred staged development pathway to progress into a Feasibility Study (FS), and deliver an economic evaluation that can be tested using a range of macro-economic assumptions. Chalice is targeting completion of the Pre-Feasibility Study (PFS) in Q4 CY25.

The Company continues to collaborate with Mitsubishi Corporation under a non-binding strategic MOU to determine optimal marketing and offtake solutions for future Gonneville products and to optimise the Project to maximise value and optionality.

Flowsheet development testwork to date for the PFS has involved:

- Comminution (crush, grind) testwork utilising conventional SAG-ball milling, High Pressure Grinding Rolls (HPGRs) and Vertical Roller Mills (VRMs);
- Froth flotation (concentration) testwork utilising sequential copper-nickel configurations, with a focus on producing saleable smelter-grade concentrates;
- Leach testwork utilising Carbon-in-Leach (CIL) standard gold industry techniques to recover additional palladium and gold from the flotation tails and oxide material; and

« Magnetic separation testwork on oxide and flotation tails, aiming to remove reactive sulphides and therefore reduce leach reagent consumption in the CIL circuit.

The process flowsheet now contemplates a simple, industry-standard configuration, utilising concentrator-magnetic separation-leach processes, to produce saleable Cu-PGE-Au and Ni-Co-PGE flotation concentrates, an iron byproduct (predominantly magnetite) and saleable PGE-Au doré (Figure 1).

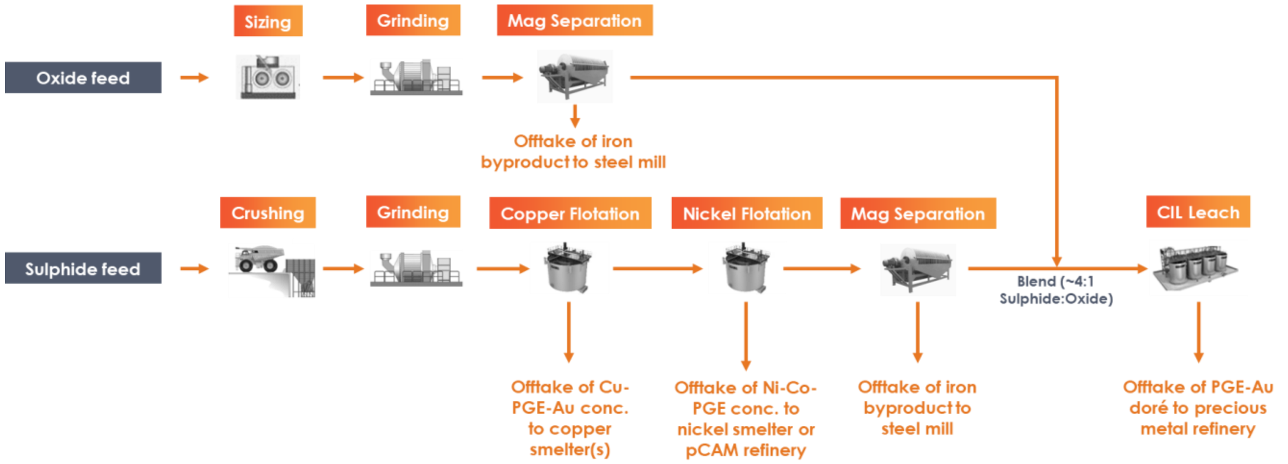

Figure 1. Gonneville Project Process Flowsheet (simplified).

Locked cycle, end-to-end testing on the new flowsheet has been completed on representative sulphide mine composites to derive mass balances to products/tails. As expected, recovery improvements have been realised across palladium, nickel and copper in fresh sulphide composites (Table 1).

Table 1. Indicative fresh sulphide overall metal recoveries expected based on new testwork.

Testwork	Type	Period	Overall metal recovery (%)					
			Pd	Ni	Cu	Co	Pt	Au
Prev Feb-25	**Fresh Sulphide**	**Yr1-4**	76-81	45-47	74-82	48-63	26-44	81-86
		Yr5+	70-75	25-40	68-77	27-48	24-41	84-88
New Apr-25	**Fresh Sulphide**	**Yr1-4**	80-85	50-56	79-87	43-58	25-43	76-81
		Yr5+	72-77	30-45	68-77	32-53	26-43	87-91
Difference		**Yr1-4**	**+4%**	**+7%**	**+5%**	**-5%**	**-1%**	**-5%**
		Yr5+	**+2%**	**+5%**	**-**	**+5**	**+2%**	**+3%**

The mine plan and hence feed grade profile for the PFS is not yet finalised and given recoveries are a function of head grade, the above table is indicative only. Transitional and oxide testwork and optimisations are continuing.

