

# Mineral Resources and Ore Reserves Report FY24





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# Forward looking statements disclaimer

This document may include forward-looking statements including, but not limited to, statements of current intention, statements of opinion and expectations regarding IGO's present and future operations, and statements relating to possible future events and future financial prospects, including assumptions made for future commodity prices, foreign exchange rates, costs, and mine scheduling. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Such statements are not statements of fact and may be affected by a variety of risks, variables and changes in underlying assumptions or strategy which could cause IGO Ltd's (IGO's) actual results or performance to materially differ from the results or performance expressed or implied by such statements. There can be no certainty of outcome in relation to the matters to which the statements relate, and the outcomes are not all within the control of IGO.

IGO makes no representation, assurance or guarantee as to the accuracy or likelihood of fulfilment of any forward-looking statement or any outcomes expressed or implied in any forward-looking statement. The forward-looking statements in this document reflect expectations held at the date of this document. Except as required by applicable law or the Australian Securities Exchange Listing Rules, IGO disclaims any obligation or undertaking to publicly update any forward-looking statements or discussions of future financial prospects, whether because of new information or of future events. IGO cautions against undue reliance on any forward-looking statement or guidance, particularly considering the current economic climate and significant volatility, uncertainty, and disruption, including that caused by the COVID-19 pandemic.



# Abbreviations

%
percent or weight percent7
Plus
± Plus/minus or above/below87
Sector
• " · Angular degrees minutes and seconds
°C 21
Degrees Celsius 48
μm microns
3D Three dimensional24
A\$ Australian dollar7
A\$/t Australian dollar per tonne7
AHD
Australian height datum 1971 49 AIG
Australian Insitute of Geoscientists 12 ALS
Australian Laboratory Services laboratory in Perth WA48
AM Alec Mairs
As
Arsenic
Australian Securities Exchange
Australasian Institute of Mining and Metallurgy12
AWGB Agnew-Wiluna Greenstone Belt 23
BQTK
40.7 mm diameter core 85 BV
Bureau Veritas laboratory Perth 86 C5
Conductor 5 zone
Central Lode Deposit
CMS Cavity monitoring survey79
Co Cobalt
Cosmic Boy Forrestania's Cosmic Boy concentrator
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Cr Chromium
CRM Certfied Reference Material
CV Coefficient of variation
CY24
Calendar year 2024 10 DA
Dynamic composite search anisotropy algorithm

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KV
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Lithium carbonate equivalent14
Leapfrog Leapfrog Geo 3D modelling software 52
Li <sub>2</sub> O
Litha
LogChief Maxwell LogChief geoscientific data
capture software
LOM Life of mine (plan)7
m
metre(s)24
MAIG Member of the Australian Institute of
Geoscientists
MAusIMM Member of the Australasian Institute of
Mining and Metallurgy
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# Mineral Resources and Ore Reserves Report FY24



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Millions of tonnes per annum 10, 22 MUM	
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ppm Parts per million75
PSD
Particle size distribution
pXRF Portable X-ray fluorescence analysis
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QA Quality assurance85
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# Introduction

IGO Limited (IGO) is a mining and mineral exploration company that is headquartered in Perth, Western Australia (WA) and has been listed on the Australian Securities Exchange (ASX) since 2002. IGO's strategy is to discover and produce the metals needed for the worldwide energy transition away from fossil fuels, such as the metals used in renewable energy generation, grid-scale energy storage and electric vehicle batteries. Through direct ownership, or through joint ventures (JVs), IGO produces saleable concentrates containing either lithia (Li<sub>2</sub>O), nickel (Ni), or nickel plus copper and cobalt (Ni-Cu-Co), from its operational interests in WA. At the end of fiscal year 2024 (EOFY24), IGO had four sites that are relevant to the intent of this report, which are annotated in Figure 1 along with IGO's percentage ownership interest at each location.



Figure 1: IGO's EOFY24 sites having Mineral Resources and/or Ore Reserves



The purpose of this report is to provide IGO's investors and stakeholders with the technical information that is material to IGO's Publicly Reportable Mineral Resource estimates (MREs) and Ore Reserve estimates (OREs) on EOFY24. IGO reports these estimates to the ASX in accordance with the requirements of the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves – the JORC Code [1]. To comply with both the JORC Code's requirements and the ASX's listing rules IGO reports its MRE and ORE estimates annually [2], [3], [4], [5].

For this EOFY24 annual reporting, IGO is Publicly Reporting its MREs and OREs from its:

- 24.99% interest in the Greenbushes Operation (Greenbushes), which currently produces saleable lithia concentrates from hard rock spodumene-rich ores sourced from the Central Lode Deposit (Central Lode) and spodumene-rich tailings that are currently being recovered from Tailings Storage Facility 1 (TSF1). Mining of the Central Lode's satellite hard rock Kapanga Deposit (Kapanga) will commence in early 2026.
- 100% interest in Nova Operation (Nova), which produces saleable concentrates containing nickel, copper, and cobalt from the underground mining of the Nova-Bollinger Deposit (Nova-Bollinger).
- 100% interest Forrestania Operation (Forrestania), which in FY24 produced saleable nickel concentrates from underground mining from two magmatic nickel sulphide deposits – the Flying Fox Deposit (Flying Fox) and the Spotted Quoll Deposit (Spotted Quoll).
- 100% interest Cosmos Project (Cosmos), which ramped up to production of saleable nickel concentrates during fiscal year 2024 (FY24) from the underground mining the Odysseus Deposit (Odysseus), which is also a magmatic nickel sulphide deposit. Cosmos was subsequently transitioned into care and maintenance in May 2024 as a function of IGO's January 2024 assessment of forward economic conditions for Cosmos [6].

# **Product price and foreign exchange assumptions**

For the reasons discussed in the sub sections below, the MREs and OREs that IGO is reporting for EOFY24 have varying inputs for United States dollar (US\$) product sale prices, and Australian dollar (A\$) to US\$ foreign exchange (FX) rates.

# Nova assumptions

At the start of each annual budget planning cycle for Nova, IGO corporate provides metal price and FX guidance to its Nova MRE|ORE geologists and mining engineers. IGO's MRE|ORE practitioners then use the corporate directed prices and FX values to prepare the Nova MRE|ORE for annual budgets and life-of-mine (LOM) plans, and also determine the net smelter return (NSR) Australian dollar per tonne (A\$/t) cut-offs for the JORC Code Public Reporting of the Nova estimates.

Table 1 is a listing and reconciliation of Nova's financial input assumptions for both end of fiscal year 2023 (EOFY23) and EOFY24. The three middle rows of Table 1 below are a listing of the metal price assumptions and FX rates that IGO have used for MRE and ORE estimation for its Nova-Bollinger EOFY24 MREs|OREs. In the same tabulation, the EOFY23 assumptions are reconciled to IGO's assumptions, which are the values listed in the first three rows of Table 1. Note also that the lower three rows and the three columns on the right side of Table 1 contain year-end relative percent (%) metrics by year of reporting, and by JORC Code type (MRE|ORE) for the various combinations of price and FX assumptions.



Fiscal year	Unit	Mineral Resources		Ore Reserves			Relative			
ending		Nickel	Copper	Cobalt	Nickel	Copper	Cobalt	Nickel	Copper	Cobalt
EOFY23	US\$/t	19,670	8,020	61,160	18,580	7,620	54,400	94%	95%	89%
	FX (A\$:US\$)	0.73	0.73	0.73	0.75	0.75	0.75	103%	103%	103%
	A\$/t	26,810	10,930	83,380	24,940	10,230	73,020	93%	94%	88%
EOFY24	US\$/t	19,030	9,230	43,180	17,610	8,740	38,060	93%	95%	88%
	FX (A\$:US\$)	0.71	0.71	0.71	0.72	0.72	0.72	102%	102%	102%
	A\$	26,810	13,010	60,840	24,370	12,100	52,680	91%	93%	87%
Relative	US\$/t	97%	115%	71%	95%	115%	70%			
	FX (A\$:US\$)	97%	97%	97%	96%	96%	96%			
	A\$/t	100%	119%	73%	98%	118%	72%			

## Table 1: Nova metal price and FX assumptions EOFY23|24

Notes: Metal prices are rounded to the nearest US\$10 so A\$ prices may be affected by rounding. The relative metrics in the three right columns and three lower rows are calculated as the preceding metric divided by the later metric such as an EOFY23 metric divided its respective EOFY24 metric, expressed as a percentage, or an MRE metric divided by its respective ORE metric expressed as a percentage.

The Nova EOFY24 metal price assumptions listed in Table 1 were determined by IGO corporate in late January 2024 using prices sourced from the macroeconomic survey firm Consensus Economics, with the 50<sup>th</sup> percentile or median (p50) forecast metal prices used in ORE work. For MRE work, the more optimistic 75<sup>th</sup> percentile (p75) forecast metal prices were used in financial optimisation tests that IGO applied to assess the JORC Code's Clause 20 requirement that Nova's MRE should have "Reasonable Prospects for Eventual Economic Extraction" (RP3E).

In terms of FX assumptions, IGO corporate uses the Bloomberg Terminal service p50 FX rate for ORE work and the 25<sup>th</sup> percentile (p25) FX forecast for assessing the RP3E of Nova's MRE. Note this p25 assumption was more optimistic than the p50 forecast in terms of Australian dollar value at the time the FX rates were determined.

With respect to the relative analyses in the last two rows of Table 1, and in terms of Australian dollar values, Nova's price and FX parameter changes in financial input assumptions for EOFY24 reporting, compared to those applied in EOFY23 reporting are as follows:

- FX rates that have decreased for both MRE and ORE, by 3% and 4% respectively.
- Nickel prices have decreased marginally by 3% and 5% respectively.
- Copper prices have increased materially by 19% and 18% respectively.
- Cobalt prices have decreased significantly by 27% and 28% respectively.

With respect to the relative analyses in the three columns on the far right of Table 1, the more conservative assumptions applied in ORE work result in prices that are about 90% of the MRE prices, depending on the payable metal considered.

# **Cosmos assumptions**

Like Nova, the metal price and FX assumptions for Cosmos' MREs and OREs are set by IGO corporate with the values applied in the Cosmos EOFY24 estimates listed in the middle three rows of Table 2 below. Note that in the same tabulation, the EOFY24 values are contrasted to the EOFY23 MRE|ORE assumptions that are listed in the top three rows, and between MRE and ORE assumptions, by using the relative ratio metrics on the right-side column and the lowest three lows of the same tabulation. Note also that the Cosmos EOFY24 price and FX assumptions are marginally different to those set for Nova as IGO assumed a ten-year forecast timeframe for Cosmos when the forecast metrics were determined

by IGO corporate, while for Nova IGO assumed a shorter three-year timeframe to be consistent with Nova's expected LOM.

Fiscal year ending	Unit	Mineral Resources	Ore Reserves	Relative			
EOFY23	US\$	19,210	15,432	80%			
	(A\$:US\$)	0.75	0.75	100%			
	A\$	25,610	20,576	80%			
EOFY24	US\$	19,460					
	(A\$:US\$)	0.72					
	A\$	27,010					
Relative	US\$	101%					
	(A\$:US\$)	96%					
<b>Notes</b> : Metal prices are rounded to the nearest US\$10 so A\$ prices may be affected by rounding. The nickel price and FX was provided by IGO corporate in January of 2024 so the forecast is marginally higher than the price forecast for Nova, which was							

## Table 2: Cosmos metal price and FX assumptions EOFY23|24

Note that there are no ORE metal price assumptions listed in Table 2 for Cosmos' EOFY24 as no ORE is reported for Cosmos on EOFY24 for reasons discussed previously [6]. Otherwise, for the Cosmos EOFY24 MRE, the nickel metal price has increased by 5% relative in Australian dollar terms. This

reduction is mainly due to the reduction in FX rate that was set for the EOFY24 reporting.

# Forrestania

The metal price and FX assumptions for Forrestania's EOFY24 MREs and OREs are different to Nova and Cosmos due to the nickel metal price hedging contracts that were in place for Forrestania's product sales over FY24. Additionally, due to the very short mine life projected for Forrestania at the time this report was prepared, the same price and FX assumptions were applied for the RP3E evaluation of its EOFY24 MREs (Table 3).

Fiscal year ending	Unit	Mineral Resources	Ore Reserves	Relative (MRE/ORE)
EOFY23	US\$	19,016	19,016	100%
	(A\$/US\$)	0.73	0.73	100%
	A\$	26,085	26,085	100%
EOFY24	US\$	16,997 to 17,482	16,997 to 17,482	89% to 92%
	(A\$/US\$)	0.68 to 0.69	0.68 to 0.69	93% to 95%
	A\$	24,996 to 25,336	24,996 to 25,336	96% to 97%
Relative	US\$	100%		
(EOFY24/23)	(A\$/US\$)	100%		
	A\$	100%		
Notes: The rang assumptions us	•	or EOFY24 parameter 24 budget.	s reflects different mo	nthly price

## Table 3: Forrestania price and FX assumptions EOFY23|24

The main observations from Table 3 with respect to assumption changes since EOFY23 are that:

- FX rate assumptions have reduced by 3% to 7% for EOFY24 reporting, and
- Australian dollar metal prices have decreased by 3% to 4%.



The range of values reflect different assumptions in price and FX included in the delivery contracts, which are linked to the date of delivery of saleable product.

## Greenbushes

Greenbushes is a major global producer of saleable lithium concentrates, with the lithium metal contained in the hard-rock mineral spodumene. Most of the spodumene ores are processed and concentrated on site into Greenbushes' saleable chemical grade 6.0% Li<sub>2</sub>O concentrate (SC6), which is sold to energy storage customers. The lesser production of technical grade concentrates produced by Greenbushes include 5.0%, 6.5%, 6.8% and 7.2% Li<sub>2</sub>O products, and these are sold to customers with speciality purposes for spodumene. Greenbushes has four processing facilities that have a combined capacity of about 6.6 million tonnes per annum (Mt/a) ore to produce about 1.5Mt/a of concentrates. About 5% of the calendar year 2024 (CY24) production to date has been technical grade concentrates.

For EOFY24, IGO is reporting the Greenbushes end of calendar year 2023 (EOCY23) MREs and OREs. As such, and to address ASX Chapter 5 listing rule 5.21.3, IGO is also reporting the tonnage and grade of ore processed at Greenbushes for the second half of FY24, as this is a reasonable proxy for the six months of mining depletion of the EOCY23 MRE|ORE estimates to EOFY24.

Greenbushes23 Greenbushes' MRE|ORE, Talison Lithium Pty Ltd (Talison), the entity managing Greenbushes, assumed product prices of about A\$3,000/t for an SC6 saleable 'chemical grade' concentrate. The commercial-in-confidence product prices for technical grade products are marginally higher or lower than the SC6 assumptions depending on product sold. Note that the product prices were set by Talison, in about August of fiscal year 2023 (FY23) for mine planning and budgeting purposes, and as such, are consistent with prevailing forecasts at that time, and are trailing assumptions that are not necessarily reflective of economic conditions prevailing at the time of this Public Report.

# **Reporting governance and Competent Persons**

IGO's MRE|ORE reporting corporate governance is aligned with the JORC Code's guiding principles of competence, transparency and materiality. IGO has implemented multiple quality controls for JORC Code Public reporting of its estimates including competency confirmation, reconciliation assessment, financial input verification, RP3E tests on MREs, MRE/ORE report in-house peer reviews, external independent auditing where new or revised estimates are deemed to be material to IGO's share price, and compliance with JORC Code mandatory requirements and ASX listing rules. Each of these control measures are discussed in more detail in the sub sections below.

# Competence

IGO's MRE/ORE Public Reporting quality control processes ensure that a Competent Person who is taking responsibility for the reporting of an IGO estimate to the ASX has:

- Provided IGO with digital evidence that they held a current membership to a professional organisation that is recognised in the prevailing JORC Code framework at the effective date the MRE or ORE was prepared, and/or at the time the estimate was reported to the ASX.
- At least five years of industry experience that is relevant to the style of mineralisation and reporting activity for which they are acting as a Competent Person.
- Signed a Competent Person Consent letter that states that the MREs and OREs that are reported in the final version(s) of IGO's Public Reports to the ASX, agrees in form and context with the Competent Person's supporting documentation.



- Additionally confirmed in writing to IGO any perceived material conflict of interests relating to the reporting activity for which they are taking responsibility, or otherwise stating there are no material conflicts reportable; and
- Have prepared supporting documentation for results and estimates to a level that is consistent with normal industry practices for the styles of deposits under consideration and provided the documentation for peer review by IGO's senior technical staff including the JORC Code Table 1 Checklists for any results and/or estimates that IGO is reporting under the JORC Code framework.

# Reconciliation

Where an operation or project is directly controlled or significantly influenced by IGO, IGO's Public Reporting quality control process is to ensure that the precision of estimates which are used for production forecasts and market guidance are compared (reconciled) to the actual production data. IGO also where necessary reconciles annually revised estimates to prior estimates in terms of changes in tonnage(s) grade(s) and *in situ* payable products.

## Financial inputs and reasonable prospects for eventual economic extraction

IGO also ensures that, where it has control and influence, estimates are reviewed annually in terms of the key inputs of product sale prices, FX rates and discount rates applied to MRE and ORE studies. For MREs, IGO also ensures that the MREs have been tested to meet the JORC Code requirement of RP3E.

## Peer and independent external review

No matter the degree of IGO's interest in a mineral asset, IGO's peer review control for Public Reporting ensures that all IGO's Public Report tabulations of results and/or estimates, are peer reviewed and fact-checked by IGO's senior technical staff, before being finally reviewed by IGO's Company Secretary, before being presented to IGO's Board for approval and subsequent ASX release.

IGO also has an optional governance policy whereby any estimates and results IGO deems to be market sensitive and/or production critical, may also be audited by suitably qualified and independent external consultants to confirm and/or endorse (or not) the precision, correctness and veracity of the estimates and/or the estimation methodologies.

# ASX listing rule compliance

This Public Report of IGO's EOFY24 MREs and OREs has been prepared with due consideration of the JORC Code 2012 Edition, and the ASX's Chapter 5 listing rules, in particular [5]:

- Rule 5.6 relating to the reporting of MREs and OREs.
- Rule 5.21 with respect to annual summary, sector reporting requirements, other than end of fiscal year reporting requirements, and governance processes.
- Rule 5.22 with respect to Competent Person requirements and statements.
- Rule 5.23 regarding re-reporting of estimates from a prior announcement.
- Rule 5.24 regarding annual reporting statements being pre-approved by Competent Persons.



## **Competent Persons**

The EOFY24 MREs and OREs discussed in this report were prepared by, or under the supervision of, the Competent Persons listed in Table 4.

Activity	Competent	Professional	association	Dala	Employer	Location and
reporting	Person	Membership	Number	Role	Employer	period end
Resources	Daryl Baker	MAusIMM	221170	Talison	Greenbushes EOCY23	
	Fletcher Pym	MAusIMM	311861	MBA candidate (previously Mine Geology Superintendent)	IGO	Nova EOFY24
	Andre Wulfse	FAusIMM	228344	Group Manager Mineral Resources	IGO	Cosmos/Forrestania EOFY24
Reserves	Andrew Payne	MAusIMM	308883	Mine Planning Superintendent	Talison	Greenbushes EOCY23
	Gregory Laing	MAusIMM	206228	Principal Mining Engineer	IGO	Nova EOFY24
	Marco Orunesu Preiata	MAusIMM	305362	General Manager Operations Support	IGO	Forrestania EOFY24
EOFY24 report	Mark Murphy	MAIG/RPGeo	2157	Manager Geological Services	IGO	Combined Annual Report EOFY24

Table 4. Com	netent Persons for IGO'	s EOFY24 MRE and ORE Public Reports

In keeping with the requirements of ASX listing rules 5.22 and 5.24, the information in this Public Report that relates to JORC Code reportable Mineral Resources or Ore Reserves is based on the information compiled by the relevant Competent Persons and activities listed in Table 4 where:

- The abbreviation 'MAusIMM' refers to a Member of the Australasian Institute of Mining and Metallurgy (AusIMM), and 'FAusIMM' refers to a Fellow of the AusIMM. The abbreviation 'MAIG' refers to a Member of the Australian Institute of Geoscientists (AIG) and 'RPGeo' indicates a Registered Professional Geoscientist (RPGeo) of the AIG.
- All IGO personnel listed in Table 4 are full-time employees of IGO, and all Talison personnel are fulltime employees of Talison.
- Andre Wulfse, Gregory Laing, Marco Orunesu Preiata, Fletcher Pym, and Mark Murphy are all minor IGO shareholders, and participate in IGO's cash and share issue incentive programs, which are partly based on the growth (or not) of IGO's Ore Reserves, with ORE growth determined using a normalised *in situ* metal value, three year-rolling average metric.
- All Competent Persons have provided IGO with written confirmation that they have sufficient experience that is relevant to the styles of mineralisation and types of deposits reported, and the activity being undertaken with respect to the responsibilities listed against each person above, to qualify as Competent Persons as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – the JORC Code 2012 Edition.
- Each Competent Person listed in Table 4 has provided to IGO by e-mail:
- Proof of currency of membership to their respective professional organisations as listed in Table 1.
  - A signed consent to the inclusion of information for which each person is taking responsibility in the form and context in which it appears in this report, and that the respective parts of this report accurately reflect the supporting documentation prepared by or supervised by, each Competent Person for the respective responsibility activities listed above.
  - Confirmation that there are no issues other than those listed above that could be perceived by investors as a material conflict of interest in preparing the reported information.



# **Total estimates**

In this section of the report, IGO's total EOFY24 MREs and OREs are discussed by IGO site, with summaries included for the Greenbushes Central Lode and TS1 lithia deposits, and for the magmatic sulphide nickel deposits found at Cosmos, Nova and Forrestania.

# Lithium pegmatite deposits (Greenbushes – IGO 24.99%)

As noted above, IGO relies on Talison's Competent Persons for IGO's Public Reporting of the Greenbushes MRE and ORE estimates. The last MRE|ORE revision for Greenbushes provided to IGO was deemed by Talison to be effective, and mining depleted, to EOCY23. For IGO's EOFY24 MRE|ORE reporting, IGO is re-reporting Greenbushes' EOCY23 estimates that IGO announced in February 2024 [7], and as already noted above, to comply with ASX end of fiscal year reporting requirements (listing rule 5.21.3), a statement of Greenbushes ore processed for the second half of FY24, is additionally provided as a proxy for the six months of MRE|ORE mining depletion to EOFY24.

Talison, through holding entity Winfield Pty Ltd, is a JV between Tianqi Lithium Corporation (Tianqi) of China who owns 51% of Talison through Tianqi Lithium Energy Australia Pty Ltd (TLEA), and Albermarle Corporation of the USA who hold the residual 49% interest. IGO has a JV with Tianqi for a 49% interest in TLEA and, as such, holds a (49%  $\times$  51%) 24.99% interest in Greenbushes' MREs and OREs.

The end of calendar year 2022 (EOCY22) to EOCY23 reconciliation and JORC Code compliant reporting of Greenbushes' EOCY23 estimates is detailed in IGO's 19 February 2024 ASX release and investors should refer to that announcement for full details of the estimates including JORC Code Table 1 information [7]. The EOCY22 and EOCY23 tabulations for the Greenbushes' estimates for these two reporting dates (EOCY23|24) are reproduced in Table 5 on page 14 for MREs, and Table 6 on page 15 for OREs.

Importantly, the assumptions detailed in IGO's 19 February 2024 release continue to apply to the estimates being reported on EOFY24, and IGO has no information to indicate any material changes since that prior Public Report other than the 2.5 million tonnes (Mt) grading 2.17% Li<sub>2</sub>O of ORE that Greenbushes has processed from mined ore and/or ore stockpiles in the second half of FY24.



						_							EOCY23	minus EOO	CY22 re <u>co</u>	nciliatio <u>n</u>	
	10.50			EOCY22					EOCY23			Å	Arithmetic		ative ences		
Deposit	JORC Code				In situ product						oroduct			In situ product			<i>In situ</i> product
	category	Mass (Mt)	Li <sub>2</sub>	Li <sub>2</sub> O		SC6 (Mt)		Li <sub>2</sub> O		LCE (Mt)	SC6 (Mt)	Mass (Mt)	Li₂O (Mt)	LCE (Mt)	SC6 (Mt)	Mass	
			(%)	(Mt)	(Mt)	(1914)		(%)	(Mt)	(inc)	(inic)			(1410)	(1410)		
Central Lode	Measured	-	-	-	-	-	-	- '	-	-	-	-	-	-	-	-	-
(≥ 0.5% Li <sub>2</sub> O)	Indicated	184	1.8	3.3	8.2	55	334	1.5	5.1	12	84	151	1.8	4.3	29	82%	53%
	Inferred	103	1.0	1.0	2.4	16	39	1.0	0.4	0.9	6.4	-63	-0.6	-1.5	-9.8	-62%	-60%
	Total	286	1.5	4.3	11	72	374	1.5	5.5	13	91	87	1.2	2.9	19	30%	27%
Kapanga	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(≥ 0.5% Li <sub>2</sub> O)	Indicated	39	1.8	0.7	1.7	11	48	1.7	0.8	2.0	13.7	9.6	0.1	0.3	2.2	25%	19%
	Inferred	3.9	1.9	0.1	0.2	1.2	8.5	1.4	0.1	0.3	2.0	4.6	0.1	0.1	0.8	117%	63%
	Total	42	1.8	0.8	1.9	13	57	1.7	0.9	2.3	16	14	0.2	0.4	2.9	33%	23%
TSF1	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(≥ 0.7% Li <sub>2</sub> O)	Indicated	13.7	1.3	0.2	0.4	2.9	12	1.3	0.2	0.4	2.5	-1.7	-0.0	-0.1	-0.4	-12%	-13%
	Inferred	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	13.7	1.3	0.2	0.4	2.9	12	1.3	0.2	0.4	2.5	-1.7	-0.0	-0.1	-0.4	-12%	-13%
Stockpiles	Measured	0.7	3.0	0.0	0.1	0.3	0.7	3.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	10%	10%
(≥ 0.5% Li <sub>2</sub> O)	Indicated	2.6	2.0	0.1	0.1	0.9	2.0	2.3	0.1	0.1	0.8	-0.5	-0.0	-0.0	-0.1	-21%	-8%
	Inferred	1.4	1.0	0.0	0.0	0.2	1.3	1.2	0.0	0.0	0.3	-0.1	0.0	0.0	0.0	-6%	10%
	Total	4.7	1.8	0.1	0.2	1.4	4.1	2.1	0.1	0.2	1.4	-0.5	-0.0	-0.0	-0.0	-12%	-1%
Greenbushes	Measured	0.7	3.0	0.0	0.1	0.3	0.7	3.0	0.0	0.1	0.4	0.1	0.0	0.0	0.0	10%	10%
	Indicated	239	1.8	4.2	10	71	397	1.5	6.1	15	102	158	1.9	4.6	31	66%	44%
	Inferred	108	1.0	1.1	2.6	18	49	1.1	0.5	1.3	8.7	-59	-0.5	-1.3	-9	-54%	-51%
	Total	347	1.5	5.3	13	89	447	1.5	6.6	16	111	99	1.3	3.3	22	29%	25%

Table 5: Greenbushes JORC Code reportable Mineral Resource estimates of	on EOCY22 23 (100% basis)
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**Notes**: IGO's interest is 24.99% for the tonnages listed in this tabulation. The MRE source segment estimates are reported using the Li<sub>2</sub>O cut-off grades listed against each MRE source. The *in situ* product metrics of Li<sub>2</sub>O, lithium carbonate equivalent (LCE) and SC6, do not account for any mining and metallurgical recovery losses. True zero values are reported as the '-' symbol otherwise zero values represent quantities below the Competent Person's preferred precision of reporting. The totals and averages for MRE tonnages and lithia concentrations are affected by rounding. The ore processed at Greenbushes in the second half of FY24 was 2.5Mt grading 2.17%Li<sub>2</sub>O and is indicative of the depletion of the EOCY23 MRE to EOFY24. The MREs are notionally inclusive of OREs listed in Table 6.



Table 6: Greenbushes JORC CODE rep	ortable Ore Reserve estimates	on EOCY22 23 (100% basis)

**Notes**: IGO's interest is 24.99% of the tonnages listed in this tabulation. All OREs are reported using a  $\geq 0.7\%$  Li<sub>2</sub>O ORE block model cut-off grade. Li<sub>2</sub>O, LCE and SC6 masses are *in situ* estimates and do not consider metallurgical recovery losses. Zero values represent quantities that are below the Competent Person's preferred precision of reporting. Totals and averages for ORE tonnage and lithia grade are affected by rounding. The ore processed at Greenbushes in the second half of FY24 was 2.5Mt grading 2.17%Li<sub>2</sub>O and is indicative of the depletion of the EOCY23 ORE to EOFY24.



# Magmatic nickel sulphide deposits (Cosmos, Forrestania and Nova – IGO 100%)

The nickel sulphide deposits at Cosmos, Forrestania and Nova for which IGO is reporting EOFY24 MREs|OREs, are described in the geological literature as being 'magmatic' because the metalliferous sulphides are derived from igneous magmas and/or their associated surface erupted lavas. Nova-Bollinger is an example of a deep crustal intrusive 'chonolith' style deposit, while the other deposits at Cosmos and Forrestania are associated with lavas derived from nickel sulphide rich komatilitic magmas.