The first four years of the mine plan are expected to have significantly higher feed grade than the later years, which will drive higher recoveries for that initial period.

Relative to the 2023 Scoping Study the new flowsheet and flotation-leaching parameters deliver a significant reduction in capital and operating costs, which outweigh the marginally lower overall recoveries expected from a bulk open pit mine plan.

Testwork and optimisations on the oxide and transitional composites are ongoing and will be finalised for the completion of the PFS.

The final mass balance results, including test work on the oxide and transitional blocks will inform head grade vs recovery algorithms, on a block-by-block basis, for the mine optimisations/schedules as part of the PFS.

Low-cost magnetic separation has been trialled in the flowsheet ahead of the leach circuit feed as a pre-treatment, to potentially reduce overall leach reagent consumption and optimise recovery.

The byproduct resulting from the magnetic separation step is unexpectedly showing promising indications of being a saleable iron concentrate, comprising predominantly magnetite.

Testwork has shown that magnetic separation can produce an iron concentrate of 64-66% Fe with a mass pull of 3-5% across all sulphide composites. In addition testwork has demonstrated the ability to recover a similar iron product from the oxide composite.

Investigations are ongoing to determine a pathway to commercialise this byproduct and generate a potential new source of revenue for the Project. Geological modelling work is also underway to better quantify the iron/magnetite content of the deposit and to determine optimal product grade.

Leaching of palladium from flotation tails and oxide is expected to classify as eligible expenditure under the Critical Minerals Production Tax Incentive, recently legislated by the Commonwealth Government. Therefore a 10% tax offset should apply to these processing costs over up to a 10-year period until 2040.

The preferred development case for the PFS (staging, mine/processing throughput and mine plan) is now being revised for the potential inclusion of the iron byproduct and is planned to be finalised in Q3 CY25. The Pre-Feasibility Study (PFS) on this case is targeted for completion in Q4 CY25, and no change in the overall project schedule is anticipated.

Remaining work to be completed as part of the PFS involves:

- Variability testing on sulphide and transitional samples and CIL leach tests/optimisations on the oxide ore samples;
- Geological modelling to assess iron/magnetite within the deposit;
- PFS level engineering of the process plant and supporting infrastructure, to generate PFS level cost estimates,
- Finalising logistics routes and costings;
- Updating marketing/offtake assumptions for copper and nickel concentrates, based on ongoing discussions directly with smelters on latest market conditions and final product volumes/specifications. An independent specialist marketing consultant has been engaged by Chalice since 2023 to liaise directly with suitable smelters; and,
- Assessing marketing/offtake assumptions for iron byproduct. Chalice has engaged an independent specialist marketing consultant to liaise directly with steel mills.

Technical discussion

Testwork approach and composite details

Flowsheet development flotation and CIL leach testwork has now been completed on all sulphide mine composites. The sulphide composites were generated from over 100 samples, derived from 33 dedicated metallurgical drill holes (large diameter PQ core) that were drilled in 2023-2024 across the Resource.

The sulphide composites comprise a mix of high-grade (in the early years) and low-grade feed, to provide a representative spectrum of feed for a long-life bulk open-pit mining operation (Table 2).

Previous testwork on higher grade samples (i.e. on the high-grade 'G zones') has consistently demonstrated excellent recoveries and saleable concentrates and, as such, the focus of recent testwork has been on the low-grade composites.

Table 2. Gonneville PFS metallurgical composite details.

Composite	No. of samples	Litho-geochemical Domains	Holes selected	Composite grade
HG2 Yr1-4	9	2 Gabbro, 3 Pyroxenite, 4 High-Cr Ultramafic, 5 Serpentinite (Harzburgite)	JDMET020, JDMET025, JDMET029, JDMET030, JDMET032	1.02g/t Pd, 0.21g/t Pt, 0.02g/t Au, 0.27% Ni, 0.23% Cu, 0.03% Co
HG4 Yr1-4	15	1 Serpentinite (Harzburgite),2 Gabbro, 3 Pyroxenite, 4 High-Cr Ultramafic, 5 Serpentinite (Harzburgite)	JDMET020, JDMET021, JDMET022, JDMET025, JDMET027, JDMET029, JDMET030, JDMET032	0.83g/t Pd, 0.14g/t Pt, 0.03g/t Au, 0.24% Ni, 0.21% Cu, 0.03% Co
HG2 Yr5+	18	1 Serpentinite (Harzburgite), 2 Gabbro, 3 Pyroxenite, 4 High-Cr Ultramafic, 5 Serpentinite (Harzburgite)	JDMET019, JDMET021, JDMET022, JDMET025, JDMET027, JDMET031, JDMET032, JDMET033	1.09g/t Pd, 0.26g/t Pt, 0.09g/t Au, 0.20% Ni, 0.23% Cu, 0.02% Co
HG4 Yr5+	40	1 Serpentinite (Harzburgite),2 Gabbro, 3 Pyroxenite,4 High-Cr Ultramafic, 5 Serpentinite (Harzburgite	JDMET014, JDMET016, JDMET 019, JDMET021, JDMET022, JDMET023, JDMET024, JDMET025, JDMET027, JDMET028, JDMET031, JDMET033	0.83g/t Pd, 0.16g/t Pt, 0.04g/t Au, 0.17% Ni, 0.13% Cu, 0.02% Co
LG S21	17	5 Serpentinite (Harzburgite)	JDMET013. JDMET014, JDMET015, JDMET016, JDMET017, JDMET018, JDMET020, JDMET023	0.55g/t Pd, 0.11g/t Pt, 0.01g/t Au, 0.16% Ni, 0.07% Cu, 0.014% Co
LG CR2 Nov	10	4 High-Cr Ultramafic	JDMET013, JDMET014, JDMET015, JDMET018, JDMET019, JDMET020, JDMET023, JDMET024	0.58g/t Pd, 0.15g/t Pt, 0.01g/t Au, 0.17% Ni, 0.10% Cu, 0.02% Co
LG PYX C2	13	3 Pyroxenite	JDMET013, JDMET022, JDMET023 JDMET025, JDMET026, JDMET027	0.65g/t Pd, 0.12g/t Pt, 0.05g/t Au, 0.15% Ni, 0.15% Cu, 0.02% Co
Oxide	7	N/A	JDMET014, JDMET017, JDMET019, JDMET020, JDMET023, JDMET026, JDMET028	1.78g/t Pd, 0.56g/t Pt, 0.05g/t Au, 0.17% Ni, 0.23% Cu, 0.08% Co

Flotation and leach testwork/optimisations on transitional material in the Resource is continuing, with results expected in the coming months.

Flotation testwork results

Nearly 1,000 flotation tests have now been completed on the Project, utilising two different metallurgical laboratories (Strategic Metallurgy and Auralia Metallurgy). Testing has gone through multiple phases and flowsheet configuration iterations since commencing for the 2023 Scoping Study.

The latest round of flotation testwork targeted a nickel concentrate grade of ~8% to maintain a concentrate that was above the minimum threshold for a saleable product (>6% Ni).

The results demonstrate notable improvements, when comparing previous open cycle tests to closed cycle tests, and delivered excellent recoveries to saleable smelter-grade concentrates across all composites, at an optimal primary grind size of 38µm (P80) (Table 3 and Table 4).

Table 3. Flotation copper concentrates produced and recoveries by composite.

Sulphide Composite	Test type	Mass pull (%)	Cu grade (%)	Cu rec. (%)	Pd grade (g/t)	Pd rec. (%)	Pt grade (g/t)	Pt rec. (%)	Au grade (g/t)	Au rec. (%)
HG2 Yr1-4	Locked	0.66	27.6	84.3	58.3	35.6	2.56	8.4	1.49	42.0
HG4 Yr1-4	Locked	0.85	19.8	82.3	37.5	36.0	1.49	7.47	1.49	35.3
HG2 Yr5+	Locked	0.69	25.5	76.7	67.4	43.6	7.41	19.5	7.36	70.0
HG4 Yr5+	Locked	0.45	22.3	72.7	60.5	30.9	2.43	5.62	4.09	43.4
LG S21	Locked	0.24	25.3	70.4	51.8	22.2	3.71	7.48	1.75	22.9

Sulphide Composite	Test type	Mass pull (%)	Cu grade (%)	Cu rec. (%)	Pd grade (g/t)	Pd rec. (%)	Pt grade (g/t)	Pt rec. (%)	Au grade (g/t)	Au rec. (%)
LG CR2	Locked	0.52	17.0	83.0	39.7	31.0	1.90	5.82	1.03	44.4
LG PYX C2	Open	0.34	25.2	62.9	26.3	14.7	0.83	1.86	4.86	35.7

Table 4. Flotation nickel concentrates produced and recoveries by composite.