Table 7 on page 17 is a summary listing of IGO's total nickel sulphide MREs |OREs on EOFY23|24 by site.

As listed in Table 7, IGO is reporting EOFY24 MREs for Cosmos from Odysseus, and the Alec Mairs 5 (AM5) and Alec Mairs 6 (AM6) deposits. However, no OREs are reported at Cosmos on EOFY24 because the EOFY23 ORE for Odysseus has been declassified and is no longer considered to be JORC Code reportable, after IGO decided to transition Cosmos into care and maintenance by mid-2024 [6]. Additionally, the EOFY23 MRE that was previously reported for Cosmos' large low grade Mt Goode Deposit (Mt Goode) has also been declassified and is no longer considered to be JORC Code reportable following its EOFY24 RP3E assessment.

Following IGO's EOFY24 RP3E assessments of Forrestania's EOFY23 MRE models, several EOFY23reported MREs have been declassified and are no longer considered to be JORC Code reportable on EOFY24. These declassified estimates include the estimates for the Diggers Deposit (Diggers) and New Morning/Day Break Deposit (NM/DB), and the remnant MRE in and around the Flying Fox mine, where it's last planned ORE was mined in November 2023. As such, IGO is reporting only the Spotted Quoll MRE and associated ORE at Forrestania on EOFY24. Additionally, at the time of finalisation of this report in late August 2024, a seismic event had occurred at Spotted Quoll mine. IGO is assessing the consequences of this occurrence that may have the potential to further reduce the EOFY24 MRE|ORE reported for Spotted Quoll. Nevertheless, Spotted Quoll's viable ore is expected to be completely extracted in fiscal year 2025 (FY25).

At Nova, IGO is reporting revised and mining depleted MREs|OREs.

Note that in the Cosmos and Forrestania OREs and MREs, only nickel content and rock density are estimated, while at Nova-Bollinger, copper and cobalt are also estimated as payable co-products. For a comprehensive understanding of the JORC Code parameters used in the preparation of IGO's estimates for EOFY24, readers are encouraged to refer to the relevant report sections further below as well as the JORC Code Table 1 summaries for each site and deposit, which are included as the final sections of this report.



				EOFY23	,						EOFY24					Dif	ference	(EOFY:	24 minus	EOFY2	3)	
IGO site				EUFIZS	)						EUF 124					Arith	netic			Rela	tive	
IGO site	Mass	G	rades (	%)	Meta	I mass	(kt)	Mass	G	ades (	%)	Meta	l mass	(kt)	Mass	Met	al mass	(kt)	Mass		Metal	
	(Mt)	Ni	Cu	Со	Ni	Cu	Co	(Mt)	Ni	Cu	Со	Ni	Cu	Co	(Mt)	Ni	Cu	Co	wass	Ni	Cu	Co
Cosmos	39.8	1.27			506.7			17.8	2.01			357.8			-22.0	-148.8			-55%	-29%		
Nova	5.8	1.84	0.71	0.060	105.8	41.0	3.5	3.9	1.81	0.70	0.060	71.4	27.4	2.4	-1.8	-34.4	-13.5	-1.1	-31%	-33%	-33%	-32%
Forrestania	3.5	2.80			99.0			0.4	4.89			19.9			-3.1	-79.1			-89%	-80%		
Total	49.1	1.45			711.5	41.0	3.5	22.1	2.03			449.1	27.4	2.4	-27.0	-262.4	-13.5	-1.1	-55%	-37%	-33%	-32%

#### Table 7: IGO's magmatic nickel sulphide deposit total JORC Code reportable Mineral Resource estimates on EOFY23/24

**Notes:** IGO's interest is 100% of the tonnages listed in this tabulation including *in situ* metal masses that are listing in thousounds of tonnes (kt). Reporting cut-offs vary by site and deposit. Readers should refer to either subsequent sections of the report for cut-off details or the relevant JORC Code Table 1 listings at the end of this report. Zero values are reported using the '-' symbol and where necessary more decimals are used to avoid reporting values that round to zero. *In situ* MRE metal estimates do not account for expected mining and metallurgical recovery losses. Totals and averages are affected by rounding to one decimal for tonnage, two decimals for nickel and copper grade, and three decimals for cobalt grade. Copper and cobalt grades are not additive for the IGO overall totals as these metals are only estimated at Nova. All the MREs are notionally inclusive of the OREs listed in Table 8, albeit OREs may include some dilutional waste that is below MRE reporting cut-off grades.





				1	EOFY23							EOFY24					Di	fference	(EOFY	24 minus	EOFY2	3)	
IGO site												.01124					Arithr	netic			Rela	tive	
IGO Sile	Mass		Gra	ades (%	6)	Meta	al mass (	(kt)	Mass	Gr	ades (%	)	Meta	l mass (	kt)	Mass	Meta	al mass	(kt)	Maaa	M	etal mas	s
	(Mt)	1	Ni	Cu	Со	Ni	Cu	Co	(Mt)	Ni	Cu	Со	Ni	Cu	Со	(Mt)	Ni	Cu	Co	Mass	Ni	Cu	Co
Cosmos	10.3	1 2	2.06			212.3			-	-			-			-10.3	-212.3			-100%	-100%		
Nova	4.6	<b>;</b>   1	1.62	0.65	0.058	74.5	30.1	2.6	3.2	1.53	0.62	0.054	48.5	19.6	1.7	-1.4	-25.9	-10.4	-0.9	-31%	-35%	-35%	-35%
Forrestania	0.5	5 2	2.96			13.4			0.06	3.75			2.3			-0.4	-11.0			-86%	-83%		
Tot	al 15.4	1	1.96			300.1	30.1	2.6	3.2	1.57			50.9	19.6	1.7	-12.1	-249.3	-10.4	-0.9	-79%	-83%	-35%	-35%

Table 8: IGO's magmatic nickel sulphide deposit total JORC Code reportable Ore Reserve estimates on EOFY23|24

**Notes**: IGO's interest is 100% of the tonnages listed in this tabulation. Reporting cut-offs vary by location and deposit. Refer to either subsequent sections of the report for cut-off details or the relevant JORC Code Table 1 listings at the end of this report. Zero values are reported using the '-' symbol and where necessary more decimals are used to avoid reporting values that round to zero. Totals and averages are affected by rounding to one decimal for tonnage, two decimals for nickel and copper grade, and three decimals for cobalt grade. *In situ* ORE metal estimates do not account for expected losses due to metallurgical recoveries. Note that copper and cobalt grades are not additive for the IGO totals as these metals are only estimated at Nova.





As listed in Table 7, IGO's MRE total for its magmatic nickel sulphide deposits on EOFY24 was 22.1Mt grading 2.03% Ni, for a total *in situ* estimate of 449.1kt of nickel metal. Compared to the on EOFY23 reporting, which had a total MRE of 49.1Mt grading 1.45%, which equates to 711.5kt of *in situ* nickel metal, the total EOFY24 MREs represent a 55% (27.0Mt) decrease in MRE tonnage, and a 37% (262.4kt) decrease *in situ* nickel metal tonnage. This 262.4kt *in situ* metal reduction is a function of several factors, but principally due to the declassification of MREs that were previously considered to be JORC Code reportable on EOFY23. A more detailed sector analysis of the EOFY23/24 MRE changes is given in the next section of this report.

As listed in Table 8, IGO's ORE total for its magmatic nickel sulphide deposits on EOFY23 was 15.4Mt grading 1.96% Ni, for a total estimate of 300.1kt of *in situ* nickel metal. Compared to the IGO EOFY24 reporting, which had a total MRE of 3.2Mt grading 1.57%, which equated to 50.9kt of *in situ* nickel metal, the EOFY24 estimates equate to a 79% decrease in MRE tonnage of 12.1Mt, and an 83% decrease in total *in situ* nickel metal of 249.3kt. This 249.3kt reduction in total ORE *in situ* metal from EOFY23 estimates reflects a number of changes, but principally declassification of OREs that were previously considered to be JORC Code reportable on EOFY23, and to lesser extent, mining depletion. A more detailed sector analysis of the EOFY23|24 ORE changes is given in the next section of this report.

## Mineral Resource and Ore Reserve changes

As can be interpreted from the ranked cascade chart that is Figure 2a below, JORC Code declassifications are the primary causes of the total reductions in MRE|ORE *in situ* nickel metal estimates between EOFY23 and EOFY24 reporting.



#### Figure 2: Cascade of changes in MRE/ORE in situ nickel from EOFY23 to EOFY24

As already noted above, the net change in IGO's magmatic nickel sulphide deposit total MRE between EOFY23 and EOFY24 reports was a 37% relative reduction of 262.4kt of estimated *in situ* nickel metal. The greatest contributor to this reduction was the declassification of Cosmos' Mt Goode MRE for RP3E reasons, which removed about 178kt of *in situ* metal from the IGO EOFY23 prior total. The several RP3E declassifications at Forrestania, including Flying Fox, Diggers, and NM/DB reduced the MRE total nickel by a total 79.1kt of nickel metal *in situ*, with the Nova depletion and adjustment for sterilisation and RP3E resulting in a further reduction of 34kt of *in situ* nickel metal. On the positive side,



a FY24 revision of Cosmos' Odysseus MRE model and lowering of its reporting cut-off grade added about 29kt of nickel metal to IGO's total MRE on EOFY24.

As discussed above, the net change in IGO's magmatic nickel sulphide deposit total ORE between EOFY23 and EOFY24 reports was an 83% relative reduction of 249.3kt of estimated *in situ* nickel metal. The main contributor to this reduction was declassification of Cosmos' Odysseus and AM6 estimates, which were deemed technically and economically unfeasible during FY24, resulting in Cosmos transitioning into a care and maintenance hiatus. The Nova mining depletion was about 26kt of nickel metal, while about 11kt was depleted from the Forrestania mining operations. Note that the mining depletion for Nova's ORE is less than that of its MRE due to the higher NSR assumptions applied to the MRE and also the effects of sterilisation RP3E assessments, which are completed as part of IGO's EOFY24 MRE evaluation.

## Sector distribution Mineral Resources and Ore Reserves

Figure 3 contains a two-by-two plot matrix of ranked bar plots that depict the sector-specific information on the distribution of IGO's *in situ* nickel metal estimates, for the respective EOFY23|24 MREs in Figure 3a and Figure 3b, and the respective EOFY23|24 OREs in Figure 3c and Figure 3d. The end-of-bar labels in square brackets in Figure 3a and Figure 3b denote the percentage of IGO's total MRE for the respective end of year reporting dates, while the end-of-bar labels in Figure 3c and Figure 3d denote the percentage of IGO's total ORE for each period, and also the MRE to ORE resource conversion percentage in square brackets.



#### Figure 3: Sector distribution of IGO's total in situ nickel MRE|ORE metal EOFY23|24 reporting



The key observations from Figure 3 are that:

- At EOFY23 Cosmos held just over 71% of IGO's total MREs, and this relative share increased to 80% in EOFY24 despite the material reduction in *in situ* metal tonnage related to the declassification of the Mt Goode EOCY23 MRE.
- Just over 50% of IGO's total MRE in terms of nickel metal on EOFY24 is in Cosmos' Odysseus, with approximately equal proportions of *in situ* nickel metal in Nova, AM5 and AM6. The Forrestania remnant resource at EOFY24 only constitute 4% of the IGO total, and all is in the Spotted Quoll MRE.
- With the declassification of the Cosmos Odysseus and AM6 OREs, 95% of IGO's total *in situ* nickel metal in ORE is in Nova, with the remainder in Spotted Quoll.
- In terms of ORE/MRE conversion at EOFY24, Nova has a 68% conversion of the *in situ* metal in the MRE to ORE, but IGO's overall conversion rate is only 11%, again due to the declassification of the Odysseus and AM6 OREs.

The sections that follow provide more sector context and detail regarding IGO's magmatic nickel sulphide MREs |OREs on EOFY24.

# Cosmos (IGO 100%)

By road, Cosmos is about 50 kilometres (km) north along the Goldfields Highway from the town of Leinster, which is about 645km northeast of WA's state capital city Perth. The portal of the underground decline, which is the vehicular access to Cosmos' MREs, is at coordinates 27 degrees 36 minutes and 0 seconds (° " ') south (S) and 120°34'28" East (E).

# **History**

Cosmos has a history of nickel sulphide deposit discovery that started in 1997 when Jubilee Gold Mines NL (JBM) found the near-surface high-grade Cosmos massive sulphide nickel deposit through drill testing shallow conductors, which were defined in surface geophysical surveys. This discovery was the basis of JBM's first Cosmos mining and processing operations. Over the next two decades, JBM went on to discover five more deposits, and additionally acquired Mt Goode in 2001 from US gold miner Barrick. Xstrata plc (Xstrata) then acquired Cosmos from JBM in 2008. In the 6.5 years of production from mid-2000 up to early March 2007, the total ore processed at Cosmos is estimated to have been about 1.1Mt grading about 7% Ni with an average process recovery of about 95%.

Xstrata discovered the deep high-grade nickel sulphide deposits that are the basis of Cosmos' EOCY24 JORC Code reportable MREs. Xstrata partly mined the AM5 Deposit before ceasing operations in 2012. From ASX releases IGO has estimated that the total ore processed at Cosmos to the cessation of operations in 2012 was about 2.9Mt grading 5.0% Ni – including JBM's prior production. In 2015, Western Areas Limited (WSA) acquired Cosmos from then owner Glencore plc (who had acquired Xstrata in 2013) and progressed the development of Cosmos, including the sinking of a 1,000m deep shaft and decline extensions to access Odysseus.

In December 2021, IGO made an on-market offer to acquire WSA and subsequently completed the acquisition in June 2022. For those investors interested in more information on Cosmos' pre-IGO history, an extended discussion on the topic can be found in IGO's 30 August 2022 ASX release [8]. Figure 4 on page 22 depicts the locations and names of the magmatic nickel sulphide deposits discovered at Cosmos to date.







On 6 November 2023, IGO re-started processing operations at Cosmos, with its partly new and partly refurbished nominally 1.1Mt/a sulphide concentrator and supporting infrastructure. In total, just under 295kt of Odysseus ore grading 1.53% Ni (head grade) was processed until operations ceased on 22 May 2024 when IGO transitioned the mine and process plant into a care and maintenance state. The process plant achieved an instantaneous processing rate of 1.1Mt/a during commissioning. All mined ore was hauled to surface via the access declines as IGO decided not to commission shaft haulage due to prevailing economic conditions.

Subsequent to the end of processing, IGO then road hauled all nickel concentrate off site by EOFY, which totalled 18,200t (dry) grading 14.77% Ni by EOFY24. The overall nickel metallurgical recovery for the FY24 period of processing was 57.9% of the head grade. On EOFY24 a stockpile of 77.5kt of run-of-mine (ROM) ore, with an estimated grade of 1.63% Ni, was stored at surface near the process plant.



# Geology and mineralisation

Cosmos' magmatic nickel sulphide deposits occur within or adjacent to a local sequence of 2.7 billion year (Ga) old metamorphosed komatiitic lavas. These lavas are part of the Agnew-Wiluna Greenstone Belt (AWGB) of the Kalgoorlie Terrane in the Eastern Yilgarn Craton of WA. Relative to Cosmos, the AWGB extends 150km south-southeast to the town of Leonora, and 115km north-northwest to the town of Wiluna (Figure 5a).





**Notes:** a) Simplified geology of the northern part of the AWGB and nickel deposits in this region. b) Simplified geology of the Cosmos Project with mineral deposits and prospects within IGO's tenure, which is depicted as the red lines.

The Cosmos region of the northern arm of the AWGB hosts many world-class, high-grade underground nickel deposits. For example, near Leinster, the Perseverance Deposit had a pre-mining resource of approximately 50Mt grading 2.2% Ni, which equates to about 1.1Mt nickel metal *in situ*. The AWGB also contains numerous large-tonnage, low-grade nickel deposits that are typically mined using openpit methods, such as Mt Keith, which is around 40km north of Cosmos and had a pre-mining resource of approximately 500Mt grading 0.55% Ni, which equates to about 2.75Mt of nickel *in situ*.

The Ida Fault defines the western boundary of the AWGB, while the belt's eastern limit is truncated by the Keith-Kilkenny Lineament. The AWGB's northern and southern margins are less clear, with the northern edge obscured by the Proterozoic age Earaheedy Group of rocks near Wiluna. Based on the geochemical characteristics of the komatiite units, the AWGB extends south eastward to near the town of Leonora. The AWGB has undergone a complex, multi-phase deformational history, with metamorphism ranging from low-temperature facies in some rocks near Wiluna, then ranging to middle amphibolite metamorphic grades in the rocks near Leinster, with greenschist to lower amphibolite grade rocks between these end member locations. Major wrench-faults that can be traced over tens of



kilometres frequently disrupt the geology of the AWGB, and the local geology is often characterised by steeply dipping stratigraphy and rocks that can display structural features from up to ten regional deformation events.

As depicted in Figure 5b on page 23, the local geology of the Cosmos region consists of a metamorphosed sequence of ultramafic, intermediate, and felsic volcanic rocks containing many komatiite-hosted (or associated) magmatic nickel sulphide deposits. The mineralised ultramafics can be up to 500 metres (m) thick in the Cosmos area, where they dip vertically and face east. However, the komatiites thin towards Lake Miranda, which is just south of Cosmos, and dip more gently to the east. The footwall volcanic succession to the mineralised and now metamorphosed komatiite lavas of Cosmos is an intercalated sequence of fragmental and coherent extrusive lithologies, ranging from metamorphosed basaltic andesites to rhyolites. In addition, there are younger, felsic intrusions and pegmatites that cross cut the older sequence of rocks and mineralisation.

The stratigraphic hangingwall to Cosmos' mineralised komatiites is made up of reworked volcaniclastic metasediments, including polymictic conglomerates that contain granite clasts and many other rock types, but no ultramafic clasts. In terms of structure, the Cosmos mine sequence is often disrupted by northwest-trending dextral offset shears. All rocks have undergone upper greenschist to lower amphibolite grade metamorphism, which has typically destroyed the primary igneous textures through the formation of metamorphic minerals. However, in some areas, such as in the core zone of the Mt Goode metadunite, areas of primary igneous textures can still be recognised locally in some of the thicker and less serpentinised rocks.

The Cosmos area surface regolith of cover and weathered rocks ranges from 40 to 80m deep across the local region and is made up of transported unconsolidated materials and *in situ* saprolite clays. The weathering carapace over the ultramafic rocks often presents in drilling as a siliceous saprock over cavernous clays.

## **Mineral Resources**

Cosmos' EOFY24 MREs have been prepared in accordance with the requirements and guidelines of the JORC Code (2012). Table 9 on page 25 is a listing of Cosmos' MREs reported by deposit and JORC Code classes, on EOFY23|24. This listing includes JORC Code reportable estimates for the Odysseus, AM5, AM6 and Mt Goode (EOFY23 only) deposits, which are depicted in the three-dimensional (3D) image that is Figure 6 on page 26. Note that further details regarding cut-offs and RP3E constraints that were applied to the estimates are included in the notes to Table 9.

Extended details regarding the data and assumptions for the Cosmos EOFY24 MREs can be found in the JORC Code Table 1 summaries for each Cosmos deposit, with these summaries commencing on page 48 for Odysseus, page 59 for AM6 and page 67 for AM5.



					2 _	_	OFY2	1 _	Differe	nce (EO	FY24 - E	OFY23)	EOFY23 to EOFY24 Mineral Resource in situ nickel metal reconciliation						
Deposit	JORC		<b>'</b>	EOFY2	ა	-	:0612	4	Arith	metic	Rela	tive		EOF					
(cut-off)	Code category		Mass	Ni	ckel	Mass	Nic	:kel	Mass	Ni	M	NI:	c	osmos		)kt	200kt	400kt	600kt
	enteger y		(Mt)	(%)	(kt)	(Mt)	(%)	(kt)	(kt)	(kt)	Mass	Ni			[Total]			-148.8	•
AM6	Measured		-	-	-	-	-	-	-	-	-	-			Indicated			-48.3	
(≥1.0% Ni)	Indicated		2.9	2.06	59.4	2.9	2.06	59.4	-	-	-	-			Inferred	-19.1	К ПО В	OFY24 - EOFY2	3
	Inferred		0.1	1.45	1.7	0.1	1.45	1.7	-	-	-	-			Measured	-81.4			
I		Total	3.0	2.03	61.1	3.0	2.03	61.1	-	-	-	-	b.64	Goode	[Total]	477.7			
AM5	Measured		-	-	-	-	-	-	-	-	-	-	mu	oooue	Indicated	-177.7 -83.7			
(≥1.0% Ni)	Indicated		1.4	1.95	28.2	1.4	1.95	28.2	-	-	-	-			Measured	-81.0			
	Inferred		1.8	2.21	40.6	1.8	2.21	40.6	-	-	-	-			Inferred	-13.0			
I		Total	3.3	2.10	68.8	3.3	2.10	68.8	-	-	-	-	Od	vsseus	[Tetel]				
Odysseus	Measured		0.1	1.44	1.7	0.08	1.63	1.3	-0.04	-0.4	-33%	-24%		-	[Total] Indicated		28.9		
(see notes)	Indicated		7.1	2.43	172.9	11.0	1.89	208.4	3.90	35.4	55%	21%			Inferred	-6.1	35.4		
	Inferred		0.6	4.28	24.4	0.4	4.55	18.3	-0.2	-6.1	-29%	-25%			Measured	-0.4			
I		Total	7.8	2.55	199.0	11.5	1.98	227.9	3.70	28.9	47%	15%							
Mt Goode	Measured		9.4	0.87	81.0	-	-	-	-9.4	-81.0	-100%	-100%	A	M5	[Total]	0.0			
(≥0.4% Ni)	Indicated		13.8	0.60	83.7	-	-	-	-13.8	-83.7	-100%	-100%			Inferred Indicated	0.0			
	Inferred		2.5	0.51	13.0	-	-	-	-2.5	-13.0	-100%	-100%			Measured	0.0			
		Total	25.7	0.69	177.7	-	-	-	-25.7	-177.7	-100%	-100%				0.0			
Total	Measured		9.5	0.87	82.7	0.1	1.63	1.3	-9.4	-81.4	-99%	-98%		AM6	[Total]	0.0			
	Indicated		25.3	1.36	344.2	15.3	1.93	296.0	-9.9	-48.3	-39%	-14%			Indicated	0.0			EOF
	Inferred		5.1	1.58	79.7	2.4	2.57	60.6	-2.7	-19.1	-53%	-24%			Inferred Measured	0.0			EOF
L		Total	39.8	1.27	506.7	17.8	2.01	357.8	-22.0	-148.8	-55%	-29%			Measureu	0.0			

Table 9: Cosmos JORC Code reportable Mineral Resource estimates on EOFY23|24

Notes: IGO's interest in the tonnages in this tabulation is 100%. The reporting cut-off grades are as per the listings below each deposit name except for Odysseus where the cut-off grade was ≥1.5% Ni for EOFY23 and ≥1.0% Ni for EOFY24 reporting. *In situ* MRE metal estimates do not account for the expected mining and metallurgical recovery losses. Zero values are reported as the '-' symbol and where necessary more decimals are used to avoid reporting values that round to zero. Totals and averages are affected by rounding tonnages to one decimal place and nickel grades to two decimal places.





#### Figure 6: Cosmos' nickel sulphide deposits

**Notes**: This 3D image is looking towards the northwest on the Cosmos mine grid. For scale the background grid squares have side dimensions of 200m. The nested estimation shells applied at Odysseus, AM5 and AM6 for disseminated mineralisation are depicted using different degrees of transparency for the nickel grade thresholds discussed in the main body of the report. The massive sulphide bodies are depicted using red shading, while mined-out and declassified bodies are depicted in grey, as is mined-out development surveys on EOFY24.

# Odysseus

As depicted in Figure 7 below, Odysseus has two discrete zones of mainly disseminated nickel sulphide mineralisation, known as Odysseus North, which is centred at coordinates 27°35'48"S and 120°34'51"E, and Odysseus South, which is centred about 400m south southwest of Odysseus North's midpoint. As discussed above, Odysseus was discovered in 2010 by Xstrata and the EOFY24 Odysseus MRE is based on the combined Xstrata, WSA and IGO geoscientific information that is detailed in Odysseus' JORC Code Table 1 that starts on page 48 of this report. The MRE drill hole pierce point spacing of mineralisation at Odysseus averages 30 by 30m albeit the pierce point spacing ranges from 5 to 50m due to the fan-like nature of the surface and sub surface drilling.



#### Figure 7: Odysseus MRE perspective view

Odysseus's EOFY24 MRE was prepared using well-known industry software systems for MRE work and digital block modelling methods, which can be considered industry routine for the style of mineralisation under consideration. Nickel grades and density were interpolated into the blocks of an 'onion skin' style grade shell model using the geostatistical ordinary block kriging (OBK) method. Each grade shell was treated independently for grade and density estimation as were the zones of massive mineralisation.

Nickel-barren felsic pegmatites cross cut Odysseus' earlier formed nickel mineralisation, and an implicit 3D interpretation of the pegmatites was prepared from the drill data by IGO's MRE practitioners. This interpretation was then 'stamped over' the grade estimation block model to reset block nickel grades to zero and set the density to that of pegmatite within the bounds of the pegmatite interpretations. Since reporting the EOFY23 Odysseus MRE, IGO has included an additional 12,742m of underground diamond core drilling (DD) to inform the EOFY24 MRE model, and this closer spacing provided a higher confidence for mine planning in the FY24 mining of Odysseus North and South.

The EOFY24 Odysseus MRE is reported using a  $\geq 1.0\%$  Ni block model block estimate cut-off grade with sector reporting for each JORC Code class as per Table 9 on page 25. As listed in the reconciliation EOFY23|24 part of Table 9, the total MRE has increased by 47% in terms of MRE tonnage and by 15% in terms of its *in situ* nickel metal tonnage estimate.

These changes are explained by:

 Increases that are due to a reduction in the Odysseus MRE reporting cut-off grade from 1.5% Ni (EOFY23) to 1.0% Ni (EOFY24), with this lower cut-off deemed commensurate with the mining studies prepared for the FY24 mining of Odysseus.



- Increases due to the discovery of extensions to lower grade mineralisation at Odysseus South in the FY24 new drilling that resulted in an increase in overall tonnage and subsequent decrease in overall grade.
- Reductions in MRE tonnage due to an increase in the volume of barren pegmatite interpreted in the EOFY24 MRE data, particularly in the dextral fault zone between the north and south bodies.
- Other minor tonnage and grade changes that resulted from combining and reinterpreting grade domain boundaries within the mineralised bodies.
- For comparative purposes using a ≥1% Ni MRE block model cut-off, and on a pre-mining basis, there is negligible change in comparative EOFY23|24 MRE masses but with the EOFY24 MRE having an overall estimated nickel grade that is about 5% lower (relative) when compared to the EOFY23 overall estimated nickel grade. As such, the estimated *in situ* nickel metal is also about 5% lower in the EOFY24 MRE compared to the EOFY23 MRE using these comparison criteria.

In FY24, Odysseus was mined on a very limited basis prior to transitioning in care and maintenance, with the 158Mt mined representing less than 1% of the total MRE volume. The estimated tonnage mined in stoping and development combined was about 158kt grading 1.69% Ni, with this estimated mined estimate grade derived from the EOFY24 MRE block model.



Figure 8: Odysseus stoping areas in FY24

In terms of the production reconciliation of the EOFY24 MRE to the ore hauled to surface from Odysseus, and/or processed in the Cosmos concentrator FY24:

The MRE predicted head grade for stoping and mine development ore processed in FY24 is about 1.47% Ni while the actual process head grade was 1.53% Ni. As such, the EOFY MRE model is interpreted to be marginally under-reporting the mill feed grade over the FY24 processing period.

The mined void surveys and haulage records indicate that about 377.5kt was mined in FY24 from the EOFY24 MRE model, so with 77.5kt still being stockpiled at surface and unprocessed, this equates to an estimate of about 300kt processed in FY24 from the EOFY24 MRE. This tonnage estimate is very close to



the concentrator's weightometer estimate of 295kt processed in FY24, and the EOFY24 MRE mined estimate is therefore considered accurate within measurement error precision.

As the EOFY23|24 difference metrics for Odysseus listed in Table 9 signal a material change in Odysseus MRE since EOFY23, in that the EOFY24 MRE overall tonnage has increased by 47% and estimated contained *in situ* metal has increased by 15%, the ASX Chapter Listing Rule 5.8 requires a technical summary of the revised estimate be provided in the main body of this ASX release. This summary is provided below in the following minor sub sections. Readers are also encouraged to refer to the Odysseus JORC Code Table 1 Checklist that starts on page 48 of this report for full details of the data basis and estimation process for the EOFY24 Odysseus MRE.

#### Geology and interpretation

As already discussed above, the geology of Odysseus is that of a typical WA komatiite-hosted nickel sulphide deposit with mostly thick disseminated sulphides but with a zone of massive (likely remobilised) massive sulphides below and south of Odysseus North. The rocks have undergone amphibolite grade metamorphism and are folded and faulted – structural geological work is ongoing to assess this aspect of the deposit. The ultramafic mineralisation host has been disrupted by faults and nickel-barren felsic pegmatite dykes have intruded the area, likely along fault structures, with the pegmatites both expanding the volume and/or assimilating the pre-existing rocks.

The MRE interpretation is controlled by the geology – ultramafics are mineralised and pegmatites are not – and grade shells prepared using implicit modelling methods have been used to control the estimation of nickel grade throughout the ultramafic rock volume.