Sulphide Composite	Test type	Mass pull (%)	Ni grade (%)	Ni rec. (%)	Pd grade (g/t)	Pd rec. (%)	Pt grade (g/t)	Pt rec. (%)	Au grade (g/t)	Au rec. (%)	Co grade (%)	Co rec. (%)	Fe : MgO ratio
HG2 Yr1-4	Locked	1.56	8.82	52.0	14.5	21.0	3.18	24.7	0.25	17.0	0.78	49.4	21.7
HG4 Yr1-4	Locked	1.47	8.43	54.9	16.0	26.6	4.79	41.6	0.57	23.5	0.75	50.0	9.77
HG2 Yr5+	Locked	0.96	7.94	40.5	12.6	11.4	5.73	21.1	1.13	15.0	0.78	48.0	2.53
HG4 Yr5+	Locked	1.04	6.99	43.5	21.4	25.5	7.51	40.5	1.17	28.8	0.70	54.7	4.43
LG S21	Locked	0.81	7.82	40.2	12.9	19.0	4.18	28.9	0.85	38.2	0.85	39.3	4.63
LG CR2	Locked	0.74	7.74	35.9	15.7	17.6	6.56	28.7	0.23	14.1	0.92	40.7	4.43
LG PYX C2	Open	0.68	6.15	26.9	12.8	14.3	5.07	22.6	0.64	9.43	0.69	28.9	2.30

Blending of feed is expected in a bulk open pit mine plan, and hence averaged recoveries and concentrate grades are likely to fall within the ranges stated above. Recoveries to concentrates are expressed as a proportion of mill head grade.

The LG PXY C2 composite is still the subject of further optimisations and results are preliminary in nature.

Flotation recovery algorithms (recovery to concentrate vs head grade) have been developed based on the above testwork, adjusting to achieve a 20% copper concentrate and 8% nickel concentrate.

Magnetic separation testwork results

Low-cost magnetic separation has been trialled in the flowsheet ahead of the leach circuit (CIL) feed as a pre-treatment, to potentially reduce overall leach reagent consumption and optimise recovery. Magnetic material is removed and was initially considered as a waste product. The non-magnetic material reports to the CIL leach circuit where additional palladium and gold is recovered.

The product produced from oxide, based on preliminary Davis Tube Recovery (DTR) testwork, is estimated to average 60-66% Fe with a mass pull of 10-16% across the oxide Resource.

Testwork on the sulphide waste product from wet low intensity magnetic separation (LIMS) indicates that, following further iron sulphide rejection via flotation concentration, a saleable iron product can potentially be produced. The iron concentrate produced from sulphide composites has a grade of 64-66% Fe with a mass pull of 3-5% (Table 5).

Table 5. Iron byproduct test results by composite.

Composite	Test Method	Mass pull (%)	Fe grade (%)	Al_2O_3 grade (%)	SiO_2 grade (%)	MgO grade (%)
Oxide MC	DTR	15.1	68.2	0.32	0.99	0.40
HG2 Yr1-4	LIMS + Float	3.69	64.5	0.28	2.41	1.75
HG4 Yr1-4	LIMS + Float	3.34	65.6	0.22	2.33	1.68
HG2 Yr5+	LIMS + Float	5.13	66.4	0.22	2.57	2.18
HG4 Yr5+	LIMS + Float	4.72	64.3	0.29	3.39	2.99
LG S21	LIMS + Float	4.81	65.6	0.20	2.70	2.00
LG CR2	LIMS + Float	5.13	65.5	0.24	2.26	1.63
LG PYX C2	LIMS + Float	5.07	64.0	0.39	4.18	3.34

Mass pull is expressed as a proportion of mill feed. Additional oxide DTR testwork is underway and as such the above oxide results are preliminary in nature.

Bulk LIMS testwork confirmed palladium losses to the magnetic circuit are expected to be minimal (<3%).

Investigations are ongoing to commercialise this byproduct and generate a potential new source of revenue for Gonneville.

An independent specialist magnetite technical marketing consultant has been appointed to assess the marketing avenues for a potential iron byproduct. Initial evaluation has indicated that the product is saleable to specialist steel mills and is likely to attract a premium price relative to the 62% iron ore index pricing. Acceptable levels of deleterious elements have been observed in all concentrates produced to date in testwork.

It is noted that offtake terms have not yet been negotiated with any party, however there is a high degree of competition in the steel market for a magnetite concentrate target grade of 64-66 % Fe with low (<4%) SiO_2 and ultra-low (<0.35%) Al_2O_3. Whilst further work is required in modelling, mine scheduling and metallurgical testwork to optimise the target magnetic concentrate grade versus mass pull, the test results obtained to date are encouraging.

Leach testwork results

CIL testwork and magnetic separation on produced sulphide flotation tails has been completed on all sulphide samples. Test work demonstrated that CIL leaching is effective, with palladium extraction in line with the 2023 Scoping Study assumption, but with materially lower reagent consumption (and hence lower operating costs).

Testwork has determined that there is a potential benefit from undertaking magnetic separation of iron prior to leaching to remove reactive sulphides, with minimal capital/operating cost implications. In addition, optimisations of reagent consumption are now complete to determine optimal recovery vs operating cost trade-off. All sulphide composite flotation tails have now been tested, with improvement in palladium recovery and reduced reagent consumption confirmed (Table 6).

Table 6. CIL results by composite.

Composite	NaCN addition (kg/t)	Pd recovery (%)	Au recovery (%)	Extraction time (hrs)	NaCN consumption (kg/t)	Lime consumption (kg/t)
HG2 Yr1-4	1.00	62.6	41.3	24	0.80	0.80
HG4 Yr1-4	0.90	56.6	76.0	24	0.57	0.67
HG2 Yr5+	0.89	61.1	88.2	24	0.65	1.16
HG4 Yr5+	0.90	54.8	67.6	24	0.62	0.63
LG S21	0.90	55.1	72.7	24	0.52	0.72
LG CR2	0.88	55.7	92.8	24	0.63	0.80
LG PYX C2	0.90	53.4	97.8	24	0.57	1.04

Pd and Au recovery are expressed as a proportion of flotation tail grade. Reagent consumptions are expressed as a proportion of mill feed.

Oxide blocks are assumed to be blended with flotation tails in the CIL circuit, with a ratio of 4:1, resulting in 50% Pd recovery and 60% Au recovery with similar reagent consumptions (hence significantly reduced operating costs).

Given the LIMS is already a part of the flowsheet to reduce leach reagent consumption, limited additional processing costs to generate the iron byproduct are expected. Chalice is currently assessing logistics routes and costs associated with transporting the product to international steel mills.

This announcement is authorised for release by the Chalice Board of Directors.

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

Corporate Enquiries

Ben Goldbloom
GM Corporate Development
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
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About the Gonneville PGE-Ni-Cu-Co Project

The 100%-owned Gonneville PGE-Nickel-Copper-Cobalt Project is located on Chalice-owned farmland, ~70km north-east of Perth in Western Australia (Figure 2).

Figure 2. Gonneville Project location.

The greenfield Project was staked in early 2018 as part of Chalice's global search for high-potential nickel sulphide exploration opportunities.

The Project is centred on the Gonneville Resource (refer to ASX Announcement on 23 April 2024) – a shallow, tier-1 scale greenfield critical and strategic minerals discovery by Chalice's geologists in early 2020. The palladium dominated Resource is the one of the largest of its type in the western world.

The Resource hosts a rare mix of critical and strategic minerals required for decarbonisation, urbanisation and defence technologies, such as palladium, platinum, nickel, copper and cobalt (Table 7).

Table 7. Gonneville Mineral Resource Estimate (MRE) – 23 April 2024.

Classification*	Mass	Grade				Contained Metal			
	Mt	3E (g/t)	Ni (%)	Cu (%)	Co (%)	3E (Moz)	Ni (kt)	Cu (kt)	Co (kt)
Measured	2.9	1.20	0.21	0.17	0.018	0.12	6.1	4.8	0.52
Indicated	400	0.79	0.15	0.087	0.015	10	610	370	65
Inferred	250	0.80	0.15	0.076	0.014	6.4	370	200	37
Total	**660**	**0.79**	**0.15**	**0.083**	**0.015**	**17**	**960**	**540**	**96**

* Within pit constrained cut-off of A$25/t NSR and underground MSO cut-off of A$110/t NSR (refer to ASX Announcement on 23 April 2024 for details of cut-off approach and assumptions). Note some numerical differences may occur due to rounding to 2 significant figures. 3E = Palladium + Platinum + Gold, at an avg ratio of 4.5:1:0.15.

Large-scale critical and strategic mineral resources like Gonneville are very rare in the western world and therefore have high strategic value. Current global production of palladium, platinum, nickel and cobalt is dominated by Russia, South Africa, Indonesia and the Democratic Republic of Congo, and there is concerted effort by western countries to increase their production of these minerals as a matter of strategic importance.

In 2024, the Western Australian and Commonwealth Governments awarded 'Strategic Project' and 'Major Project' status to the Gonneville Project, recognising its scale and strategic importance to the development of Australia's critical minerals industry.

The Project is favourably located, with access to established road, rail, port and high-voltage power infrastructure nearby, plus access to a significant and highly skilled 'drive-in, drive-out' mining workforce in the Perth surrounds.

Chalice recognises the need to develop the Gonneville Project sustainably and responsibly, with a best practice approach to environmental, social and cultural heritage management.

A Pre-Feasibility Study commenced in mid CY23 and is targeted for completion in Q4 CY25. In parallel, Chalice commenced the regulatory approvals process for the Project in early CY24 and is targeting a Final Investment Decision (FID) in ~CY27.