#### Drilling sampling and sub sampling techniques

The drilling and sampling method used to support the Odysseus MRE is DD with half-core or sometimes quarter-core samples collected using a wetted diamond saw dividing the core, with sample downhole lengths typically one-metre intervals within similar geology. These MRE-basis samples were then despatched to well-known commercial assay laboratories in WA for analysis of nickel grade and other ancillary variables, as discussed in the next sub section. Due to the fresh and relatively competent nature of the Odysseus rocks, which are about 1km below surface, the core recovery is close to 100%.

There are two distinct phases of drilling: the 'discovery' relatively wide spaced drilling was completed by prior owner Xstrata, which was infilled on a close spacing by underground 'fan' DD completed by IGO. As noted above IGO has added about 12.7km of DD information to the database for Odysseus for the EOFY24 MRE.

#### JORC Code classification criteria

The Odysseus EOFY24 MRE has been classified as both JORC Code Indicated and Inferred Mineral Resources by its designated Competent Person. A small tonnage of Measured Resource is in a surface stockpile. The Competent Person has applied multiple criteria when determining the JORC Code classes to be applied, including data quality integrity, geological interpretation, data spacing, estimation method and estimation metrics. The geometry of the nickel-barren pegmatites and grade continuity is considered the main risk factor to local confidence. All disseminated mineralisation was initially coded as Indicated Mineral Resource, but then local areas were re-set to Inferred Mineral Resource if the data quality was too poor, or the data spacing too wide, with the latter reflected in the estimation metrics. In general, data spacing for Indicated Mineral Resources is nominally 30m or shorter in some fan drilling locations, while Inferred Mineral Resources are informed by data that have a wider average spacing.



#### Sample analysis methods

As noted previously, all Odysseus MRE-related core samples have been analysed by well-known and ISO-certified analytical laboratories in Perth, WA. The laboratory protocols applied to the prior and recent phases of assaying generally involved crushing the core, which was received from Cosmos via secure road freight, then grinding the crushed lot in entirety to a well-mixed powder or pulp, from which a small aliquot was then sub sampled for digestion in a four-acid mixture. This digestion was considered complete for nickel and other analytes of interest to MRE work. After drying, the digestion salts were then re-dissolved, and the solution analysed using industry commonly applied spectroscopy analysis methods to determine the concentrations of nickel and other elements that were to be interpolated in the MRE block model. Both IGO and the laboratory used a set of control samples to monitor the precision, accuracy and degree of cross contamination of the laboratory and the Competent Person found the results of these quality control samples to be acceptable for the subsequent JORC Code classifications applied to the MRE model.

For Odysseus' *in situ* density measurements, some core samples were measured for density at Cosmos by field technicians who used the Archimedes Principle or water displacement method. However, other samples were determined using the gas pycnometer method at a commercial laboratory using a sub sample from the analytical pulp. While the latter method does not account for rock voids, the Competent Person notes that fresh core samples from Odysseus, which is 1km below surface, have very low void spacing and as such the expected small (high) bias from the pycnometer method was deemed to be immaterial to estimation of local tonnage from the volumes estimated in the MRE.

#### Estimation method and validation

The Odysseus EOFY24 MRE was estimated using well-known industry MRE software systems. A digital block model template was prepared that encompassed the entire Odysseus region, with the model blocks coded through use of the implicit digital geology wireframes described above. The DD samples within the model region were composited into metre long lengths within each estimation zone and continuity models interpreted for each zone using geostatistical analysis known as variography. The concentrations and magnitudes of the key value variables (nickel and density) as well as several ancillary variables were then interpolated using OBK. No grade capping was deemed necessary for nickel or any of the other variables estimated.

The Odysseus EOFY24 MRE was validated through the usual industry-applied methods of comparing input composites to output block estimates through review of OBK estimation metrics, on-screen visual slice assessment, comparison of input-output global means for each attribute estimated, and through moving window input-output comparisons using swath plots. The Competent Person also reconciled the EOFY24 MRE to the EOFY23 MRE and found all verification checks to be acceptable, and that there were immaterial differences between the EOFY23|24 MRE models for the medium and high grade zones.

#### Cut-off grade selection and basis

The Odysseus EOFY24 MRE is reported using a cut-off grade of  $\geq 1.0\%$  Ni for the OBK estimate, as compared to the cut-off of  $\geq 1.5\%$  Ni applied for the reporting of the Odysseus EOFY23 MRE. The basis of applying a lower cut-off for the EOFY24 estimate is that mining studies for the Odysseus FY24 mine plan indicated a break-even cut-off somewhere between  $\geq 1.0\%$  Ni and  $\geq 1.5\%$  Ni and as such, the lower cut-off was selected for the EOFY24 MRE to ensure that that any ORE blocks would be nested inside the MRE envelope, including any marginal dilution mineralisation that would be extracted in stoping and mine development. As such, the increase in MRE tonnage for the EOFY24 MRE compared to the EOFY23 MRE is principally due to reporting the former at a lower cut-off of  $\geq 1.0\%$  Ni compared to the  $\geq 1.5\%$  Ni cut-off applied when reporting the latter.



#### Material modifying factors

In terms of key modifying factors assumptions that pertain to the Odysseus EOFY24 MRE, the Competent Person considered the following:

- IGO has security of tenure and both community and statutory licences to extract all or part of the EOFY24 Odysseus MRE and/or carry out further exploration and studies to progress the deposit into a future mining and processing phase.
- The mine and surface infrastructure support a nominal 1.1Mt/a processing operation is in a care and maintenance state at the time of reporting, and there is sufficient waste and tailings storage capacity to re-start operations, as well as accommodation and access facilities for a mine workforce.
- Mining during FY24 demonstrated that open stoping followed by paste fill to be a practical mining method for the disseminated mineralisation and the flatter-lying massive mineralisation below Odysseus North can be extracted using either room-and-pillar or drift mining methods.
- As such the Competent Person considers that the RP3E criterion is satisfied, although current economic conditions make the Odysseus MRE marginally sub-economic.

#### AM5

As depicted in Figure 6 on page 26, the top of AM5 is about 700m below surface and centred on coordinates 27°36'21"S and 120°34'31"E and is 350m down dip from the lower limits of Mt Goode's low grade disseminated mineralisation. The base of AM5's magmatic nickel sulphide mineralisation coincides with the base of Cosmos' lower ultramafic unit. The mineralisation comprises two sub-parallel, steeply dipping and plunging lenses that are separated by a felsic volcanic unit. AM5's massive sulphide mineralisation is interpreted to have been originally of basal primary style but has undergone subsequent folding and thrusting. The massive sulphide mineralisation has an average thickness of only one metre, but in some tectonically induced overlaps, the average thickness increases to approximately 4m.

During its ownership period, Xstrata partially mined the top of AM5 and used underground infrastructure to site drill platforms that were used define the resources of both AM5 and AM6. As depicted in Figure 9 on page 32, the EOFY24 JORC Code reportable MRE for AM5 is based on DD data primarily collected by Xstrata and JBM, with holes collared from both surface and underground locations. The quality and recovery of the drilling data used to define the MRE for AM5 are similar to that used for the Odysseus EOFY23 MRE. For full details on the EOFY24 estimation processes and assumptions for AM5's MRE, readers should refer to the AM5 JORC Table 1 Checklist starting on page 67 of this report. The sector information on JORC Code class reporting for AM5's EOFY24 MRE is listed in Table 9 on page 25.





Figure 9: Example plan and section projections AM5 EOFY24 MRE model depicting nickel grade

**Notes:** a) Plan view at level C to D denoted by the dotted line in the image to the right. b) Section view at northing A to denoted by the dotted line in the image to the left.

#### AM6

Xstrata discovered AM6 within the Cosmos ultramafic unit and to the south and below AM5, at 30 to 50m above the footwall contact. As depicted in Figure 6 on page 26, AM6 is centred on coordinates 27°36'31"S and 120°34'28"E, which is 300m south-southwest of AM5's centre. AM6 has a strike extent of about 400m and dips about 75° towards the east with a down dip extent of about 250m. AM6's disseminated mineralisation ranges from 2 to 25m in true thickness, as depicted in the plan and section drill hole MRE block model slices in Figure 10 on page 33.



#### Figure 10: AM6 MRE model sections – nickel grade

**Notes:** a) Plan view at level C to D denoted by the dotted line in the image to the right. b) Section view at northing A to B denoted by the dotted line in the image to the left.

The geometry and dip of AM6's mineralisation are both influenced by multiple northeast-trending faults which truncate the AM6 mineralisation at its northern and southern extents. Like AM5 and Odysseus, younger nickel-barren pegmatite dykes cross cut the mineralisation, albeit within a lower spatial frequency and volume than occurs at Odysseus.

The JORC Code class reporting details of AM6's FY23 MRE are listed in Table 9 on page 25. Full details of AM6's data and MRE modelling process are included in the AM6 JORC Code Table 1 starting on page 59 of this report.

## Outlook

The outlook for Cosmos is a focus on exploration discovery. IGO's strategy going forward is to discover new deposits in the Cosmos camp of nickel sulphide deposits, which would support a re-start of processing operations at full processing capacity and at a head grade that is technically and economically feasible. At the time of preparation of this report, the exploration strategy had been accepted by IGO's board and funds committed to program development and testing prospective exploration settings north of Odysseus and below the mineralised trend that hosts AM5 and AM6.

# Forrestania (IGO 100%)

Forrestania's Cosmic Boy nickel sulphide concentrator (Cosmic Boy) is 110km east of the WA town of Hyden, which is 280km east of Perth. As depicted in Figure 11a on page 34, the Cosmic Boy concentrator, which is the infrastructure locus of Forrestania, is at coordinates 32°34'52"S and 119°44'35"E. At the time of preparation of this report, Forrestania was sourcing its ore from the Spotted Quoll mine, the location of which is depicted in Figure 11.

## History

From 1992 to 1999, Finnish company Outokumpu Oyj, the first major nickel producer who held ownership over IGO's current Forrestania tenure, discovered, mined, and processed 3.8Mt of ore and

produced 55kt of nickel in concentrates from the Cosmic Boy, Flying Fox and Diggers deposits before dismantling the original Cosmic Boy mill and moving it to its Silver Swan operation.

In the early 2000s, WSA listed on the ASX and subsequently acquired the majority of the current Forrestania tenure from the then owners. In 2002, WSA reported the discovery of the Daybreak zone of NM/DB and over the next 20 years, went on to acquire 100% ownership of the current Forrestania tenure, extended the Flying Fox reserve to 1km below where Outokumpu Oyj had ended mining, and discovered Spotted Quoll. These latter two deposits have sustained 16 years of mining and processing at Forrestania. During FY24, ore mining ceased from Flying Fox with the last ore mined in November 2023. On EOFY24, mining and processing continued from the Spotted Quoll mine, with mine completion expected in the first half of FY25.



#### Figure 11: Forrestania nickel deposits for EOFY23|24 reporting and IGO tenure

Notes: Clockwise from top left: a) Nickel deposits at Forrestania. b) Spotted Quoll mine. c) Aerial photo of Diggers Pit.



# Geology and mineralisation

Forrestania's magmatic nickel sulphide deposits are hosted by a 2.9 Ga old sequence of now metamorphosed igneous and sedimentary rocks that are part of the Forrestania Greenstone Belt (FGB) of the Youanmi Terrane of the Eastern Yilgarn Craton, as depicted in Figure 12a and Figure 12b.





**Notes**: a) Komatiites and terranes of the Yilgarn Craton. b) Forrestania Greenstone Belt and its deposit and prospects in IGO's tenure. c) View from South Ironcap.

The FGB has a north to south strike length of about 250km, ranges from 5 to 30km in east to west width and is made up of two distinct Archean age geological sequences. The 3.05 to 2.93 Ga old Lower Sequence has at least four sequences of tholeiitic and komatiitic metavolcanics intercalated with metasediments, while the 2.76 to 2.72 Ga old Upper Sequence, which is found in the belt's centre, is dominated by pelitic and psammitic schists. The FGB is enclosed in a terrain of deformed granites and gneisses that have been locally intruded by undeformed plutons of granitic rocks. A series of east to west trending Proterozoic age dykes cross cut the older Archean successions.

Up to four phases of regional deformation have been recognised in the rocks of the FGB in the geological scientific literature. The first phase of deformation, which induced amphibolite grade metamorphism across the belt, tilted and folded the FGB's stratigraphy so that the Western Belt's rocks tend to dip between 40° and 70° towards east, while the dips of the strata of the other belts range between vertical and 70° towards the west. These regional geometries and regional dip asymmetries are interpreted to be due to synclinal folding that has been induced by strong east to west compression,


along with concurrent or post-folding local strike-slip faulting. The last brittle deformation phase affecting the FGB is characterised by the north-dipping faults that are related to the Proterozoic dykes.

#### **Mineral Resources**

Estimates that were reported on EOFY23 for the Flying Fox, Diggers and NM/DB deposits have been declassified and are no longer JORC Code reportable following IGO's annual review of the RP3E for these estimates. As such, IGO is reporting only the MRE for Spotted Quoll on EOFY24 as listed on Table 10 page 37. Readers should refer to the Spotted Quoll JORC Code Table 1, which starts on page 74 of this report, for extended details regarding Spotted Quoll EOFY24 MRE.

#### **Ore Reserves**

Forrestania's EOFY24 ORE are listed and reconciled to IGO's EOFY23 reporting of its estimates in Table 11 on page 38. The reconciliation of Forrestania's EOFY24 ORE to its EOFY23 report reveals a reduction in total *in situ* nickel metal in Forrestania's total ORE since EOFY23, with this reduction explained by the expected mining depletion of Spotted Quoll and closure of the Flying Fox mine closure on 23 November 2023.

Further details regarding Forrestania's FY24 OREs are detailed in Section 4 of the Spotted Quoll JORC Code Table 1 listing, which starts on page 81 of this report.

Deposit

Spotted Quoll

(≥0.40% Ni)

Flying Fox

Diggers

NMDB

(>0.4% Ni

Forrestania

(≥0.40% Ni)

(≥0.50% Ni)



**Notes:** IGO's interest in the tonnages listed in this tabulation is 100%. The reporting cut-offs are as per the listing below each deposit name. Zero values are reported as the '-' symbol. *In situ* MRE metal estimates do not account for expected mining and metallurgical recovery losses. Where necessary more decimals are used to avoid reporting zeros due to rounding effects. Totals and averages are affected by rounding tonnages to one decimal and nickel grades to two decimals. The MREs are notionally inclusive of any associated OREs listed in Table 11.



		-						Differe	nce (EO	FY24 – EC	OFY23)	EOFY23 to EOFY24 Ore Reserve in situ nickel metal reconciliatio								
D	JORC	EOFY23			EOFY24			Arithmetic		Relative				0 kt	5 kt		10 kt	15 kt		
Deposit	Code category	Mass	Nic	kel	Mass	Nick	kel	Mass	Ni	Mass		Forrestania	[TOTAL	]	-11kt					
		(Mt)	(%)	(kt)	(Mt)	(%)	(kt)	(Mt)	(kt)		Ni		Probabl		11.1kt					
Flying Fox	Proved	0.004	1.76	0.1	-	-	-	-0.004	-0.07	-100%	-100%		Prove		-	EOFY2	4-EOFY23			
(≥0.8% Ni)	Probable	0.1	1.91	1.3	-	-	-	-0.1	-1.3	-100%	-100%									
	Total	0.1	1.90	1.4	-	-	-	-0.1	-1.4	-100%	-100%	Spotted Quoll	[TOTAL]	•	9.7kt					
Spotted Quoll	Proved	0.005	3.02	0.2	0.01	3.13	0.3	0.006	0.2	111%	119%		Probable	-9.	3kt					
(≥1.0% Ni)	Probable	0.4	3.17	11.8	0.05	3.88	2.0	-0.3	-9.8	-86%	-83%		Proved	0.2kt						
	Total	0.4	3.17	12.0	0.06	3.75	2.3	-0.3	-9.7	-84%	-81%	Flying Fox	TOTAL							
Forrestania	Proved	0.01	2.46	0.2	0.01	3.13	0.3	0.002	0.3	17%	49%		[TOTAL]	-1.4kt			EOFY2	1022		
	Probable	0.4	2.97	13.1	0.05	3.88	2.0	-0.4	-11	-88%	-85%		Probable	-1.3kt			EOFY2	:4		
	Total	0.5	2.96	13.4	0.06	3.75	2.3	-0.4	-11	-86%	-83%		Proved	-0.1kt						

Table 11: Forrestania JORC Code reportable Ore Reserve estimates EOFY23|24

Notes: IGO's interest is 100% of the tonnages listed in this tabulation. The block model reporting cut-offs are as per the listing below each deposit name. Zero values are reported as the '-' symbol. *In situ* ORE metal estimates do not account for the expected metallurgical recovery losses. Where necessary more decimals are used to avoid reporting zeros due to rounding effects. Totals and averages are affected by rounding tonnages to one decimal and nickel grades to two decimals.



#### Outlook

At the time of writing this report, a seismic event occurred at Spotted Quoll. While IGO is assessing the consequences of this event, it is likely that ORE will be reduced against the figures contained in this report. The outlook for Forrestania in FY25 is the continued mining and processing of the Spotted Quoll ORE to fulfill the existing forward sale contract. Spotted Quoll mine closure is planned for in the first half of FY25, with operations expected to transition into a mine care in maintenance. Notwithstanding the operational closure, exploration for new magmatic nickel deposits continues on IGO's Forrestania tenure as well as exploration for lithium-rich pegmatite deposits.

# Nova (IGO 100%)

By road, Nova is about 160km east northeast of the WA town of Norseman and about 380km directly northeast of the Port of Esperance in southeastern WA. Nova's underground mine portal is at coordinates 123°10'40"E and 31°48'50"S (Figure 13).





Notes: a) Nova satellite photo EOFY24. b) Simplified regional geology.

#### **History**

In 2012, Sirius Resources NL (Sirius) discovered Nova-Bollinger by exploring the region around anomalous nickel-copper grade soil samples that had been collected by geologists from the Geological Survey of Western Australia in 1998. These samples were collected from within a 3km-long, ellipsoid feature, which was apparent on regional magnetics images, and named 'The Eye' by Sirius' geologists. Further exploration, including additional geochemical sampling by other explorers, geophysical surveys and drilling, led to the discovery of the Nova zone of Nova-Bollinger in 2013. Sirius subsequently used drilling to track a thin, mineralised conduit that trended east from the Nova zone to discover the Bollinger zone. The Nova and Bollinger zones are now recognised as a single continuous deposit known as Nova-Bollinger.

After announcing the acquisition of Nova from Sirius in May 2015, IGO developed the then 'Nova Project' to its first ore mining in June 2016, and subsequently shipped Nova's first saleable concentrates from its newly commissioned concentrator in December of the same year [9], [10], [11]. On EOFY24, the saleable concentrates produced and shipped from Nova over its EOFY24 LOM total approximately 1.66Mt, with these concentrates holding about 186.4kt of nickel, 78.3kt of copper and 6.5kt tonnes of cobalt.



#### **Geology and mineralisation**

Nova-Bollinger was discovered within the Mesoproterozoic age Fraser Zone (about 425 by 50km wide) of the Albany-Fraser Orogen. The Fraser Zone is fault bound by the Biranup Zone to the northeast and the Nornalup Zone to the southeast (Figure 13b). The Arid Basin sequence of rocks is the basement to the Fraser Zone and the Snowys Dam Formation of the Arid Basin is the basement rock package in the Nova-Bollinger area. During the first phase of the Albany-Fraser Orogen at around 1.30 Ga ago, mafic, ultramafic, and granitic intrusions were emplaced penecontemporaneously with the granulite facies metamorphism of the regional stratigraphy, which is interpreted to have occurred at crustal depths of 28 to 35km below surface. This zone is now characterised by gneissic fabrics, complex refolding and major mylonitic zones.

The rocks within the local Nova-Bollinger region are consistent with the geological literature's descriptions of the Snowys Dam Formation and include pelitic to psammitic gneisses, a local carbonate unit, along with metamorphosed mafic-ultramafic (MUM) and volcaniclastic rocks (Figure 14). The Nova-Bollinger MUM sill complex that hosts Nova-Bollinger's Ni-Cu-Co sulphide mineralisation is a doubly plunging synform, where a magnetite-bearing footwall gneiss has been identified as the cause of 'The Eye' magnetic feature. The MUM sill complex is a dish-shaped package about 2.4 by 1.2km in plan and up to 450m in thickness. The rocks of the complex range in mineralogy from peridotite to pyroxenite, to gabbronorite and norite, with both sharp and gradational contacts between different intrusive phases. An upper and lower intrusion are recognised with the lower 'Nova Gabbro' intrusion intimately associated with the Ni-Cu-Co sulphide mineralisation. The mine area is covered by an up to 3m-thick regolith and/or transported cover, with oxidation of sulphides in fresh rock down to depths of 20m in the western end of the Nova area.



#### Figure 14: Nova-Bollinger infrastructure and simplified regional geology

As noted above, Nova-Bollinger's Ni-Cu-Co sulphide mineralisation is associated with the Nova Gabbro mafic magmatic conduit, from which the sulphide mineralisation is interpreted to have precipitated and



accumulated within the conduit and the fracture zones surrounding this source 'chonolith' intrusion. The Nova Gabbro and associated sulphide mineralisation is interpreted to have been emplaced in a dynamic environment, at peak metamorphism, with most of the sulphide mineralisation remobilised into structures and/or fracture zones surrounding the mineralising intrusion. There are several mineralisation styles in Nova-Bollinger, ranging from massive sulphide accumulations, breccias, net-textured zones (comprising olivine crystals in sulphide matrix), stringer-sulphides in metasediments, and disseminated and blebby textures in gabbroic units.

Nova-Bollinger's massive sulphide mineralogy is dominated by the mineral pyrrhotite (80 to 85% by volume), minor pentlandite (10 to 15%) with lesser chalcopyrite (5 to 10%). Concentrations of up to 5% magnetite also occur locally within more massive sulphide zones. Cobalt is strongly and positively correlated with nickel as both elements are found concentrated in pentlandite, albeit both also occur in minor concentrations in solid solution with pyrrhotite. Copper is hosted by the chalcopyrite.

#### Mineral Resources

IGO's resource estimation practitioners have estimated the EOFY24 Nova-Bollinger MRE using routine industry methods of geological interpretation of DD results, preparation of digital wireframes of the geology and mineralisation, and then estimating grades into digital block models using well-known industry geostatistical methods. Full details of the data used, data quality, estimation process and methods are included in the relevant sections of the Nova-Bollinger JORC Table 1, which starts on page 85 of this report.

Nova-Bollinger's EOFY24 MRE is based on the geoscientific data collected from DD holes initially drilled from surface by Sirius on section lines, but with the majority of drilling being IGO-managed, underground-collared fan drilling. Combined, these two drill phases have effectively tested the deposit's known volume on a nominal 12.5 by 12.5m drillhole pierce point spacing through the mineralisation's limits. Nova-Bollinger was fully defined and closed off by drilling in July 2020, albeit some minor infill drilling was completed in FY24. Most of the data informing the MRE is from high-recovery DD, with a smaller component of good-quality reverse circulation percussion (RC) drill holes that define part of the resources of the shallower and western end of the Nova area, which is known as the Nova Upper zone.

In terms of MRE preparation, the EOFY24 MRE model has been updated to include geological data from all past drilling and underground development mapping and has been depleted for mining to the end of EOFY24, with some adjustments made to the MRE reporting of sterilised resource volumes that are deemed no longer accessible and/or viable due to prior mining and backfill. The EOFY24 MRE is the culmination of 22 separate estimation zones, which the mine geologists have interpreted from the drilling information and the high-quality confirmatory mapping of underground development drives. One of these zones is the 'waste halo zone' that encompasses all other zones, which facilitates estimation of dilution grades in the ORE. Figure 15 is a perspective view looking towards the northwest at a selection of the major estimation zones in the Nova-Bollinger MRE model. The mine development to 30 June 2024 is also depicted in grey. The mine's ore haulage decline and surface access is visible towards the rear of Figure 15.

Nova-Bollinger's EOFY23 and EOFY24 MREs are reported and reconciled in Table 12 on page 43, and are followed by the respective ORE reports and reconciliation in Table 13 on page 44.









Table 12: Nova-Bollinger JORC Code reportable Mineral Resource estimates on E	OFY23 24
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				-05/33							EOFY2					Difference (EOFY24 minus EOFY23)						
JORC	EOFY23								201124							Arithn	netic		Relative			
Code	Mass	Mass Grades (%)		Metal (kt)		Mass	Grades (%)			Metal (kt)			Mass	Metal (kt)			Maaa	Metal				
category	(Mt)	Ni	Cu	Co	Ni	Cu	Co	(Mt)	Ni	Cu	Со	Ni	Cu	Со	(Mt)	Ni	Cu	Co	Mass	Ni	Cu	Co
Measured	5.4	1.87	0.73	0.061	101.0	39.4	3.3	3.7	1.83	0.71	0.061	67.3	26.2	2.2	-1.7	-33.7	-13.2	-1.1	-32%	-33%	-33%	-32%
Indicated	0.3	1.34	0.44	0.048	4.7	1.5	0.2	0.3	1.54	0.46	0.054	4.0	1.2	0.1	-0.09	-0.7	-0.3	-0.03	-25%	-14%	-21%	-16%
Inferred	0.01	1.21	0.26	0.045	0.1	0.02	0.003	0.001	1.17	0.40	0.047	0.01	0.004	0.0004	-0.01	-0.07	-0.01	-0.003	-86%	-87%	-79%	-86%
Total	5.8	1.84	0.71	0.060	105.8	41.0	3.5	3.9	1.81	0.70	0.060	71.4	27.4	2.4	-1.8	-34.4	-13.5	-1.1	-31%	-33%	-33%	-32%

**Notes**: IGO's interest in the tonnages listed in this tabulation is 100%, The MRE is notionally inclusive of the OREs albeit the ORE includes dilution that will be below the MRE reporting cut-off in some areas. The EOFFY23 MRE is reported using  $\ge A\$58.5/t$  NSR and FY23 MRE metal prices and FX, while EOFY24 MRE is reported using  $\ge A\$58.5/t$  NSR and FY23 MRE metal prices and FX, while EOFY24 MRE is reported using  $\ge A\$58.5/t$  NSR and FY23 MRE metal prices and FX, while EOFY24 MRE is reported using  $\ge A\$58.5/t$  NSR and FY23 MRE metal prices and FX. *In situ* nickel metal estimates do not consider the expected losses due to mining and metallurgical recoveries. Where necessary more decimals are used to avoid reporting zeros due to rounding effects. Totals and average are affected by rounding to one decimal for tonnage, two decimals for nickel and copper grades and three decimals for cobalt grades. The MRE is notionally inclusive of the ORE listed in Table 13, albeit the ORE may include dilution material that is below the MRE reporting cut-off.





#### Table 13: Nova-Bollinger JORC Code Reportable Ore Reserve estimates on EOFY23|24

			e	OFY23							OFY24					Dif	ference	(EOFY2	24 minus	EOFY2	3)	
JORC	E0F123							EOF 124							Arithmetic Relative							
Code category			des (%) Metal (kt) N		Mass Grades (%)			Metal (kt)			Mass	Metal (kt)			M	Metal						
category	(Mt)	Ni	Cu	Co	Ni	Cu	Co	(Mt)	Ni	Cu	Со	Ni	Cu	Со	(Mt)	Ni	Cu	Co	Mass	Ni	Cu	Со
Proved	4.2	1.60	0.64	0.057	67.7	27.2	2.4	3.1	1.52	0.62	0.054	46.9	19.1	1.7	-1.1	-20.8	-8.2	-0.7	-27%	-31%	-30%	-31%
Probable	0.4	1.83	0.77	0.063	6.8	2.8	0.2	0.1	1.72	0.61	0.060	1.7	0.6	0.1	-0.3	-5.1	-2.3	-0.17	-74%	-75%	-79%	-75%
Total	4.6	1.62	0.65	0.058	74.5	30.1	2.6	3.2	1.53	0.62	0.054	48.5	19.6	1.7	-1.4	-25.9	-10.4	-0.9	-31%	-35%	-35%	-35%

**Notes**: IGO's interest is 100% of the tonnages listed in this tabulation. The EOFY23 ORE is reported using a A\$147/t NSR cut-off for full burden stoping, A\$79/t for incremental stoping cost, and A\$38/t for development ore, using EOFY23 p50 metal prices and FX. The EOFY24 ORE reported is A\$156/t NSR cut-off for full burden stoping, A\$89/t for incremental stoping cost, and A\$40/t for development ore, using EOFY24 p50 metal prices and FX. *In situ* nickel metal estimates do not consider the expected processing recovery losses. Where necessary more decimals are used to avoid reporting zeros due to rounding effects. Totals and average are affected by rounding to one decimal for tonnage, two decimals for nickel and copper grades and three decimals for cobalt grades.





#### **Ore Reserves**

IGO's mining engineers have prepared Nova's EOFY24 ORE using routine industry methods for the style of deposit under consideration, whereby the EOFY24 MRE block model was coded with mine reconciled grades and metallurgical recovery before an A\$/t NSR mining value was calculated for each model block. Stoping shapes were then prepared using an industry standard mineable stope optimiser (MSO) software. The MSO volumes were then used to validate the final development and stope designs and to prepare an extraction schedule including the LOM plan.

The LOM plan was then input into a financial model to demonstrate the economic viability of the EOFY24 ORE, which is listed by JORC Code classes in Table 13 on page 44. Full details of the ORE modifying factors applied are included in the Section 4 of Nova-Bollinger's JORC Code Table 1 which starts on page 93 of this report. Figure 16 is a perspective 3D view of Nova-Bollinger's EOFY24 ORE coded by stoping and development, as well as mined-out areas.





Due to the variable geometries of the Nova-Bollinger mineralisation, IGO uses several different mining methods for ore extraction. As depicted in the thicker portions of Nova-Bollinger, bulk stopes up to 75m high are designed, drilled and blasted, then extracted using remotely controlled loaders. The stopes are then backfilled with paste, which is comprised of non-sulphide process tailings mixed with a binder. The paste fill is then left to cure to a strength that supports the stope walls so that adjacent secondary stopes can be safely mined. This mining method ensures near full extraction of Nova-Bollinger's ORE, while minimising any ore dilution from potential stope wall and stope crown over-breaks.



In the Upper Nova area, where the mineralisation is narrower and more steeply dipping, a long-hole stoping mining method is used for extraction. The Upper Nova stopes are backfilled with waste rock, or in some areas cemented waste rock, to provide post-mining geotechnical stability. While this mining method has an inherent higher mining dilution than the paste backfill method, it is cost and production rate effective in the areas of narrow and steeply dipping mineralisation.

In the flatter-lying Mid Zone ORE between the Nova and Bollinger zones, the mining method is pastefilled, inclined room-and-pillar mining with full pillar extraction.

The current Nova mining rate targets about 125kt/month of ore, with a contractor mining fleet of five trucks, five loaders, one development drill and three production drills. Ore from the underground mine is hauled to the ROM pad adjacent to Nova's crusher, with the ore stockpiled in multiple 'fingers' based on nickel and/or magnesia grade. A separate stockpile is created for the high magnesia ore, which must be blended into the crusher with lower magnesia ore to keep the magnesium-iron ratio of the nickel concentrate within customer specifications.

Any waste rock that is mined and not used for underground backfill is hauled to surface with any potentially acid forming rock (PAF) encapsulated in non-PAF waste at the surface waste dump.

## Outlook

Nova-Bollinger's MRE has been fully defined and constrained by its resource definition drilling and no exploration for direct extensions of the mineralisation are planned. A small infill grade control program was completed in FY24, and a further small program is being undertaken in FY25 to help better define the resource for mine planning in selected areas of the deposit, which will result in a revision of the model for future reporting. However, no material changes to the overall estimates are expected. The current mine plan forecasts that mining will be completed in the middle of fiscal year 2027.



# Summary and conclusions

IGO's EOFY24 MRE/ORE reporting is consistent with the requirements of the JORC Code and the ASX Chapter 5 Listing Rules. The estimates for Greenbushes are as IGO reported effective EOCY23 and IGO is not aware of any changes to those estimates other than mining depletion, with the 2.5Mt of ore processed in the second half of FY24 a reasonable proxy for that depletion.

For IGO's magmatic nickel sulphide MREs and OREs, there are many material reductions between the EOFY23 and EOFY24 reports, mainly due to the declassification of many estimates following IGO's EOFY24 RP3E testing, and to a lesser extent anticipated mining depletion, such as at Nova. In terms of *in situ* nickel metal, the EOFY23 to EOFY24 reductions equate to 264.4kt of nickel metal for the total MREs and 249.3kt of metal for total OREs.

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# Cosmos: Odysseus JORC Code Table 1

# Section 1: Sampling techniques and data

Section 1: Sam	pling techniques and data – Odysseus
JORC criteria	Explanation
Sampling techniques	- Sampling by DD drilling was the sampling technique used to define the Odysseus EOFY24 MRE - refer to the following sections.
Drilling techniques	<ul> <li>DD comprised 63.5 millimetre (mm) diameter (HQ) and 47.6mm diameter (NQ2) diameter core.</li> <li>Over 90% of the core was NQ2 diameter core.</li> <li>Some of the core was oriented.</li> </ul>
Drill sample recovery	<ul> <li>DD core length recoveries were logged and recorded in the database.</li> <li>Core recoveries were based on the ratio of measured core recovered lengths to drill advance lengths for each core-barrel run.</li> <li>Overall ,core recoveries were &gt;99% and there were no material core loss issues or significant sample recovery problems.</li> <li>Core loss was recorded in logging where it occurred.</li> <li>The DD core was reconstructed into continuous runs on an angle iron cradle for orientation marking.</li> <li>Depths were checked against the depth given on the core blocks and the driller routinely carried out rod counts.</li> <li>As there was minimal sample loss, a relationship between grade and sample recovery is not relevant.</li> </ul>
Logging	<ul> <li>All geological logging was carried out to a high standard by qualified geologists who used well-established nickel host rock and wall rock geology codes.</li> <li>Logging was entered in spreadsheets with appropriate spreadsheet templates as a guide, or in LogChief software.</li> <li>Final logging was qualitative in terms of description, and quantitative for measures such as rock quality designation (RQD) and structure.</li> <li>All core was digitally photographed in high resolution in both dry and wet appearance.</li> <li>All holes were logged in full.</li> <li>Information on structure type, dip, dip direction, alpha and beta angles, texture, shape, roughness, and fill material was entered in structural logs stored in the database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>The DD core was cut on site by experienced field technicians into quarter or half core samples.</li> <li>The samples were cut longitudinally using wetted diamond-tipped saws from the whole core, usually over 1m downhole intervals.</li> <li>The core samples were bagged into pre-numbered calico bags and accumulated into larger protective plastic bags before being dispatched by a reputable road transport contractor to the respective laboratories which were Intertek Genalysis Laboratory in Perth WA (IGL) and Australian Laboratory Services laboratory also Perth WA (ALS).</li> <li>Residual core is retained in core trays at the core yard on Cosmos site.</li> <li>The quarter and half core samples were crushed and split by the commercial laboratory staff.</li> <li>The samples were prepared at each laboratory using industry standard practice which involves: <ul> <li>Oven drying at 105 degrees Celsius (°C) for eight hours</li> <li>Coarse crushing in a jaw crusher to a particle size distribution (PSD) of 100% passing a maximum diameter of 2 to 3mm</li> <li>Pulverising the entire sample to a PSD of 85% passing 75 microns (µm) maximum diameter.</li> </ul> </li> <li>Both laboratories used certified methods and equipment that was regularly tested and cleaned with compressed air streams.</li> <li>IGO's field technicians inserted commercial CRM providers, including OREAS and Geostats.</li> <li>The CRMs were selected based on their grade range and mineralogical properties, with about12 different CRMs used over time with the CRM grades ranging from waste grade to high grade.</li> </ul>

#### Section 1: Sampling techniques and data – Odysseus

JORC criteria	Explanation
	<ul> <li>While no specific heterogeneity testing has been completed on the mineralisation, the Competent Person considers that sample sizes are appropriate to correctly represent the sulphide mineralisation based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.</li> <li>Barren or blank quality control (QC) samples were also inserted in the routine sample streams to monitor for cross contamination in sample preparation, at a nominal insertion ratio of 1 in 20 routine samples.</li> <li>The QC procedures at the selected commercial laboratories also involved insertion of CRMs and blanks, and assay of duplicates collected at the coarse crush stage, pulverisation stage and assay stage.</li> <li>The laboratories regularly used barren quartz washes to clean the crushing and grinding equipment.</li> <li>The coarse sample fractions were kept at the laboratories for a period of three months before being discarded or sent to site.</li> <li>All assay pulps were returned to site and are securely stored on site at Cosmos.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All samples were assayed by independent, certified commercial laboratories using industry standard nickel sulphide analytical assay methods.</li> <li>The two most frequently used laboratories were ALS and IGL.</li> <li>The most common assay technique used was a four-acid digest followed by an inductively coupled plasma atomic emission spectroscopy (ICP-AES) reading of the re-dissolved digestion salts.</li> <li>Hydrofluoric, nitric, perchloric and hydrochloric acids suitable for silica-based samples were used.</li> <li>The digestion approaches total dissolution for all but the most resistant silicate and oxide materials.</li> <li>Laboratory quality control processes included the use of internal standards to monitor accuracy, blanks to check for cross contamination, and duplicates to monitor precision.</li> <li>Field standards were included in all batches dispatched at a frequency of 1 per 20 samples, with a minimum of two standards included per batch.</li> <li>Field replicates of either half or quarter core were inserted into laboratory submissions at an approximate frequency of 1 in 25, with placement in the submission stream determined by the nickel grade and homogeneity of mineralisation.</li> <li>The laboratory took replicate splits - pulp and crush, alternately - at a frequency of 1 in 25.</li> <li>Accuracy and precision were assessed using industry standard procedures such as control charts and scatter plots and were found to be acceptable.</li> <li>If a sample result exceeded the pre-determined control limits and there was no obvious reason for poor performance, the laboratory was asked to repeat the affected sample batch.</li> <li>A handheld calibrated Niton portable X-ray fluorescence analysis instrument (pXRF) was used to obtain preliminary semi-quantitative measurements prior to assay results being available, but these measurements were not used for MRE work.</li> </ul>
Verification of sampling and assaying	<ul> <li>The MRE geological interpretation was peer viewed by IGO'ssenior geologists.</li> <li>There are no twinned drill holes.</li> <li>All geological logging was carried out to a high standard, using well-established geology codes, into Maxwell LogChief geoscientific data capture software (LogChief) in accordance with standard operating procedures.</li> <li>All other data, including assay results provided by the laboratories, were captured in Microsoft Excel spreadsheets (Excel).</li> <li>Drill hole information, logging, sampling intervals and assay results were stored in a structured query language (SQL) server database (in a secure data centre).</li> <li>The database is managed by IGO.</li> <li>No adjustments to assay data compiled for this MRE were made, other than conversion of detection limit text values to null values prior to MRE work.</li> </ul>
Location of data points	<ul> <li>Drill hole paths were surveyed by a well-known commercial contractor, Downhole Surveys.</li> <li>Downhole Surveys used inertial navigation system gyroscopic instruments on all resource definition holes. This equipment is not affected by magnetic minerals or rocks.</li> <li>The survey coordinate system for data capture was Map Grid of Australia 1994 (MGA94) Zone 51 grid, but estimates were prepared in a local coordinate system (mine grid) which uses Australian height datum (AHD) of 480m plus (+) 10,000m (total 10,480m).</li> <li>The project area is generally flat, and the topographical data available are considered adequate for MRE purposes.</li> <li>All collar positions were surveyed by qualified surveyors.</li> </ul>

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JORC criteria	Explanation
Data spacing and distribution	<ul> <li>The nominal data spacing for Odysseus South zone was 41m along strike and 43m across strike prior to this MRE update.</li> <li>This spacing is based on entry and exit points through the high-grade zones, where most of the mining will take place.</li> <li>Additional data since the previous MRE consists of an additional 189 diamond holes for a total length of 12,742m, with 9,552 samples assayed.</li> <li>The MRE drill hole pierce point spacing of mineralisation at Odysseus North zone averages 30m by 30m albeit the pierce point spacing ranges from 5 to 50m due to the fan-like nature of the surface drilling.</li> <li>A closer drill spacing for ODN is appropriate because of the higher frequency of pegmatites.</li> <li>A nominal 1m sampling length has been applied for the MRE work, but shorter or longer samples are collected to terminate at important geological contacts.</li> <li>The total number of composites used for the MRE is 17,684.</li> <li>The Competent Person considers the sample spacing to be commensurate with that of the JORC Code's Indicated and Inferred Mineral Resources, given the dominant type of mineralisation is assumed to be relatively homogenous within individual tenor zones.</li> <li>No internal waste zones other than the pegmatites are present.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Most of the DD holes are oriented to achieve intersection angles as close to perpendicular to the orebody as possible.</li> <li>Due to the styles and geometries of the mineralisation under consideration, orientation-based sampling bias is not expected.</li> </ul>
Sample security	<ul> <li>Industry standard sample security measures used in the WA mining industry were adopted.</li> <li>Reputable contractors were used to transport samples from Cosmos to the commercial laboratories in Perth.</li> <li>The assay laboratories (ALS and IGL) have their own internal sample security measures.</li> <li>The Competent Person considers that there is very low likelihood of deliberate or accidental contamination of samples in the MRE dataset as the chain of custody of samples is secure.</li> </ul>
Audits or reviews	- No formal audits of the sampling techniques have been completed.

### **Section 2: Exploration results**

Section 2: Expl	ction 2: Exploration results – Odysseus						
JORC criteria	Explanation						
Mineral tenement and land tenure status	<ul> <li>Odysseus is located wholly within WA mining tenement M36/371, which is 100% owned by IGO and has an expiry date of 2041.</li> <li>All tenements are in good standing and there are no known impediments to further exploration and mining on this tenement</li> <li>Native Title numbers are WCD2017/001 only</li> <li>Several royalties are payable on the value of nickel and cobalt metal in concentrate produced from Odysseus including:         <ul> <li>WA State royalties of 2.5%/t in accordance with the WA Mining Act.</li> <li>Tjiwarl Traditional Owner royalty of 0.9%/t.</li> <li>Royal Gold royalty 1.5%/t.</li> </ul> </li> <li>There is a consent caveat in place by caveotor National Australia Bank – recorded 24/02/2023\</li> </ul>						
Exploration done by other parties	<ul> <li>Historical nickel exploration and mining was done by WSA, which was acquired by IGO in 2021, and prior Cosmos explorers Glencore plc, Xstrata plc, Barrick and JBM.</li> <li>Xstrata was responsible for the discovery of the Odysseus and AM6, while JBM discovered the other known deposits. Barrick discovered Mt Goode.</li> </ul>						



### Section 2: Exploration results – Odysseus

JORC criteria	Explanation
Geology	<ul> <li>Cosmos' nickel sulphide deposits form part of the Cosmos Nickel Complex, which lies within the Agnew-Wiluna Belt of the central Yigarn Craton.</li> <li>The genetic formation model for the nickel mineralisation is the "Kambalda-style" model where precipitation of nickel sulphides is interpreted to occur in channelised komatilitic lava flows and/or lava tubes. This high-grade primary formation style is applicable to the Cosmos, Cosmos Deeps, AM1, AM2, parts of AM5 and the Odysseus Massive zones.</li> <li>Type 1 (deposits are interpreted to have formed where the hottest lava in the centre of a lava channel hermally erodes into a sulphidic substrate and massive sulphides accumulate at the channel's base. This high-grade primary formation style is applicable to the Cosmos, Cosmos Deeps, AM1, AM2, parts of AM5 and the Odysseus Massive zones.</li> <li>Type 1 (deposits are interpreted to have formed from cooler and slower-flowing lavas than those for Type 1 (deposits. In this model, the mineral loifwine is emisaged to crystallise from these to applicable.</li> <li>Type 2 (deposits are interpreted to have formed from cooler and slower-flowing lavas than those for Type 1 (deposits. In this model, the mineral olivine is emisaged to crystallise from these to a subplide accent lava than a divine grains, giving rise to a disseminated to 'matrix' textured nickel subplide mineralisation that builds up from the channel base. This style of mineralisation is applicable to the AM5, AM6 and Odysseus disseminated zones at Cosmos.</li> <li>The sulphide nickel assemblages at Cosmos are 'high tenor', meaning that the sulphides are dominated by the nickel-bearing mineral pentilandite. The sulphide assemblages also contain the sulphide nicreal system cosmousts of print and chalcopristic. In this model, the coreal sulphides use as valentile and millerite.</li> <li>The mineralisation bytically occurs in association with the basal zone of high magnesia (MigO) comulate ultramafic rocks.</li> <li>Odyss</li></ul>
Drill hole Information	<ul> <li>There are too many holes to summarise as a listing and the MRE gives the best balanced and unbiased assessment of the estimate.</li> <li>The MRE is based on 17,684 composited assayed intersections derived from 19,279 original intersections from more than 281 surface and underground diamond drill holes over multiple domains and years of surface and underground drilling.</li> <li>All this information was considered material to the MRE.</li> </ul>
Data aggregation methods	- Individual assays and exploration are not reported so data aggregation is irrelevant





<b>I</b>	
JORC criteria	Explanation
Relationship between mineralisation widths and intercept lengths	- Most DD hole intersections are not true widths due to the variable geology and drill hole orientations.
Diagrams	- Representative maps, sections and 3D images are included in the main body of this Public Report.
Balanced Reporting	<ul> <li>No Exploration Results are being reported.</li> <li>The MRE gives the best and most balanced view of the drilling to date.</li> </ul>
Other substantive exploration data	- There is no other substantive exploration data that is material to the EOFY24 MRE.
Further work	- The mine is currently on care and maintenance, but exploration continues in FY25 with the goal of finding extensions or new deposit to facilitate a re-start of mining and processing operations

## **Section 3: Mineral Resources**

JORC Criteria	Explanation
Database integrity	<ul> <li>All logging of drill hole data is captured in the field on dedicated laptops either using spreadsheets or LogChief software.</li> <li>Assay data in the form of text comma delimited '.csv' files from the primary assay laboratory ALS and the umpire assay laboratory (IGL) received, are imported directly into IGO's acQuire managed SQL database</li> <li>The database is in acQuire format and is managed by one of IGO's in-house database administrators (DBA).</li> <li>The LogChief software provides the first level of data validation and used locked look-up tables for all data fields to ensure correct coding of logging.</li> <li>The acQuire database uses validation look-up tables and trigger scripts to ensure all numeric, date and code information is correct.</li> <li>All QC controls are reviewed and actioned after each submission.</li> </ul>
Site visits	- The Competent Person is an employee of IGO and has undertaken regular site visits over the last six years.
Geological interpretation	<ul> <li>Odysseus is hosted within an ultramafic unit and consists of disseminated nickel sulphide mineralisation as a high-grade core surrounded by medium-grade and low-grade zones.</li> <li>Late-stage pegmatites have intruded above, below and cross cut the mineralisation.</li> <li>Three-dimensional 3D digital domains defining concentrations of disseminated nickel sulphide mineralisation within the ultramafic unit hosting the Odysseus South and Odysseus North zones were constructed using Leapfrog Geo 3D modelling software (Leapfrog).</li> <li>The 3D domain modelling was set to create grade "shells" in the mineralised ultramafic with the:         <ul> <li>Low grade shell defined to envelope drill hole intervals having sample grades in the range 0.4% to 0.5% Ni but with sporadic thin higher grade intercepts sometimes included.</li> <li>Medium grade shell defined to envelope drill hole intervals having sample grades in the range 0.5% to 1.5% Ni in the Odysseus South zone, and 0.5% to 2.0% Ni in the Odysseus North zone.</li> <li>High grade zone defined to envelope drill hole intervals having sample grades exceeding 1.5% Ni in the Odysseus South zone and exceeding 2.0% Ni in the Odysseus North zone.</li> </ul> </li> </ul>



JORC Criteria	Explanation
	<ul> <li>The 3D digital shells were created in Leapfrog for each cut-off value for each zone, with each grade domain modelled using LeapFrog vein modelling algorithm.</li> <li>To ensure the geometries of the modelled volumes honoured the geology of the ultramafic boundaries, and to remove any spurious mesh artefacts, additional polylines were added to the footwall and hangingwall surfaces of each grade shell as well as to the trend of each shell.</li> <li>As a final step, each estimation domain was constrained to the ultramafic boundary to remove any extensions beyond the ultramafic domain.</li> <li>Finally, zones of pegmatite which cross cut the domains were also trimmed from the nickel domain volumes.</li> <li>The massive sulphide occurring as narrow lodes below the ultramafic sequences of the Odysseus North were also modelled as 3D digital volumes. These massive sulphide zones were defined where occurrences of massive sulphide deta. The Leapfrog vein selection tool was used to define connecting intervals to include within each domain, with a total of four domains created.</li> <li>The grade shells at Cosmos were adopted by JBM and Xstrata and modelling Odysseus and these shells were treated as hard estimation boundaries whereby only samples inside each grade shall were used to estimate block grades inside each respective shells.</li> <li>The zoning of disseminated deposits is well documented and related to primary and secondary mineralisation events.</li> <li>Weak to strong desulphidation during regional metamorphism has resulted in partial alteration of sulphides to anglection a local scale, thereby increasing the tenor (nickel grade of the sulphides) of the remaining sulphides.</li> <li>The MRE models were reconciled to the previously reported MRE models at all stages of the process to ensure an appropriate level of consistency between the previous and the current interpretations.</li> <li>The kontinuity of grade and geometry is primarily influenced by intrusive late</li></ul>
Dimensions	<ul> <li>Odysseus South low grade outer low grade zone: <ul> <li>The strike length of is about 450m.</li> <li>The vertical height from the top to its base is about 300m.</li> <li>The width of the between 0.8 m and 120m and averages 35m.</li> <li>The average grade and thickness increases down plunge to the north.</li> </ul> </li> <li>Odysseus North outer low grade zone: <ul> <li>The strike length is about 420m.</li> <li>The vertical height from the top of the low grade mineralisation to its base is about 100m.</li> <li>The vertical height from the top of the low grade mineralisation to its base is about 100m.</li> <li>The width of mineralisation varies between 0.8 m and 71m and averages 28m (after application of a minimum 5m threshold).</li> <li>The average grade and thickness increase to the north.</li> </ul> </li> <li>Both zones start at about1,000m below surface.</li> </ul>
Estimation and modelling techniques	- The estimation was prepared using the following MRE software systems:

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JORC Criteria	Explanation
	- The compositing method was optimised which ensures all the samples in a single drill hole are to be included in a composite by adjusting the composite lengths for each hole in each estimation zone, while keeping it as close to the target composite length as possible. This ensures no residual composites are created that would otherwise result in loss of the information of residuals that have lengths <0.5m.
	- Continuity analyses (variography) for the nickel grade and density composites in each estimation domain were prepared using Supervisor to determine the direction and continuity models for the three major, semi-major and minor directions of continuity.
	<ul> <li>Nickel grade top-cut investigations were completed using Supervisor's top-cut analyses processes. After finding that the coefficient of variation (CV) of the composites in each estimation were low, the Competent Person concluded that top cuts were not required to control the influence of extreme values during estimation. The underlying reason here is tha the low to high-grade nickel domains had sufficiently reduced the local grade variability.</li> </ul>
	<ul> <li>The MRE zone volumetrics were compared and reconciled to the previous model and differences are due to the new drilling information and minor changes in modelling techniques.</li> <li>Both the Odysseus South and North zones had been mined at the time of the MRE and the model was depleted accordingly to EOFY24.</li> <li>MRE model validation techniques applied included:</li> </ul>
	<ul> <li>On-screen visual comparison of the composites and estimated blocks in section and plan to ensure that trends and boundaries apparent in the input composites were appropriately reflected in the model's block grade and density estimates.</li> </ul>
	<ul> <li>Preparation of graphs of estimation pass number versus percentage estimated in each pass to allow assessment of estimation confidence, with blocks being estimated in primary passes having the highest confidence, and tertiary pass block estimates having the lowest confidence.</li> </ul>
	<ul> <li>Preparing moving window swath plots where the local window composite grades or density are compared to the respective block model estimates for the same window.</li> <li>Preparation of swath plots of OBK kriging variance (KV), kriging efficiency (KE) and theoretical OBK slope of regression (SOR) between block estimates and theoretical true block estimates.</li> </ul>
	<ul> <li>Jack-knifing analyses of the block model attributes to the informing drill hole followed by statistical analysis.</li> <li>A reconciliation of the previous and current MRE reported tonnes and grades (both depleted for mining) is a follows:</li> </ul>
	<ul> <li>Prior model: 7.67Mt grading 2.57%Ni reported at a 1.5% Ni MRE block reporting threshold on EOFY23.</li> </ul>
	- Revised: 11.4Mt grading 1.99%Ni reported at a 1.0% Ni block model reporting threshold on EOFY24.
	<ul> <li>There are immaterial differences to the estimated tonnages and grades of the medium and high grade zones.</li> <li>The factors contribution to the increase in estimated tonnage and decrease in estimate grade are that:</li> </ul>
	- The reporting cut-off grade has been reduced.
	- Results from infill grade control DD drilling has increased the extents of the Odysseus South low grade zone.
	- The infill drilling has identified a greater volume of pegmatite than in the prior model particularly in the fault zone between north and south.
	- Combining and reinterpreting grade domain boundaries has made local changes in tonnage and grade.
	- Nickel is currently considered the only value product in saleable concentrates; however, further work is planned to quantify the value of cobalt.
	<ul> <li>The ratio of iron to magnesium is recognised as influencing standard nickel floatation mill recoveries.</li> <li>Both elements have been estimated in the MRE model and the ratio has been calculated for each parent block in preparation for further metallurgical work.</li> </ul>
	<ul> <li>Both elements have been estimated in the MRE model and the ratio has been calculated for each parent block in preparation for further metalulgical work.</li> <li>The Competent Person also considers that there is sufficient assay data to estimate a number of accessory variables into the MRE model including iron (Fe), magnesium (Mg), arsenic (As), cobalt (Co), chromium (Cr), Cu, sulphur (S), zinc (Zn), MgO, and hematite (Fe<sub>2</sub>O<sub>3</sub>).</li> </ul>
	<ul> <li>A block model template was prepared that specified parent blocks of 5 metres east (mE) by 5 metres North (mN) by 5 metres in reduced elevation (mRL) for estimation and sub- blocks to minimum dimensions of 1.25mE by 1.25mRb, so the model would accurately fill the 3D wireframes prepared for each estimation domain.</li> </ul>
	- The estimation block size, as specified for the parent blocks in the block model template, was determined using the kriging neighbourhood analysis (KNA) tools in Supervisor software This parent block size is nominally one quarter of the distance spacing between drill holes.
	- Parent estimation was used, and sub-cells were set at a maximum of 1/16 of the parent cells.





JORC Criteria	Explanation
	<ul> <li>The MRE drill hole pierce point spacing of mineralisation at Odysseus averages approximately 30m by 30m albeit the pierce point spacing ranges from 5 to 50m due to the fan-like nature of the surface drilling.</li> <li>A dynamic composite search anisotropy algorithm (DA) was used for block grade estimation that facilities the search volume geometry to vary from block to block. The block search ellipsoid orientation set through an (circular) inverse distance to the power of two interpolation of the dips and dip directions assigned to vectors derived from the triangle so the Leapfrog wireframes each triangle's vector is determined as the dip and direction that water would flow down each triangle surface. A minimum number of samples was set to 20. A maximum number of samples from a single drillhole per block estimated was set to five. The results were verified by rerunning the estimate using a standard search technique.</li> <li>A standard non dynamic composite search anisotropy algorithm was used as a check against the DA method and the search distances varied for each of the seven domains, the maximum number of composites required for a block to be estimated was set to 20 for all the search passes.</li> <li>The minimum number of composites required for a block to be estimated was set to 20 for all the search passes.</li> <li>The minimum number of composites that could be selected from any one drill hole was set at five to prevent a disproportionate number of composites from any single drill hole having an undue influence on the estimate.</li> <li>There is a strong correlation between sulphur and nickel grade as well as density and grade, as the percentage of nickel in the sulphide increases.</li> <li>Mineralised zones were digitised using explicit and implicit techniques as described in the section on geological modelling</li> <li>Strings were snapped to both underground and surface drilling intercepts using implicit and explicit techniques. Each wireframe is representative of a grade domain and used in</li></ul>
Moisture	<ul> <li>Tonnages were estimated on a dry basis. Density estimation is described elsewhere. Moisture studies on trucked/hoisted ore have not been undertaken.</li> </ul>
Cut-off parameters	- The MRE is reported above a block grade of greater than or equal to ≥1.0% Ni cut-off grade.
Mining factors or assumptions	- Standard paste fill longhole stoping is assumed for the disseminated mineralisation and jumbo-operated room-and-pillar mining for the massive sulphide mineralisation.
Metallurgical factors or assumptions	- Froth flotation recovery of sulphides is assumed for both the disseminated and massive sulphide material.
Environmental factors or assumptions	underground mining at Cosmos. Storage of PAF material from development is the subject of investigation.
Bulk density	<ul> <li>Bulk densities of core samples are determined on site using water displacement methods and verified at the independent commercial laboratory using the pycnometer method.</li> <li>All data used in the MRE are from competent fresh rock and void spaces are not considered to have a material impact.</li> <li>Bulk densities are determined for each sample assayed and interpolated into the block model using OBK.</li> </ul>
Classification	<ul> <li>The updated Odysseus Mineral Resource Estimate has been classified and reported in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code).</li> <li>The following points are material in the classification of the Odysseus Mineral Resource:</li> <li>Database integrity – The sample size, QAQC protocols, and sampling and assaying procedures undertaken by IGO conforms to industry standards.</li> <li>Geological interpretation – The Odysseus geological interpretation used for this estimate has been reviewed by external industry experts and subject to internal validations. Two alternative geological models were generated as part of the validation process. Grade shell assumptions were assessed using geostatistical tools and visual field observations.</li> </ul>



JORC Criteria	Explanation
	<ul> <li>Provide the provide t</li></ul>





JORC Criteria	Explanation							
		RESCAT	TONNES	Ni%	Ni Tonnes	% Split		
		Inferred	156,929	9.21	14,455	61		
		Indicated	114,878	7.88	9,058	39		
		Total	271,807	8.65	23,513			
Audits or reviews	<ul> <li>Inferred Mineral Resources – areas where the data of The Competent Person considers that the drill space Mineral Resource.</li> <li>The definition of mineralised zones is based on a model The geological and grade continuity of the domains annual targets.</li> <li>The Inferred Mineral Resource classification is indice The MRE reflects the Competent Person's view of the Snowden Optiro (SO) reviewed the classification syst Mineral Resource. This reflects the relative uncerta</li> <li>The MRE has been independently audited by Snowd Modelling specialist and a block modelling specialis</li> <li>Their findings are summarised as follows: Snowden understanding of the local and regional applying applying</li> </ul>	ng is currently too wi oderate level of geole is such that the Indic ative of volumes and he deposit and the pe stem and concluded inty in nickel sulphid den-Optiro during an st Optiro did not find a	ide and geolo ogical unders ated Mineral I associated f erceived risk the following e and in the d at the end ny fatal flaws	ogical unce standing, a Resource onnages t s associat s associat cocord of the pro-	ertainty is too and all releva as have a loca that warrant f ed with the gi urs with the gi interpretation cess. The mo	nt factors (releva al level of accura urther drill testin rade and structu classification app n. odel was reviewe	ant to all available data) have been considered. acy which is suitable for mine planning and for achier g and are not suitable for Ore Reserve estimation. ral continuity. olied, which sees no blocks classified higher than Inc	
Discussion of relative accuracy/confidence								
	1	Zo	one Ton	nes Ni	% Ni Ton	nes		
		ODN	_	722 1.		297		
		ODN ODN	 N_HG 24	148 2.	50	604		
		ODN ODN	 N_HG 24		50			
		ODN ODN ODS	N_HG 24	148 2.	50 26	604		



JORC Criteria	Explanation				
	- Reliable mill reconciliation data is limited due to the mine being put on four of the total nine stopes mined.	care and m	naintenance and subse	quent lack of persor	nnel. The following reconciliation data relates to the first
		Design	Final stope shape	Mill reconciled	
	Grade	1.84%	1.80%	1.73%	
	Ore Tonnes	44,486	56,703	41,786	
	Ni Tonnes	818	1,020	725	
	<ul> <li>The final stope shape column provides a better estimate of the predicted likely related to the poor tonnage variance of -26.3%. Mill commission as opposed to block model issues. This is supported by the fact that a</li> <li>The total run of mine (until closure) milled tonnes of 294,294 tonnes vs milled head grade was 1.53% Ni against a forecast of 1.47% Ni. In other -</li> <li>Additional inverse distance squared estimates of nickel grade were als and composite number controls. The difference between the average additional level of confidence in the accuracy and precision of the krig</li> <li>The Competent Person considers that the sample spacing is commens dominant type of mineralisation, i.e., 'Type 2' disseminated sulphide.</li> </ul>	ing proble pproximate a forecast er words, o prepared nickel grad ng estimat	ms included low throug ely 77,000 ore tonnes v of 377,632 tonnes was the block model appea for validation of the nic les globally is <3% rela	hput in the feed hop vas left on the ROM s due to low through rs to be under callin ckel kriging estimate tive. The Competer	oper which led to the lower-than-expected milled ore tonne after the mill was decommissioned. Input issues related to the feed hopper and grizzly. The fina g grade by a variance of 4% against the mill. es, with both estimates using the same composite search at Person considers that this validation step adds an



# Cosmos: AM6 JORC Code Table 1

# Section 1: Sampling techniques and data

Section 1 – Sa	mpling techniques and data – AM6
JORC Criteria	Explanation
Sampling techniques	- Sampling of DD drilling is the sampling technique used to define the AM6 deposit – refer to following sections.
Drilling techniques	<ul> <li>DD drilling comprises HQ and NQ2 sized core drilled from both surface and underground.</li> <li>Core is oriented using the Boart Longyear TruCore orientation system.</li> </ul>
Drill sample recovery	<ul> <li>DD core recoveries are logged and recorded in the database.</li> <li>Recoveries are based on the ratio of measured core recovered lengths to drill advance lengths for each core-barrel run.</li> <li>Overall recoveries for AM6 were &gt;99% and there were no core loss issues or significant sample recovery problems. Core loss is noted where it occurred.</li> <li>The DD core was reconstructed into continuous runs on an angle iron cradle for orientation marking.</li> <li>Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</li> <li>A relationship between sample recovery and grade was not established as there is minimal sample loss.</li> </ul>
Logging	<ul> <li>All geological logging was completed by qualified geologists to a high standard using well-established nickel host rock and wall rock geology codes (in spreadsheets with appropriate spreadsheet templates as a guide or LogChief software, depending on the age of collection).</li> <li>Final logging was qualitative for descriptive items, and quantitative for structure and geotechnical data.</li> <li>All core was photographed in both dry and wet forms using a high-resolution digital camera.</li> <li>All holes were logged in full.</li> <li>Information on structure type, dip, dip direction, alpha and beta angles, texture, shape, roughness, and fill material was entered in structural logs stored in the database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>All direct AM6 targeted drilling was undertaken by owners prior to Western Areas acquisition of the project.</li> <li>The DD core was sampled as whole, half and quarter core. Half and quarter core samples were prepared by cutting whole core longitudinally using a wetted diamond-encrusted blade. Samples were generally collected over 1m long intervals, except where shorter or longer samples were specified to terminate at important geological contacts.</li> <li>The core samples were collected into pre-numbered calico bags and compiled into sample dispatches in larger heavy duty plastic bags for dispatch to the laboratory by a reputable road transport contractor.</li> <li>All samples are core. The core samples are crushed and split by independent commercial laboratory personnel (ALS and IGL).</li> <li>These independent commercial laboratories prepared the samples using industry best practice, which involves oven drying at 105°C for eight hours, coarse crushing (2 to 3mm) and pulverising (85% passing 75 µm) using certified methods and equipment that was regularly tested and cleaned.</li> <li>QC samples (either OREAS or Geostats CRMs), which were selected based on their grade range and mineralogical properties.</li> <li>The laboratory carried out routine internal QC, which included blanks to test for contamination.</li> <li>Standards and duplicates were inserted at a frequency of about 1 in every 25 samples.</li> <li>Eight QC samples were in accordance with industry standards and were appropriate to the grain size of the nickel-bearing material being sampled.</li> <li>Coarse fractions are kept at the laboratories for a period of three months or sent to site.</li> <li>All pulps are stored on site at Cosmos.</li> </ul>



#### Section 1 – Sampling techniques and data – AM6

JORC Criteria	Explanation
	- While no specific heterogeneity testing has been completed on the mineralisation, sample sizes are appropriate to correctly represent the sulphide mineralisation based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
Quality of assay data and laboratory tests	<ul> <li>All samples are assayed by independent certified commercial laboratories using standard nickel sulphide analytical assay methods such as four-acid digest followed by an inductively coupled plasma optical emission spectroscopy (ICP-OES) or ICP-AES analysis.</li> <li>The laboratories used are experienced in the preparation and analysis of nickel sulphide ores.</li> <li>The samples collected were analysed using a four acid-acid digest multi-element suite with ICP-OES or ICP-AES.</li> <li>The four acids used were hydrofluoric, nitric, perchloric and hydrochloric acids suitable for silica-based samples.</li> <li>The digestion approaches total dissolution for all but the most resistant silicate and oxide materials.</li> <li>Laboratory quality control processes included the use of internal laboratory CRMs, blanks, and replicates.</li> <li>No geophysical tools or pXRF instruments were used to determine any element concentrations that were subsequently used for MRE reporting purposes.</li> <li>Field standards were included in all batches dispatched at an approximate frequency of 1 per 25 samples, with a minimum of two standards included per batch.</li> <li>Field replicates made up of either half core or quarter core were inserted into submissions at an approximate frequency of 1 in 25.</li> <li>Accuracy and precision were assessed using industry standard procedures such as control charts and scatter plots and found to be acceptable, or the laboratory was asked to repeat the affected batch.</li> <li>Evaluations of CRMs was completed on a monthly, quarterly, and annual basis.</li> </ul>
Verification of sampling and assaying	<ul> <li>All significant intersections were logged and verified by qualified geologists.</li> <li>No twinned holes were drilled by design, but some pairs were closely spaced for the purpose of understanding certain mineralisation anomalies.</li> <li>All primary data were recorded digitally and sent in electronic format to the DBA.</li> <li>All geological logging was carried out to a high standard using well established geology codes in Micromine Field Marshall software on a Panasonic TOUGHPAD notebook and later (from hole AMD678) using LogChief software.</li> <li>All other data, including assay results, were captured in Excel.</li> <li>Drill holes, sampling and assay data were stored initially in Maxwell's DataShed software (DataShed).</li> <li>No adjustments to the assay data were made apart from setting below detection limit values to zero</li> </ul>
Location of data points	<ul> <li>Drill hole path surveys were completed using a gyroscopic instrument on all resource definition holes.</li> <li>Underground hole collar locations were determined by a licenced surveyor.</li> <li>Most drill hole path surveys were done using a DeviFlex downhole survey instrument. Some of the earlier holes (prior to 2010) were surveyed by and contract surveyor (Downhole Surveys) using a north-seeking gyroscope.</li> <li>The AMG 84 Zone 51 grid coordinate system was used as a standard.</li> <li>Collar surveys were transformed to Cosmos Mine Grid coordinates for MRE work using the following two point transformation calculation <ul> <li>MGA East = E' = (1)E - (0)N + (250135.63)</li> <li>MGA North = N' = (1)N + (0)E + (6900158.85999999)</li> </ul> </li> <li>At surface the project area is relatively flat and the Competent Person considers that the topographical data is adequate for MRE purposes.</li> </ul>
Data spacing and distribution	<ul> <li>Drilling pierce points in the mineralisation are a nominal 30 m apart.</li> <li>The data spacing and distribution were sufficient to establish the degree of geological and grade continuity appropriate for the MRE procedure and the classification applied. Inferred and Indicated Mineral Resources were reported.</li> </ul>



Section 1 – Sar	Section 1 – Sampling techniques and data – AM6		
JORC Criteria	Explanation		
	- A nominal 1m sample composite length has been applied for Mineral Resource estimation work.		
Orientation of data in relation to geological structure	<ul> <li>Most of the drill holes were oriented to achieve intersection angles as close to perpendicular as possible.</li> <li>Geological structures that are not subparallel to the mineralisation were accounted for by cross drilling between surface and underground drilling at different angles.</li> <li>No orientation-based sampling bias was observed in the data.</li> <li>No Intercepts were reported</li> </ul>		
Sample security	<ul> <li>Industry standard sample security measures used in the WA mining industry were adhered to.</li> <li>Reputable contractors were used to transport samples from Cosmos to the commercial laboratories which have their own internal sample security measures.</li> </ul>		
Audits or reviews	- No formal audits of the sampling techniques have been carried out over recent years.		

## **Section 2: Exploration Results**

#### Section 2 – Exploration Results – AM6

JORC Criteria	Explanation
Mineral tenement and land tenure status	<ul> <li>The key metric for tenements to be in good standing is that the minimum expenditure must be achieved.</li> <li>All tenements are in good standing and the Competent Person is not aware of any impediments to mining or further exploration</li> <li>AM6 is on M36/127 which expires in 2031</li> <li>Several royalties are payable on the value of nickel and cobalt metal that would be produced from a concentrate from AM6 including: <ul> <li>WA State royalties of 2.5%/t in accordance with the WA Mining Act.</li> <li>Tjiwarl Traditional Owner royalty of 0.9%/t.</li> <li>Royal Gold royalty 1.5%/t.</li> </ul> </li> </ul>
Exploration done by other parties	- Historical nickel exploration has been completed by Glencore PLC, Xstrata, and JBM.
Geology	<ul> <li>The deposit forms part of the Cosmos Nickel Complex, which lies within the Agnew-Wiluna Belt of the central Yilgarn Craton.</li> <li>The genetic formation model for the Cosmos nickel deposit is the 'Kambalda-style' model where precipitation of nickel sulphides is interpreted to occur in channelised komatiitic lava flows and/or lava tubes. This model proposes two dominant deposit types: Type 1 and Type 2.</li> <li>Type 1 deposits are interpreted to have formed where the hottest lava in the centre of a lava channel thermally erodes into a sulphidic substrate and massive sulphides accumulate at the channel base. This high-grade primary formation style is applicable to the Cosmos, Cosmos Deeps, AM1, AM2, parts of AM5 and the Odysseus Massive zones.</li> <li>The Type 1 deposits are often subject to mobilisation into structural sites when massive sulphide bodies behave plastically or even re-melt under the high metamorphic temperatures and pressures that are generated by local or regional tectonic faulting and/or folding events. The Cosmos Deeps and Odysseus Massive zone are likely examples of this remobilisation style.</li> <li>Type 2' deposits are interpreted to have formed from cooler and slower-flowing lavas than those envisaged for Type 1 deposits. In this model, the mineral olivine is envisaged to crystallise from these cooler lavas, with the olivine grains settling to the channel's base shortly after the precipitation of sulphides. In this model, the coeval sulphides crystallise between the olivine</li> </ul>



Section 2 – Exp	ection 2 – Exploration Results – AM6		
JORC Criteria	Explanation		
	<ul> <li>grains giving rise to a disseminated to 'matrix' textured nickel sulphide mineralisation that builds up from the channel base. This style of mineralisation is applicable to the AM5, AM6 and Odysseus disseminated zones at Cosmos.</li> <li>The sulphide nickel assemblages at Cosmos are 'high tenor', meaning that the sulphides are dominated by the nickel-bearing mineral pentlandite (Pe). The sulphide assemblages also contain the sulphide mineral pyrrhotite, with minor amounts of pyrite and chalcopyrite, and in some places, small concentrations of rarer nickel sulphides such as valleriite and millerite.</li> <li>The mineralisation typically occurs in association with the basal zone of high MgO cumulate ultramafic rocks.</li> <li>AM6 has a strike extent of approximately 400m and dips about 75° towards the east with a down dip extent of approximately 250m. The disseminated mineralisation of AM6 ranges about 2m to approximately 25m in true thickness.</li> <li>This geometry and dip of the mineralisation is influenced by multiple northeast trending faults, which truncate the AM6 mineralisation at its northern and southern extents.</li> <li>Similar to AM5 and Odysseus, younger pegmatite dykes cause the mineralisation to stope out, but in much lower volume than Odysseus.</li> </ul>		
Drill hole Information	<ul> <li>There are too many holes to summarise and the MRE gives the best balanced and unbiased assessment of the estimate.</li> <li>The MRE is based on 4,599 composites from 5,858 assayed intersections derived from over 101 surface and underground diamond core holes over multiple domains and years of surface and underground drilling. All information was considered material to the MRE.</li> </ul>		
Data aggregation methods	<ul> <li>No Exploration Results are being reported in this public report</li> <li>A 1m composite length was selected for MRE work with the composite process using length weighting.</li> </ul>		
Relationship between mineralisation widths and intercept lengths	- No Exploration Results are being reported in this public report.		
Balanced Reporting	<ul> <li>No Exploration Results are reported in this Public Report</li> <li>The MRE gives the best and most balanced view of the drilling to date.</li> </ul>		
Other substantive exploration data	- There is no other substantive exploration data related to AM6		
Diagrams	- Representative maps and sections of AM6's drilling and MRE are included in the body of this Public Report		
Further work	- AM6 and its surrounds are being assessed as part of ongoing exploration programs		



Section 3 – Mir	n 3 – Mineral Resources – AM6		
JORC Criteria	Explanation		
Database integrity	<ul> <li>All logging data are entered in the field on dedicated laptops using either Excel or LogChief.</li> <li>Assay data in the form of .csv files from the primary assay laboratory ALS and the umpire assay laboratory IGL received by exploration were imported directly into DataShed.</li> <li>The database is administered by IGO.</li> <li>The LogChief software provides the first level of data validation. It uses locked look-up tables for all data fields which have set codes attributed to them.</li> <li>The DataShed database uses validation look-up tables and trigger scripts to ensure that all numeric, date and code information is correct.</li> <li>All data has been migrated to an IGO administered Acquire database.</li> <li>All QC controls are reviewed and actioned after each submission.</li> </ul>		
Site visits	- The Competent Person is an employee of IGO and has undertaken regular site visits. Logging sheets were verified against the core. No issues were observed.		
Geological interpretation	<ul> <li>The AM6 deposit is hosted within an ultramafic unit and consists of disseminated nickel sulphide mineralisation as a high-grade core surrounded by medium-grade and low-grade zones.</li> <li>SRK Consulting undertook 3D modelling of the AM5 and AM6 deposits using the Leapfrog Geo 3D modelling package.</li> <li>Modelling consisted of mineralisation envelopes for disseminated and massive sulphide mineralisation, interpreted north-south oriented fault structures and pegmatite intrusions.</li> <li>IGO updated the geological model for the purpose of this study.</li> <li>The Competent Person considers the geological model is reasonable for purposes of MRE preparation.</li> <li>Surface and underground drill data collected by Xstrata is the basis for the geological model.</li> <li>Several alternative iterations of grade estimations using linear techniques were completed and critically assessed before finalising the MRE.</li> <li>The models were compared to the previously reported models at all stages of the process to ensure an appropriate level of consistency between the previous (Xstrata) and current interpretations. The modelling methodologies were similar enough for direct comparisons to be made.</li> <li>Geology is the overriding influencing factor in this MRE. A robust digital geological model oreated by SRK Consulting forms the basis of the estimate.</li> <li>The grade and geometry continuity at AM6 are primarily influenced by intrusive, barren pegmatite dykes that penetrate the host ultramafic rocks and cross cut mineralisation in some locations.</li> <li>The pegmatites:         <ul> <li>pinch and swell along strike/down dip and have a westerly dip of about 40°.</li> <li>are mainly observed to occur in the lower levels of the model area. Their abundance was observed to increase with depth (600mRL).</li> <li>have been modelled using the vein modelling tool in Leapfrog.</li> <li>wireframes were validated against the underlying data and a previous model by Xstrata before being used to deplete the mineralisa</li></ul></li></ul>		
Dimensions	<ul> <li>The strike length of the AM6 disseminated block model is about 400m.</li> <li>The longest downdip distance is about 300m and the top of the deposit is about 900m below surface.</li> <li>Width is variable and ranges from about 10 to 40m.</li> </ul>		





JORC Criteria	Explanation
Estimation and modelling techniques	<ul> <li>The estimation was done using the following software packages:         <ul> <li>Leapfrog (2021).</li> <li>Datamine Studio RM (2021).</li> <li>Supervisor v8.</li> </ul> </li> <li>Wireframing of grade and geological domains using underground and surface drilling was completed in Datamine and Leapfrog.</li> <li>Sample data were composited to 1m downhole lengths (without density weighting) and flagged on domain codes generated from 3D mineralised wireframes and 3D lithological wireframes.</li> <li>All block estimates were compoleted the parent cell scale using OBK.</li> <li>Top-cut investigations were completed using parvisor's top-cut process and reviewing the CV of composites in each estimation domain. However, top-cuts were not applied during estimation (low- and high-grade nickel domains were used instead).</li> <li>The MRE volumetrics were completed using parvisor's top-cut process and reviewing the CV of composites in each estimation domain. However, top-cuts were not applied during estimation (low- and high-grade nickel domains were used instead).</li> <li>The MRE volumetrics were compared to Xstrata's previous model. Differences are due to inclusion of additional data and varying modelling techniques.</li> <li>AM6 has not been mined.</li> <li>Nickel is currently considered the only economic product that will be recovered.</li> <li>Sulphur has been estimated to lang lan inverse Distance to the power of two algorithm.</li> <li>A block model was prepared using parent block dimensions of 2mE by 5mN by 5mRL with sub-blocks permitted to dimensions of 0.005mE by 1.25mN by 4.75mN by</li></ul>



Section 3 – Mir	eral Resources – AM6
JORC Criteria	Explanation
	<ul> <li>jack-knifing of the block model attributes to the informing drill hole followed by statistical analysis</li> <li>grade and tonnage comparisons of the current MRE and the previous MRE.</li> </ul>
Moisture	- Tonnages were estimated on a dry basis.
Cut-off parameters	- The Mineral Resource is reported ≥1.0% Ni block model cut-off grade.
Mining factors or assumptions	- The mining method assumed for AM6 would be a top-down, longhole stoping with paste backfill, with a centre-out mining sequence.
Metallurgical factors or assumptions	<ul> <li>Froth flotation recovery of sulphides is assumed for both the disseminated and massive sulphide material.</li> <li>Ball mill comminution and froth flotation are commonly used in mineral processing to treat nickel sulphide ores.</li> <li>The Competent Person has taken metallurgical factors into account when estimating including the nature of the ore and the influence of elements such as MgO and FeO.</li> </ul>
Environmental factors or assumptions	<ul> <li>Potential waste and process residue disposal sites have been identified during a PFS finalised in October 2019 and are not expected to deviate significantly from previous sites used during previous open pit and underground mining at Cosmos.</li> <li>Tailings will be used for paste-fill underground, with the excess tailings being deposited in the existing tailings storage facility (TSF) at Cosmos.</li> <li>Water will be recovered from the TSF to be re-used in the processing plant.</li> </ul>
Bulk density	<ul> <li>Specific Gravities were determined by the independent laboratory using the pycnometer method.</li> <li>All data used in the Mineral Resource estimate are from competent fresh rock. The Competent Person considers that void spaces within the mineralised zones are immaterial.</li> <li>A total of 3,566 composited pycnometer-derived specific gravity (SG) determinations were estimated into the block model using block Ordinary Kriging with a search radius of 79mN, 45mE and 29mRL.Minimum and maximum number of samples are four and 36 respectively. Search expansion factors are 1.5 and 12 for the 2<sup>nd</sup> and third passes respectively.</li> <li>Block values were verified against input composite data</li> </ul>
Classification	<ul> <li>Drill hole spacing varies but is nominally 35m along strike and 22 m down dip.</li> <li>The AM6 JORC Code Mineral Resource classification is based on a combination of geological knowledge and confidence in the interpretation, data distribution, estimation passes, and KE, SOR kriging metrics.</li> <li>The mineralisation at AM6 is classified as Indicated and Inferred Mineral Resources under the guidelines of the JORC Code. No blocks were classified as Measured.</li> <li>The definition of mineralised zones is based on a high level of geological understanding by Xstrata, SRK and IGO geologists.</li> <li>The Mineral Resource estimate reflects the Competent Person's view of the deposit and the risks associated with the grade and structural continuity.</li> </ul>
Audits or reviews	<ul> <li>The MRE has not been independently audited or reviewed.</li> <li>The wireframe volumes used for estimation were prepared by SRK consulting</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>A well-established confidence algorithm was applied to the nickel estimate as a guide to classification.</li> <li>The algorithm ranks the following kriging quality parameters for each block: <ul> <li>Number of samples used to estimate,</li> <li>KE,</li> <li>Search volume, and</li> <li>SOR for each block before a nominal classification code was applied.</li> </ul> </li> </ul>



Section 3 – Mineral Resources – AM6	
JORC Criteria	Explanation
	<ul> <li>The classification code derived from the algorithm provides a guideline for further classification based on geological and mineralisation continuity.</li> <li>The Competent Person considers that the sample spacing is commensurate with that of an Indicated and Inferred Resource given the dominant type of mineralisation.</li> <li>The MRE Statement relates to local estimates.</li> </ul>



# Cosmos: AM5 JORC Code Table 1

## Section 1: Sampling techniques and data

Section 1: Sampling techniques and data – AM5	
JORC Criteria	Explanation
Sampling techniques	- Sampling of DD core is the sampling technique used to define the AM MRE as discussed in the following sections
Drilling techniques	<ul> <li>The DD drilling comprised HQ and NQ2 sized core.</li> <li>Core that is oriented made use of the Boart Longyear TruCore orientation system.</li> </ul>
Drill sample recovery	<ul> <li>The DD core recoveries are logged and recorded in the database.</li> <li>Recoveries are based on the ratio of measured core recovered lengths to drill advance lengths for each core-barrel run.</li> <li>Overall recoveries are &gt;99% and there were no core loss issues or significant sample recovery problems. Core loss is noted in the database where it occurs.</li> <li>The DD was reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</li> <li>There is no relationship between sample recovery and grade as there is minimal sample loss.</li> </ul>
Logging	<ul> <li>All geological logging was carried out to a high standard using well-established nickel host rock and wall rock geology codes in Excel or LogChief.</li> <li>The logging is quantitative and qualitative and core photography is done to a high standard in both dry and wet form.</li> <li>All holes are logged in full.</li> <li>Information on structure type, dip, dip direction, alpha and beta angles, texture, shape, roughness, and fill material is entered in structural logs stored in the database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>The DD cores have been sampled as quarter or half core and cut (1m intervals) by experienced field crew on site by diamond tipped saws.</li> <li>All samples are core; samples are crushed and split by independent commercial laboratory personnel. Laboratories used are IGL and ALS.</li> <li>The independent commercial laboratories prepared the samples using industry best practice which involves oven drying at 105 degrees Celsius for 8 hours, coarse crushing to a PSD of 2 to3mm) and pulverising to a PSD of 85% passing 75 µm using certified methods and equipment that is regularly tested and cleaned with compressed air.</li> <li>The field crew prepares and inserts QC standards every 20 samples or at least one every hole for short RC drilling.</li> <li>OREAS and Geostats standards have been selected based on their grade range and mineralogical properties, with approximately 12 different standards used.</li> <li>Standards and blanks are inserted approximately every 20 samples or at least one every hole for short RC drilling.</li> <li>QC procedures at the laboratories involve the insertion of standards, blanks, collection of duplicates at the coarse crush stage, pulverisation stage, assay stage and regular barren quartz washes.</li> <li>Coarse fractions are kept at the laboratories for a period of three months or sent to site.</li> <li>All pulps are stored on site at Cosmos.</li> <li>While no specific heterogeneity testing has been completed on the mineralisation, sample sizes are appropriate to correctly represent the sulphide mineralisation based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All samples were assayed by independent certified commercial laboratories using standard nickel sulphide analytical assay methods.</li> <li>The two most common labs used were ALS and IGL.</li> <li>The most common assay technique used was four-acid digest followed by an ICP-AES analysis of the redissolved digestion salts.</li> <li>Acids used were hydrofluoric, nitric, perchloric and hydrochloric acids suitable for silica- based samples. T</li> <li>The digestion approaches total dissolution for all but the most resistant silicate and oxide materials</li> </ul>



JORC Criteria	Explanation
	<ul> <li>The laboratory quality control processes included the use of internal laboratory standards, blanks, and duplicates.</li> <li>Field CRMs were included in all batches dispatched at an approximate frequency of 1 per 25 samples, with a minimum of two included per batch.</li> <li>Field replicates made up of either half or quarter core are inserted into submissions at an approximate frequency of 1 in 25, with placement determined by nickel grade and homogeneity. Laboratory checks, both pulp and crush, are taken alternately by the laboratory at a frequency of 1 in 25.</li> <li>Accuracy and precision were assessed using industry standard procedures such as control charts and scatter plots and found to be acceptable.</li> <li>If a sample fell outside of the pre-determined control limits and there was no obvious reason for poor performance, then the laboratory was asked to repeat the affected batch.</li> <li>p XRF instruments were used to get preliminary semi-quantitative measurements prior to assays being available.</li> <li>No geophysical tools or pXRF instruments were used to determine any element concentrations that were subsequently used for MRE reporting purposes.</li> </ul>
Verification of sampling and assaying	<ul> <li>All significant intersections were logged and verified by qualified geologists.</li> <li>No twinned holes were drilled by design but some pairs were closely spaced for the purpose of understanding certain mineralisation anomalies.</li> <li>All primary data were recorded digitally and sent in electronic format to the DBA.</li> <li>All geological logging was carried out to a high standard using well established geology codes in Field Marshall on a Panasonic TOUGHPAD notebook, and later from hole AMD678) using LogChief.</li> <li>All other data, including assay results, are captured in Excel.</li> <li>Drill holes, sampling and assay data were stored in DataShed and subsequently migrated to Acquire by IGO.</li> <li>No adjustments to the assay data were made.</li> </ul>
Location of data points	<ul> <li>Downhole surveys were completed using a gyroscopic instrument on all resource definition holes.</li> <li>Underground hole collar data were located by a qualified surveyor.</li> <li>Most drill hole path surveys were completed using a DeviFlex downhole survey instrument.</li> <li>Some of the earlier holes (prior to 2010) were surveyed by a surveyor contractor (Downhole Surveys) using north-seeking gyroscope equipment.</li> <li>The AMG 84 Zone 51 grid coordinate system was used as a standard for data collection, but the MRE was prepared in the Cosmos Mine Grid.</li> <li>The following transform was used Easting -250,135.63, Northing -6900,158.86, RL 10,000</li> <li>The project area is flat and the topographical data density is adequate for Mineral Resource estimation purposes.</li> </ul>
Data spacing and distribution	<ul> <li>The data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for MRE word and the JORC Code classifications applied Inferred and Indicated Mineral Resources were reported, but closer spaced data would be required for the estimation of Measured Mineral Resources.</li> <li>A nominal 1m sample composite length has been applied for MRE purposes.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Most of the DD holes were oriented to achieve intersection angles as close to perpendicular as possible.</li> <li>Geological structures that are not subparallel to the mineralisation were accounted for by cross drilling between surface and underground drilling at different angles.</li> <li>No orientation-based sampling bias was observed in the data.</li> </ul>
Sample security	<ul> <li>Industry standard sample security measures used in the WA mining industry were adhered to.</li> <li>Reputable contractors were used to transport samples from Cosmos to the commercial laboratories, which have their own internal sample security measures.</li> </ul>
Audits or reviews	<ul> <li>No formal audits of the sampling techniques have been carried out over recent years.</li> <li>The data were subject to QC procedures both on the mine and in the primary and umpire laboratories.</li> </ul>



## **Section 2: Exploration Results**

Section 2: Exploration Results – AM5	
JORC Criteria	Explanation
Mineral tenement and land tenure status	<ul> <li>The key metric for tenements to be in good standing is that the minimum expenditure must be achieved. All tenements are in good standing.</li> <li>AM5 and AM6 is on M36/127 which is held by Australian Nickel Investments Pty Ltd, has a total are of 606.24 ha and expires on 19 April 2031.</li> </ul>
Exploration done by other parties	- Historical nickel exploration has been completed by Glencore Plc, Xstrata, and JBM.
Geology	<ul> <li>The deposit forms part of the Cosmos Nickel Complex, which lies within the Agnew-Wiluna Belt of the central Yilgarn Craton, Western Australia.</li> <li>The genetic formation model for the Cosmos nickel deposit is the 'Kambalda-style' model where precipitation of nickel sulphides is interpreted to occur in channelised komatitic lava flows and/or lava tubes. This model proposes two dominant deposit types.</li> <li>'Type 1' deposits are interpreted to have formed where the hottest lava in the centre of a lava channel thermally erodes into a sulphidic substrate and massive sulphides accumulate at the channel base. This high-grade primary formation style is applicable to the Cosmos, Cosmos Deeps, AM1, AM2, parts of AM5 and the Odysseus Massive zones.</li> <li>However, the Type 1 deposits are often subject to mobilisation into structural sites when massive sulphide bodies behave plastically or even re-melt under the high metamorphic temperatures and pressures that are generated by local or regional tectonic faulting and/or folding events. Cosmos' Cosmos Deeps and the Odysseus Massive zone are likely examples of this remobilisation style.</li> <li>'Type 2' deposits are interpreted to have formed from somewhat cooler and slower flowing lavas than those envisaged for Type 1 deposits. In this model the coveal sulphides crystallise between the olivine grains giving rise to a disseminated zones at Cosmos.</li> <li>Cosmos' deposit's sulphide to the AM5, AM6 and Odysseus disseminated zones at Cosmos.</li> <li>Cosmos' deposit's sulphide nineral pyrrhotite (Po), with minor amounts of pyrite (Py) and chalcopyrite (Cpy), and in some deposits small concentrations of rarer nickel sulphides such as vallerite and milerite.</li> <li>The mineralisation type allerite and milerite.</li> <li>AM5's massive nickel sulphide mineralisation has a down plunge extent of ~400m and up to 60m extent along strike for typical plan slices. A much broader disseminated halo occurs above the massive which has</li></ul>
Drill hole information	- There are too many holes to summarise and the MRE gives the best balanced and unbiased assessment of the estimate.
Data aggregation methods	<ul> <li>Exploration Results are note reported in this Public Report.</li> <li>Samples were composited to 1m lengths for MRE estimation work.</li> </ul>



Section 2: Exploration Results – AM5	
JORC Criteria	Explanation
Relationship between mineralisation widths and intercept lengths	<ul> <li>Exploration Results are note reported in this Public Report.</li> <li>-</li> </ul>
Balanced reporting	<ul> <li>Exploration Results are note reported in this Public Report.</li> <li>The MRE gives the best and most balanced view of the drilling to date.</li> </ul>
Other substantive exploration data	- There is no other substantive information relating to AM5.
Diagrams	- Representative examples of maps and sections are included in the main body of this Public Report.
Further work	- Further exploration work on AM5 is currently in the planning stage

# **Section 3: Mineral Resources**

Section 3: Mineral Resources – AM5	
JORC Criteria	Explanation
Database integrity	<ul> <li>All data are entered using either Excel or LogChief software for logging of drill hole data in the field on dedicated laptops.</li> <li>Assay data in the form of .csv files from the primary assay laboratory ALS and the umpire assay laboratory IGL received by exploration are imported directly into DataShed.</li> <li>The database was administered by Rock Solid Data Management, who are based in WA and are an independent specialised database management company.</li> <li>The database was subsequently migrated to Acquire by IGO.</li> <li>LogChief provides the first level of data validation, using locked look-up tables for all data fields which have set codes attributed to them.</li> <li>The DataShed database uses validation look-up tables and trigger scripts to ensure that all numeric, date and code information is correct.</li> <li>All QC controls are reviewed and actioned after each submission.</li> </ul>
Site visits	<ul> <li>The Competent Person is an employee of IGO with over 10 years' experience estimating nickel sulphide orebodies and has undertaken several site visits to the Cosmos site to assess and inspect core.</li> <li>No issues were observed.</li> </ul>
Geological interpretation	<ul> <li>The AM5 deposit is hosted within an ultramafic unit and consists of disseminated nickel sulphide mineralisation as a high-grade core surrounded by medium-grade and low-grade zones.</li> <li>Portions of AM5 have been mined.</li> <li>SRK Consulting undertook 3D modelling of the AM5 and AM6 deposits using the Leapfrog.</li> <li>Modelling consisted of mineralisation envelopes for disseminated and massive sulphide mineralisation, interpreted north-south fault structures and pegmatite intrusions.</li> <li>The resultant mineralisation and wall rock models were extensively validated by the Competent Person.</li> <li>One of the main validation tools was a comparison of the SRK model with the pre-existing Xstrata model. The two models compared favourably.</li> <li>Prior geologists have undertaken several studies and drilling campaigns of the greater Cosmos Nickel Complex since its acquisition and the geology of the AM5 deposit is well documented and understood.</li> </ul>



Section 3: Mineral Resour	Section 3: Mineral Resources – AM5	
JORC Criteria	Explanation	
	<ul> <li>The geological model is considered reasonable by the Competent Person for the purposes of MRE work.</li> <li>Surface and underground drill data obtained by Xstrata were used for this estimate.</li> <li>Several alternative iterations of grade estimations using linear techniques were completed and critically assessed before finalising the MRE.</li> <li>At all stages of the process the models were compared to the previously reported models to ensure an appropriate level of consistency between the previous (Xstrata) and the current interpretation. The modelling methodologies were similar enough for direct comparisons to be made.</li> <li>Geology is the overriding influencing factor in this MRE. A robust digital geological model created by SRK forms the basis of the estimate.</li> <li>Grade and geometry continuity at AM5 are primarily influenced by intrusive, barren pegmatite dykes that penetrate the host ultramafic rocks and cross cut mineralisation in some locations.</li> <li>The pegmatites: <ul> <li>Pinch and swell along strike/down dip and have a westerly dip of about 40°.</li> <li>Dominantly occur within the lower levels of the model area, with abundance observed to increase with depth (600 mRL).</li> <li>Have been modelled using the vein modelling tool in Leapfrog tool using the "GP lith 1" code and associated variants.</li> <li>Wireframes were validated against the underlying data and a previous model by Xstrata before being used to deplete the mineralisation model at zero nickel grade.</li> <li>Are mainly bound by north-south trending, west dipping faults.</li> </ul> </li> <li>The faults: <ul> <li>Appear to have limited or zero offsets.</li> <li>Are characterised by poor ground conditions.</li> <li>Marked by rubble/fractured zones, with strong serpentinisation associated with talc as well as lizardite and antigorite forming along fracture planes.</li> <li>Were modelled in Leapfrog and incorporated in the resource model with SRK spending several days on site reviewing the core and associated fault zo</li></ul></li></ul>	
Dimensions	<ul> <li>The mineralised strike length of the AM5 disseminated block model is about 200m at the 9,628mRL.</li> <li>The longest downdip distance is about 500m and the top of AM5, which starts at about 600m below surface.</li> <li>The mineralised width is variable and ranges between10m and about 120m.</li> </ul>	
Estimation and modelling techniques	<ul> <li>The estimation was done using the following main software packages:</li> <li>Leapfrog (64 bit) 2021</li> <li>Datamine Studio RM (2023)</li> <li>Supervisor spv8</li> <li>Wireframing of grade and geological domains using underground and surface drilling was completed in Datamine and Leapfrog.</li> <li>Sample data were composited to 1m downhole lengths and flagged on domain codes generated from 3D mineralised wireframes and 3D lithological wireframes.</li> <li>Directional variography was performed for nickel for each of the domains using Supervisor.</li> <li>All estimation was completed at the parent cell scale to avoid any potential geostatistical support issues.</li> <li>Top-cut investigations were completed using the top-cut analytical tool in Supervisor but no top-cuts were applied during estimation. Low-grade and high-grade nickel domains were used instead.</li> <li>The resource model volumetrics were compared to the previous Xstrata model. Variances are due to inclusion of additional data and varying modelling techniques.</li> <li>The AM5 deposit was partially mined and limited production data is available.</li> <li>Nickel is currently considered the only economic product that will be recovered.</li> <li>The Fe: Mg ratio is recognised as influencing standard nickel flotation mill recoveries and both elements have been interpolated into the block model.</li> <li>The Fe: Mg ratio has been estimated into the block in preparation for further metallurgical work.</li> <li>Sulphur has been estimated into the block model.</li> </ul>	


JORC Criteria	Explanation
	<ul> <li>A MRE block model was prepared using parent blocks of dimensions 5mE by 5mN by 5mRL with subblocks permitted down to dimensions of 0.005mE by 1.25mN by 1.25mZ. The block size was based on drill hole spacing and domain geometry.</li> <li>The drill hole spacing varies but is nominally 20m along strike and the data is supplemented by data from ore drives in mined areas.</li> <li>Parent cell estimation was applied to the estimation of subblocks.</li> <li>The size of the search ellipse was based on the results of NNA and the nickel variography for each domain.</li> <li>Three nested search passes were used with most of the composites falling within the first two passes.</li> <li>The first pass was set at 28mX bu 21mY by 31mZ, with a minimum and maximum number of samples set at 4 an 36, respectively.</li> <li>Search distance multiplication factors were set at 1.5 and 12 times the original pass, minimum number of samples per octant was lowered to one for the 2ndt and <sup>3d</sup> passes.</li> <li>To prevent a disproportionate number of samples from any borehole having an undue influence on the estimate the maximum number of samples from any particular drill hole was set at 30.</li> <li>No assumptions were made regarding the modelling of selective mining units.</li> <li>No correlation between geochemical elements other than sulphur and nickel was observed.</li> <li>Mineralised zones were digitised using explicit and implicit techniques.</li> <li>Each wireframe is representative of a grade domain and used in compositing and estimating to ensure high grades were not smeared into the low-grade zones and vice versa</li> <li>Five primary geological and geostatistical mineralised domains were modelled:         <ul> <li>High grade (&lt;2.0% N),</li> <li>Mid to low grade (&lt;1.5% Ni),</li> <li>Low grade (&lt;2.0% N),</li> <li>Mid to low grade (&lt;1.5% Ni),</li> <li>Low grade (&lt;2.0% N),</li> <li>Mid to low grade (&lt;</li></ul></li></ul>
Moisture	- Tonnages were estimated on a dry basis.
Cut-off parameters	- The MRE is reported above a ≥1.5% Ni MRE block cut-off grade for disseminated material and 1.0% Ni for massive sulphide material.
Mining factors or assumptions	- The mining method is assumed is top-down, longhole stoping with paste backfill, with a centre-out mining sequence.
Metallurgical factors or assumptions	<ul> <li>Froth flotation recovery of sulphides is assumed for both the disseminated and massive sulphide material.</li> <li>The Competent Person has taken metallurgical factors into account including the nature of the ore and the influence of elements such as MgO and FeO.</li> </ul>
Environmental factors or assumptions	<ul> <li>Potential waste and process residue disposal sites have been identified and are not expected to deviate significantly from previous sites used during previous open pit and underground mining at Cosmos.</li> <li>Tailings will be used for paste-fill underground, with the excess tailings being deposited in the existing TSF.</li> </ul>



Section 3: Mineral Resources – AM5	
JORC Criteria	Explanation
	- Water would be recovered from the TSF or re-used in the processing plant.
Bulk density	<ul> <li>Specific gravities were determined by the independent laboratory using industry standard methods (pycnometer).</li> <li>All data used in the Mineral Resource estimate are from competent fresh rock. Void spaces within the mineralised zones are not material.</li> <li>Over 4,000 composited pycnometer-derived density determinations were estimated into the block model using OBK and a search radius of 28.7m by 21.3m by 31.7m</li> </ul>
Classification	<ul> <li>Mineral Resource classification is based on a combination of geological knowledge and confidence in the interpretation, data distribution, estimation passes, kriging efficiency (KE) and slope of regression (slope) data analysis.</li> <li>The mineralisation at AM5 is classified as Indicated and Inferred Mineral Resources under the guidelines of the JORC Code. No blocks were classified as Measured Mineral Resource.</li> <li>The definition of mineralised zones is based on a high level of geological understanding by Xstrata and WSA geologists.</li> <li>All relevant factors have been considered in this estimate, relevant to all available data.</li> <li>The Mineral Resource estimate reflects the Competent Person's view of the deposit, and the risks associated with the grade and structural continuity.</li> </ul>
Audits or reviews	<ul> <li>The AM5 MRE has not been independently audited or reviewed in its entirety.</li> <li>SRK prepared the wireframe volumes used for estimation, which were internally peer reviewed by SRK and IGO</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>A well-established confidence algorithm was applied to the nickel estimate as a guide to classification.</li> <li>The algorithm ranks the following Kriging Quality parameters for each block: <ul> <li>Number of composites found per each block estimate,</li> <li>KE, and</li> <li>Search pass number.</li> </ul> </li> <li>SOR was also reviewed for each block before a nominal classification code was applied.</li> <li>The classification code provides a guideline for further classification based on geological and mineralisation continuity.</li> <li>The MRE relates to local estimates.</li> <li>The AM5 deposit has been mined and global grade estimates are consistent with production data.</li> </ul>



# Forrestania: Spotted Quoll JORC Code Table 1

## Section 1: Sampling techniques and data

Section 1: Sampling	Section 1: Sampling techniques and data – Spotted Quoll	
JORC Criteria	Explanation	
Sampling techniques	<ul> <li>Spotted Quoll was sampled using DD and RC drill holes on a nominal 50m by 30m grid spacing as well as underground channel sampling in a limited area.</li> <li>Although all available valid data was used to design the geological model, only DD hole data was used to estimate the grade and ancillary variables into the MRE.</li> <li>A total of 7,082 DD drill composites derived from approximately 700 drill holes were used to estimate the grades. This represents a drilling pattern smaller than 40m by 40m over the full extent of the deposit.</li> <li>Holes were generally drilled perpendicular (west) to the strike (north ro south) of the stratigraphy, at angles ranging between 60° and 75°.</li> <li>Closely spaced underground channel samples, where available, were used as part of the final block model validation process but were not used to estimate grades into the block model.</li> <li>Samples have been collected since discovery in 2007 in accordance with WSA protocols and sample representativity is assured by an industry standard QC program as discussed in a later section of this tabular summary.</li> <li>All samples are prepared and assayed by an independent commercial laboratory whose analytical instruments are regularly calibrated.</li> <li>DD core was marked at 1m intervals and sample lengths were typically also 1m.</li> <li>Sampling boundaries were selected to match the main geological and mineralisation boundaries.</li> <li>Core was cut in half by diamond saw blades and one half quartered, with a quarter stored for assay and a quarter preserved as a geological archive.</li> <li>Samples were crushed, dried and pulverised (total prep) to produce a sub-sample for analysis by four-acid digest with an ICP-AES and FA-ICP (Au, Pt, Pd) finish.</li> <li>Samples from RC drilling consisted of chip samples at 1m intervals from which 3 kilograms (kg) was pulverised to produce a sub-sample for assaying as per the DD samples.</li> </ul>	
Drilling techniques	<ul> <li>DD is by NQ2-diameter core.</li> <li>The core was oriented using ACT II control panels and ACT III downhole units.</li> <li>RC drilling comprises 140mm diameter face sampling hammer drilling.</li> <li>A standard tube is used in most cases unless core recovery issues are expected when triple tube is used (typically in the oxidised zones).</li> </ul>	
Drill sample recovery	<ul> <li>DD core and RC recoveries are logged and recorded in the database.</li> <li>Overall recoveries are &gt;95% and there are no core loss issues or significant sample recovery problems.</li> <li>DD core is reconstructed into continuous runs on an angle iron cradle for orientation marking.</li> <li>Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</li> <li>RC samples were visually checked for recovery, moisture, and contamination.</li> <li>The resource grades are derived from high quality DD core drilling, with core recoveries in excess of 95%.</li> <li>The massive sulphide style of mineralisation and the consistency of the mineralised intervals are considered to preclude any issue of sample bias due to material loss or gain.</li> </ul>	
Logging	<ul> <li>Geological and geotechnical logging was carried out on all DD drill holes for recovery, RQD and number of defects (per interval).</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness, and fill material are stored in the structure table of the database.</li> <li>Sufficient data has been collected and verified to support the current MRE.</li> <li>Logging of DD core and RC samples recorded lithology, mineralogy, mineralisation, structural (DD only), weathering, colour, and other features of the samples.</li> <li>Core was photographed in both dry and wet form.</li> <li>All drill holes were logged in full of the collar position to the end of the hole position.</li> </ul>	



	techniques and data – Spotted Quoll
JORC Criteria	Explanation
Sub-sampling techniques and sample preparation	<ul> <li>Core is cut in half on site (with the exception of underground grade control core) by diamond saw blades.</li> <li>Surface derived drill holes are halved again, with one quarter sent for assay and one quarter preserved as a geological archive.</li> <li>Underground exploration derived drilling core is not halved again. Half of the cut core is sent for assay and the other half is preserved as a geological archive.</li> <li>Underground grade control derived drilling core is not cut. Full core is sent for assay.</li> <li>All core is prepared and assayed by an independent commercial certified laboratory. Samples are crushed, dried, and pulverised to produce a sub sample for analysis by four-acid digest with an ICP-AES finish.</li> <li>All samples were collected using a riffle splitter.</li> <li>All samples were collected using a riffle splitter.</li> <li>All samples in the mineralised zones were dry.</li> <li>The sample preparation of DD core follows industry best practice in sample preparation, involving oven drying, coarse crushing of the quarter core sample down to ~10mm, followed by pulverisation of the entire sample (total prep) using LM5 grinding mills to PSD of 90% passing 75 µm.</li> <li>The sample preparation for RC samples is identical, without the coarse crush stage.</li> <li>WSA included field nickel CRMs ranging from 0.7% to 8.4% Ni that were routinely submitted with sample batches in order to independently monitor analytical performance.</li> <li>Standards were subplied in 55 gram (g) sealed foil sachets.</li> <li>Field duplicates were taken on a 15% by volume basis.</li> <li>Duplicate quarter samples were sent to a commercial independent certified laboratory.</li> <li>The sample sizes are considered appropriate to correctly represent the sulphide mineralisation at Spotted Quoll based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>All samples used in the Mineral Resource estimate were assayed by an independent certified commercial laboratory experienced in the preparation and analysis of nickel-bearing ores.</li> <li>Samples were dissolved using four-acid digest (nitric, perchloric, hydrofluoric and hydrochloride acids) to destroy silica.</li> <li>Samples were analysed for Al (0.01%), As (5), Co (1), Cu (1), Fe (0.01%), Cr (1), Mg (0.01%), Ni (1), S (0.01%), Ti (0.01%) and Zn (1) using Method ME-ICP OES .</li> <li>All samples reporting &gt;1% Ni were re-assayed by the ICP OES method.</li> <li>No geophysical tools or pXRF instruments were used to determine any element concentrations that were subsequently used for MRE work.</li> <li>CRMs and blanks were routinely used to assess company QC approximately 1 CRM for every 12 to15 samples).</li> <li>Replicates were taken on a 15% by volume basis; field-based umpire samples were assessed on a regular basis.</li> <li>Accuracy and precision were assessed using industry standard procedures such as control charts and scatter plots.</li> <li>The QC results indicated no material issues associated with sample preparation and analytical error; in occasional cases where a sample did not meet the required quality threshold, the entire batch was re analysed.</li> </ul>
Verification of sampling and assaying	<ul> <li>Newexco Services Pty Ltd (Newexco) independently visually verified significant intersections in most of the DD core.</li> <li>No holes were specifically twinned, but there are several holes near each other, and the resultant assays and geological logs were compared for consistency.</li> <li>Primary data was collected using Excel templates using look-up codes on laptop computers.</li> <li>All data were validated by the supervising geologist and sent to Newexco for validation and integration into an SQL database.</li> <li>No adjustments were made to assay data compiled for this MRE.</li> </ul>
Location of data points	<ul> <li>Hole collar locations were surveyed by WSA surveyors. The Leica GPS1200 used for all surface work has an accuracy of +/- 3cm.</li> <li>A two-point transformation is used to convert the data from MGA50 to Local Grid &amp; vice versa. Points used in transformation:</li> </ul>



Section 1: Sampling techniques and data – Spotted Quoll	
JORC Criteria	Explanation
	<ul> <li>MGA50 Points yd1='6409502.17' xd1='752502.175' yd2='6409397.856' xd2='753390.591'</li> <li>Local Grid Points ym1='28223.59'xm1='33528.771'ym2='28111.84'xm2='34415.995'</li> <li>The accuracy of the pillars used in WSA's topographical control networks is within the Mines Regulations accuracy requirement of 1:5,000 for control networks.</li> </ul>
Data spacing and distribution	<ul> <li>Drill holes were spaced at an approx. 30m by 30m grid for the areas that will be affected by mining in the next two years and nominally 60m by 60m for areas that will be affected by mining in the subsequent years.</li> <li>The previous estimate and the extensive drill program, coupled with information derived from previous open pit and underground mining at Spotted Quoll, has demonstrated sufficient and appropriate continuity for both geology and grade within the deposit to support the MRE, and the classification (Indicated and Inferred Resources) applied. No mineralisation has been classified as Measured.</li> <li>Samples were composited to 1m lengths, adjusting to accommodate residual sample lengths.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Spotted Quoll strikes at approximately 30° and dips nominally 50° to the east.</li> <li>All drilling was conducted from east to west.</li> <li>Most of the drilling was conducted from the hanging wall from the east to the west.</li> <li>Results from an independent structural study on the deposit along with historical regional and near-mine structural observations complemented the detailed structural core logging results to provide a geological model that was used with an appropriate level of confidence for the classification applied under the 2012 edition of the JORC Code.</li> <li>No orientation-based sampling bias has been observed in the data.</li> </ul>
Sample security	- All DD core samples were delivered from site to Perth and then to the assay laboratory by an independent transport contractor.
Audits or reviews	<ul> <li>No formal external audit of the MRE has been undertaken to date.</li> <li>Independent consultants assisted with the geological and resource modelling.</li> <li>The sampling techniques are standard practice by WSA; these were implemented over seven years ago and have been subject to independent reviews during this time.</li> </ul>

# **Section 2: Exploration Results**

Section 2: Exploration Results – Spotted Quoll	
JORC Criteria	Explanation
Mineral tenement and land tenure status	<ul> <li>Native Claim number is WI2017/012 - ILUA registered</li> <li>No Native Title royalties</li> <li>All tenements are in good standing.</li> <li>Consent caveat in place by caveator BHP Nickel West Pty Ltd, recorded 10/08/2021</li> <li>Consent caveat in place by caveator National Australia Bank, recorded 24/02/2023</li> </ul>
Exploration done by other parties	<ul> <li>WSA explored its wholly owned tenements since 2002. The tenements subject to the Kagara sale which took place in March 2012 were explored by Kagara since 2006, and by LionOre and St Barbara prior to that time.</li> <li>Western Areas has managed both the Mt Gibb JV since 2009 (Great Western Exploration explored the ground prior to that time) and the Lake King JV since 2007 (a small amount of work was carried out by WMC prior to that date).</li> </ul>
Geology	- The nickel deposits of Forrestania lie within the FGB, which is part of the Southern Cross Province of the Yilgarn Craton in WA.



Section 2: Exploration Results – Spotted Quoll	
JORC Criteria	Explanation
	<ul> <li>The main deposit type is the komatiite hosted, disseminated to massive nickel sulphide deposits, which includes the Spotted Quoll currently being mined.</li> <li>The mineralisation occurs in association with the basal section of high magnesia cumulate ultramafic rocks.</li> <li>The greenstone succession in the district also hosts several orogenic lode gold deposits of which Bounty Gold Mine is the largest example.</li> <li>Some exploration for this style of deposit is undertaken by Western Areas from time to time in the FNO tenements.</li> </ul>
Drill hole Information	<ul> <li>The MRE is based on over 6,800 geologic entries derived from over 700 surface and underground DD holes over multiple domains and years of surface and underground drilling. As such a listing of al the drill hole information is impractical. The MRE gives the most balanced view of this data.</li> <li>All information was considered material to the MRE and the exclusion of a summary of the data does not detract from the understanding of the report.</li> </ul>
Data aggregation methods	<ul> <li>Standard length-weighted averaging of drill hole intercepts was employed. No maximum or minimum grade truncations were used in the estimation.</li> <li>The reported assays have been length and bulk density weighted.</li> <li>A lower nominal 0.4% Ni cut-off is applied during the geologic modelling process and later during the MRE block model reporting.</li> <li>No top-cut is applied.</li> <li>High grade intercepts internal to broader zones of mineralisation are reported as included intervals.</li> <li>No metal equivalent values are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The incident angles to mineralisation are considered moderate.</li> <li>Due to the often steep-dipping nature of the stratigraphy, reported downhole intersections are moderately greater (m/1.5 ratio on average) than the true width.</li> </ul>
Diagrams	- An example 3D diagram of the Spotted Quoll MRE and mine workings is included in the body of this Public Report.
Balanced reporting	- The MRE provides a balanced view of the Spotted Quoll geoscientific data and drilling.
Other substantive exploration data	<ul> <li>This is a MRE summary, and no Exploration Results are reported.</li> <li>Multi-element analysis was conducted routinely on all samples for a base metal suite and potentially deleterious elements, including AI, As, Co, Cr, Cu, Fe, Mg, Ni, S, Ti, Zn and Zr. All DD core samples were measured for bulk density which ranges from 2.90 to 4.79 grams per cubic centimetre (g/cm<sup>3</sup>) for values &gt;0.5% Ni.</li> </ul>
Further work	No further work is planned on the Spotted Quoll tenement and mine closure is expected the first half of FY25

## Section 3: Mineral Resources

Section 3: Mineral Resources – Spotted Quoll	
JORC Criteria	Explanation
Database integrity	<ul> <li>All data has been captured in Excel templates with reference look-up tables. All data are imported into an acQuire front end SQL database.</li> <li>Validation is a fundamental part of the acQuire data model and is implemented via referential integrity and triggers.</li> <li>Referential constraints ensure that, for example, Hole ID matches collar and downhole data. Triggers check criteria such as code validity, overlapping intervals, depth, and date consistencies.</li> <li>All fields of code data have associated look-up table references.</li> </ul>



	rces – Spotted Quoll
JORC Criteria	Explanation
Site visits	<ul> <li>Andre Wulfse, who is the Competent Person, is the Group Resource Manager for IGO and held the same position for WSA prior to IGO's acquisition of WSA in 2021 and has made many site visits to the Spotted Quoll.</li> <li>His first visit to the deposit was in 2008.</li> </ul>
Geological interpretation	<ul> <li>Confidence in the geological interpretation is high, due to the history of mining, the spacing of drilling and the understanding of similar deposits within the Forrestania region.</li> <li>Spotted Quoli is located within the traditional footwall of the basal ultramafic metasediment contact, which was probably the original locus for sulphide deposition from an overlying a possible shear zone within the footwall sediments, 15 to 20m (stratigraphical) beneath the basalt/ultramafic contact.</li> <li>The deposit is principally a body of matrix magmatic sulphide mineralisation in which the original perturbation assemblage dominated by gersdoffite. Subpide abundances of 20% to 90% are common.</li> <li>Mean nickel grades of ore intersections are in the order of 4% to 12% Ni.</li> <li>Littogeochemistry and stratigraphic interpretation have been used to assist the identification of rock types.</li> <li>Alternative interpretations of the Mineral Resource were considered. In particular, the previous model and the grade control models were extensively validated against the current geological and resource model.</li> <li>Alternative interpretations of mineralisation do not differ materially from the current interpretation.</li> <li>WSA and IGC have successfully mined the deposit using a similarly derived geological Modelling tools. The well-known broad lithological units were defined using either the deposit to of or the structural interpretation in Zone 4 found that the major structural orientations had changed from a predominantly shallow dipping westerly orientation in Zone 4. This caused a re-interpretation of Zone 4, introducing several structural offsets not previously modelled. This structural interpretation in zone 4 found hat the major structural orientations had changed from a predominantly shallow dipping westerly orientation in Zone 4. This caused a re-interpretation of Zone 4, introducing several structural offsets not previously modelled. This structural interpretation i</li></ul>
Dimensions	<ul> <li>The strike length of the MRE is nominally 300m on average, with a range of 25m to 520m, depending on depth below surface. The nominal mean dip length is 1,500m.</li> <li>The elevation below the pre-existing open pit is 1250mRL and the maximum depth of the Mineral Resource is 250mRL.</li> </ul>



JORC Criteria	Explanation
	- The mean thickness of the mineralised zone is 3.1m, with a maximum thickness of 13.4m.
Estimation and modelling techniques	<ul> <li>In addition to the major structural domains discussed previously, further subdomains for arsenic and nickel grade were identified in Zones 1to 4 based on the updated structure interpretation and geological modelling of the ultramafic unit adjacent to the mineralisation. Skn nickel subdomains and seven arsenic subdomains were defined, supported by material differences in the modelled mean grade between the domains.</li> <li>Grade and ancillary element estimation into the mineralised domain suing OBK and Inverse Power Distance to the power of 2 was completed using Datamine and Supervisor.</li> <li>Sample data was composited to 1m downhole lengths.</li> <li>Interviels with no assays were treated as an ult values.</li> <li>Top-cut investigations were completed, and top-cuts were applied to arsenic based on grade distribution and CV.</li> <li>Nickel grades were not cut, except for a single composite outlier that was identified in Zone 3 via a swah plot which had an undue influence on the block grades in the area. To outlier was cut from 16% Nit 05% Ni 1in line with the immediate surrounding samples.</li> <li>Extensive exploratory data analysis (EDA) was carried out on the raw and composite data in order to understand the distribution in preparation for estimation and to validate the composite data against the raw data.</li> <li>EDA included histograms, log probability plots and mean and variance plots for each of the domains and sub-domains.</li> <li>A KNA was used to determine the optimum search neighbourhood parameters.</li> <li>Directional validation techniques included and piecteral original elements.</li> <li>Nugget values are typical for the type of mineralisation (Ni = 20% to 40% of the total variance).</li> <li>Ranges of continuity for nickel way their Mith immediation of prefered orientalison of mineralisation.</li> <li>Estimation validation techniques included star pipe of element origoposites vs the grade of the block model.</li> <li>In the</li></ul>



Section 3: Mineral Resou	rces – Spotted Quoll
JORC Criteria	Explanation
	<ul> <li>A known correlation between density and nickel grade exists and a regression formula was used to estimate Bulk Density and resultant tonnages.</li> <li>The geological interpretation was developed using geological, structural, and litho-geochemical elements.</li> <li>The geological framework associated with extrusive komatiite-hosted deposits, and the structural elements observed at the local and wider scale, were used to determine, and refine mineral domains.</li> <li>The hanging wall and footwall contacts of mineralisation were used as hard boundaries during the estimation process and only blocks within the geological wireframe were informed with nickel grades.</li> <li>Geostatistical and visual investigation of the grade distribution negated the need for grade cutting or capping.</li> <li>Validation of the block model included comparing the volume of resource wireframes to block model volumes.</li> <li>It also involved comparing block model grades with drill hole grades by means of swath plots showing easting, northing and elevation comparisons.</li> <li>Estimation validation techniques included swath plots of the grade of the composite's vs the grade of the block model as shown below.</li> <li>Visual grade validations using Datamine, Supervisor and Leapfrog were undertaken.</li> <li>Validation of reconciled stope data against mined stope CMS volumes was undertaken and the results overall indicated that the estimate is robust.</li> </ul>
Moisture	- Tonnages were estimated on a dry basis.
Cut-off parameters	<ul> <li>The outer halo mineral envelope was interpreted using a nominal 0.8% Ni grade cut-off and the high-grade core using massive, matrix and brecciated sulphides.</li> <li>The MRE is reported at a ≥ 0.4% Ni cut-off, which is a reasonable representation of the mineralised material prior to the application of economic and mining assumptions.</li> <li>The Spotted Quoll mineralisation tenor is relatively high compared to other komatiite-hosted deposits, and hence the use of a lower cut-off grade is appropriate.</li> </ul>
Mining factors or assumptions	<ul> <li>Spotted Quoll is currently being mined primarily using longhole stoping methods with paste fill.</li> <li>The mining method, which is unlikely to change, has been considered during the estimation process.</li> <li>The MRE has been depleted against mining to EOFY24.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>Ore from the Spotted Quoll deposit is currently being processed at the IGO's Cosmic Boy concentrator, where nickel concentrate is produced using a three-stage crushing, ba mill, and flotation and thickener/filtration system.</li> <li>Arsenic rejection in the flotation circuit has been modelled based on current and historical operational performance.</li> </ul>
Environmental factors or assumptions	<ul> <li>All waste and process residue will be disposed of through the Cosmic Boy concentrator plant and its tailings dam.</li> <li>All site activities will be undertaken in accordance with IGO's environmental policy.</li> </ul>
Bulk density	<ul> <li>There is a strong correlation between nickel and bulk density at Forrestania and a robust nickel grade regression formula was used to estimate bulk density into the blocks.</li> <li>The bulk density formula used was 0.1132 (Ni%) + 2.85 which applies to Spotted Quoll Primary material.</li> <li>Waste material was applied a constant derived from the mean value of the density readings for each waste rock type</li> <li>Core at Spotted Quoll is generally void of vugs, voids and other defects.</li> <li>Rocks are from the amphibolite facies and faults have largely been annealed. Porosity is considered low.</li> <li>The bulk density values were estimated into the block model using the same search parameters that were used to interpolate nickel within the geological domains.</li> </ul>
Classification	<ul> <li>The Spotted Quoll MRE is classified as Indicated and Inferred on the basis of drill hole spacing and KE.</li> <li>Only blocks that are between existing ore drives are classified as Measured Resource.</li> <li>The definition of mineralised zones is based on a high level of geological understanding.</li> <li>The model has been confirmed by infill drilling, supporting the original interpretations.</li> <li>All relevant factors have been considered in this estimate.</li> </ul>



Section 3: Mineral Resources – Spotted Quoll	
JORC Criteria	Explanation
	- The MRE appropriately reflects the view of the Competent Person who is now a full-time employee of IGO and has been working on the deposits since 2008, both as a consultant and an employee of WSA and IGO.
Audits or reviews	- No audit has been undertaken on the current MRE to date, but the model was designed with the assistance of independent consultants.
Discussion of relative accuracy/ confidence	<ul> <li>The geological and grade continuity of the Spotted Quoll is well understood, and the mineralisation wireframes used to build the block model have been designed using all available exploration and mining data.</li> <li>Post-processing block model validation was extensively undertaken using geostatistical methods.</li> <li>The Mineral Resource statement relates to local estimates of tonnes and grade.</li> <li>The Mineral Resource estimate was compared to the production grade control data. The upper section of the deposit has been mined by open pit methods and underground mining has been in place for over five years.</li> </ul>

# Section 4: Ore Reserves

Section 4: Ore Reserves -	Section 4: Ore Reserves – Spotted Quoll	
JORC Criteria	Explanation	
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>The MRE is described in Section 3 of Table 1.</li> <li>The MRE is based on results from the grade control drilling and updated mining data.</li> <li>The MRE is inclusive of the Ore Reserves.</li> </ul>	
Site visits	<ul> <li>Spotted Quoll has been an operating underground mine since 2010.</li> <li>The Competent Person carries out routine inspections of the mine site and underground workings as part of normal duties.</li> <li>The Company established a fit-for-purpose data collection and record keeping system which is used by technical staff to effectively manage the operation.</li> <li>These data are used in the current ORE.</li> <li>The mine design and mining method are based on recommendations laid out in the original feasibility study and back-analysis data from the current mining practice.</li> </ul>	
Study status	<ul> <li>The ORE is based on current operational practices at the mine.</li> <li>The ORE was reported against the updated MRE block model.</li> <li>A feasibility study was completed in November 2010 under the previous owner (WSA) as a continuation of the Spotted Quoll open pit (released 15 December 2010). Underground mining commenced on 2 May 2010 with firing of the first portal face.</li> <li>The feasibility study is still valid and has been updated with the operational experience gained.</li> <li>The current ORE is an update that considers the Mineral Resources, the performance of the operation to date and a revised commodity price estimate.</li> <li>Spotted Quoll extraction is expected to be completed before the end of calendar year 2024.</li> </ul>	
Cut-off parameters	<ul> <li>A ≥3.54% Ni cut-off grade for ORE reporting was selected as it fits the following criteria:</li> <li>Minimum head grade meets mill requirements.</li> <li>ORE average grade equals or exceeds the LOM breakeven grade.</li> <li>Mean arsenic concentration enables production of a saleable concentrate.</li> <li>Maintains a positive NPV over the Forrestania LOM.</li> </ul>	



JORC Criteria	Explanation
	<ul> <li>Maximises steady-state production.</li> <li>LOM nickel price curve from US\$16,997/t to US\$17,482/t and FX from 0.68 to 0.69 LOM.</li> <li>Some of the key ORE assumptions such as contract payability are considered commercially sensitive. However, as the mine has been in operation for some years, the ORE cut off parameters are developed using historical operating performance and statistics. More details regarding cut-off parameters are reported in the following sections.</li> </ul>
Mining factors or assumptions	<ul> <li>The mining method used is predominantly longhole stoping with a top-down sequence and paste filling of resultant voids.</li> <li>The mining model used Datamine software 5D Planner and Enhanced Production Scheduling.</li> <li>Mining factors are based on historical operational performance.</li> <li>The Mineral Resource model used is in Datamine format. The model is based on the resource model for Spotted Quoll mine and is described in Section 3 of Table 1.</li> <li>A 3.0 m minimum mining width is used.</li> <li>The average length of stable stopes is between 15m and 25m.</li> <li>The average length of stable stopes is between 7m and 15m.</li> <li>Other geotechnical parameters are contained in the current Ground Control Management Plan.</li> <li>The planned dilution is 0.5m (hanging wall) and 0.1to 0.2m (footwall).</li> <li>Unplanned dilution (from host rock and paste) is 8.0% in weight at 0% Ni grade.</li> <li>The standard SG for dilution is 2.8 tonnaes per cubic metre (t/m<sup>3</sup>).</li> <li>A grade of 0% Ni is assigned to all material outside the block model.</li> <li>Ore recovery in mining assumed to 98% of tonnage, and metal recovery is also assumed to be 98%.</li> <li>The pillar factor for unplanned pillars is 0%.</li> <li>Production rates reflect current mining performances and practice.</li> <li>No Inferred Mineral Resources have been converted to Ore Reserves.</li> <li>Being an operating mine, all infrastructure (apart from future capital development and external plants) is present and used on site, and allowance for new infrastructure, based on technical studies, is made in the capital expenditure of the LOM.</li> </ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical factors used are based on existing conventional nickel sulphide flotation techniques used at the Cosmic Boy Concentrator, and historical data. Figures are considered commercially sensitive and can be made available on request.</li> <li>The metallurgical process is a well-tested technology for recovery of nickel sulphides and comprises three stages of fragmentation with wet screening for size classification, one milling stage with cyclone size classification and two stages of flotation including arsenic rejection. A small stream of the flotation feed is sent to the hydrometallurgical section of the concentrator that uses BioHeap® technology to improve the overall recovery.</li> <li>A small stream of the mill feed will be sourced via magnetic separation of the ball mill scats rejected.</li> <li>The resultant concentrate is sold into existing offtakes contracts with customer BHP.</li> </ul>
Environmental	<ul> <li>The Spotted Quoll open pit mine received final environmental approval in October 2009. Approvals were provided under both Western Australian legislation, principally being Parts IV and V of the <i>Environmental Protection Act 1986</i> (EP Act) and the <i>Mining Act 1978</i>, and Commonwealth legislation, being the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act).</li> <li>Environmental approval to mine nickel sulphide ore from the underground extension of the Spotted Quoll open cut mine has also been granted under WA legislation, being principally Parts IV and V of the EP Act and the Mining Act. No further approval was required from the Commonwealth for underground mining at Spotted Quoll.</li> <li>A list of key State and Commonwealth approvals obtained for both the Spotted Quoll open pit and the underground operations can be made available on request.</li> </ul>
Infrastructure	- Spotted Quoll is an operating mine with adequate infrastructure, and allowance for planned future capital project extensions is included in the LOM plan.



Section 4: Ore Reserve	Section 4: Ore Reserves – Spotted Quoll	
JORC Criteria	Explanation	
	<ul> <li>Power for the site is supplied by Western Power via a 33 thousand volt (kV) overhead powerline from the switchyard at the Bounty mine site, which is about 60km north of the Forrestania.</li> <li>Potable water is produced from reverse osmosis plants located at the Cosmic Boy Concentrator and pumped via a pipeline to the site.</li> <li>Process water is recycled from the mine dewatering network.</li> <li>Transportation of saleable concentrates is by conventional truck haulage.</li> <li>Mine personnel are accommodated in the 529-room Cosmic Boy Village, which is near the Cosmic Boy Concentrator</li> <li>The workforce are mainly a fly-in-fly-out (FIFO) personnel who commute from Perth WA via the Cosmic Boy unsealed airstrip (Certificate No. CASA.ADCERT.0059 Revision 1), which can take up to DASH300-set aircraft and typical flight times of one hour.</li> <li>In cases of rain events, which can close the airstrip, FIFO personnel are bussed to Perth, which is approximately a four to five hour road trip on unsealed roads to the WA town of Hyden then sealed highway to Perth.</li> <li>A small component of the workforce have a drive-in-drive-out from local townships or Perth.</li> <li>The mine site is 80km to the east of the Hyden township and has two main gazetted gravel road accesses (east from Hyden and south from Varley).</li> </ul>	
Costs	<ul> <li>Capital underground development costs are derived from the LOM plan and are based on existing contracts and historical performance data.</li> <li>All other capital costs are sourced as necessary via quotes from suppliers, or from technical studies.</li> <li>Operating costs (mining, processing, administration, surface transport, concentrate logistics and state royalties) are based on existing actual cost estimates.</li> <li>The nickel price and FX assumptions used were obtained from industry standard sources.</li> <li>LOM nickel price curve from US\$16,997/t to US\$17,482/t and FX from 0.68 to 0.69 LOM.</li> <li>Payabilities factors were sourced from existing concentrate offtake contract with customer BHP.</li> </ul>	
Revenue factors	<ul> <li>Revenue factors have been selected after consideration of historical commodity prices variations over time and the requirement for the Ore Reserve to be robust against potentially volatile commodity price and FX conditions.</li> <li>Nickel is traded openly on the LME.</li> <li>Potential penalties and royalties are included in the NSR factors use in the ORE work.</li> <li>The smelter return is based on the historical data from previous financial years. It is considered commercially sensitive and can be made available on request.</li> <li>One main selling contracts structures is currently used; and have co-product payable T&amp;Cs. Allowance for this selling parameter is included in the smelter return factor.</li> </ul>	
Market assessment	<ul> <li>Nickel is traded openly on the LME.</li> <li>The Company has maintained long-term and short-term offtake agreements with multiple customers, both locally and internationally, over many years. The contracts have fixed dates on which they are reviewed and/or expire. The Ore Reserve estimate assumes these contracts and the current sold volumes will extend to the end of LOM.</li> <li>Existing contracts have been assessed for the sales volume assumptions.</li> <li>As the Company has been supplying multiple customers over a lengthy time, no acceptance testing has been assumed in the Ore Reserve development process.</li> <li>Refer to the section above (Revenue factors) for nickel price assumptions.</li> </ul>	
Economic	<ul> <li>Having been operational for a long period of time, there are established contracts in place for ore mining, processing and concentrate haulage. Furthermore, the Forrestania operation has an operating concentrator facility on site. As such, the actual operating and contract rates (including rise and fall where appropriate) have been used in the NPV economic assessments. Figures are considered commercially sensitive.</li> <li>The discount rate has been estimated as the weighted average cost of capital.</li> </ul>	
Social	<ul> <li>All legal permits to mine Spotted Quoll have been obtained, following the paths described by the relevant laws with the participation of local communities (see previous sections)</li> <li>As a company policy, relationships with local communities are a key part of operational management.</li> </ul>	



Section 4: Ore Reserves – Spotted Quoll	
JORC Criteria	Explanation
Other	- Other than risks inherent to all mining operations at this late stage of their lives and the mining industry in general, there are no risk factors relevant to the Spotted Quoll operations and/or the estimation of Ore Reserves.
Classification	<ul> <li>On EOFY24, Spotted Quoll has JORC Code reportable Probable Ore Reserve of 0.06 Mt grading 3.75% Ni.</li> <li>The Ore Reserve appropriately reflects the Competent Person's view of the deposit.</li> </ul>
Audits or reviews	- Audits and/or reviews of the EOFY24 ORE have been done internally by IGO's Technical Service team.
Discussion of relative accuracy/ confidence	<ul> <li>The confidence in the current evaluation is based on Spotted Quoll being a well-established, operating mine with a mature performance database.</li> <li>As is normal in mining operations, the key points that can have a significant impact on the performance of the Spotted Quoll operation are market conditions in general, and the nickel price and the currency exchange rate. All the other parameters are derived from sound historical production data.</li> </ul>



# Nova-Bollinger JORC Code Table 1

# Section 1: Sampling techniques and data

Section 1: Sam	Section 1: Sampling techniques and data – Nova-Bollinger	
JORC Criteria	Explanation	
Sampling techniques	<ul> <li>Nova-Bollinger has been sampled using DD holes testing the deposit on a nominal 12.5mE by 12.5mN grid spacing with a much lesser length of RC drilling. The EOFY24 MRE incorporates all drilling completed up to 1 November 2023.</li> <li>A total of 11 RC, 248 surface DD and 1,955 underground DD holes were drilled for total lengths of 2,148m metres, 105,373m and 295,420m, respectively.</li> <li>The holes drilled from surface are generally oriented towards grid west, but the hole plunge angles vary to optimally intersect the mineralised zones.</li> <li>The underground infill drilling took place from the hangingwall and footwall mine infrastructure.</li> <li>DD core drilling has been used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes.</li> <li>The RC drilling was completed in dry ground with generally good sample recovery.</li> <li>Sample representativity has been ensured by monitoring core recovery to minimise sample loss.</li> <li>Sampling was carried out under IGO protocols and quality control and quality assurance (QA) and QC procedures that the Competent Person considers to be consistent with good industry practices.</li> </ul>	
Drilling techniques	<ul> <li>DD accounts for 99% of the drilling in the MRE area and comprises 40.7 mm diameter core (BQTK), and NQ2 or HQ diameter core.</li> <li>Surface drill hole pre-collar lengths range from 6 to150m and hole lengths range from 50 to1,084m.</li> <li>Where possible, the core was oriented using Camtech or Reflex Act III orientation tools.</li> <li>RC percussion drilling used a 140mm diameter face-sampling hammer with RC representing 1% of the total drilling database.</li> <li>RC hole lengths range from 90 to 280m.</li> </ul>	
Drill sample recovery	<ul> <li>DD core recoveries are quantified as the ratio of measured core recovered lengths to drill advance lengths for each core-barrel run.</li> <li>RC recoveries are logged qualitatively from poor to good.</li> <li>Overall DD recoveries are on average 99% for both the Nova and Bollinger areas and there are no core loss issues or significant sample recovery problems logged.</li> <li>RC samples were visually checked for recovery, moisture, and contamination.</li> <li>For orientation marking purposes, the DD core from the Nova and Bollinger areas were reconstructed into continuous runs on an angle iron cradle.</li> <li>Down hole depths are checked against the depth recorded on the core blocks and rod counts are routinely carried out by the drillers to ensure the marked core block depths were accurate.</li> <li>There is no relationship between sample recovery and grade as there is minimal sample loss.</li> <li>The bulk of the Nova-Bollinger DD resource definition drilling has almost complete core recoveries.</li> <li>The Competent Person considers that a sample bias due to preferential loss or gain of material is unlikely given the high core recovery.</li> </ul>	
Logging	<ul> <li>Geotechnical logging at Nova-Bollinger was carried out on all DD holes for recovery, RQD and number of defects (per interval).</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle (oriented core only), texture, shape, roughness, and fill material details are stored in the structure table of the database.</li> <li>the Competent Person considers that the information collected is considered appropriate to support any downstream studies such as estimation of Mineral Resources and subsequent Ore Reserves.</li> <li>Qualitative logging of DD core and RC samples at Nova and Bollinger included lithology, mineralogy, mineralisation, structure (DD only), weathering, colour, and other features of the samples.</li> </ul>	



JORC Criteria	Explanation
	<ul> <li>All DD core ore has been photographed digitally in high resolution in a wetted condition.</li> <li>Quantitative logging has been completed for geotechnical purposes.</li> <li>The total lengths of all drill holes have been logged except for rock-roller DD pre-collars that have lengths not logged for the intervals from surface to 20 to 60m.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>DD core from Nova-Bollinger was subsampled over lengths ranging from 0.3 to 1.3m down hole, using an automatic diamond-blade core saw as either whole core (BQTK infill), half-core (BQTK, NQ2 for resource definition) or quarter core (HQ for metallurgical drilling).</li> <li>All DD subsamples were collected from the same side of the core.</li> <li>The sample preparation of DD core involved oven drying (four to six hours at 95 °C), coarse crushing in a jaw-crusher to a PSD of 100% passing 10mm, then pulverisation of the entire crushed sample in Essa LM5 grinding mills to a PSD of 85% passing 75µm.</li> <li>The sample preparation for RC samples was similar but excluded the coarse crush stage.</li> <li>QC procedures involve insertion of CRMs, blanks, collection of duplicates at the coarse crush stage, pulverisation stage, assay stage, and barren quartz washes of comminution and splitting equipment every 20 samples.</li> <li>The insertion frequency of quality control samples averaged 1:15 to 1:20 in total, with a higher insertion ratio used in mineralised zones.</li> <li>For RC samples, duplicates were collected from the 1m routine sample intervals using a riffle splitter.</li> <li>The primary tool use to monitor drill core representativity was monitoring and ensuring near 100% core recovery.</li> <li>While no specific heterogeneity testing has been completed on the mineralisation, sample sizes are appropriate to correctly represent the sulphide mineralisation based on the style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.</li> <li>The results of duplicate sampling are consistent with satisfactory sampling precision.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>MinAnalytical Laboratory Service Australia Pty Ltd was used for all assaying of the surface drill hole samples.</li> <li>IGO used the same laboratory for a period of approximately four months for underground samples, however the majority of MRE samples were assayed by Bureau Veritas laboratory Pert (BV). IGL and ALS were used for check-assay work.</li> <li>All laboratories are based in Perth WA and are accredited with NATA and ISO certified for the key analytes relevant and processes to the MRE work.</li> <li>Surface drill hole samples:         <ul> <li>Samples collected using surface drilling were analysed using a four-acid digest multi element suite with ICP-OES or ICP mass spectroscopy (ICP-MS) finish, and with 25g charge or 50g charge fire assay (FA) and ICP-MS read for precious metals.</li> <li>The acids used were hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica-based samples.</li> <li>The digestion method approaches total dissolution all but the most resistant silicate and oxide minerals.</li> <li>Total sulphur from surface drill holes was determined using a combustion furnace.</li> </ul> </li> <li>Underground drill hole samples:         <ul> <li>Samples collected from underground DD have been analysed by mixing about 0.33g of the pulp with a flux of lithium-borate and sodium nitrate and cast to form a glass bead which has been analysed by X-ray fluorescence (XRF).</li> <ul> <li>A pre-oxidation stage has been used to mitigate the potential of loss of sulphur the loss of volatiles in fusion.</li> <li>The digestion method is considered a total dissolution.</li> <li>The disporatory completed sample preparation checks for PSD compliance as part of routine internal quality procedures to ensure the target PSD of 85% passing 75µm is achieved in the pulverisation stage.</li> <li>Field replicates are inserted routinely at a rate</li></ul></ul></li></ul>



JORC Criteria	Explanation
	<ul> <li>Umpire laboratory checks were routinely carried out on 5% of the total number of samples. The results returned to date have good precision as quantified by the half-absolute-relative difference (HARD) statistics.</li> <li>CRMs used to monitor accuracy have expected values ranging from low to high grade, and the CRMs were inserted randomly and anonymously into the routine sample stream to the laboratory.</li> <li>The results of the CRMs confirm that the laboratory sample assay values have good accuracy and the results of blank assays indicate that any potential sample cross contamination has been minimised.</li> </ul>
Verification of sampling and assaying	<ul> <li>Significant intersections from DD have been inspected and verified on multiple occasions by IGO's senior geological staff and Optiro's independent review consultants.</li> <li>The current mine development has intersected the mineralisation and the mine exposures are consistent with the observations from drilling intersections.</li> <li>Three holes have been twinned. The twin hole results confirmed the prior hole geology.</li> <li>Primary data for both areas has been directly entered into an acQuire database via data entry templates on 'Toughbook' laptop computers.</li> <li>The logging has been validated by onsite geology staff and loaded into a SQL database managed by IGO's DBA.</li> <li>Data is backed up regularly in off-site secure servers.</li> <li>No adjustments or calibrations were made to any assay data used in either estimate, other than conversion of detection limit text values to half-detection limit numeric values prior to MRE work.</li> </ul>
Location of data points	<ul> <li>The collar locations of surface holes were surveyed by Whelan's Surveyors of Kalgoorlie who used real-time kinematic global positioning system equipment, which was connected to the state survey mark network.</li> <li>Survey elevation values are recorded in a modified Australian Height Datum (AHD) elevation where a constant of 2,000m was added to the AHD reduced level for the mine coordinate grid The expected survey accuracy is ± 30mm in three dimensions.</li> <li>Down hole drill path surveys have been completed using single shot camera readings collected during drilling at 18m down hole, then every 30m down hole.</li> <li>Survey contractor Gyro Australia carried out gyroscopic surveys on surface holes using a Keeper high speed gyroscopic survey tool with readings every 5m after hole completion. Expect survey accuracy is plus/minus (±) 0.25° in azimuth and ±0.05° in inclination.</li> <li>Down hole survey QC working involved field calibration using a test stand.</li> <li>Underground hole collar locations were surveyed by IGO's mine surveyors using Leica TS15P total station units.</li> <li>The underground drill hole paths were surveyed using Reflex equipment single shot surveys with readings taken every 30m down hole.</li> <li>The final down hole survey for underground holes was by Deviflex (non-magnetic strain gauge) electronic multi-shot and Minnovare Azimuth Aligner tools that survey hole paths on 1m intervals relative to the collar azimuth and tip. The expected accuracy is ±0.2° in azimuth and ±0.1° in inclination.</li> <li>Only gyro and Deviflex data has been used for MRE work.</li> <li>The grid system for the Nova-Bollinger EOFY24 MRE is MGA Zone 51 projections and a modified AHD94 datum where the local RL has 2,000m added to the AHD elevation).</li> <li>Local easting and northing coordinates are in MGA.</li> <li>The topographic surface for Nova-Bollinger is a 2012 Lidar survey with 0.5m contours, which is acceptable for mine planning and MRE purposes.</li> </ul>
Data spacing and distribution	<ul> <li>The nominal drill hole mineralisation pierce point spacing defining the EOFY24 MRE is 12.5mN by 12.5mE.</li> <li>The drilling and mine development into the mineralised domains for Nova-Bollinger has demonstrated sufficient continuity in both geological and grade to support the definition of Mineral Resources and Reserves, and the classifications applied under the JORC Code.</li> <li>For MRE grade estimation purposes samples have been composited to a target of a one metre length for both deposits, with an optimised compositing approach used to ensure that no residual samples are created.</li> </ul>
Orientation of data in relation	- Both the Nova and Bollinger zones have been drilled from surface and underground locations on a variety of orientations designed to target the mineralised zones at the nominal spacing whilst maintaining reasonable intersection angles.



Section 1: Samp	Section 1: Sampling techniques and data – Nova-Bollinger	
JORC Criteria	Explanation	
to geological structure	<ul> <li>Structural logging of oriented core indicates that the main sulphide controls are usually perpendicular to the average drill orientation.</li> <li>Due to the constraints of infrastructure, a small number of holes are oblique to the Conductor 5 zone (C5) mineralisation at the northern margin of the deposit.</li> <li>The Competent Person considers that there is no material level of orientation-based sampling bias in the EOFY24 Nova-Bollinger MRE.</li> </ul>	
Sample security	<ul> <li>The sample chain-of-custody has been managed initially by Sirius and then by IGO.</li> <li>Samples for Nova-Bollinger are stored on site and collected by reputable road haulage contractor (McMahon Burnett Transport) and delivered to their depot in Perth, then to the main assay laboratory.</li> <li>Whilst in storage, samples are kept in a locked yard. Tracking sheets are used to track the progress of batches of samples.</li> <li>A sample reconciliation advice is sent by the laboratories to IGO on receipt of the samples and any issues are resolved before assaying work commences.</li> <li>The Competent Person considers that risk of deliberate or accidental loss or contamination of samples is low.</li> </ul>	
Audits or reviews	<ul> <li>A review of the sampling techniques and data was carried out by Optiro Consultants (Optiro) as part of prior MRE and onsite in September 2016.</li> <li>An independent audit of the database was carried out in February 2018 by Optiro.</li> <li>Optiro has provided confirmation that it considers that the MRE database is of sufficient quality for MRE studies.</li> <li>As part of IGO's governance process, the EOFY24 MRE has been reviewed by IGO senior technical services staff.</li> </ul>	

# **Section 2: Exploration Results**

Section 2: Explo	ration Results – Nova-Bollinger
JORC Criteria	Explanation
Mineral tenement and land tenure status	<ul> <li>The Nova-Bollinger Deposit is wholly within WA Mining Lease M28/376 with this tenement is 100% owned by IGO Nova Pty Ltd – a wholly owned subsidiary of IGO.</li> <li>The tenement is held by IGO Nova Pty Ltd and expires on 14/08/2035.</li> <li>The IGO tenements are within the Ngadju Native Title Claim (WC1999/002).</li> <li>There is a consent caveat on M28/376 by caveator National Australia Bank Ltd – recorded 23/09/2021</li> <li>A NSR royalty of 0.5% is detailed in the Ngadju Mining Agreement.</li> <li>The WA State royalties are paid in accordance with the Mining Act 1978 (WA). A 2.5% royalty applicable to the sale price of nickel and cobalt in the nickel concentrate, and a 5% royalty applicable to the value of copper in copper concentrate, with the latter applied to copper after the deduction of concentrate sales costs.</li> <li>IGO's management has provided the Competent Person with written assurance that the tenement is in good standing and that no known impediments exist.</li> </ul>
Exploration done by other parties	<ul> <li>Sirius explored for base metal deposits in the Fraser Range area over a three-year period and discovered the Nova area of Nova-Bollinger July 2012, with Bollinger discovered shortly after.</li> <li>No previous systematic exploration was carried out in this area prior to the 2012 discovery.</li> </ul>
Geology	<ul> <li>The global geological setting is the high-grade metamorphic terrane of the Albany Fraser mobile belt of WA.</li> <li>The Ni-Cu-Co Nova-Bollinger is hosted by Proterozoic age gabbroic intrusions that have intruded a metasedimentary package within a synformal structure.</li> <li>The sulphide mineralisation is interpreted to be related to the intrusive event with mineralisation occurring in several styles including massive, breccia, network texture, blebby and disseminated sulphides.</li> <li>The main sulphide mineral is pyrrhotite, with nickel and cobalt associated with pentlandite and copper associated with chalcopyrite.</li> <li>The deposit is analogous to many mafic hosted nickel-copper deposits worldwide such as the Raglan, Voisey's Bay in Canada, and Norilsk in Russia.</li> </ul>



Section 2: Explo	Section 2: Exploration Results – Nova-Bollinger	
JORC Criteria	Explanation	
Drill hole Information	<ul> <li>As this is an advanced stage report related to an MRE in production, it is impractical to list drill information for the numerous drill holes used in the estimate.</li> <li>The MRE provides the most balanced view of the data.</li> <li>Representative intercepts have been reported in previous IGO Public Reports.</li> </ul>	
Data aggregation methods	<ul> <li>No drill hole related exploration results are included in this Public Report for the Nova-Bollinger MRE.</li> <li>Samples were aggregated into 1m long (optimised) composites for MRE work.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>The Nova area of Nova-Bollinger is moderately east dipping in the west, flattening to shallow dipping in the east, while the Bollinger area of the deposit is more flat lying.</li> <li>Due to the style of mineralisation under consideration there is no expectation of sampling bias due to the relationship between drill hole interception angle with the mineralisation and the intersection length.</li> </ul>	
Balanced Reporting	- The MRE gives the best and most balanced view of the drilling and sampling to date.	
Other substantive exploration data	- For this active mine there is no other substantive exploration data this considered to be material to the MRE.	
Diagrams	- Representative sections and plans are included in the body of this report as well as in IGO's prior ASX releases of exploration results relating to Nova-Bollinger.	
Further work	- The MRE is closed off in all directions and limited grade control drilling is planned in the future.	

# Section 3: Mineral Resources

Section 3: Miner	Section 3: Mineral Resources – Nova-Bollinger	
JORC Criteria	Explanation	
Database integrity	<ul> <li>All data entry used for logging, spatial and sampling data at Nova-Bollinger has been via direct entry into electronic templates that have lookup tables and fixed formatting.</li> <li>Data transfer and assay loading has been electronic.</li> <li>Sample numbers are unique and pre-numbered bags were used.</li> <li>IGO's data management procedures make transcription and keying errors unlikely, and digital merging by unique sample number keys reduces the risk of data corruption.</li> <li>IGO's geological staff have validated the data under the direction of IGO's DBA using IGO's protocols.</li> <li>The data for the Nova-Bollinger MRE is stored in a single acQuire database.</li> </ul>	
Site visits	<ul> <li>The Competent Person for the MRE is the former Geology Superintendent for Nova and as such has detailed knowledge of the data collection, estimation, and reconciliation procedures for this MRE.</li> <li>The Competent Person last visited site during July 2024.</li> </ul>	



Section 3: Miner	al Resources – Nova-Bollinger
JORC Criteria	Explanation
Geological interpretation	<ul> <li>The confidence in the geological interpretation of Nova-Bollinger is considered high in areas of close-spaced drilling.</li> <li>Nearly full development of the mine has added substantially to the geological understanding of the deposit through mapping of drives and cross cuts.</li> <li>Inferred Mineral resources make up a very small proportion of the MRE tonnage (&lt;0.4%).</li> <li>Core samples taken for petrography and litho-geochemical analysis have been used to identify and define the rock type subdivisions applied in the interpretation process.</li> <li>The assumptions made are that zones of similar sulphide have a spatial association that allows them to be interpreted as continuous or semi-continuous (dependent on setting).</li> <li>There are also assumptions that the breccia zones can have variable continuity due to the internal nature of the domains, with this variability accounted for in the estimation methodology.</li> <li>The Nova-Bollinger deposit has generally tabular geometry, with geological characteristics that define the mineralised domains.</li> <li>The current interpretation is geologically controlled and supported by the new drilling and underground development.</li> <li>Geological controls and relationships were used to define grade estimation domains with hard boundary constraints applied on an domain basis.</li> <li>The Nova-Bollinger breccia zones have mixed grade sample populations due to spatial mixing of massive sulphides and mineralised clasts within these domains.</li> <li>The MgO/Ni grade relationships are interpreted to be influences on local grade estimates and the estimation domaining has addressed these controls in the resource estimation process.</li> <li>The spatial continuity of high and low MgO geological units has assisted in refining contact relationships.</li> </ul>
Dimensions	<ul> <li>The Nova area mineralisation commences from 40m below surface and extends to 470m below surface.</li> <li>The Nova area extents are about 650m (northeast to southwest) and about 300m (northwest to southeast).</li> <li>The Bollinger mineralisation abuts the Nova zone and starts at about 360m below surface (highest point) and extends to about 425m below surface.</li> <li>Bollinger has areal extents of about 300m long (north) and ranges from 125m to 400m wide (east).</li> <li>The Nova and Bollinger zones are joined by an interpreted narrow east-west trending feeder 'Mid' zone that has a length of about 180mm, thickness of 10 to 20m and north-south width of up to 80m.</li> </ul>
Estimation and modelling techniques	<ul> <li>Metal accumulations (the product of grade and density) for Ni, Cu, Co, Fe, Mg, S and <i>in situ</i> density were estimated into the Nova-Bollinger digital block model using the OBK routines implemented in Datamine (RM Pro version 1.13.202.0)</li> <li>Block grades were then back calculated by dividing each accumulation by the density for local estimates.</li> <li>The estimation drill hole sample data was coded for estimation domain using the 3D wireframe interpretations prepared in LeapFrog (Version 2022.1.1).</li> <li>The dill hole sample data from each domain was then composited a target of a one metre downhole length using an optimal best fit method, to ensure no short residuals were created.</li> <li>The influence of high-grade distribution outliers was assessed to be negligible, and no top-cuts have been applied to the final estimate.</li> <li>Estimates were prepared using Datamine's DA algorithm to optimise the grade connectivity in the often undulating domain geometry.</li> <li>For all domains, directional anisotropy axis semivariograms were interpreted using traditional experimental semivariograms or back-transformed normal-scores model interpretations. Semivariogram nugget effects were found to be low to moderate in the range of 6 to 20% of the data variance.</li> <li>The maximum range of grade continuity varied and was found to be deposit/domain dependant.</li> <li>Typically, maximum continuity ranges varied from 20 to 200m in the major direction dependent on mineralisation style.</li> <li>Estimation sample searches were set to the ranges of the element accumulation variogram for each domain in the first sample pass and increased by factors for subsequent estimation passes. The maximum distance to nearest sample for any estimated block was 100m. The inferred portion of the MRE is &lt;0.4% of the total tonnage, approximately 60% of the Inferred Mineral Resource is extrapolated greater than 30m beyond the data.</li> <li>This estimate is an update of the EOFY23 MRE reported for Nova-Bollinger.</li> <li>R</li></ul>



	al Resources – Nova-Bollinger
JORC Criteria	Explanation
	<ul> <li>A single digital block model for Nova-Bollinger was prepared in Datamine using a 6 mE by 6mN by 2mRL parent block size with sub-blocks permitted down to dimensions of 1.0mE by 1.0mN by 0.5mRL.</li> <li>All block grade estimates were completed at the parent cell scale.</li> <li>Block discretisation was set to six by six by two nodes per block for all domains.</li> <li>The dimensions of the sample search ellipse per domain were set based previous MRE kriging studies but are typically 50m by 25m by 5m.</li> <li>Three estimation search passes were applied to each domain. The first estimation pass, the search ranges were doubled and then doubled again in the third pass.</li> <li>In most domains, most blocks were estimated in the first estimation pass (particularly for the main domains). However, some more sparsely sampled domains were predominantly estimated on the second pass. Minor numbers of periphery blocks are estimated using the third pass.</li> <li>No assumptions regarding selective mining units were made in this estimate.</li> <li>Strong positive correlations occur between nickel, sulphur, iron, and cobalt, with copper sometimes not as strongly correlated. The correlation between nickel and copper is variable with domain and mineralisation style. All variables have been estimated within the sulphide domains.</li> <li>The geological interpretation modelled the sulphide mineralisation into geological domains at Nova-Bollinger. The deposit theremever and extents.</li> <li>Grade envelopes are not applied, apart from reference to the natural ≥0.4% Ni cut-off that appears to define the extents of the global mineralised system.</li> <li>The bundaries of mineralised domains were set to hard boundaries to select sample povulations with no extreme values that could potentially cause local grade biases during estimation.</li> <li>The statistical analyses of the dirtil hole sample populations in each domain geometries and extents.</li> <li>Grade envelopes are</li></ul>
Moisture	- The MRE tonnages were estimated on a dry basis.
Cut-off parameters	- The EOFY24 MRE is reported using ≥ A\$89.0/t NSRMRE model block cut-off representing the incremental stoping cost.
Mining factors or assumptions	- Mining of Nova-Bollinger is, and will be, by underground mining methods including mechanised mining, open stoping, inclined room-and-pillar and/or paste backfill stoping.
Metallurgical factors or assumptions	<ul> <li>The ore processing method at Nova-Bollinger is well-established with a crushing, grinding and flotation flow sheet with metals recovered to either a Ni-Cu-Co concentrate or a copper rich concentrate.</li> <li>Metallurgical recovery values are sourced from the modelling from the project-to-date processing where the steady-state metallurgical recoveries were modelled as a function of grade with mean values, with a pattern of decreasing metallurgical recovery with decreasing head grade.</li> <li>For the total MRE the recovery ranges from 85 to 89% for all payable metals.</li> </ul>



JORC Criteria	al Resources – Nova-Bollinger Explanation
Environmental factors or assumptions	<ul> <li>All necessary environmental approvals have been received for continuing operations.</li> <li>Sulphide tails are being pumped to a specific waste storage facility and non-sulphide tails are used in paste backfill.</li> <li>Rock wastes are stored in a conventional waste dump, with the mine closure plan specifying all rock waste to be transferred back to underground at mine closure.</li> <li>For the waste dump at surface, any PAF waste is tipped on a prepared pad of inert waste, then encapsulated in inert waste at the end of the mine life.</li> </ul>
Bulk density	<ul> <li>In situ density measurements were carried out on 43,209 core samples using the Archimedes Principle method of dry weight versus weight in water.</li> <li>The use of wax to seal the core was trialled but was shown to make less than 1% difference between measurements on the same core sample.</li> <li>Density standards were used for QC using an aluminium billet and pieces of core with known values.</li> <li>Pycnometer density readings (from sample pulps) were carried out for 21,632 samples by assay laboratories to accelerate a backlog of density samples.</li> <li>A comparison of 263 samples from holes that that had both methods carried out showed an acceptable correlation coefficient of 0.94 but also that the pycnometer results were reporting slightly lower density than the measured results, which is expected given pycnometer readings do not provide an <i>in situ</i> bulk density. The density difference between methods was not considered to be material to the MRE.</li> <li>The density ranges for the mineralised units are:     <ul> <li>Massive sulphides 2.0 to 4.7 grams per cubic centimetre (g/cm<sup>3</sup>) – average: 3.9g/cm<sup>3</sup>),</li> <li>net textured sulphides 3.0 to 4.4g/cm<sup>3</sup> (average: 3.6g/cm<sup>3</sup>) and</li> <li>disseminated sulphides 2.0 to 4.6g/cm<sup>3</sup> (average: 3.5g/cm<sup>3</sup>).</li> </ul> </li> <li>The host geology comprises high grade metamorphic rocks that have undergone granulite facies metamorphism.</li> <li>The rocks have been extensively recrystallised and are very hard and competent.</li> <li>Vugs or large fracture zones are generally annealed with quartz or carbonate in breccia zones.</li> <li>Porosity in the mineralised zone is low. As such, voids have been excounted for in all but the pycnometer density measurements.</li> <li>The few missing density measurements were imputed using a multiple element regression on a domain basis.</li> <li>Correlations between density and all elements were assessed for each domain and appropriate elements chosen for use in a multiple regression formula that was subsequently use</li></ul>
Classification	<ul> <li>The Nova-Bollinger MRE is classified based on the high confidence in the geological and grade continuity, along with 12.5 by 12.5m spaced drill hole density and information from mine development.</li> <li>Estimation parameters, including conditional bias slope of regression have also been utilised during the classification process, along with the assessment of geological continuity.</li> <li>The Indicated Mineral Resource is classified based on high confidence geological modelling using the knowledge gained from the close spaced infill drilling to update the mineralisation domains in areas of 25 by 25m spaced drilling.</li> <li>The Inferred Mineral Resource category was applied to isolated lenses of mineralisation in the upper levels of Nova, the tonnage represents &lt;0.4% of the total MRE.</li> <li>The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent <i>in situ</i> mineralisation. Geological control at Nova-Bollinger consists of a primary mineralisation event modified by metamorphism and structural events.</li> <li>The definition of mineralised zones is based on a high level of geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling and mine development exposures, which confirm the initial interpretation.</li> <li>The validation of the block model has confirmed satisfactory correlation of the input data to the estimated grades and reproduction of data trends in the block model.</li> <li>The MRE appropriately reflects the view of the Competent Person.</li> </ul>
Audits or reviews	<ul> <li>This is an update of the EOFY24 MRE for Nova-Bollinger and has been extensively reviewed internally by IGO geologists.</li> <li>An independent external review of all aspects of the MRE was undertaken by Optiro Pty Ltd. during 2018, no material issues with the estimation process were found.</li> </ul>



Section 3: Mineral Resources – Nova-Bollinger	
JORC Criteria	Explanation
Relative Accuracy/ Confidence	<ul> <li>The EOFY24 MRE for Nova-Bollinger has been estimated using standard industry practices for the style of mineralisation under consideration.</li> <li>The geological and grade continuity of the domains is such that the Indicated MRE has a local level of accuracy which is suitable for achieving annual targets, while Measured MREs are considered commensurate with meeting quarterly production targets. Inferred MRE is indicative of areas and tonnages that warrant further drill testing but are not suitable for Ore Reserve estimation.</li> <li>There has been no quantitative geostatistical risk assessment such that a rigorous confidence interval could be generated but the nature of the mineralisation is such that, at the grade control drill spacing, there is minimal risk to the extraction schedule on a quarterly basis.</li> <li>Production data has provided a satisfactory assessment of the actual accuracy compared to the estimate for development and stoping ore.</li> <li>The Measured and Indicated Resources are considered suitable for Ore Reserve conversion studies and should provide reliable (±15%) estimates for quarterly and annual production planning, respectively.</li> <li>Total ore processed from Nova-Bollinger to 30 June 2024 has been about 11.3Mt grading 1.91% Ni, 0.8% Cu and 0.07% Co.</li> <li>Mine-claimed ore from the model update is about 11Mt grading 2.08% Ni, 0.84% Cu, 0.07% Co, with about 16kt on ROM stockpiles on 30 June 2024</li> <li>Reconciliation factors (mill / MRE) for the project to date are therefore 103% for tonnage, 92% for nickel grade, 96% for copper grade and 100% for cobalt grade.</li> <li>The reconciliation factors indicate that the MRE is an over predictor of grade for nickel and copper, however there is a continued trend of improvement of reconciliation against the MRE.</li> </ul>

## **Section 4: Ore Reserves**

Section 4: Ore R	Section 4: Ore Reserves – Nova-Bollinger	
JORC Criteria	Explanation	
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>The MRE used for the Nova-Bollinger ORE is the estimate described in the section above relating to Mineral Resources.</li> <li>This EOFY24 MRE model was coded with <i>in situ</i> NSR values that account for corporate directed metal prices, mining and metallurgical recovery and all costs associated with sale of concentrates from the mine gate. Separate NSR values were applied for MRE and ORE work with more optimistic metal prices assumed for the MRE NSR values to generate the ORE model.</li> <li>The MRE reported on EOFY24 is nominally inclusive of the EOFY24 ORE, except for where the ORE includes dilution below MRE reporting cut-off.</li> </ul>	
Site Visits	<ul> <li>The Competent Person for the EOFY24 ORE is IGO's Principal Mining Engineer and has detailed knowledge of the mining methods, costs, schedule, and other material items relating to ORE work for this estimate, with his previous position being the site-based role of Superintendent Planning.</li> <li>The Competent Person's most recent visit to site was 14 August 2024.</li> </ul>	
Study Status	<ul> <li>The EOFY24 ORE has been designed based on the current operational practices of the operating mine.</li> <li>All ORE were estimated by construction of three-dimensional mine designs using DESWIK.CAD software (Deswik) – Version 2023.2 and reported against the updated MRE/ORE block model.</li> <li>After modifying factors were applied, all physicals (tonnes, grade, metal, development, and stoping requirements etc.) were input to Nova cost model where each stope was economically evaluated, and the total reserve was evaluated to assess its economic viability.</li> <li>Previous mine performance has demonstrated that the current mining methods are technically achievable and economically viable.</li> <li>The modifying factors are based on historical data, with the current mining methods planned to continue for future mining.</li> <li>As Nova is an ongoing concern the study level can be considered better than of a Feasibility Study.</li> </ul>	



Section 4: Ore R	Section 4: Ore Reserves – Nova-Bollinger	
JORC Criteria	Explanation	
Cut-off parameters	<ul> <li>ORE cut-off values are based on NSR values where the reporting NSR is defined as the net value A\$ value per tonne of ore after consideration of all costs (mining, process, general and administration, product delivery), metallurgical recoveries, sustaining capital, concentrate metal payabilities and treatment charges, transport costs and royalties.</li> <li>The ORE model is evaluated against the NSR cut-off value and mining areas (stopes and development) are identified and designed for those areas above the NSR cut-off value.</li> <li>All designed stopes and development are assessed individually to verify that they are above the NSR cut-off and can be economically mined.</li> <li>The NSR cut-off applied for the EOFY24 MRE A\$156/t for full cost stoping and A\$89/t for incremental stoping. For development, the NSR cut-off is A\$40/t.</li> </ul>	
Mining factors or assumption	<ul> <li>The mining methods assumed for the ORE are long-hole sub-level open stoping and sub level open stoping, which is considered appropriate for the for the style of mineralisation under consideration. In some flat lying areas inclined room and pillar mining method is utilised in the ORE.</li> <li>Geotechnical parameters are based on recommendations made in the Nova-Bollinger FS prepared in 2014. No material geotechnical issues have been encountered in mining to date.</li> <li>Three-dimensional mine designs are designed based on known information about the mineralised zones based on physical characteristics and the geotechnical environment.</li> <li>The designs are consistent with what has been in practice with ore loss and dilution modifying factors based on MRE to plant reconciliation results.</li> <li>The reconciliation multiplication factors are applied directly onto the <i>in situ</i> grades of the MRE model to generate the ORE model, and the generated tonnes and grade estimates expected to be delivered to the processing plant (1.0439 for density, 0.9020 for Ni grade, 0.9263 for copper grade and 0.9816 for cobalt grade).</li> <li>A minimum mining width of 3.0m was used for all stoping.</li> <li>The current infrastructure supports mining of the ORE. Any additional capital required has been included in the cost model.</li> <li>In cases where Inferred Mineral Resources are present in a mine design, this material has been assigned as dilution and has been included in the ORE.</li> <li>Inferred Mineral Resources may be included in up to 5% of the total stope tonnage at the Inferred Resource grade but when tonnage of Inferred Resources is above 5% in a design, the entire stope has been excluded from ORE. However, the total Inferred Mineral Resource tonnage included in the ORE by this process is immaterial to the ORE (&lt;1kt ore).</li> </ul>	
Metallurgical factors or assumptions	<ul> <li>The metallurgical process for Nova-Bollinger ores is well established and is a process flow of crushing, grinding to nominally sub 105 µm, the differential froth-flotation of a nickel concentrate grading 13.5% Ni, 0.7% Cu and 0.5% Co, and a copper concentrate grading 29% Cu with 1.1% Ni.</li> <li>The Nova concentrator throughput rate assumed is 1.45Mt/a.</li> <li>Metallurgical recovery values are based on the Nova 2014 FS testwork and are dependent on grade. Current recoveries being achieved are at about 87% for nickel and at about 87% for copper.</li> <li>No deleterious elements are materially present in the ore albeit, concentrate penalties apply on the nickel concentrate when the Mg:Fe ratio is outside certain limits. This ratio is managed in the mill feed planning through blending of high magnesium ores as required.</li> <li>No specific minerals are required for the saleable concentrates, which are primarily composed of pyrrhotite (gangue), with pentlandite the payable mineral in the nickel concentrate, and chalcopyrite the payable mineral in the copper concentrate. Cobalt is strongly correlated with pentlandite.</li> </ul>	
Environmental	<ul> <li>Nova-Bollinger was discovered in July 2012 and studies were initiated shortly afterwards to establish baseline environmental conditions.</li> <li>The Nova project self-referred to the Environmental Protection Authority and in August 2014 received confirmation that the operation could be adequately managed under WA Mining Act provisions.</li> <li>Following the granting of mining tenure, Mining Proposals for Stage 1 and Stage 2 of Nova were submitted to the then Department of Mines and Petroleum, and were approved at the end of 2014 so construction began in January 2015.</li> <li>All necessary operational licences were secured including clearing permits and groundwater extraction.</li> <li>A tailings storage facility has been constructed to contain the sulphide bearing wastes from the processing operation and non-sulphide tailings are pumped to the paste-fill plant and then into completed stopes as paste fill.</li> <li>Potentially acid-generating mine development rock (containing &gt;0.6% S) is either used as rock-fill in some completed stopes or encapsulated in non-acid generating rock in the mine wasted dump.</li> <li>Nova maintains a compliance register and an environmental management system to ensure it fulfils its regulatory obligations under the Nova Environmental Protection Act licence.</li> </ul>	



Section 4: Ore R	eserves – Nova-Bollinger
JORC Criteria	Explanation
	- A mine closure plan is in place to address full rehabilitation of the site once mining activities are completed.
Infrastructure	<ul> <li>All major infrastructure required for the mining, processing and sale of concentrates is in place and operational including mine portal and decline, ventilation systems, paste plant, water bore field, tailing storage facility, process plant and power plant, sealed road to the main access highway, accommodation camp for IGO and contractors and all-weather airstrip with 100-seat jet capacity.</li> <li>The owner and contractor personnel are sourced from Perth and work on a FIFO basis.</li> </ul>
Costs	<ul> <li>All major capital costs associated with Nova infrastructure are already spent. Sustaining capital costs for remaining mine development and stope accesses are based on operational experience to date.</li> <li>Operating costs for the ORE are based on budget estimates from a reputable mining contractor and experienced independent consulting firms, and historical operating costs.</li> <li>No allowances have been made for deleterious elements as Nova's concentrates are clean and generally free of deleterious metals at concentrations that would invoke penalty clauses.</li> <li>Product prices assumed for the ORE are discussed further below.</li> <li>FX rates are based on in-house assessments of Bloomberg data with an assumption of 0.72 A\$/US\$</li> <li>Concentrate transport costs have been estimated by a logistics consultant with shipping cost from Esperance estimated by an experienced shipping broker.</li> <li>Treatment and refining charges, applicable to offshore shipments, are based on the confidential terms of sales contracts.</li> <li>Allowances have been made for WA state royalties, with a 2.5% royalty applicable to the sale price of nickel and cobalt in the nickel concentrate, and a 5% royalty applicable to the value of copper in copper concentrate, with the latter applied to copper after the deduction of concentrate sales costs.</li> <li>IGO also pays a 0.5% NSR royalty to the Ngadju traditional owners.</li> </ul>
Revenue factors	<ul> <li>Head grades and concentrate produced is determined by the mine plan.</li> <li>NSR values per mined block were calculated by IGO from the cost and revenue inputs.</li> <li>Treatment, refining, and transport assumptions are discussed above under costs.</li> <li>Commodity prices are based on IGO in-house assessments of Consensus Economics data with prices of A\$52,680/t for cobalt, A\$12,100/t for copper and A\$24,370/t for nickel metal, using the exchange rate discussed above for currency conversions from US\$ prices.</li> <li>Different metal prices have been assumed for MRE and ORE reporting, refer to the discussion in the main body of this Public Report.</li> </ul>
Market assessment	<ul> <li>The inputs into the economic analysis for the EOFY24 ORE have already been described above under previous subsections.</li> <li>The economic evaluation has been carried out on a nominal basis (no adjustment for inflation) on the basis that saleable product values will be correlated with inflation.</li> <li>The confidence of the economic inputs is high given the input sources at the time of the Ore Reserve study.</li> <li>The confidence in metal prices and exchange rates is consistent with routine industry practices with the data derived from reputable forecasters.</li> </ul>
Economic	<ul> <li>The discount rate used for NPV calculations was 8% per annum and the NPV is strongly positive at the assumed payable metal prices with a mine life of 2.5 years.</li> <li>This ORE is supported by a full financial model and evaluation completed for EOFY24, with the following sensitivities:         <ul> <li>NPV about \$400M</li> <li>Revenue: 10% change about +25% impact to NPV</li> <li>OPEX: 10% change about -14% impact to NPV</li> <li>CAPEX: 10% change about -1% impact to NPV</li> <li>Discount rate: 10% change about -1% impact to NPV</li> </ul> </li> </ul>
Social	- Nova-Bollinger was discovered in July 2012 and development of the site commenced in January 2015 following regulatory approval in December 2014.



Section 4: Ore Reserves – Nova-Bollinger	
JORC Criteria	Explanation
	<ul> <li>IGO's operations are also managed under a Mining Agreement with the Ngadju people, who are the traditional owners and custodians of the land occupied by Nova.</li> <li>WA Mining lease M28/376 covers all the Nova mining, process, and support infrastructure.</li> <li>IGO has all the necessary agreements in place with key stakeholders and has both statuary and social licence to continue operation of Nova for the LOM.</li> </ul>
Other	<ul> <li>There are no material naturally occurring risks associated with Nova.</li> <li>There are no material legal agreements or marketing arrangements not already discussed in prior sub sections.</li> <li>All necessary government and statutory approvals are in place.</li> <li>There are no unresolved third-party matters hindering the extraction of the Ore Reserve.</li> </ul>
Classification	<ul> <li>The EOFY24 ORE has been classified into the Proved and Probable Ore Reserve JORC Code classes based on the underlying Mineral Resource classifications in the MRE model, with Indicated Mineral Resources converted to Probable Ore Reserves.</li> <li>Due to the large dimensions of many stopes, the same stope can contain more than one MRE class. As such, stopes where ≥95% of the contained MRE tonnage is classified as Measured Resource have been classified as Proved Ore, those with ≥95% Measured plus Indicated Resource classified as Probable Ore Reserve.</li> <li>In development, Measured Resources have been converted to Prove Reserves and Indicated Resource converted to Probable Ore Reserves as per stoping classifications discussed above.</li> <li>The classifications applied to the estimate are consistent with the opinion of the Competent Person reporting the ORE.</li> </ul>
Audits and reviews	<ul> <li>The estimate has been reviewed internally by Nova's senior mine engineering staff and IGO's Perth office technical staff.</li> <li>Mine planning consultants Deswik have independently reviewed the ORE for end of CY19 with no material issues identified.</li> <li>The process undertaken for end of EOFY24 was substantially similar.</li> </ul>
Discussion of relative accuracy/ confidence	<ul> <li>No statistical or geostatistical studies, such as conditional simulations, have been completed to quantify the uncertainty and confidence limits of the estimates.</li> <li>Confidence in ORE inputs is generally high given the mine is in full operation and costs, prices, recoveries and so on are well understood.</li> <li>The ORE estimates are considered to have sufficient local accuracy to support mine planning and production schedules with Proved Ore Reserves considered a reliable basis for quarterly production targeting and Probable Ore Reserves reliable for annual production targets.</li> <li>Confidence in the mine design and schedule are high as mining rates and modifying factors are based on actual site performance. Mine design is consistent with what has been effective previously.</li> <li>The shortfall in nickel grade reconciliation, described above in relation to the MRE, is currently accommodated in the mine planning dilution assumptions where zero grade dilution is applied to planned over-break.</li> <li>ORE to actual reconciliation to the mill results continues to perform well with this approach.</li> </ul>