Competent Person Statements

The information in this announcement that relates to **metallurgical testwork results** in relation to the Gonneville Project is based on, and fairly represents information and supporting documentation compiled by Mr Adam Farghaly, BSc Eng, who is the Lead Metallurgist for the Company. Mr Farghaly is a Competent Person, and a Member of the Australasian Institute of Mining and Metallurgy. He is a qualified metallurgist and 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. Mr Farghaly holds performance rights in Chalice Mining Limited. He 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 has been extracted from the ASX announcement titled "Gonneville Resource Remodelled to Support Selective Mining" dated 23 April 2024. This announcement is 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 information included in the original announcement and that all material assumptions and technical parameters underpinning the estimates in the original release continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the relevant original market announcement.

Forward Looking Statements

This announcement includes forward looking statements that have been based on an assessment of present economic and operating conditions, and assumptions regarding future events and actions that, as at the date of this announcement, are considered reasonable by the Company. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company and its Directors and management. The Company cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. The Company has no intention to update or revise forward-looking statements, except where required by law.

Appendix A Metallurgical samples – Gonneville Project

Table 8. Drill hole details for metallurgical samples tested.

Hole ID	Type	Easting (m)	Northing (m)	Collar RL (m)	Depth (m)	Azi (°)	Dip (°)	Domain
JDMET012	Diamond	425122	6512861	263	159.8	89	-60.5	CR1, S21
JDMET013	Diamond	425280	6512997	263	321.8	90	-57.0	S21, CR2, PYX C2
JDMET014	Diamond	425035	6512698	251	270.8	90	-63.0	S21, CR2, oxide
JDMET015	Diamond	424854	6512651	252	366.03	90	-60.0	S21, CR2
JDMET016	Diamond	424890	6512605	249	231.31	117	-66.7	S21
JDMET017	Diamond	425204	6512788	258	162.2	88	-65.6	S21, oxide
JDMET018	Diamond	425158	6512919	265	357.3	91	-65.5	S21, CR2
JDMET019	Diamond	425043	6512507	239	99.3	96	-76.9	CR2, oxide
JDMET020	Diamond	424972	6512320	235	87.3	88	-58.5	S21, CR2, oxide
JDMET021	Diamond	425233	6512317	236	204.3	92	-60.4	PYX C2
JDMET022	Diamond	425317	6512288	237	156.3	91	-59.2	S21, CR2, PYX C2
JDMET023	Diamond	425565	6513379	247	149.6	95	-62.0	CR2, oxide
JDMET024	Diamond	425520	6513159	251	96.4	93	-59.7	PYX C2
JDMET025	Diamond	425575	6512824	249	237.3	90	-60.8	PYX C2
JDMET026	Diamond	425574	6512558	241	150	91	-59.2	PYX C2, oxide
JDMET027	Diamond	425310	6512393	238	168.3	89	-60.2	S12
JDMET028	Diamond	425252	6512507	242	180.3	95	-59.6	S12, oxide
JDMET029	Diamond	425075	6512425	238	195.6	215	-60.3	CR2
JDMET030	Diamond	425120	6512430	240	84.7	91	-60.2	gMGB
JDMET031	Diamond	425395	6512320	240	117.7	91	-60.3	S12, S21
JDMET032	Diamond	425590	6512780	249	186.7	89	-60.2	PYX
JDMET033	Diamond	425050	6512500	239	181.8	90	-60.0	gMGB

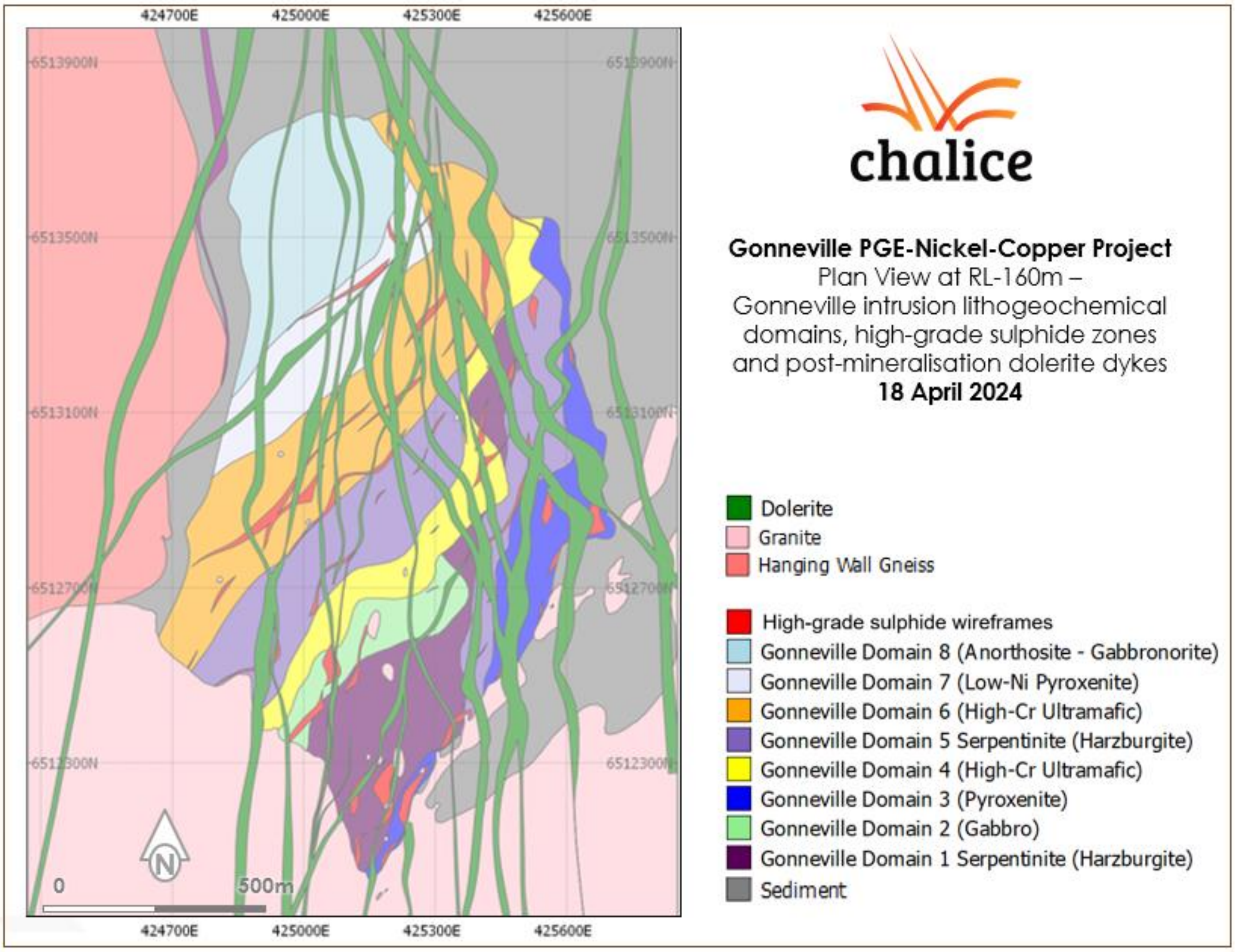

Figure 3. Gonneville Plan View – litho-geochemical domains, high-grade sulphide zones and post-mineralisation dolerite dykes.

Appendix B JORC Table 1

B-1 Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	PQ diamond core samples were obtained for the development of the composites and samples used in the metallurgical test work. Mineralised zones were identified through analysis of, and comparison with, pre-existing assays from adjacent twin holes, XRF instrumentation and visual identification of mineralisation through geological logging.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples for metallurgical test work were selected from mineralised zones throughout the deposit that best represented the variable ore types. Sample intervals sourced for metallurgical test work from JDMET012 to JDMET028 (Phase 12) were selected through analysis of, and comparison with, pre-existing assays from adjacent twin holes, XRF scan analysis and visual identification of mineralisation through geological logging. Sample intervals from JDMET029 to JDMET033 (Phase 13) were selected using assays from quarter core which were sent 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	For the sample intervals sourced from JDMET012 to JDMET028 (Phase 12), mineralisation is recognised by the presence of sulphides within the host Ultramafic rock. In diamond core, sample intervals were selected on a qualitative assessment of the geology and sulphide content, compared with the results of XRF scan analysis and the results of pre-existing assays from adjacent twin holes. For sample intervals selected from JDMET029 to JDMET033 (Phase 13), mineralisation is recognised by the presence of sulphides within the host Ultramafic rock as well as from the quarter core drill assays.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	Diamond drill core is PQ size (85mm diameter). Triple tube has been used from surface until competent bedrock and then standard tube thereafter. PQ is drilled at a maximum of 3m runs. Core orientation is by an ACT Reflex (ACT III RD) tool
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

Criteria	JORC Code explanation	Commentary
		due to sample washing out. Core recovery in the oxide zone averages 60%
	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.
	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. Paired statistical analyses comparing AC, RC and DD samples from throughout the deposit show that there is no statistically significant difference between these sample types. RC grades are observed to be slightly higher than DD grades, but mostly in the <0.1ppm Pd range, resulting in an immaterial impact on the global resource. All three sample types were therefore considered compatible for use in the grade interpolation.
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 metallurgical sample selection.
	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.	Sample intervals selected for test work from JDMET012 to JDMET028 (Phase 12) comprised diamond core samples in their entirety to provide sufficient sample volume. Sample intervals selected for test work from JDMET029 to JDMET033 (Phase 13) comprised three quarters (¾) of the PQ diamond core. Samples, typically comprising 10-12m lengths of full core, were crushed in their entirety and then sub-sampled at the metallurgical laboratory. None of these samples are being used for Resource estimation or similar purposes.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Diamond core only.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation is industry standard and comprises jaw crushing and sub-sampling for separate testing requirements at different crush sizes.

Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Not applicable to metallurgical samples
	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 all cases the entire length of core has been sampled and assayed as a single interval.
	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.	Pre-existing diamond drill core samples that were twinned as part of the metallurgical drill campaign 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 34 element suite was analysed by ME-ICP (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. Assays for the metallurgical testwork have been undertaken by Nagrom using similar methods as described above.
	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 for the assay of metallurgical composites.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified analytical standards, blanks and duplicates were inserted at appropriate intervals for diamond, RC and AC drill samples with an insertion rate of >10%. Approximately 5% of >0.1g/t Pd assays 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 Exploration Manager. Significant intersections are cross-checked with the logged geology and drill core after final assays are received.
	The use of twinned holes.	All samples obtained for metallurgical test work have been drilled as twin holes of pre-existing diamond holes within the

Criteria	JORC Code explanation	Commentary
		Mineral Resource Estimate area and provide a comparison between grade/thickness variations over a maximum of 5m separation between drill holes.
	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 drill hole collar locations are recorded by Chalice employees using a handheld GPS with a +/- 3m margin of error.
	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 handheld GPS pick-ups.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Not applicable – only new metallurgical testwork results being reported.
	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.	Not applicable. No drilling results reported and no Mineral Resource Estimate is being reported. Samples for metallurgical test work have been selected from holes throughout the deposit.
	Whether sample compositing has been applied.	Metallurgical samples were composited from contiguous lengths of drill core as selected as described above.
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.	Diamond holes drilled to obtain sample for metallurgical test work were twins of pre-existing diamond holes that form part of the Resource. Original drill holes were typically oriented within 15° of orthogonal to the interpreted dip and strike of the zone of mineralisation.
	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.	Diamond core samples were collected in appropriately sized core trays and, following orientation and mark-up, were submitted to Auralia by a Chalice contractor where they were processed and composited.

Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable

B-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 E70/5119 and the tenements are in good standing. The holder CGM (WA) Pty Ltd is a wholly owned subsidiary of Chalice Mining Limited. There are 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.	All drilling has occurred on granted Exploration Licences. There are no known impediments to obtaining a licence to operate. 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. 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 PGE-Ni-Cu-Co 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.

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The target deposit type is an orthomagmatic PGE-Ni-Cu-Co 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.	Provided in the body of the text.
	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.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. Cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable – only new metallurgical testwork results being reported.
	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.	Not applicable – only new metallurgical testwork results being reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable – no metal equivalent values reported.
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.	Not applicable – only new metallurgical testwork results being reported.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable – only new metallurgical testwork results being reported.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should	Not applicable – no new exploration discovery results reported.

Criteria	JORC Code explanation	Commentary
	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.	Not applicable – no exploration results excluded and all metallurgical tests detailed which cover the full feed grade spectrum expected for a bulk open-pit mine.
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.	Flotation tails leaching of PGEs is not currently practiced, however, it is common in gold operations. Industry standard reagents have been used in testwork and reagent destruction techniques will be used in adherence with industry best practice. Milling and flotation of material similar to Gonneville is commonly practiced in other operations using similar approaches to those proposed in this PFS programme where produced concentrates are either sold commercially or treated in smelter-refinery complexes. Limited concentrate analysis suggests magnesium levels in the nickel concentrate may attract a small penalty if sold to a nickel smelter. Nickel concentrate grades will be optimised to maximise project economics. Oxide iron rich products were generated using Davis Tube Recovery (DTR) testwork on the target oxide leach grind size. Sulphide iron rich products are generated by two-stage rougher, cleaner Low Intensity Magnetic Separation (LIMS). A regrind occurs between the rougher and cleaner stages. The cleaner magnetic concentrate then undergoes a sulphide float. The flotation tails is the final iron rich product. Other than the metallurgical results contained in this announcement, no new exploration results are reported.
Further work	The nature and scale of planned further work (e.g. Tests for lateral extensions or depth extensions or large-scale step-out drilling).	Pre-Feasibility study work is underway including metallurgical testwork, mining studies, hydrogeology studies, tailings studies, infrastructure studies and waste rock characterisation etc. No further drilling is envisaged at the Project prior to a potential Final Investment Decision.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable