



CY21 ANNUAL RESOURCES AND RESERVES UPDATE

IGO Limited (IGO or the Company) (ASX:IGO) is pleased to report its annual Mineral Resource and Ore Reserve estimates as of 31 December 2021 (CY21). The estimates include IGO's 100% owned Nova Operation (Nova), the 100% owned Silver Knight Project (Silver Knight) and its 24.99% indirect interest in Talison's Greenbushes Operation (Greenbushes). The Greenbushes interest is held through Tianqi Lithium Energy Australia Pty Ltd (TLEA), the lithium joint venture partnership between Tianqi Lithium Corporation (Tianqi) (51%) and IGO (49%).

Highlights

- IGO's CY21 total attributable Mineral Resource estimates from Nova, Silver Knight and Greenbushes, are estimated to contain 180kt nickel (Ni), 74kt copper (Cu), 6.1kt cobalt (Co) metal, and 23.2Mt of a nominal 6% lithia (Li₂O) concentrate or 'lithia concentrate'.
- IGO's CY21 total attributable Ore Reserve estimates from Nova and Greenbushes, are estimated to contain, 123kt Ni, 52kt Cu, 4.5kt Co metal, and 14.7Mt of lithia concentrates.
- Nova's Ore Reserves decreased by 40kt of nickel metal in CY21 with 33kt of Ni metal mined and an additional reduction of 6kt because of adjustments to reconciliation factors. The mine life at Nova is 5.5 years based on the current life of mine plan.
- IGO's CY21 acquisition of Silver Knight has added 11kt of Ni, 5.7kt of Cu and 0.5kt of Co to IGO's total Mineral Resources.
- Greenbushes' Mineral Resource estimates and Ore Reserve estimates have increased by 52% and 20% respectively, in terms of contained lithia concentrate from the previously reported statement (March 2018). The Mineral Resource additions are largely attributed to the first report of an estimate for the Kapanga Deposit of 42.5Mt @ 1.8% Li₂O (100% basis), and significant additions to both the Indicated and Inferred Minerals Resources of the main Central Lode. The CY21 Ore Reserve additions have assessed the Indicated Resource portions of both Kapanga and the Central Lode. The current life-of-mine is now ~24 years.
- The CY21 Total Mineral Resource at Greenbushes (on a 100% basis on 31 Aug 2021) was 360.2Mt @ 1.5% Li₂O containing 92.7Mt of lithia concentrate.
- The Total Ore Reserve estimate at Greenbushes (on a 100% basis on 31 Aug 2021) was 179.6Mt @ 2.0% Li₂O containing 58.7 Mt of lithia concentrate.

IGO's Managing Director and CEO, Peter Bradford, commented: *"We are pleased to present our annual Mineral Resource and Ore Reserve estimates for CY21. Our portfolio has significantly changed during the year as we continued to execute our strategy of being a globally relevant supplier of products that are critical to clean energy. The key changes are associated with the divestment of IGO's 30% interest in the Tropicana Gold Mine and the formation of a new lithium Joint Venture (JV) with Tianqi over its Australian lithium assets. This JV included a 24.99% indirect interest in the Talison Greenbushes Operation delivering exposure to a truly world-class asset with low cost, scale and longevity."*

"Nova has continued to deliver strong production performance throughout CY21. To deliver extensions of mine life and additional exploration opportunities, we recently acquired Silver Knight. Both technical studies and exploration will be accelerated through CY22 on Silver Knight with the aim of reporting a first Ore Reserve in CY23, which will provide additional ore feed to Nova. In parallel, we continue to invest in exploration in the near-mine environment with several highly promising exploration targets."

"Some of the upside we envisaged at Greenbushes at the time of our investment in the lithium joint venture has been clearly demonstrated by the CY21 Mineral Resource and Ore Reserve, with a respective 52% and 20% increase in the estimated contained lithia concentrate. A significant proportion of the increases is attributable to the Kapanga Deposit, which is parallel to the Central Lode, with the two deposits planned to be mined from the one expanded open pit. Greenbushes is the premier hard-rock lithium mine globally, and the



expanded Mineral Resource and Ore Reserve supports the continued investment to expand the production capacity to meet the rapidly increasing demand for lithium as the world transitions to clean energy.”

This announcement is authorised for release to the ASX by the IGO Board of Directors.

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Mineral Resource and Ore Reserve Estimates Update CY21

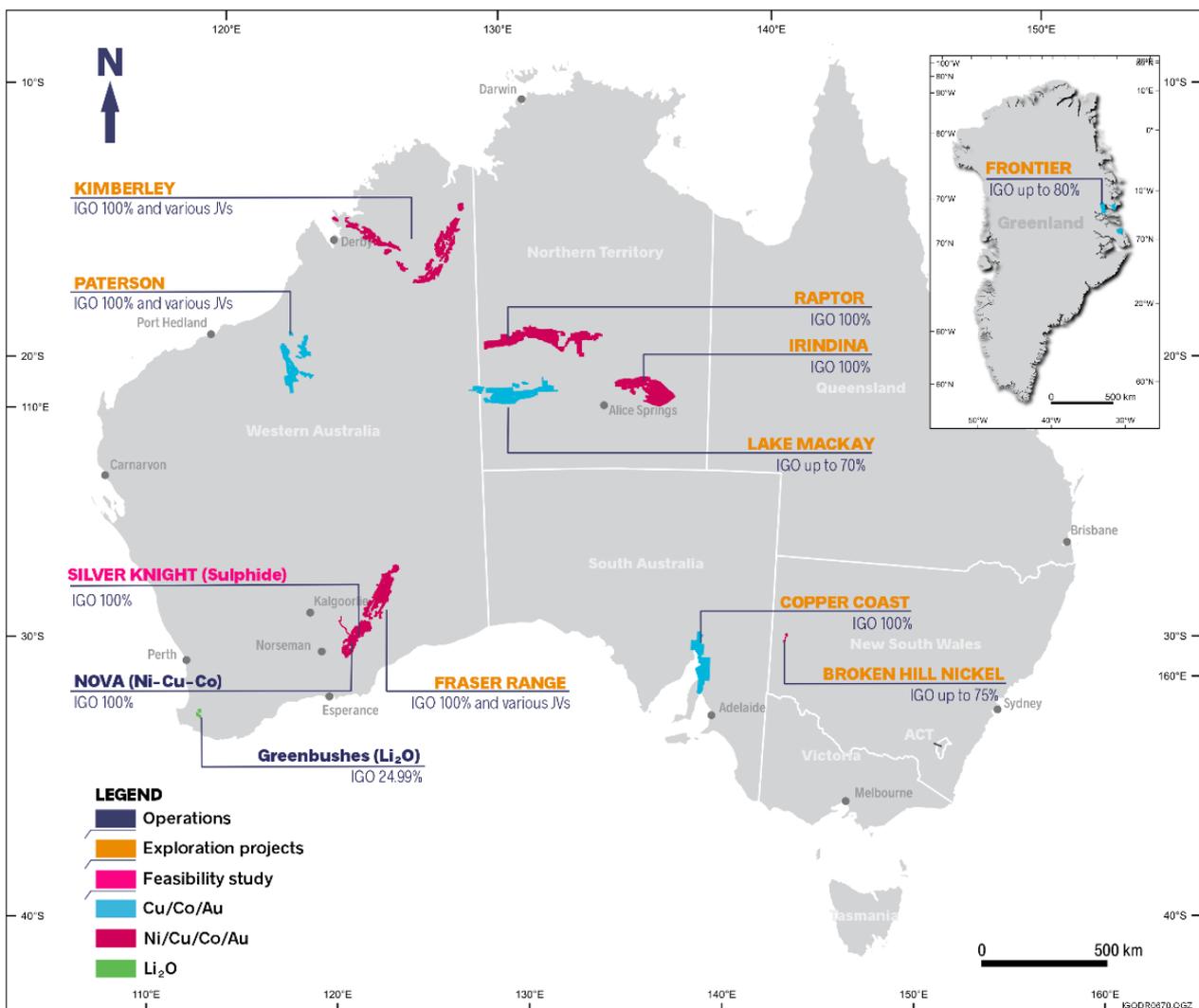


Introduction

IGO Limited (IGO) is a multi-commodity mineral producer who has been listed on the Australian Securities Exchange (ASX) for over 20 years. IGO's strategic focus is on the metals and minerals critical for clean energy applications, including renewable energy generation, grid-scale energy storage and electric vehicles. Either through direct ownership or indirectly through Joint Ventures (JVs), IGO produces saleable concentrates containing nickel, copper, cobalt and lithia from its mining interests in Western Australia (WA).

As depicted in the map below, IGO also manages, through direct ownership or JV, extensive geological belt-scale exploration ground positions throughout WA, the Northern Territory (NT), South Australia (SA), New South Wales (NSW) and Greenland.

IGO's end of CY21 exploration tenure and mining interests



IGO's purpose of this ASX announcement is to provide investors and stakeholders with the technical information that is material to IGO's Mineral Resource and Ore Reserve estimates reported for the 2021 calendar year (CY21), which are reported as at 31 December 2021. IGO and its joint venture (JV) partners, report Exploration Results (ERs), Mineral Resource estimates (MREs) and Ore Reserve estimates (OREs) in accordance with the ASX listing rules and the requirements of the 2012 edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves, which is known as the JORC Code.

Update of Mineral Resource and Ore Reserve Estimates for the year ending 31 December 2021



For CY21, IGO is reporting estimates from its 100% interest in its Nova Operation (Nova), which produces concentrates containing nickel, copper, and cobalt (Ni-Cu-Co) and a 24.99% indirect interest in the Greenbushes Lithium Operation (Greenbushes), which produces saleable lithia (Li₂O) concentrates. Also, in CY21, IGO acquired a 100% interest in the Ni-Cu-Co sulphide mineralisation of the Silver Knight Deposit (Silver Knight), which will likely be processed through Nova, and additionally divested its 30% interest in the Tropicana Gold Mine.

Total estimates

The tabulations below are listings of IGO's total attributable estimates for its interests in Ni-Cu-Co sulphide and lithia mineral deposits. IGO's two 100%-owned base Ni-Cu-Co sulphide assets are reported for CY21. IGO's 24.99% indirect interest in Greenbushes is reported effective 31 August 2021 (Aug-2021) as this is the date of the latest update of the operation's MREs and OREs, since the prior revision which was effective 31 March 2018 (Mar-2018)¹.

IGO's Ni-Cu-Co sulphide deposit Mineral Resource on 31 December 2020/21

Estimate	Period ending	Deposit (IGO interest)	Mass (Mt)	Grades			In situ product		
				Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)
MINERAL RESOURCES	CY20	Nova-Bollinger (100%)	11.80	1.76	0.711	0.058	208	83.9	6.82
		Silver Knight (100%)	—	—	—	—	—	—	—
		CY20 total	11.80	1.76	0.711	0.058	208	83.9	6.82
	CY21	Nova-Bollinger (100%)	11.16	1.52	0.615	0.050	169	68.7	5.58
		Silver Knight (100%)	0.39	2.81	1.467	0.140	11	5.7	0.54
		CY21 total	11.55	1.56	0.644	0.053	180	74.4	6.12
	CY21/CY20 % ratio	Nova (100%)	95%	86%	86%	86%	81%	82%	82%
		Silver Knight (100%)	IGO held no interest on 31 December 2020						
		Total CY21/CY20	98%	89%	90%	91%	87%	89%	90%

IGO's Ni-Cu-Co sulphide deposit Ore Reserves on 31 December 2020/21

Estimate	Period ending	Deposit (IGO interest)	Mass (Mt)	Grades			In situ product		
				Ni (%)	Cu (%)	Co (%)	Ni (kt)	Cu (kt)	Co (kt)
ORE RESERVES	CY20	Nova-Bollinger (100%)	9.00	1.82	0.769	0.066	163	69.2	5.96
		Silver Knight (100%)	—	—	—	—	—	—	—
		CY20 total	9.00	1.82	0.769	0.066	163	69.2	5.96
	CY21	Nova-Bollinger (100%)	7.26	1.70	0.719	0.062	123	52.1	4.48
		Silver Knight (100%)	—	—	—	—	—	—	—
		CY21 total	7.26	1.70	0.719	0.062	123	52.1	4.48
	CY21/CY20 % ratio	Nova (100%)	81%	93%	93%	93%	75%	75%	75%
		Silver Knight (100%)	—	—	—	—	—	—	—
		Total CY21/CY20	81%	93%	93%	93%	75%	75%	75%

¹ IGO ASX Announcement 30 June 2021 'IGO completes transformational transaction with Tianqi'

Update of Mineral Resource and Ore Reserve Estimates for the year ending 31 December 2021



Details regarding the JORC Code parameters of the reporting of the total estimates are discussed in the relevant sections pertinent to each deposit further below.

The main difference between the CY20 and CY21 total results for Ni-Cu-Co sulphide deposits is a decrease in both MRE and ORE due to the 12-month mining depletion at Nova. At the end of CY21, the MRE contained 180kt, 74kt, and 6.1kt respectively of Ni, Cu and Co metal, and the ORE contained 123kt, 52kt and 4.5kt respectively of Ni, Cu and Co metal. The Silver Knight acquisition during 2021², added 11kt, 5.7kt and 0.5kt respectively of Ni, Cu and Co metal in sulphides to IGO's overall total Mineral Resource.

While IGO held no interest in Greenbushes in 2018, for comparative purposes only, the tabulation below includes the operation's Mar-2018 estimates (scaled to IGO's 24.99% interest), so the Aug-2021 ORE and MRE revisions can be compared to the prior update, which IGO reported in December 2020 as part of its transaction announcements³.

IGO's interest in lithia deposit Mineral Resources on 31 March 2018 and 31 August 2021

Estimate	Period ending	Deposit (IGO interest)	Mass (Mt)	Grade (%Li ₂ O)	6% Li ₂ O** (Mt)
MINERAL RESOURCES	Mar-2018*	Greenbushes (24.99%*)	49.2	1.9	15.4
		Mar-18 total	49.2	1.9	15.4
	Aug-2021	Greenbushes (24.99%*)	90.0	1.5	23.2
		Aug-21 total	90.0	1.5	23.2
	Mar-2018/Aug-2021	Greenbushes (24.99%)	183%	79%	152%
	% ratio	Total Mar-18/ Aug-21	183%	79%	152%

IGO's interests in lithia deposit Ore Reserves on 31 March 2018 and 31 August 2021

Estimate	Period ending	Deposit (IGO interest)	Mass (Mt)	Grade (%Li ₂ O)	6% Li ₂ O** (Mt)
ORE RESERVES	Mar-2018*	Greenbushes (24.99%)	35.8	2.1	12.2
		Mar-18 total	35.8	2.1	12.2
	Aug-2021	Greenbushes (24.99%)	44.9	2.0	14.7
		Aug-21 total	44.9	2.0	14.7
	Mar-2018/Aug-2021	Greenbushes (24.99%)	126%	95%	120%
	% ratio	Total Mar-18/ Aug-21	126%	95%	120%

- * IGO held no interest in Greenbushes in Mar-2018. The IGO proportional interest is listed for the Mar-2018 estimates only to highlight the increases achieved in the Aug-2021 estimates.
- ** The 6% Li₂O is a proxy for Greenbushes' saleable spodumene concentrates. Note this metric does not account for process recovery.
- Greenbushes mined 1.24 Mt of ore grading 2.41% Li₂O from 1 Sep 2021 to 31 Dec 2021.

The change to the Aug-2021 update of MREs and OREs for Greenbushes is the significant increase in both estimates despite the intervening ore mining of ~9Mt grading 2.63% Li₂O between the two reporting milestones. For the MRE, the main drivers of the 52% increase in contained lithia concentrate were the first

² IGO ASX announcement 27 July 2021 'IGO to acquire Silver Knight Deposit from Creasy Group'

³ IGO ASX announcement 9 December 2020 'IGO to acquire interest in Global Lithium JV with Tianqi – securing exposure to the Tier 1 Greenbushes and Kwinana Assets'

Update of Mineral Resource and Ore Reserve Estimates for the year ending 31 December 2021



reporting of a MRE for the Kapanga Deposit, which is a satellite pegmatite system adjacent to Greenbushes' principal Central Lode system, and expansion of Inferred Mineral Resources at the Central Lode. The 20% increase in contained lithia concentrate within the Aug-2021 ORE captures the Indicated Resources in Kapanga Deposit as a significant part of the conversion to ore reserves.

As required by ASX listing rules, the following sections provide more of the pertinent details of the CY21 estimates, including the JORC Code Table 1 checklists, which are appended to the release.

Nova

IGO's 100%-owned Nova Operation is 160km east northeast of Norseman in WA and 380km northeast of the Port of Esperance. Nova is a conventional underground mining operation and produces Ni concentrates (containing payable Cu and Co) and Cu concentrates that are sold to customers in WA and offshore. Details of the geology, sampling, resource and ore reserve estimation methods at Nova have not materially changed since IGO's CY20 detailed annual report⁴, as Nova's mineralisation is fully defined by close-spaced grade control drilling and the MRE model has not changed other than assignment of reconciliation factors and metal pricing for ORE work.

Mineral Resources and Ore Reserves

The tabulations below are listings of Nova's CY20 and CY21 MREs and OREs by JORC Code classes.

Nova CY20 and CY21 MRE

Source	JORC Class	31 December 2020							31 December 2021						
		Mass (Mt)	Nickel		Copper		Cobalt		Mass (Mt)	Nickel		Copper		Cobalt	
			(%)	(kt)	(%)	(kt)	(%)	(kt)		(%)	(kt)	(%)	(kt)	(%)	(kt)
Underground	Measured	10.39	1.88	196	0.755	78.5	0.062	6.41	9.56	1.64	156	0.660	63.0	0.054	5.13
	Indicated	1.30	0.81	10	0.370	4.8	0.028	0.36	1.50	0.75	11.3	0.332	5.0	0.026	0.39
	Inferred	0.07	1.26	1	0.466	0.30	0.040	0.03	0.05	0.96	0.47	0.370	0.2	0.031	0.02
	Subtotal	11.75	1.76	207	0.711	83.6	0.058	6.79	11.11	1.51	168	0.614	68.2	0.050	5.54
Stockpiles	Measured	0.04	1.62	1	0.654	0.30	0.065	0.03	0.05	1.88	1	0.881	0.5	0.072	0.04
Total	Measured	10.43	1.88	197	0.755	78.8	0.060	6.43	9.61	1.64	157	0.661	63.5	0.054	5.17
	Indicated	1.30	0.81	10	0.370	4.8	0.028	0.36	1.50	0.75	11.3	0.332	5.0	0.026	0.39
	Inferred	0.07	1.26	1	0.466	0.30	0.056	0.03	0.05	0.96	0.47	0.370	0.2	0.031	0.02
	Nova total	11.80	1.76	208	0.711	83.9	0.058	6.82	11.16	1.52	169	0.615	68.7	0.050	5.58

- The CY21 MRE is reported using a A\$54.00/t NSR cut-off based on the metal prices listed in this statement
- The CY20 MRE is reported using a A\$54.50/t NSR cut-off based on prices listed in the CY20 annual report
- Some averages and sums are affected by rounding
- MREs are considered generally inclusive of OREs and no Inferred Resources are considered excessively extrapolated
- The MRE is inclusive of the ORE discussed further below

⁴ IGO ASX announcement 17 March 2021 'Annual Mineral Resource and Ore Reserves'



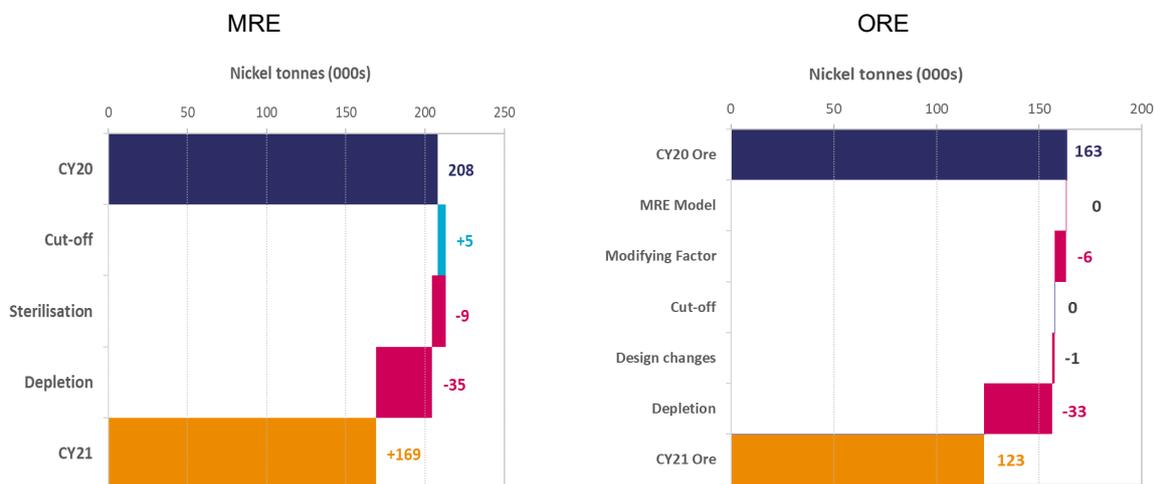
Nova CY20 and CY21 ORE

Source	JORC Class	31 December 2020 (CY20)							31 December 2021 (CY21)						
		Mass (Mt)	Nickel		Copper		Cobalt		Mass (Mt)	Nickel		Copper		Cobalt	
			(%)	(kt)	(%)	(kt)	(%)	(kt)		(%)	(kt)	(%)	(kt)	(%)	(kt)
Underground	Proved	8.68	1.83	159	0.776	67.3	0.067	5.80	6.94	1.71	118	0.723	50.2	0.062	4.31
	Probable	0.27	1.41	4	0.576	1.6	0.051	0.14	0.26	1.40	4	0.578	1.5	0.050	0.13
	Subtotal	8.95	1.82	163	0.770	68.9	0.066	5.94	7.20	1.69	122	0.717	51.7	0.062	4.44
Stockpiles	Proved	0.04	1.62	1	0.654	0.3	0.065	0.03	0.05	2.00	1	0.881	0.5	0.072	0.04
Total	Proved	8.72	1.83	160	0.775	67.6	0.067	5.82	6.99	1.71	119	0.724	50.6	0.062	4.35
	Probable	0.27	1.41	4	0.576	1.6	0.051	0.14	0.26	1.40	4	0.578	1.5	0.050	0.13
	Nova total	9.00	1.82	163	0.769	69.2	0.066	5.96	7.26	1.70	123	0.719	52.1	0.062	4.48

- CY20 reported using NSR A\$/t cut-off grades of A\$34/t for development, A\$75/t for incremental stoping and A\$131/t for full cost burden stoping
- CY21 reported using NSR A\$/t cut-off grades of A\$34/t for development, A\$74/t for incremental stoping and \$A128/t for full cost burden stoping
- Some averages and sums are affected by rounding
- An immaterial tonnage (<1kt) of Inferred Mineral Resources is included in the ORE for reasons of practicality of design

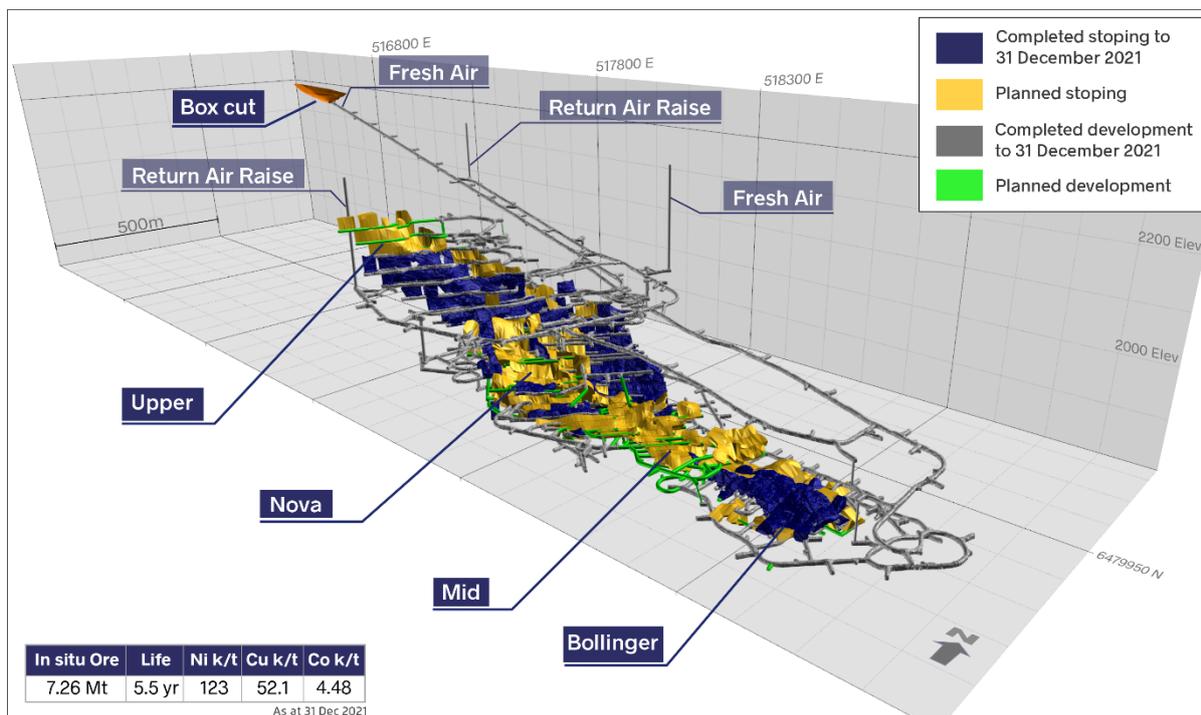
Nova’s MRE and ORE have both decreased, consistent with the life of mine (LOM) plan, due to mining depletion. However, the MRE has also decreased by the mine’s first MRE sterilisation reductions, which occur where MRE can no longer be accessed due to the completion of mining in certain areas, often at the peripheries of the MRE limits, and the resource can no longer be considered potentially extractable. The cascade plots in the figure below are simplified analyses of the changes in Nova’s MRE and ORE between CY20 and CY21.

Nickel metal changes from CY20 and CY21



From CY20 to CY21, the contained Ni in Nova’s MRE reduced from 208kt to 169kt, with a +5kt increase due to a marginal lowering of the A\$/t net smelter return reporting cut-off, but with 9kt reduced due to mining sterilisation and the majority 35kt reduced due to mining depletion. For ORE, the major reduction was 33kt of mining depletion, but also a 6kt reduction due to a negative adjustment in the modifying factor for MRE to account for process plant reconciliation. Other change drivers were minor, with a 1kt reduction due to design optimisations. Note the difference between the reported mining depletions for MRE and ORE are due to the difference between the in situ grades used for the depleted MRE blocks and the reconciliation factored grades used for the ORE, which consider the modifying factors. The 3D image below depicts Nova CY21 ORE and past mining. From the end of CY21, Nova has a ~5.5 year life based on the current mine plan.

Nova CY21 completed stopes and mine development and future stopes



Silver Knight

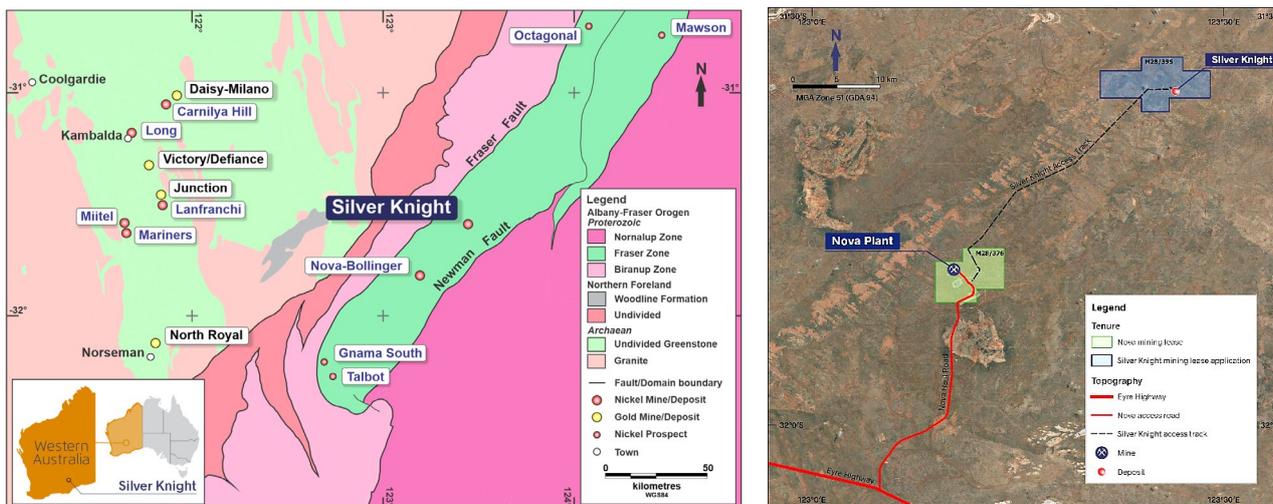
Silver Knight is a magmatic Ni-Cu-Co deposit, which is ~35km northeast of Nova via unsealed road. In 2014, private explorer Creasy Group, via its entity Great Southern Nickel Pty. Ltd. (GSN), discovered in its exploratory surface outcrop mapping and soil sampling results, the anomalous Ni-Cu surface signature over Silver Knight. In 2015, when aircore (AC) drill testing the saprolite zone below the strong geochemical surface anomaly, GSN intersected potentially economic grades of Ni and Cu in several of the AC holes. In the following year, GSN confirmed the presence of Ni-Cu-Co sulphides around the Silver Knight's top-of-fresh rock interface, in both reverse circulation (RC) and diamond (DD) drilling. In 2018, GSN engaged a resource consultant to prepare a Silver Knight MRE, which was appended to and supported its Silver Knight Mining Lease Application (M28/395) to the WA Department of Mines, Industry Regulation and Safety (DMIRS). However, as GSN is a private company, this DMIRS MRE was not publicly reported to the ASX.

In July 2021, IGO acquired 100% ownership of Silver Knight's sulphide mineralisation from GSN. IGO has prepared a confirmatory in-house MRE using GSN's data and this estimate is a first public reporting of a Silver Knight MRE to the ASX.

Geology and mineralisation

Like Nova-Bollinger, Silver Knight was discovered within the 425 by 50km wide, Mesoproterozoic-age Fraser Zone of the Albany-Fraser Orogen. The Fraser Zone is fault bounded by the Biranup Zone to the northeast and the Nornalup Zone to the southeast. The Arid Basin forms the basement to the Fraser Zone and the Snowys Dam Formation of the Arid Basin is the basement package in the Nova-Bollinger and Silver Knight area. During the first phase of the Albany-Fraser Orogeny at ~1.30Ga ago, mafic, ultramafic and granitic intrusions were emplaced penecontemporaneously with the granulite facies metamorphism of the regional stratigraphy, which was occurring at crustal depths of 28 to 35km below surface. The Fraser Zone is now characterised by gneissic fabrics, complex refolding and major mylonitic zones.

Silver Knight's simplified regional geology and lease location relative to Nova



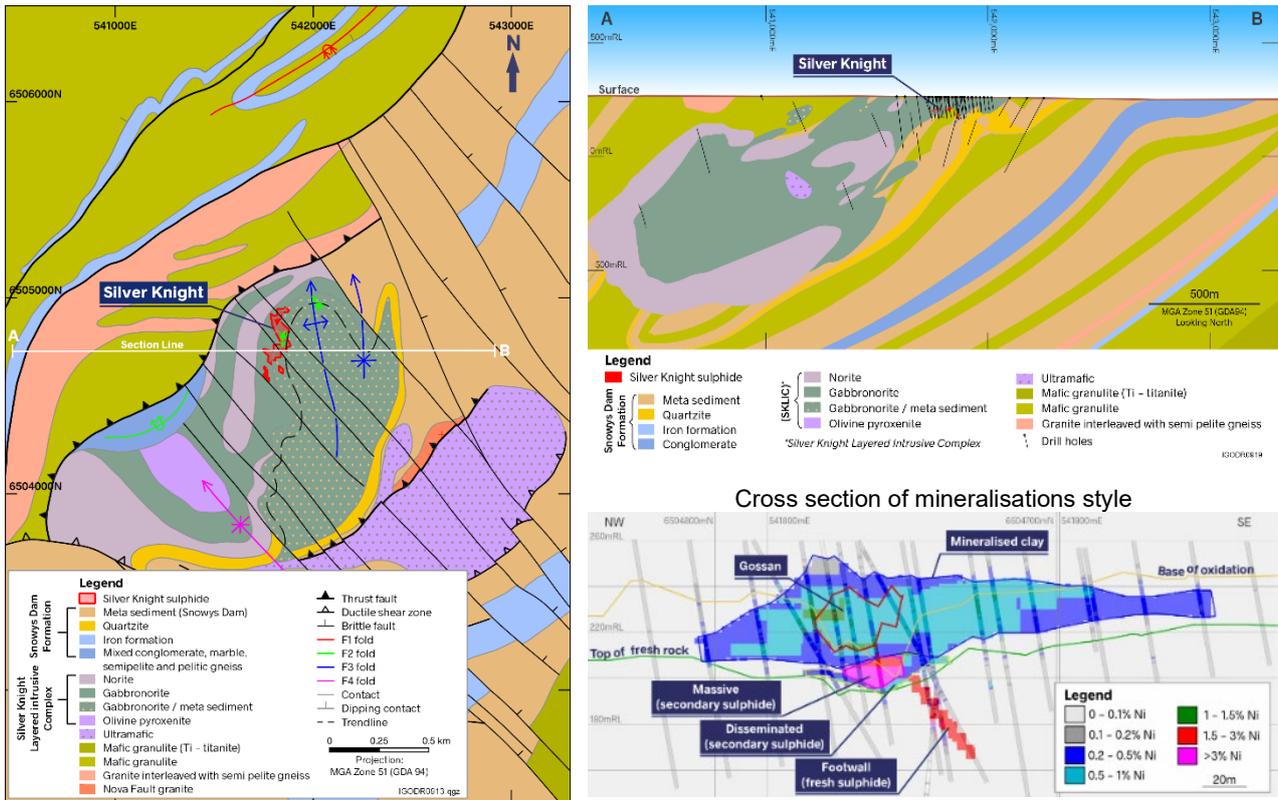
Silver Knight's local geology is largely obscured by transported cover, so the basement geology has been interpreted from geophysics and drilling. GSN found from this work that the local area rocks are broadly conformable with the Snowys Dam Formation. The main rock types comprise pelitic to psammitic gneisses, metavolcanics, granite orthogneisses, and metasedimentary rocks including those of carbonate, calc-silicate and conglomeritic origin. Silver Knight's 'eye' feature, which can be observed in the geophysical magnetics image covering the deposit, reflects the complex underlying geology of intercalated folded and faulted rocks within what GSN has named the Silver Knight Layered Igneous Complex (SKLIC). Aplitic granite and granite gneiss form the hangingwall sequence as depicted in GSN's geology map further below. These units of granitic composition are intercalated by folding with mafic granulites, but both are structurally separated from the SKLIC by a thrust, which is interpreted to dip towards the northwest. The primary sulphide mineralisation is found along the contact of a gabbro-norite and an adjacent mixed unit interpreted to be a mixture of gabbro-norite and metasediments.

Mineral Resources

Under the terms of IGO's acquisition of Silver Knight, IGO only has the right to mine and process sulphide mineralisation that IGO deems can be profitably processed at Nova. Silver Knight's oxide mineralisation, which includes nickeliferous clay and copper rich gossan mineralisation types, as well as any transitional mineralisation that is deemed to be sub economic by IGO, remains the property of GSN. Under the terms of the sale agreement, IGO will separately stockpile for GSN's potential future use, any non-sulphide mineralisation that IGO mines because of accessing the viable sulphide ore.

GSN's near vertical RC drilling, which is collared on a nominal 25m grid spacing over Silver Knight, defines the full extents and has closed off all the known Ni-Cu-Co sulphide mineralisation within the agreed volume to which IGO has 100% access. GSN has also drilled a small number of DD holes to collect metallurgical test samples. From its due diligence work, IGO considers that the quality of GSN's geoscientific data collection is consistent with industry norms for the style of deposit under consideration and has accepted GSN's information for MRE work. Details of GSN's data quality, and all other MRE estimation details are listed in the relevant JORC Code Table 1 appendix to this report.

Silver Knight local geology map and cross sections



IGO prepared a 3D interpretation of the Silver Knight sulphide mineralisation using a nominal drill hole assay >2% S threshold to define the mineralisation that could be potentially processed at Nova. A total of 10 3D volumes were defined and IGO estimated the payable metal grades (Ni-Cu-Co) and density of the mineralisation using GSN's data and normal industry geostatistical methods. Silver Knight's digital block model grade estimation was controlled by both the IGO and GSN interpreted zones. Density was assigned using GSN's density data from drill core measurements with either regression estimators applied when there was sufficient calibration data or otherwise zone data means. The model was validated using routine industry practices and reported using an A\$/t NSR threshold within a first-pass pit optimisation shell as discussed below.

To demonstrate the JORC Code requirement that there should be reasonable expectations of eventual economic exploitation of Silver Knight's sulphide MRE, an open pit optimisation analysis on IGO's MRE model was completed. The Ni, Cu and Co metal prices and FX assumptions, as listed for Silver Knight further below in this report on page 16, where the key economic inputs. Other pit optimisation assumptions, such as costs, mining methods, metallurgical recoveries, and geotechnical assumptions are detailed in the Silver Knight JORC Code Table 1, which is appended to this announcement.

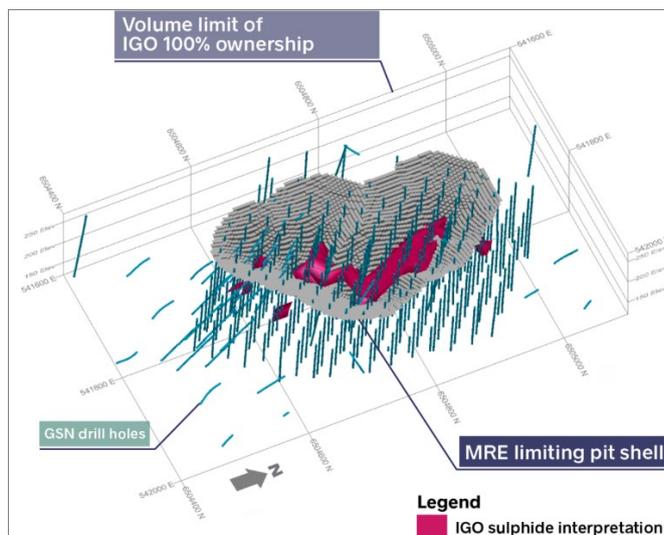
The tabulation below is a listing of Silver Knight's CY21 total MRE. The estimate is reported within an open-pit shell using a mill-recovered NSR cut-off of A\$43.75/t, which is the estimated metallurgically recovered ore value that covers the cost of haulage to Nova, and subsequent processing.

Silver Knight CY21 MRE, drilling, IGO sulphide interpretation and MRE-limiting pit optimisation shell

Silver Knight end CY21 MRE

JORC Class	31 December 2021						
	Mass (Mt)	Nickel		Copper		Cobalt	
		(%)	(kt)	(%)	(kt)	(%)	(kt)
Measured	-	-	-	-	-	-	-
Indicated	0.38	2.80	10.7	1.458	5.6	0.139	0.53
Inferred	0.01	3.56	0.2	2.005	0.1	0.142	0.01
Total	0.39	2.81	10.9	1.467	5.7	0.140	0.54

- Reported at A\$43.75/t NSR cut off



In December 2021, IGO completed a DD hole program to collect fresh metallurgical samples. An RC infill drilling program is planned 2022 to support the definition of Measured Resources over the pit shell area and support a Feasibility Study, which will be completed during CY22.

Greenbushes

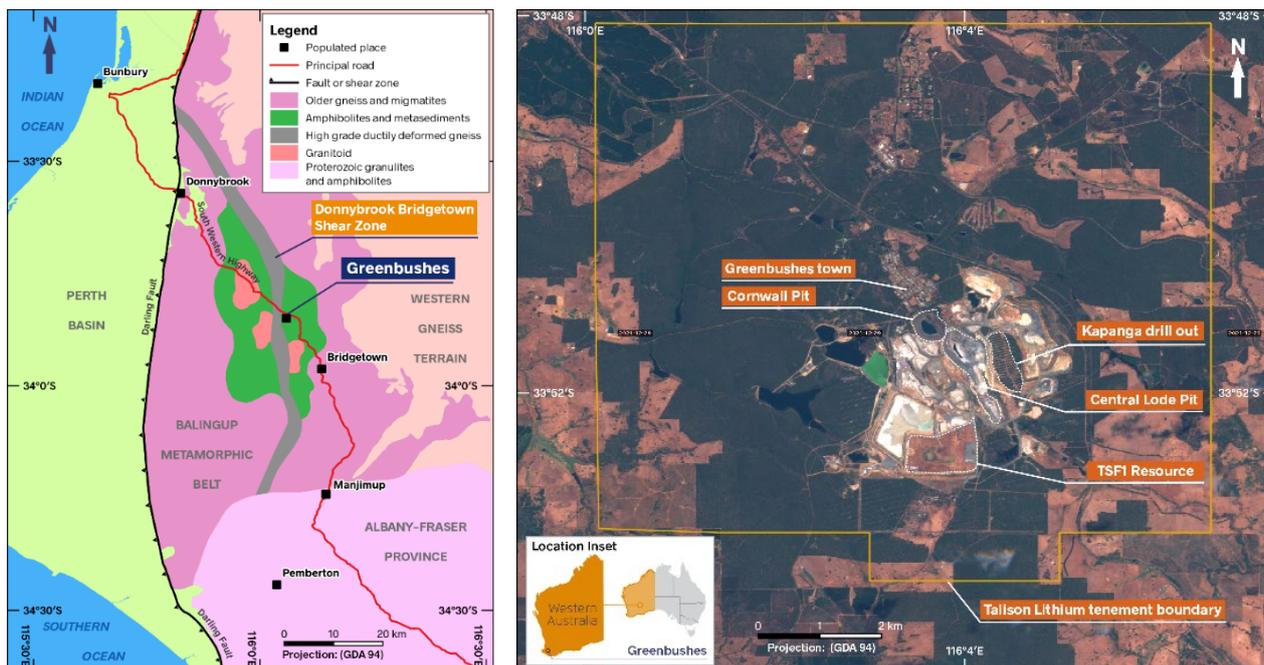
Greenbushes is a lithium mining and processing operation that directly abuts the town of Greenbushes in WA and is ~250km south southeast by road of WA's capital Perth, and ~90km southeast by road of the Port of Bunbury. Greenbushes is managed by Talison Lithium Ltd (Talison), a 100% subsidiary of Windfield Ltd (Windfield). Windfield is owned 51% by Tianqi Lithium Energy Australia (TLEA) and 49% by Albemarle Corporation. TLEA is an incorporated joint venture owned 51% by Tianqi Lithium Corporation (Tianqi) and 49% by IGO. Under this structure IGO holds a 24.99% indirect ownership in Greenbushes through its 49% share in TLEA.

Greenbushes has a mining history that commenced in 1888 when tin minerals were exploited from surface mining operations. Tin mining continued at Greenbushes until the 1980s, when lithium and tantalum mining became the primary focus. The first lithium plant to produce concentrates was commissioned in 1985. Since then, there have been several stages of expansion. As at the end of CY21, there were three spodumene concentrate processing plants in production with an installed capacity of 1.34Mtpa of spodumene concentrate nominally grading 6.0% Li₂O, which is described as 'lithia concentrate' in what follows. Total CY21 annual open pit ore mining totalled 3.0Mt grading 2.5% Li₂O, with ~1.24Mt grading 2.41% Li₂O mined from 1 Sep 2021 to 31 Dec 2021.

Geology and mineralisation

Greenbushes is a giant Archean age (~2.5Ga) pegmatite, that has intruded in the central region of the ~150km long Donnybrook-Bridgetown Shear Zone. Greenbushes has been deformed and metamorphosed in conjunction with its host rocks of the Balingup Metamorphic Belt. The regional rock types include a diorite gneiss, which is interpreted to be the basement for Archean greenstone sequences of amphibolite, metasediments, ultramafic schists, and felsic to massive banded paragneiss. In the Greenbushes region, a younger suite of granitoids is associated with the pegmatite intrusion.

Greenbushes' simplified regional geology and satellite image on 29 December 2021



The Greenbushes pegmatites occur as linear dykes ranging from 2 to 3km in length and varying from 10 to 300m in thickness. The pegmatite dykes and pods are concentrated within shear zones, which occur at the contacts between sequences of granofels, ultramafic schist and amphibolite. The main pegmatite strikes north northwest and variably dips from 30° to 70° towards the west southwest. Proterozoic age (~2.4Ga), dolerite dykes and sills, which range from centimetre scale up to intrusions having tens of meters in thickness, have intruded the mine area. A thick sill has injected along much of the pegmatite's hangingwall, and many narrower dykes crosscut the mine sequence.

Geologists working at Greenbushes have recognised several compositional zones in the drill core and pit exposures, which are related to the distribution of different styles of mineralisation. The lithium zone is characterised by an assemblage of spodumene + quartz + tourmaline + apatite + perthite and lesser amounts of tantalum minerals. The highest grade lithium zones, occur at both margins of the main pegmatite and can contain over 50% spodumene resulting in ore grading ~5% Li₂O. Greenbushes' tin and tantalum mineralisation is associated with the sodium (Na) rich feldspar, albite zone, which is characterised by an assemblage of albite + tourmaline + quartz + spodumene + cassiterite + tantalum minerals + zircon and minor microcline. Tin is found as the mineral cassiterite, and tantalum as either inclusions in cassiterite or as several tantalum minerals in silicates. Historically the lithium mineral spodumene reported to tailings in the processing of tin-tantalum ores, which has led to the creation of the TSF1 tailings storage facility lithium mineral resource discussed further below.

Mineral Resources and Ore Reserves

The Greenbushes' MREs have been prepared by Talison's in-house technical staff. The previous revision of the Greenbushes MRE was effective 31 March 2018 (Mar-2018), which included estimates for the Central Lode, TSF1 and stockpiles. Effective 31 August 2021 (Aug-2021), the Central Lode and stockpile estimates were revised with new data and the addition of the first JORC Code reportable estimate for the Kapanga Deposit, which is immediately east of the Central Lode.

Talison has prepared Greenbushes MREs' using normal industry approaches for the styles of mineralisation under consideration, and the estimates are consistent with the requirements and guidelines of the prevailing JORC Code. Briefly, the main geological units were modelled using industry-standard software systems, and the lithia grades estimated from validated drill hole information using industry-standard geostatistical methods. An independent MRE consultant has completed a review of Talison's Aug-21 estimate. The reviewer found no material issues with Talison's estimation processes. Full technical details of Talison's MREs are included in

Update of Mineral Resource and Ore Reserve Estimates for the year ending 31 December 2021



the relevant JORC Code Table 1 appendix of this report. The tabulation below is a comparative listing of the Mar-18 and Aug-21 MREs by deposit or stockpile.

Greenbushes MRE on Mar-2018 and Aug-2021 (100% basis)

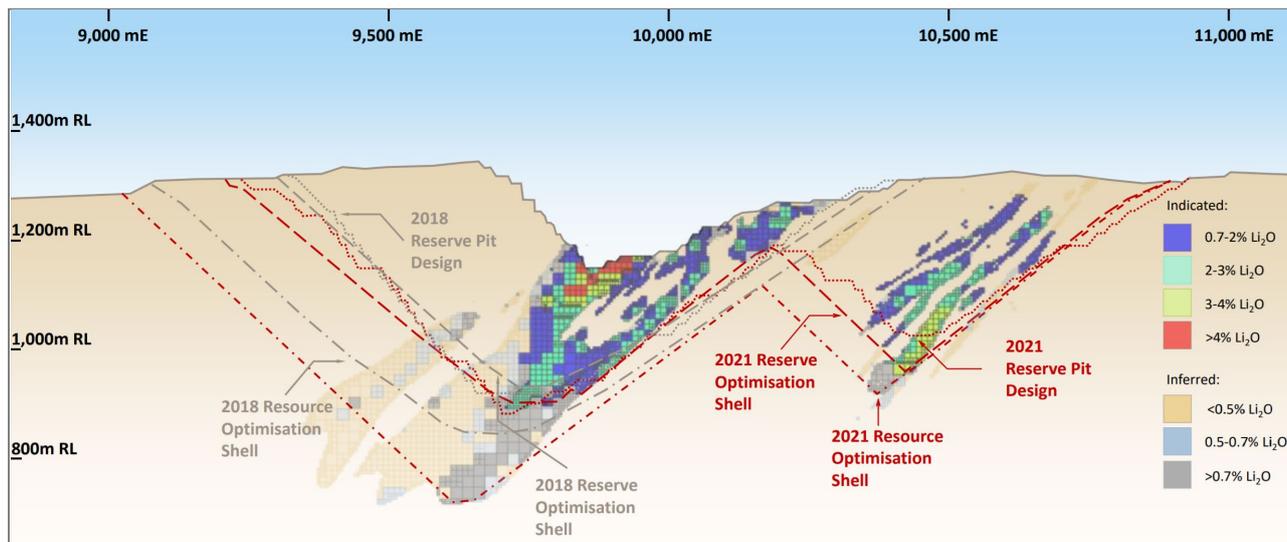
Estimate (cut-off)	JORC Code Class	31 March 2018			31 August 2021		
		Mass (Mt)	Grade (%Li ₂ O)	6% Li ₂ O conc. (Mt)	Mass (Mt)	Grade (%Li ₂ O)	6% Li ₂ O conc. (Mt)
Central Lode (0.5% Li ₂ O)	Measured	-	-	-	-	-	-
	Indicated	166.9	2.0	56.3	189.9	1.8	57.9
	Inferred	7.8	1.4	1.8	104.6	1.0	16.7
	Subtotal	174.7	2.0	58.1	294.4	1.5	74.6
Kapanga (0.5% Li ₂ O)	Measured	-	-	-	-	-	-
	Indicated	-	-	-	38.6	1.8	11.5
	Inferred	-	-	-	3.9	1.9	1.2
	Subtotal	-	-	-	42.5	1.8	12.7
TSF1 (0.7% Li ₂ O)	Measured	-	-	-	-	-	-
	Indicated	18.3	1.3	3.9	18.3	1.3	3.9
	Inferred	-	-	-	-	-	-
	Subtotal	18.3	1.3	3.9	18.3	1.3	3.9
Stockpiles (0.5% Li ₂ O)	Measured	0.1	3.0	0.1	0.5	3.2	0.3
	Indicated	2.6	1.9	0.8	2.6	1.9	0.8
	Inferred	1.0	0.9	0.2	1.8	1.0	0.3
	Subtotal	3.7	1.7	1.0	5.0	1.7	1.4
Total	Measured	0.1	3.0	0.1	0.5	3.2	0.3
	Indicated	187.8	1.9	59.5	249.4	1.8	74.2
	Inferred	8.8	1.3	1.9	110.3	1.0	18.2
	Greenbushes total	196.8	1.9	62.0	360.2	1.5	92.7

While Greenbushes produces concentrates with a range of lithia grades, the 6% Li₂O concentrate metric (lithia concentrate) is computed as a proxy for Greenbushes' saleable product in the MRE, but prior to process recovery. Apart from the TSF1 estimate discussed below, the other Greenbushes MREs are reported using a cut-off grade of $\geq 0.5\%$ Li₂O for the respective sector estimates. The Central Lode and Kapanga estimates are constrained for reporting by a pit optimisation shell, which includes Inferred Mineral Resources in the value assessment. All the Greenbushes MREs are inclusive of the ORE.

The TSF1 estimate is based on data collected from sonic drilling, which is considered the best method for collecting samples from tailings. The process residue is from early phases of tin and tantalum mining from the Central Lode and as such the tails have similar mineralogy. TSF1 is stratified into a distinct ~7m thick upper layer of higher lithia grade residue, which overlies the lower grade zone. The TSF1 MRE is reported using a cut-off grade of $\geq 0.7\%$ Li₂O. Construction of the tailings retreatment plant designed to process the TSF1 ORE discussed below, is complete and it is soon to be commissioned.

The Greenbushes MRE has increased by ~31Mt in terms of contained 'lithia concentrate' since the Mar-2018 estimate despite the subsequent mining of ~9Mt grading 2.63% Li₂O since that reporting date. The significant increases are in both the Central Lode (~16Mt of contained lithia concentrate) and the newly defined Kapanga Deposit ~13Mt of lithia concentrate. The TSF1 estimate is unchanged as it has not been revised since the Mar-2018 estimate. The mine cross section in the figure below is looking towards north with respect to the local mine through the Central Lode and Kapanga deposits. The image depicts the geometries of both deposits, the depth of mining in Aug-2021 and the limits of the 2021 MRE limiting pit optimisation shell, as well as the ORE shell and Aug-2021 design.

Greenbushes cross section 12,100mN (mine grid) looking north through the Central Lode and Kapanga deposits



Talison’s technical staff prepared the Greenbushes Aug-2021 OREs based on the revised Aug-2021 MRE described above. The total Greenbushes Aug-2021 ORE includes the Central Lode and Kapanga deposits, TSF1 and stockpiles. The Central Lode and Kapanga Aug-2021 OREs are derived from an open pit design that is within a pit optimisation shell. However, unlike the MRE-limiting optimisation shell, Inferred Mineral Resources are not assigned any value in the ORE pit optimisation process, with these lower JORC Code confidence resources considered waste in the ORE process.

The Aug-2021 ORE optimisation shell notionally defines the maximum possible economic limits of mining. Talison has used this shell to guide the open pit design and prepare the associated mine schedules that underpin the pit OREs. The optimisation is driven by physical, commercial and cut-off parameters that have been revised since the previous Mar-2018 ORE. The optimisation inputs assume expansion of Greenbushes’ ore production and processing to ~9Mt/a, with concentrate production ramping up from current capacity of ~1Mt/a of saleable products to a doubling of output to ~2Mt/a by 2027. Including the Kapanga and TSF1 OREs, the mine life is now projected to be over 24 years. Scheduling of the design included nine (9) interim cutbacks to improve NPV while also smoothing the timing of ore extraction for process plant feed.

The Aug-2021 pit design includes 15.6Mt grading 1.2% Li₂O of Inferred Mineral Resources, which are not included in the ORE as required by JORC Code reporting requirements. The TSF1 ORE is unchanged from the Mar-2018 estimate. The table below shows a comparative listing of the Greenbushes Mar-2018 and Aug-2021 OREs by sector.

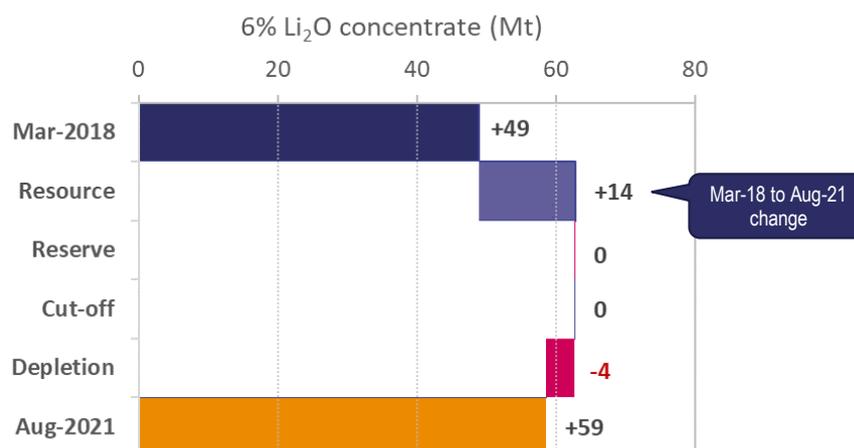


Greenbushes ORE at Mar-2018 and Aug-2021 (100% basis)

Estimate (cut-off)	JORC Code Class	31 March 2018			31 August 2021		
		Mass (Mt)	Grade (%Li ₂ O)	6% Li ₂ O conc. (Mt)	Mass (Mt)	Grade (%Li ₂ O)	6% Li ₂ O conc. (Mt)
Central Lode (0.7% Li ₂ O)	Proved	-	-	-	-	-	-
	Probable	130.2	2.1	45.6	138.5	2.0	46.2
	Subtotal	130.2	2.1	45.6	138.5	2.0	46.2
Kapanga (0.7% Li ₂ O)	Proved	-	-	-	-	-	-
	Probable	-	-	-	27.9	1.9	8.9
	Subtotal	-	-	-	27.9	1.9	8.9
TSF1 (0.7% Li ₂ O)	Proved	-	-	-	-	-	-
	Probable	10.1	1.4	2.4	10.1	1.4	2.4
	Subtotal	10.1	1.4	2.4	10.1	1.4	2.4
Stockpiles (0.7% Li ₂ O)	Proved	0.2	3.0	0.1	0.5	3.2	0.3
	Probable	2.6	1.9	0.8	2.6	1.9	0.8
	Subtotal	2.8	1.9	0.9	3.1	2.1	1.1
Total	Proved	0.2	2.0	0.1	0.5	3.2	0.3
	Probable	142.9	2.1	48.8	179.1	2.0	58.4
	Greenbushes total	143.1	2.1	48.9	179.6	2.0	58.7

The Aug-2021 estimate contains ~37Mt more ore than the Mar-2018 estimate despite over two years of ore mining of ~9Mt grading 2.61% Li₂O and processing totalling 8.1Mt grading 2.6% Li₂O. Most of the additional tonnage is from 27Mt of (first) ORE from Kapanga, albeit there has been a significant ~8Mt ORE increase from the Central Lode. The Greenbushes ORE has increased by 9.7Mt in terms of contained lithia concentrate since the Mar-2018 estimate despite the mining of ~9Mt grading 2.61% Li₂O to 31 August 2021, equating to ~4Mt of ORE contained lithia concentrate. Nearly all (90%) of this increase is due to the newly reported Kapanga ORE. The cascade plot below is a summary of the changes in contained concentrate between the two reporting milestones. As noted above, from 1 September 2021 to 31 December 2021, Greenbushes has additionally mined 1.24Mt grading 2.41% Li₂O.

Lithia concentrate changes – Mar-2018 to Aug-2021 OREs



Of note is the fact that the current approved capacity to store process water, tailings and mine rock waste is insufficient to meet the requirements of the LOM plan. However, Talison's Competent Person considers that there is sufficient water capacity to service production requirements until 2025, and waste rock capacity until

Update of Mineral Resource and Ore Reserve Estimates for the year ending 31 December 2021



2028 and tailings capacity until 2037. This provides sufficient time frames to reasonably expect that the extra capacity requirements can be addressed in good time to meet the longer-term concentrate production forecasts. More details regarding the Greenbushes Aug-2021 ORE are included in the relevant JORC Code Table 1 appendix of this release.

Economic assumptions

In October 2021, IGO's selected prices and (A\$/US\$) FX rates for Nova's MRE-ORE assessment and reporting. IGO uses Consensus Economics data for base metal prices and Bloomberg data for FX rates. The tables below are listings of IGO's metal price and FX assumptions for MRE and ORE at the end of CY20 and CY21.

Nova's CY21/CY20 price/FX assumptions

MRE					ORE				
Year ending	Unit	Metal price or FX			Year ending	Unit	Metal price or FX		
		Nickel	Copper	Cobalt			Nickel	Copper	Cobalt
CY20	US\$/t	16,550	6,560	49,730	CY20	US\$/t	15,740	6,380	41,530
	A\$/t	22,420	8,890	67,350		A\$/t	20,910	8,480	55,180
	A\$:US\$	0.74				A\$:US\$	0.75		
CY21	US\$/t	17,900	8,110	55,070	CY21	US\$/t	16,850	7,390	48,900
	A\$/t	23,810	10,780	73,240		A\$/t	22,120	9,700	64,170
	A\$:US\$	0.75				A\$:US\$	0.76		
CY21/CY20 % ratio	US\$/t	108%	124%	111%	CY21/CY20 % ratio	US\$/t	107%	116%	118%
	A\$/t	106%	121%	109%		A\$/t	106%	114%	116%
	A\$:US\$	106%				A\$:US\$	101%		

In Australian dollar terms, there has been a ~10 to ~25% relative increase to the assumed CY21 MRE metal prices for nickel, copper and cobalt relative to the CY20 MRE assumptions. These changes are primarily due to increases in the consensus metal prices, with copper having the largest price rise. However, these price increases have been marginally tempered by the assumed FX rate increasing to 0.75 for the CY21 estimates from the 0.72 FX that was assumed for the CY20 estimates. The effect of these price rises has been to decrease the CY21 MRE reporting cut-off grade at Nova.

For ORE assumptions, and again in Australian dollar terms, there has been a ~5 to ~15% increase to the assumed CY21 ORE metal prices for nickel, copper and cobalt relative to the CY20 ORE assumptions. Copper and cobalt have the higher price increases. The small change in FX assumptions is not material to ORE price assumptions. The effect of these price rises has been to offset increased costs at Nova, so that the reporting cut-off for the CY21 ORE is the same as the CY20 ORE.

As part of the MRE evaluation of Silver Knight, IGO prepared a pit optimisation study to limit the reporting of the sulphide MRE. These assumptions are listed in the table below.

Silver Knight pit optimisation price/FX assumptions

Unit	Metal price or FX		
	Nickel	Copper	Cobalt
US\$/t	15,740	6,380	41,530
A\$/t	20,910	8,480	55,190
A\$:US\$	0.75		

Talison manages the spodumene concentrate prices and FX assumptions for Greenbushes' MRE and ORE. Under the terms of Talison's sales agreements, the product prices are confidential. However, Talison has



advised IGO that it considers that the concentrate prices used for MRE and ORE work are consistent with publicly available forecasts of forward looking prices for spodumene concentrates grades ~6% Li₂O or higher.

Forward Looking Statements

This document includes 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'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 ASX Listing Rules, IGO disclaims any obligation or undertaking to publicly update any forward-looking statements or discussions of future financial prospects, whether as a result 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.

Corporate Governance and Competent Persons

IGO reports its results and estimates in accordance with ASX listing rules and JORC Code requirements. The MREs are reported according to increasing confidence JORC Code classes of Inferred, Indicated and Measured Resources, while OREs are reported in the increasing confidence classes of Probable or Proved Ore Reserves. IGO's public reporting governance ensures that the Competent Persons as defined in the prevailing JORC Code responsible for Public Reports:

- Are current members of a professional organisation that is recognised in the JORC Code framework
- Have sufficient mining industry experience that is relevant to the style of mineralisation and reporting activity to be a Competent Person as defined in the JORC Code
- Have provided IGO with a written sign-off on the results and estimates that are reported, stating that the report agrees with supporting documentation regarding the results or estimates prepared by each Competent Person
- Have prepared supporting documentation for results and estimates to a level consistent with normal industry practices – including the JORC Code Table 1 Checklists for any results and/or estimates reported.

IGO additionally ensures that any publicly reported results and/or estimates are prepared using accepted industry methods and using correct corporate guidance for metal prices and FX rates. On operating mines, IGO ensures that the estimation precision is reviewed regularly through a reconciliation comparing the MRE and ORE forecasts to mine production.

Estimates and results are also peer reviewed internally by IGO's senior technical staff before being presented to IGO's Board for approval and subsequent ASX reporting. Market sensitive or production critical estimates may also be audited by suitably qualified external consultants to ensure the precision and correctness of the reported information.

The table below is a listing of the names of the Competent Persons who are taking responsibility for reporting IGO's CY21 results and estimates. This Competent Person listing includes details of professional memberships, professional roles, and the reporting activities for which each person is accepting responsibility for the accuracy and veracity of IGO's CY21 results and estimates. Each Competent Person in the table below has provided IGO with a sign-off for the relevant information provided by each contributor in this report.



Competent Persons for IGO's CY21 JORC Code reportable estimates

Activity	Competent Person	Professional association		IGO relationship and role	Activity responsibility
		Membership	Number		
Mineral Resources	Paul Hetherington	MAusIMM	209805	Geology Superintendent (IGO)	Nova estimates
	Daryl Baker	MAusIMM	221170	Geology Superintendent (Talisson)	Greenbushes estimates
	Mark Murphy	MAIG/RPGeo	2157	Resource Geology Manager (IGO)	Silver Knight estimate
Ore Reserves	Greg Laing	MAusIMM	206228	Strategic Mine Planner (IGO)	Nova estimates
	Andrew Payne	MAusIMM	308883	Mine Planning Superintendent (Talisson)	Greenbushes estimates
CY21 report	Mark Murphy	MAIG/RPGeo	2157	Resource Geology Manager (IGO)	Annual report compilation

- *MAusIMM = Member of the Australasian Institute of Mining and Metallurgy and MAIG/RPGeo = Member of the Australian Institute of Geoscientists and Registered Professional Geoscientist.*
- *Information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on the information compiled by the relevant Competent Persons and activities listed above.*
- *All IGO personnel are full-time employees of IGO; all Talison personnel are full time employees of Talison.*
- *All the 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, and the activity being undertaken with respect to the responsibilities listed against each professional above, to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – the JORC Code 2012 Edition*
- *Each Competent Person listed above has provided to IGO by e-mail:*
 - *Proof of their current membership to their respective professional organisations as listed above*
 - *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 each Competent Person for the respective responsibility activities listed above; and*
 - *Confirmation that there are no issues that could be perceived by investors as a material conflict of interest in preparing the reported information.*

NOVA JORC CODE TABLE 1 CHECKLIST

SECTION 1 – NOVA – SAMPLING TECHNIQUES AND DATA	
JORC Criteria	Explanation
Sampling techniques	<ul style="list-style-type: none"> The Nova-Bollinger Deposit has been sampled using diamond drill holes (DD) on a nominal 12.5mE by 12.5mN grid spacing with a much lesser length of reverse circulation (RC) drilling. The CY20 Mineral Resource estimation (MRE) incorporates drilling completed up to 2 July 2020. A total of 11 RC, 248 surface DD and 1,865 underground DD holes were drilled for 2,148m, 105,373m and 278,950m, respectively. The holes drilled from surface are generally oriented towards grid west, but the plunge angles vary to optimally intersect the mineralised zones. The underground infill drilling took place from the hangingwall and footwall mine infrastructure. DD core drilling has been used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes. The RC drilling was completed in dry ground with generally good sample recovery. Sample representativity has been ensured by monitoring core recovery to minimise sample loss. Sampling was carried out under IGO protocols and quality control and quality assurance (QAQC) procedures consistent with good industry practices.
Drilling techniques	<ul style="list-style-type: none"> DD accounts for 99% of the drilling in the MRE area and comprises BQTK (40.7mm core diameter), NQ2 (50.7mm core diameter) or HQ (63.5mm core diameter) sized core. Surface drill hole pre-collar lengths range from 6 to 150m and hole lengths range from 50 to 1,084m. Where possible, the core was oriented using Camtech or Reflex Act III orientation tools. RC percussion drilling used a 140mm diameter face-sampling hammer drilling with RC representing 1% of the total drilling database. RC hole lengths range from 90 to 280m.
Drill sample recovery	<ul style="list-style-type: none"> DD recoveries are quantified as the ratio of measured core recovered lengths to drill advance lengths for each core-barrel run. RC recoveries are logged qualitatively from poor to good. Overall DD recoveries are on average $\geq 99\%$ for both the Nova and Bollinger areas and there are no core loss issues or significant sample recovery problems logged. RC samples were visually checked for recovery, moisture and contamination. For orientation marking purposes, the DD core from the Nova and Bollinger areas were reconstructed into continuous runs on an angle iron cradle. 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. There is no relationship between sample recovery and grade as there is minimal sample loss. The bulk of the Nova DD resource definition drilling has almost complete core recoveries. A sample bias due to preferential loss or gain of material is unlikely given the high core recovery.
Logging	<ul style="list-style-type: none"> Geotechnical logging at Nova-Bollinger was carried out on all DD holes for recovery, RQD and number of defects (per interval). 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. The information collected is considered appropriate to support any downstream studies by the Competent Person. 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. All DD core ore has been photographed in wet condition. Quantitative logging has been completed for geotechnical purposes. 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.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> DD core from Nova-Bollinger was subsampled over lengths ranging from 0.3 to 1.3m 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). All DD subsamples were collected from the same side of the core. The sample preparation of DD core involved oven drying (4-6 hrs at 95°C), coarse crushing in a jaw-crusher to 100% passing 10mm, then pulverisation of the entire crushed sample in Essa LM5 grinding mills to a particle size distribution of 85% passing 75 microns. The sample preparation for RC samples was similar but excluded the coarse crush stage. QC procedures involve insertion of certified reference materials, blanks, collection of duplicates at the coarse crush stage, pulverisation stage, assay stage, and barren quartz washes of equipment every 20 samples. The insertion frequency of quality control samples averaged 1:15 to 1:20 in total, with a higher insertion ratio used in mineralised zones. For RC samples, duplicates were collected from the 1m routine sample intervals using a riffle splitter. The primary tool use to monitor drill core representativeness was monitoring and ensuring near 100% core recovery.



SECTION 1 – NOVA – SAMPLING TECHNIQUES AND DATA

JORC Criteria	Explanation
	<ul style="list-style-type: none"> 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. The results of duplicate sampling are consistent with satisfactory sampling precision.
<p>Quality of assay data and laboratory tests</p>	<ul style="list-style-type: none"> MinAnalytical Laboratory Service Australia Pty Ltd was used for all assaying of the surface drill hole samples. 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 (BV). Intertek-Genalysis (Intertek) and ALS were used for check-assay work. 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. Surface drill hole samples: <ul style="list-style-type: none"> Samples collected using surface drilling were analysed using a four-acid digest multi element suite with ICPOES or ICPMS finish (25g or 50g FA-MS for precious metals). The acids used were hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica-based samples. The digestion method approaches total dissolution all but the most resistant silicate and oxide minerals. Total sulphur from surface drill holes was determined using a combustion furnace. Underground drill hole samples: <ul style="list-style-type: none"> Samples collected from underground DD have been analysed by mixing ~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 XRF. A pre-oxidation stage has been used to minimise the loss of volatiles in fusion. The digestion method is considered a total dissolution. No geophysical tools were used to determine any element concentrations. The laboratory completed sample preparation checks for particle size distribution compliance as part of routine internal quality procedures to ensure the target particle size distribution of 85% passing 75µm is achieved in the pulverisation stage. Field duplicates are inserted routinely at a rate of 1:20 samples and replicate results demonstrate good repeatability of results within the mineralised zones. Laboratory quality control processes include the use of internal lab standards, certified reference materials (CRMs), blanks, and duplicates. Umpire laboratory checks are 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. 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. 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.
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> Significant intersections from DD have been inspected and verified on multiple occasions by IGO's senior geological staff and Optiro's independent review consultants. The current mine development has intersected the mineralisation and the mine exposures are consistent with the observations from drilling intersections. Two PQ and one HQ metallurgical DD holes have been drilled at Nova since March 2013 and the logging of these holes is consistent with the geological and mineralisation domain interpretations from the MRE definition drilling. Three holes have been twinned. The twin hole results confirmed the prior hole geology. Primary data for both areas has been directly entered into an 'acquire' database via data entry templates on 'Toughbook' laptop computers. The logging has been validated by onsite geology staff and loaded into a structured query language (SQL) database server by IGO's Database Administrator. Data is backed up regularly in off-site secure servers. 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.
<p>Location of data points</p>	<ul style="list-style-type: none"> The collar locations of surface holes were surveyed by Whelan's Surveyors of Kalgoorlie who used real-time kinematic global positioning system (RTK GPS) equipment, which was connected to the state survey mark (SSM) network. 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 (RL) for the mine coordinate grid. The expected survey accuracy is ± 30mm in three dimensions. 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. 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 ±0.25° in azimuth and ±0.05° in inclination. Down hole survey QAQC working involved field calibration using a test stand. Underground holes collar locations were surveyed by IGO's mine surveyors using Leica TS15P total station units. The underground drill hole paths were surveyed using reflex single shot surveys with readings taken every 30m down hole. 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 dip. The expected accuracy is ±0.2° in azimuth and ±0.1° in inclination. Only gyro and Deviflex data has been used for MRE work.



SECTION 1 – NOVA – SAMPLING TECHNIQUES AND DATA

JORC Criteria	Explanation
	<ul style="list-style-type: none"> The grid system for Nova-Bollinger is Map Grid Australia (MGA) Zone 51 projections and a modified AHD94 datum (local RL has 2,000m added to value). Local easting and northing coordinates are in MGA. The topographic surface for Nova-Bollinger is a 2012 Lidar survey with 50cm contours, which is acceptable for mine planning and MRE purposes.
Data spacing and distribution	<ul style="list-style-type: none"> The nominal drill hole mineralisation pierce point spacing is 12.5mN by 12.5mE. 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. 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.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Both Nova and Bollinger 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. Structural logging of oriented core indicates that the main sulphide controls are usually perpendicular to the average drill orientation. Due to the constraints of infrastructure location a small number of holes are oblique to the Conductor 5 (C5) mineralisation at the northern margin of the deposit. The Competent Person considers that there is no material level of orientation-based sampling bias in the Nova-Bollinger MRE.
Sample security	<ul style="list-style-type: none"> The sample chain-of-custody is managed by IGO. 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. Whilst in storage, samples are kept in a locked yard. Tracking sheets are used to track the progress of batches of samples. 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. The Competent Person considers that risk of deliberate or accidental loss or contamination of samples is low.
Audits or reviews	<ul style="list-style-type: none"> A review of the sampling techniques and data was carried out by Optiro consultants as part of prior MRE and onsite in September 2016. An independent audit of the database was carried out in February 2018 by Optiro. Optiro has provided confirmation that it considers that the MRE database is of sufficient quality for MRE studies.

SECTION 2 – NOVA – EXPLORATION RESULTS

JORC Criteria	Explanation
Mineral tenement and land tenure status	<ul style="list-style-type: none"> The Nova-Bollinger Deposit is wholly within WA Mining Lease M28/376. This tenement is 100% owned by IGO Nova Pty Ltd – a wholly owned subsidiary of IGO. The tenement is held by IGO Nova Pty Ltd and expires on 14/08/2035. The IGO tenements are within the Ngadju Native Title Claim (WC99/002). There are no third-party rights or encumbrances on Nova. Native title royalties are outlined in the Ngadju Mining Agreement. The WA State royalties are paid in accordance with the Mining Act 1978 (WA). IGO has provided the Competent Person with written assurance that the tenement is in good standing and no known impediments exist.
Exploration done by other parties	<ul style="list-style-type: none"> Sirius Resources NL (Sirius) explored for base metal deposits in the Fraser Range area over a three-year period and discovered the Nova area deposit July 2012, with Bollinger discovered shortly after. No previous systematic exploration was carried out in this area prior to the 2012 discovery.
Geology	<ul style="list-style-type: none"> The global geological setting is the high-grade metamorphic terrane of the Albany Fraser mobile belt of Western Australia. The Nova-Bollinger (Ni-Cu-Co) deposit is hosted by Proterozoic age gabbroic intrusions that have intruded a metasedimentary package within a synformal structure. 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. The main sulphide mineral is pyrrhotite, with nickel and cobalt associated with pentlandite and copper associated with chalcopyrite. 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.
Drill hole Information	<ul style="list-style-type: none"> 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. Representative intercepts have been reported in previous IGO Public Reports.
Data aggregation methods	<ul style="list-style-type: none"> No drill hole related exploration results are included in this Public Report for the Nova-Bollinger MRE. Samples were aggregated into 1m long (optimised) composites for MRE work.



SECTION 2 – NOVA – EXPLORATION RESULTS

JORC Criteria	Explanation
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> The Nova area of the Nova-Bollinger Deposit 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. 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.
Balanced Reporting	<ul style="list-style-type: none"> The MRE gives the best and most balanced view of the drilling and sampling to date.
Other substantive exploration data	<ul style="list-style-type: none"> For this active mine there is no other substantive exploration data material to the MRE.
Diagrams	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Further DD of targets proximal to the mine with subsequent geophysical survey work.

SECTION 3 – NOVA – MINERAL RESOURCES

JORC Criteria	Explanation
Database integrity	<ul style="list-style-type: none"> 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. Data transfer and assay loading has been electronic. Sample numbers are unique and pre-numbered bags were used. 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. IGO's geological staff have validated the data under the direction of the Acquire Database Administrator using IGO's protocols. The data for the Nova-Bollinger MRE is stored in a single acquire database.
Site visits	<ul style="list-style-type: none"> The Competent Person for the MRE is the Geology Superintendent for Nova and as such has detailed knowledge of the data collection, estimation, and reconciliation procedures for this MRE.
Geological interpretation	<ul style="list-style-type: none"> The confidence in the geological interpretation of Nova-Bollinger is considered high in areas of close-spaced drilling. Nearly full development of the mine has added substantially to the geological understanding of the deposit through mapping of drives and cross cuts. Inferred Mineral resources make up a very small proportion of the tonnage (< 0.4%). 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. 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). 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. The Nova-Bollinger deposit is generally tabular geometry, with geological characteristics that define the mineralised domains. The current interpretation is geologically controlled and supported by the new drilling and underground development. Geological controls and relationships were used to define grade estimation domains with hard boundary constraints applied on an estimation domain basis. The Nova-Bollinger breccia zones have mixed grade sample populations due to spatial mixing of massive sulphides and mineralised clasts within these domains. 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. The spatial continuity of high and low MgO geological units has assisted in refining contact relationships.
Dimensions	<ul style="list-style-type: none"> The Nova area mineralisation commences from 40m below surface and extends to 470m below surface. The Nova area extents are ~650m (northeast to southwest) and ~300m (northwest to southeast). The Bollinger mineralisation abuts the Nova zone and starts at ~360m below surface (highest point) and extends to ~425m below surface. Bollinger has areal extents of ~300m long (north) and ranges from 125m to 400m wide (east). The Nova and Bollinger zones are joined by an interpreted narrow east-west trending feeder 'Mid' zone that has a length of ~180m, thickness of 10 to 20m and north-south width of up to 80m.



SECTION 3 – NOVA – MINERAL RESOURCES	
JORC Criteria	Explanation
Estimation and modelling techniques	<ul style="list-style-type: none"> • Metal accumulations (grade × density) for Ni, Cu, Co, Fe, Mg, S and in situ density were estimated into the Nova-Bollinger digital block model using the Ordinary Block Kriging (OBK) routines implemented in Datamine Studio RM version 1.6.87.0. Block grades were then back calculated by dividing each accumulation by the density for local estimates. • The estimation drill hole sample data was coded for estimation domain using the three-dimensional wireframe interpretations prepared in LeapFrog Geo 5.4.0 software. • The drill 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. • The influence of high-grade distribution outliers was assessed to be negligible, and no top cuts have been applied to the final estimate. • Estimates were prepared using Datamine's dynamic anisotropy algorithm to optimise the grade connectivity in the often-undulating domain geometry. • 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. The maximum range of grade continuity varied and was found to be deposit/domain dependant. Typically, maximum continuity ranges varied from 20m to 180m in the major direction dependent on mineralisation style. • Estimation sample searches were set to the ranges of the nickel 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 <0.3% of the total tonnage, approximately 60% of the Inferred Mineral Resource is extrapolated greater than 30m beyond the data. • This estimate is an update of the prior MREs for Nova-Bollinger. • Reconciliation information is largely based on results of processing ore from development headings and stopes. Refer to the item on accuracy further below for reconciliation factors. • The main by-product of the nickel and copper co-products is cobalt. Cobalt value is dependent on any off-take agreement and may realise a credit. • The accessory grades estimated in the update are Fe%, Mg% and S%. No specific acid-mine drainage variable has been estimated but sulphur can be used as a proxy where needed. • A single digital block model for Nova-Bollinger was prepared in Datamine Studio RM using a 6 mE by 6mN by 2mElv parent block size with sub-blocks permitted down to dimensions of 1.0 mE by 1.0 mN by 0.5mRL. • All block grade estimates were completed at the parent cell scale. Block discretisation was set to six by six by two nodes per block for all domains. • The dimensions of the sample search ellipse per domain was set based on the nickel variography parameters, due to the moderate to strong correlations between nickel with the other variables estimated. • Two estimation search passes were applied to each domain. The first estimation pass had ranges set to the nickel semi-variogram maximum with a requirement to find minimum of six and maximum of 36 samples for a block to be estimated. Sample selection was limited to three samples per hole. In the estimation second pass, the search ranges were doubled. • In the 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. • No assumptions regarding selective mining units were made in this estimate. • 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 nickel domains. • The geological interpretation modelled the sulphide mineralisation into geological domains at Nova- Bollinger. The deposit framework incorporates gabbroic intrusives, high and low magnesium intrusive units, deformation partitioning, folding, sulphide remobilisation, brecciation and replacement. • These form a complex deposit where geological relationships are used to define mineralisation domain geometries and extents. Grade envelopes are not applied, apart from reference to the natural $\geq 0.4\%$ Ni cut-off that appears to define the extents of the global mineralised system. • The boundaries of mineralised domains were set to hard boundaries to select sample populations for variography and estimation. • The statistical analyses of the drill hole sample populations in each domain generally have low coefficients of variation with no extreme values that could potentially cause local grade biases during estimation. • Validation of the block model volumes was carried out using a comparison of the domain wireframes volumes to the block model volumes. Grade/density validation included comparing the respective domain global mean grades of block model grades to the estimation drill hole composites, and moving window mean grade comparisons using swath plots within northing, easting and elevation slices. • Visual validation was completed on screen to review that the input data grade trends were consistent with the output block estimate trends. • The final mine depleted estimates were reported out of two different software systems and checked by both the Competent Person and IGO senior technical staff for accuracy. • Refer further below to the item on estimation accuracy for model to mill reconciliation results.
Moisture	<ul style="list-style-type: none"> • The tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> • The MRE is reported using $\geq A\\$54.0/t$ Net-Smelter-Return (NSR) block cut-off as a proxy for a break-even level between mining development cost and incremental stopping cost.

SECTION 3 – NOVA – MINERAL RESOURCES	
JORC Criteria	Explanation
Mining factors or assumptions	<ul style="list-style-type: none"> Mining of the Nova-Bollinger Deposit is, and will be, by underground mining methods including mechanised mining, open stoping and/or paste backfill stoping.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The ore processing method at Nova-Bollinger is well-established with a crushing, grinding and flotation flow sheet with metals recovered to either a nickel-copper-cobalt concentrate or a copper rich concentrate. 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. For the total MRE the recovery ranges from 85% to 89% for all payable metals.
Environmental factors or assumptions	<ul style="list-style-type: none"> All necessary environmental approvals have been received. Sulphide tails are being pumped to a specific waste storage facility and non-sulphide tails are used in paste backfill. 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. For the waste dump at surface, any potentially acid forming (PAF) waste is tipped on a prepared pad of inert waste, then encapsulated in inert waste at the end of the mine life.
Bulk Density	<ul style="list-style-type: none"> In situ density measurements were carried out on 43,209 core samples using the Archimedes Principle method of dry weight versus weight in water. 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. Density standards were used for QAQC using an aluminium billet and pieces of core with known values. Pycnometer density readings (from sample pulps) were carried out for 21,632 samples by assay laboratories to accelerate a backlog of density samples. A comparison of 263 samples from holes 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 in situ bulk density. The density difference between methods was not considered to be material to the MRE. The density ranges for the mineralised units are: Massive sulphides 2.0-4.7g/cm³ (average: 3.9g/cm³), net textured sulphides 3.0 - 4.4g/cm³ (average: 3.6g/cm³) and disseminated sulphides 2.5-4.6g/cm³ (average: 3.5g/cm³). The host geology comprises high grade metamorphic rocks that have undergone granulite facies metamorphism. The rocks have been extensively recrystallised and are very hard and competent. Vugs or large fracture zones are generally annealed with quartz or carbonate in breccia zones. Porosity in the mineralised zone is low. As such, voids have been accounted for in all but the pycnometer density measurements. Missing density measurements were imputed using a multiple element regression on a domain basis. 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 used to calculate the density for any missing values prior to estimation of in situ bulk density using OBK.
Classification	<ul style="list-style-type: none"> 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. Estimation parameters, including conditional bias slope of regression have also been utilised during the classification process, along with the assessment of geological continuity. 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. The Inferred Mineral Resource category was applied to isolated lenses of mineralisation in the upper levels of Nova, the tonnage represents <0.4% of the total MRE. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in situ mineralisation. Geological control at Nova-Bollinger consists of a primary mineralisation event modified by metamorphism and structural events. 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. 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. The MRE appropriately reflects the view of the Competent Person.
Audits or reviews	<ul style="list-style-type: none"> This is an update of the prior estimate for Nova-Bollinger and has been extensively reviewed internally by IGO geologists. 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.



SECTION 3 – NOVA – MINERAL RESOURCES	
JORC Criteria	Explanation
Relative Accuracy/Confidence	<ul style="list-style-type: none"> The MRE for Nova-Bollinger has been estimated using standard industry practices for the style of mineralisation under consideration. 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. 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. Production data has provided a satisfactory assessment of the actual accuracy compared to the estimate for development and stoping ore. The Measured and Indicated Resources are considered suitable for Ore Reserve conversion studies and should provide reliable ($\pm 15\%$) estimates for quarterly and annual production planning, respectively. The Inferred Mineral Resource estimates identify one area that requires further drilling and assessment before it can be considered for mine planning. Total ore processed from Nova-Bollinger to 31 December 2021 has been ~7.4Mt grading 2.03% Ni, 0.085% Cu and 0.07% Co. Mine-claimed ore from the model update is ~7.3Mt grading 2.21% Ni, 0.89% Cu, 0.07% Co, with ~54kt on ROM stockpiles on 31 December 2021. 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. The reconciliation factors indicate that the MRE may be an optimistic predictor of grade, however there is a continued trend of improvement of reconciliation against the MRE.

SECTION 4 – NOVA – ORE RESERVES	
JORC Criteria	Explanation
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> The MRE used for the Nova-Bollinger Ore Reserve estimate (ORE) is the estimate described in the section above relating to Mineral Resources. The MRE model was coded with in situ NSR values that account for corporate directed metal prices, 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. The MRE reported for CY21 is nominally inclusive of the CY21 ORE, except for where the ORE includes dilution below MRE reporting cut-off.
Site Visits	<ul style="list-style-type: none"> The Competent Person for the estimate is IGO's Strategic Mine Planner and has detailed knowledge of the mining methods, costs, schedule and other material items relating to ORE work for this estimate, with previous position being the site-based role of Superintendent Planning. The Competent Person's most recent visit to site was 22-23 September 2021.
Study Status	<ul style="list-style-type: none"> The Ore Reserves have been designed based on the current operational practices of the operating mine. All Ore Reserves were estimated by construction of three-dimensional mine designs using DESWIK.CAD software (Version 2021.2) and reported against the updated MRE block model. After modifying factors are 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. Previous mine performance has demonstrated that the current mining methods are technically achievable and economically viable. The modifying factors are based on historical data, with the current mining methods planned to continue for future mining. As Nova is an ongoing concern the study level can be considered better than a Feasibility Study level.
Cut-off parameters	<ul style="list-style-type: none"> 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, G&A, product delivery), metallurgical recoveries, sustaining capital, concentrate metal payabilities and treatment charges, transport costs and royalties. 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. All designed stopes and development are then assessed individually to verify that they are above the NSR cut-off and can be economically mined. The NSR cut-off are A\$128/t for full stoping and A\$74/t for incremental stoping. For development, the NSR cut-off is A\$34/t.

SECTION 4 – NOVA – ORE RESERVES	
JORC Criteria	Explanation
Mining factors or assumption	<ul style="list-style-type: none"> • The mining methods assumed for the Ore Reserve 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 has been considered in the ORE. • Geotechnical parameters are based on recommendations made in the Nova-Bollinger Feasibility Study (FS) prepared in 2014. No material geotechnical issues have been encountered in mining to date. • Three-dimensional mine designs are designed based on known information about the mineralised zones based on physical characteristics and the geotechnical environment. • The designs are consistent with what has been in practice with ore loss and dilution modifying factors based on MRE to plant reconciliation results. The reconciliation factors are applied directly onto the in situ grades of the MRE model, to generate tonnes and grade estimates expected to be delivered to the processing plant (1.0658× for density, 0.9050× for Ni grade, 0.9615× for copper grade and 1.0193× for cobalt grade). A minimum mining width of 3.0m was used for all stoping. • Current infrastructure supports mining of the ORE. Any additional capital required has been included in the cost model. • 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. 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. The total Inferred Mineral Resource tonnage included in the ORE by this process is immaterial to the ORE (<1kt ore).
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • The metallurgical process for Nova-Bollinger ores is already 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 1.2% Ni. • The throughput rate assumed is 1.55Mt/a. • Metallurgical recovery values are based on the Nova 2014 FS testwork and are dependent on grade. Current recoveries being achieved are at ~87% for nickel and at ~88% for copper. • 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. • 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.
Environmental	<ul style="list-style-type: none"> • The Nova-Bollinger deposit was discovered in July 2012 and studies were initiated shortly afterwards to establish baseline environmental conditions. • 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. • Following the granting of mining tenure, Mining Proposals for Stage 1 and Stage 2 of Nova were submitted to the then DMP, approved at the end of 2014, enabling construction to begin in January 2015. • All necessary operational licences were secured including clearing permits and groundwater extraction. • 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. • Potentially acid-generating mine development rock (containing >0.6% S) is either used as rock-fill in some completed stopes or encapsulated in non-acid generating rock in the mine waste dump. • Nova maintains a compliance register and an environmental management system to ensure it fulfils its regulatory obligations under the Nova Environmental Protection Act licence. • A mine closure plan is in place to address full rehabilitation of the site once mining activities are completed.
Infrastructure	<ul style="list-style-type: none"> • 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 air strip with 100-seat jet capacity. • The owner and contractor personnel are sourced from Perth and work on a fly-in-out basis.



SECTION 4 – NOVA – ORE RESERVES	
JORC Criteria	Explanation
Costs	<ul style="list-style-type: none"> All major capital costs associated with Nova infrastructure are already spent. Sustaining capital costs for the decline development and stope accesses are based on operational experience to date. Operating costs for the ORE are based on budget estimates from a reputable mining contractor and experienced independent consulting firms, and historical operating costs. 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. Product prices assumed for the ORE are discussed further below. Foreign exchange rates are based on in-house assessments of Bloomberg data with an assumption of 0.76 A\$/US\$ Concentrate transport costs have been estimated by a logistics consultant with shipping cost from Esperance estimated by an experienced shipping Broker. Treatment and refining charges, applicable to offshore shipments, are based on the confidential terms of sales contracts. 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. IGO also pays a royalty to the Ngadju traditional owners.
Revenue Factors	<ul style="list-style-type: none"> Head grades and concentrate produced is determined by the mine plan. NSR values per mined block were calculated by IGO from the cost and revenue inputs. Treatment, refining and transport assumptions are discussed under costs (above) Commodity prices are based on IGO in-house assessments of Consensus Economics data with prices of A\$64,170/t for cobalt, A\$9,700/t for copper and A\$22,120/t for nickel metal, using the exchange rate discussed above for currency conversions from US\$ prices. Different metal prices have been assumed for MRE and ORE reporting, refer to the discussion in the main report.
Market assessment	<ul style="list-style-type: none"> The inputs into the economic analysis for the Ore Reserve update have already been described above under previous subsections. 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. The confidence of the economic inputs is high given the input sources at the time of the Ore Reserve study. The confidence in metal prices and exchange rates is consistent with routine industry practices with the data derived from reputable forecasters.
Economic	<ul style="list-style-type: none"> The discount rate used for NPV calculations was 10% per annum and the NPV is strongly positive at the assumed payable metal prices. This ORE is supported by a full financial model completed during FY22
Social	<ul style="list-style-type: none"> The Nova-Bollinger Deposit was discovered in July 2012 and development of the site commenced in January 2015 following regulatory approval in December 2014. 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. WA Mining lease M28/376 covers all the Nova mining, process and support infrastructure. IGO has all the necessary agreements in place with key stakeholders and has both statutory and social licence to continue operation of Nova for the life of mine.
Other	<ul style="list-style-type: none"> There are no material naturally occurring risks associated with Nova. There are no material legal agreements or marketing arrangements not already discussed in prior sub sections. All necessary government and statutory approvals are in place. There are no unresolved third-party matters hindering the extraction of the Ore Reserve. Additional water bores are required to ensure water security and exploration for an additional bore field in in progress.
Classification	<ul style="list-style-type: none"> The Ore Reserve has been classified into the Proved and Probable Ore Reserve JORC Code classes based on the underlying Mineral Resource classification in the Mineral Resource model, with Indicated Mineral Resources converted to Probable Ore Reserves. Due to the large dimensions of many stopes, the same stope can contain more than one MRE class. As such, stopes where $\geq 95\%$ of the contained MRE tonnage is classified as Measured Resource have been classified as Proved Ore, those with $\geq 95\%$ Indicated Resource classified as Probable Ore Reserve. In development, Measured Resources have been converted to Proved Reserves and Indicated Resource converted to Probable Ore Reserves. The classifications applied to the estimate are consistent with the opinion of the Competent Person reporting the ORE.
Audits and reviews	<ul style="list-style-type: none"> The estimate has been reviewed internally by Nova's senior mine engineering staff and IGO's Perth office technical staff. Mine planning consultants Deswik have independently reviewed the ORE for end of CY19 with no material issues identified. The process undertaken for end of CY21 was substantially similar.



SECTION 4 – NOVA – ORE RESERVES	
JORC Criteria	Explanation
<p>Discussion of relative accuracy/confidence</p>	<ul style="list-style-type: none"> • No statistical or geostatistical studies, such as conditional simulations, have been completed to quantify the uncertainty and confidence limits of the estimates. • Confidence in Ore Reserve inputs is generally high given the mine is in full operation and costs, prices, recoveries and so on are well understood. • The Ore Reserve 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. • 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. • 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. Ore Reserve to Actual reconciliation continues to perform well with this approach.



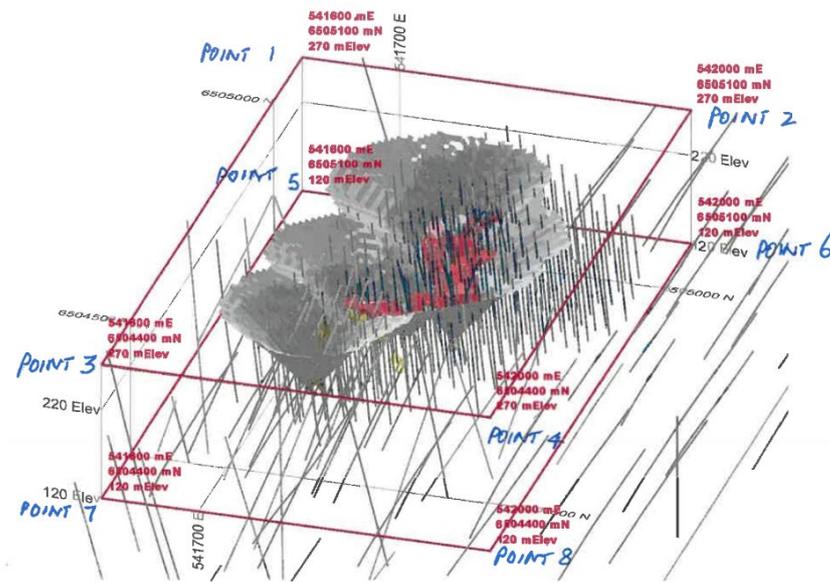
SILVER KNIGHT JORC CODE TABLE 1 CHECKLIST

SECTION 1 – SILVER KNIGHT – SAMPLING TECHNIQUES AND DATA

JORC Criteria	Explanation
Sampling techniques	<ul style="list-style-type: none"> Within the volume to which IGO has the rights to mine known as the Silver Knight Agreement Volume (SKAV), the Silver Knight Deposit has been sampled by Great Southern Nickel Ltd (GSN) using reverse circulation percussion drilling (RC) on section line that are rotated ~40° clockwise from the regional grid. GSN also completed diamond drilling (DD) within the SKAV GSN with variable directions drilled, with some DD samples used for metallurgical testing. The CY21 Mineral Resource Estimate (MRE) incorporates RC and DD drill hole information. GSN used geological supervision and recovery monitoring on both types of drilling to ensure sample representativity.
Drilling techniques	<ul style="list-style-type: none"> RC: <ul style="list-style-type: none"> GSN completed 210 RC drillholes collared at surface on a nominal 25mE by 25mN grid spacing on section lines that are rotated ~40° clockwise from the regional grid. The total length of RC drilling in the SKAV is 19,644.9m. Nearly all RC drill hole paths generally plunge 80°→130°, with a few vertical holes Samples were collected from 114 to 142mm diameter (4.5 to 5.6 inch) holes which were drilled using face-sampling bits. Three different drilling contractors completed the drilling. DD: <ul style="list-style-type: none"> GSN completed DD drilling collared at surface on variable spacings and plunges. The total length of DD drilling in the SKAV is 5,953.89m. A variety of core diameters were drilled including HQ (63.5mm), HQ3 (61.1mm), NQ (47.6mm), NQ2 (50.6mm), PQ3 (83.0mm) diameters. The majority of core was HQ diameter. Metallurgical samples were collected using triple tube method to maximise sample recovery. Some core was oriented to facilitate structural analysis.
Drill sample recovery	<ul style="list-style-type: none"> RC: <ul style="list-style-type: none"> GSN logged qualitative recovery for RC drilling and additionally weighed the samples received at the laboratory as a proxy for recovery over 1m down hole intervals. GSN recorded that 98.5% of samples collected by RC occurred in dry ground and drilling conditions. IGO is yet to fully review the recovery information but accepts GSN conclusions of acceptable recovery for the current MRE JORC Code classifications. DD: <ul style="list-style-type: none"> GSN recorded DD recovery in the usual manner of length of core recovered over drill length. GSN reported that DD recovery averaged 99% recovery for DD. IGO is yet to fully review the recovery information but accepts GSN conclusions of acceptable recovery for the current MRE JORC Code classifications. GSN concluded there is no relationship between recovery and grade due to the high overall recoveries. IGO is yet to confirm the conclusion but has accepted GSN recovery interpretations for the JORC Code classification currently applied to the MRE.
Logging	<ul style="list-style-type: none"> GSN logged RC and DD drilling following industry normal methods collecting qualitative information on weathering, mineralogy, mineralisation, alteration, colour and so on. DD core was additionally logged in a quantitative manner in terms of structure and geotechnical parameters. Core photography is available for all DD core but not for RC chip trays – IGO is planning to capture RC chip images as part of the FS work. The total length of all drill holes have been logged.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> RC: <ul style="list-style-type: none"> GSN collected RC sub-samples in the field using static cone splitting devices, with a nominal sampling interval of 1m down hole. IGO's review of GSN's length data confirmed the 95% of RC intervals were 1m, with a few longer intervals of 2m and 3m sampled, presumably in waste zones. The average mass split was 1 to 3kg – IGO is yet to review the GSN's mass data with respect to expected in situ mass for given hole diameter but range is deemed acceptable for the JORC Code classifications applied to the MRE. GSN states that 98.5% of RC samples were collected from what was deemed by GSN to be dry ground. At Intertek Genalysis Laboratory (IGL) in Perth GSN's RC samples were dried in a laboratory oven for 12hrs at 105°C. The samples were then crushed to a particle size distribution (PSD) of 10% passing 10mm in diameter, A 300g lot was then split from the crushed lot and then pulverised to a PSD of 95% passing 75µm, GSN did not describe the crushing, grinding and splitting equipment used but IGO accepts that it is likely industry standard equipment is installed at the primary laboratory.

SECTION 1 – SILVER KNIGHT – SAMPLING TECHNIQUES AND DATA	
JORC Criteria	Explanation
	<ul style="list-style-type: none"> – GSN’s MRE consultant prepared scatterplots of original versus replicate field samples for RC and the results generally demonstrate good precision for nickel grade. No information was presented for copper or cobalt. IGO is yet to review in detail the duplicate precision of field and laboratory duplicates but has accepted the precision appears reasonable for the current MRE. • DD: <ul style="list-style-type: none"> – GSN sampled DD core using a target sample length of 1m over the same geology, but with sampling intervals varied to truncate at geological contacts of interest. – Within the SKVA, sample lengths ranged from 0.01m to 1.6m with a mean length of 0.73m, median length of 0.5m and 90% interval ranging from 0.1m to 1.05m – The DD core was cut at GSN’s field facility using a wetted diamond encrusted blade, with half core samples in most instances but with whole core submitted for some holes, such as metallurgical testing samples. – GSN does not detail the laboratory preparation for DD samples but based on the laboratory codes in the database provided IGO has assumed the DD samples underwent the same preparation protocol as described above for RC samples. – GSN adopted industry normal quality control methods as per the RC samples. • The primary tool GSN used to monitor sample representativeness was monitoring and ensuring near 100% recovery. GSN also applied industry normal sampling protocols to ensure rig-splitters were cleaned regularly and dispatch samples bagged correctly in a manner that avoided potential cross contamination and any sample mix-ups between samples. • 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. • IGO considers that GSN’s results of duplicate sampling are consistent with satisfactory sampling precision.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • GSN despatched DD and RC samples to IGL in Perth WA for sample preparation and analysis. • No geophysical tools, spectrometers or handheld XRF instruments were used for assays related to the MRE, albeit handheld XRF was used identify potentially anomalous samples in the logging process. • Following sample preparation to a pulp, an aliquot of pulp (mass not reported by GSN) was digested using a four-acid digestion, which is considered a total analysis digestion of the principal sulphide and oxide Ni-Cu-Co bearing minerals at Silver Knight. • The redissolved digestion salts were then analysed through an inductively coupled plasma (ICP) flame with concentration of analytes read by optical emissions spectroscopy (ICP-OES) or alternatively mass spectroscopy (ICP-MS). • Gold and platinum group metals were also assayed by fire assay method but are not included in the MRE due to their sub economic concentrations. • GSN’s laboratory quality control processes include the use of, certified reference materials (CRMs), blanks, and duplicates. • GSN concluded that all quality control checks were acceptable. IGO is yet to verify this conclusion as the data re-loading into IGO database is still in progress. However, IGO accepts GSN’s quality control conclusions for this public report and the JORC Code classification applied to the MRE. • No umpire laboratory checks were carried out.
Verification of sampling and assaying	<ul style="list-style-type: none"> • Significant intersections from DD have been inspected and verified by GSN senior geological staff, GSN’s MRE consultants and IGO during its due diligence for acquisition. • There are several twin and scissor DD – RC twin holes that have been drilled and GSN considered these twins demonstrated ‘good continuity’. IGO is yet to carry out a detailed analysis of twin holes but a brief on-screen inspection generally agrees with GSN conclusion that there is reasonable continuity between nearby holes. • GSN’s details as to primary data, data entry procedures, data verification and data storage (physical and electronic) protocol are scant. Descriptions on GSN’s MRE documentation indicated data were imported into a OCRIS database system which was managed by a database consultancy. IGO is in the process of re-loading all data from primary data files into IGO’s acQuire database system. Based on IGO’s initial assessment of the information provided by GSN, the data appears to be reasonably consistent with industry norms and IGO has accepted the information for preliminary MRE work. • IGO reset below detection limit values to half-detection limit for MRE work.
Location of data points	<ul style="list-style-type: none"> • GSN’s MRE consultant states that surface collar coordinates were surveyed using DGPS equipment. However, IGO found that several drill holes appear to still have nominal elevations with respect the topography surfaces. As such, IGO manually adjusted these collars to the digital topography and will re-survey all collar locations prior to the next MRE revision. However, IGO has accepted the precision is reasonable for the current MRE and JORC Code classifications applied. • GSN’s MRE consultant states a high quality down hole gyroscopic tool to determine the RC and DD holes. No details of equipment are described. IGO has accepted the information for the current MRE due to the shallow overall depth of the MRE SKAV. • The grid system used for the drilling is MGA94 Zone 51. • GSN’s MRE consultant does not state the elevation system – presumably this is AHD. • GSN’s MRE consultant states a photogrammetric survey was flown in 2018 but was not available for MRE work and therefore created a topography derived from collar surveys. IGO has used the same topography for the current MRE, which is acceptable for the JORC Code classifications applied.
Data spacing and distribution	<ul style="list-style-type: none"> • The nominal drill hole mineralisation pierce point spacing is 25m by 25m on section grid lines oriented 40° clockwise from MGA94 Zone grid easting. • The data spacing is adequate for MRE work and is confirmed to as such by grade continuity analyses (variography). • Down hole sample intervals are reasonable in both RC and DD drilling to be composited to a 1m length for MRE work.

SECTION 1 – SILVER KNIGHT – SAMPLING TECHNIQUES AND DATA	
JORC Criteria	Explanation
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> The orientation of the sulphide mineralisation and geology is effectively quasi-horizontal so the drilling plunges of generally 80°→ 130° is highly unlikely to invoke any sampling bias due to drill hole orientation.
Sample security	<ul style="list-style-type: none"> The sample chain-of-custody was managed by GSN. Samples were stored on site and collected by a road haulage contractor and delivered to their depot in Perth, then to the main assay laboratory. The Competent Person considers that risk of deliberate or accidental loss or contamination of samples is low.
Audits or reviews	<ul style="list-style-type: none"> GSN's MRE consultant reviewed GSN's drilling and sampling procedures in 2018 and concluded that the methods applied by GSN were consistent with industry norms. IGO reviewed the site, residual drill core and RC cuttings as part of its acquisition due diligence in 2020 and found the physical residual information also consistent with industry norms for the style of deposit under consideration.

SECTION 2 – NOVA – EXPLORATION RESULTS	
JORC Criteria	Explanation
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Silver Knight is wholly within WA Mining Lease application M28/395, which was applied for by GSN on 20 July 2018, and has total area of 6,153ha. The mining lease application is over part of exploration licence E28/2065, which is also held by Great Southern Nickel Pty. Ltd., which expires on 12 June 2022. The M28/395 application is within Ngadju Native Title Claim (WC99/002). Under the terms of the agreement between IGO and GSN IGO has a 100% interest in an 'Exclusive Area' defined by the eight coordinates listed in the image below (MGA Zone 51 and AHD). This Exclusive Area, which is effectively a volume, has been referred to above as the SKAV. IGO additionally acquired 100% interest in GSN's Silver Knight exploration camp. 
Exploration done by other parties	<ul style="list-style-type: none"> Prior explorers Homestake Gold in JV with Geographe Resources explored for gold near Silver Knight in the 1990s with some limited drilling completed on a prospect 4km northwest of Silver Knight. Creasy Group subsidiary Ponton Minerals subsequently acquired the tenure over Silver Knight in 2007 as tenement E28/1723 but surrendered the tenure in 2007 following limited work. GSN then acquired the tenure in 2012 as tenement E28/2065 just prior to the discovery of the Nova-Bollinger Deposit.



SECTION 2 – NOVA – EXPLORATION RESULTS	
JORC Criteria	Explanation
Geology	<ul style="list-style-type: none"> The global geological setting is the high-grade metamorphic terrane of the Albany Fraser mobile belt of Western Australia. The host rocks of the Silver Knight deposit consist of a suite of gabbro-norite cumulates. These units are interpreted to have been emplaced as layered sills in an extensional sedimentary basin during the late stages of breakup of continental crust and formation of a volcanic passive margin, akin to the modern East Greenland margin 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. Nickel-copper-cobalt sulphide mineralisation at Silver Knight is interpreted to be related to and part of, the emplacement of the gabbroic intrusive host rocks, which have subsequently been deeply weathered, resulting in supergene enrichment and dispersion of the nickel-copper-cobalt mineralisation. The fresh main sulphide mineral is pyrrhotite, with nickel and cobalt associated with pentlandite and copper associated with chalcocopyrite. Secondary sulphide minerals are violarite, pyrite/marcasite.
Drill hole Information	<ul style="list-style-type: none"> As this is an advanced stage report related to an MRE nearing production, it is impractical to list drill information for the numerous drill holes used in the estimate. A 3D image of the drill hole locations relative to the interpreted sulphide mineralisation is included in the main body of the ASX announcement.
Data aggregation methods	<ul style="list-style-type: none"> No drill hole related exploration results are included in this Public Report. Samples were aggregated into 1m long (optimised) composites for MRE work. No metal equivalent values reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> No drill hole related exploration results are included in this Public Report. 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.
Balanced Reporting	<ul style="list-style-type: none"> The MRE gives the best and most balanced view of the drilling and sampling to date.
Other substantive exploration data	<ul style="list-style-type: none"> GSN completed metallurgical testing on selected DD core samples. The material results of this testing are discussed in Section 3 of this Table 1 under Metallurgical assumptions. In situ density measurements are discussed in Section 3 of this Table 1 under Density. Silver Knight may contain acid generating waste rocks, which will need to be encapsulated in mine waste landforms.
Diagrams	<ul style="list-style-type: none"> Representative diagrams of the Silver Knight drilling, geological interpretations and reporting constraints are included in the main body of this Public Report.
Further work	<ul style="list-style-type: none"> IGO is preparing an in-house Feasibility Study (FS) for the development and exploitation of Silver Knight. A program of DD drilling to collect fresh metallurgical samples was completed in December 2021, with testing scheduled for early 2022. The extents of the Silver Knight Deposit are fully closed off by the current drilling with IGO having no expectation of definition of extensions of the known mineralisation with the SKAV.

SECTION 3 – SILVER KNIGHT – MINERAL RESOURCES	
JORC Criteria	Explanation
Database integrity	<ul style="list-style-type: none"> GSN's MRE consultant states the database has been audited by GSN's geologists. IGO is in the process of re-loading all assay results from primary sources and verifying the information for an anticipated FS revision of the MRE. From IGO's due diligence analyses, the Competent Person has accepted GSN's database as being acceptable for the current MRE and its JORC Code classifications.
Site visits	<ul style="list-style-type: none"> The Competent Person for MRE is IGO's Resource Geology manager who is a geologist and geostatistician who has over 30 years of experience in exploration, mining and resource estimation. This Competent Person has visited site in late 2020 as part of the due diligence to acquire Silver Knight and in Dec 2021 to inspect commencement of IGO's FS DD programs. On both occasions the Competent Person was satisfied that data collection procedures and the quality of data was acceptable for MRE work.



SECTION 3 – SILVER KNIGHT – MINERAL RESOURCES

JORC Criteria	Explanation
Geological interpretation	<ul style="list-style-type: none"> The sulphide interpretation of mineralisation is based on a nominal >2% S drill hole interval threshold, with interpretation prepared in 3D using conventional wireframing methods Given the drill spacing is quite close, the confidence in the interpretation is reasonable to support Indicated and Inferred Resources. An alternative interpretation using a 5% S grade threshold results in marginally less volume of resource but generally, above 2% S there is good correspondence between sulphur and the visual presence of primary or secondary sulphides. The main volume of uncertainty is in the transitional mineralisation which may have >2% S but no visible sulphides in GSN photographic records of physically retained sample rejects. IGO has not assessed the geology of SKOM and has retained GSN's interpretation only for the purposes of assigning density to waste. IGO is planning to infill the current drilling to a nominal 12.5m grid spacing prior to define Measured Resources prior to mining.
Dimensions	<ul style="list-style-type: none"> The extents of Silver Knight sulphide mineralisation are ~380m along strike, typically 25 to 75m wide through the main zone of mineralisation. At the southern end of the deposit the continuity breaks up into several fresh sulphide pods of uncertain dimensions at the current drill spacing. The secondary sulphide mineralisation starts at ~40m below surface and fresh sulphides extend to ~85m below surface in some areas. The top of fresh rock interface occurs at ~40-50m below surface.
Estimation and modelling techniques	<ul style="list-style-type: none"> IGO estimated the grades of nickel, copper, cobalt, iron, sulphur, magnesium and in situ density using the ordinary block kriging algorithms implemented in Datamine Studio software for IGO's interpretation of the sulphide mineralisation (deemed Zone 300), and GSN's interpretation of oxide mineralised clay (Zone 100) and gossan zones (Zone 200). Estimation parent cells were set to be 10m square in the horizontal plane and 2m high. Subblocks were permitted for zone boundary resolution down to 2.5m square in the horizontal plane and 0.5m vertically. Hard-boundary estimates were prepared individually for each sulphide lode prepared by wireframing but the data was pooled from all zones for grade continuity interpretation (variography). The drill hole sample data from each estimation zone was then composited a target of a one metre downhole length using an optimal best fit-method, to ensure no short residuals were created. The influence of high-grade distribution outliers was assessed to be negligible, and no top cuts have been applied to the final estimate. Estimates were prepared using Datamine's dynamic anisotropy algorithm to optimise the grade connectivity in the often-undulating domain geometry. 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 10% of the data variance. The maximum range of grade continuity varied and was found to be deposit/domain dependant. Typically, maximum continuity ranges varied from 40m to 100m in the major direction dependent on mineralisation style. Estimation sample searches were set to the ranges 100m in the horizontal and 20m vertically with between 16 and 32 composites used for each block estimate and a maximum of 8 composites from any one drill hole. Block discretisation was set to 4x4x4 nodes. 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. No assumptions regarding selective mining units were made in this estimate. Density was estimated or assigned as described in the section below on density. The deposit has not been mined so no mining reconciliation is yet possible. Validation of the block model volumes was carried out using a comparison of the estimation wireframes volumes to the block model volumes. Grade/density validation included comparing the respective domain global mean grades of block model grades to the estimation drill hole composites, and moving window mean grade comparisons using swath plots within northing, easting and elevation slices. Visual validation was completed on screen to review that the input data grade trends were consistent with the output block estimate trends.
Moisture	<ul style="list-style-type: none"> The tonnages are estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> The MRE is reported using \geq A\$45.75/t Net-Smelter-Return (NSR) block cut-off as a proxy for a break-even cost to haul and process ore at Nova. Assumed metal prices are US\$15,740/t for nickel, US\$6,380/t for copper and US\$41,530/t for cobalt. Assumed FX rate is 0.77 A\$:US\$.
Mining factors or assumptions	<ul style="list-style-type: none"> IGO has assumed Silver Knight will be mined using conventional open pit mining using excavator and trucks over 2m high mining ore benches. Geotechnical overall slope angles as per initial GSN evaluation; 30° for oxide, 45° for transition and 50° for fresh rock. Ore mined will be hauled to Nova's ROM pad using road trains.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> IGO has assumed that non-sulphide mineralisation has zero recovery. The ore processing method at Nova-Bollinger is well-established with a crushing, grinding and flotation flow sheet with metals recovered to either a nickel-copper-cobalt concentrate or a copper rich concentrate. GSN has carried out metallurgical testing on different mineralisation types. Based on GSN's testing IGO assumed metallurgical recovery for the sulphide ore of 75% for nickel, 85% for copper and 75% for cobalt into separate nickel and copper concentrates as currently produced at Nova.



SECTION 3 – SILVER KNIGHT – MINERAL RESOURCES	
JORC Criteria	Explanation
Environmental factors or assumptions	<ul style="list-style-type: none"> • IGO has assumed that there is reasonable expectations that all necessary environmental approvals will be received to develop an open pit mine and associated infrastructure at Silver Knight. • Any sulphide tails from Silver Knight would be pumped to Nova's TSF and non-sulphide tails will be used for stope backfill at Nova's underground mine. • Rock wastes from a mine would be stored in landforms around the Silver Knight pit and would be designed to encapsulate any potentially acid forming (PAF) waste with waste at the end of the mine life.
Bulk Density	<ul style="list-style-type: none"> • GSN used IGL to record core density measurements on samples using the Archimedes Principle method of dry weight versus weight in water, which accounts adequately for void spacing. • In the MRE dataset there were 2076 measurements, with 31 in GSN's Clay Zone mineralisation, 2 in the Gossan Zone mineralisation, 38 in IGO's sulphide zone interpretation and 2005 other measurements outside these zones. • IGO composited the drill hole data and reviewed the density values and assigned density to the MRE model as follows <ul style="list-style-type: none"> – GSN's mineralised Clay Zone (100_ IGO used a regression estimator based on magnesium grade with density in t/m³ for Density = $2.327 + 0.14 \times \text{Mg}\%$ with regression R² value of 0.72 for the 31 available composites in this – GSN's Gossan Zone the density was set to 3.02 t/m³, which was the mean of the available density data – IGO's interpretation of sulphide (Zone 300) a regression estimation based on iron grade was used with Density = $2.297 + 0.044 \times \text{Fe}\%$ with regression R² value of 0.94 for the 38 available composites in this zone – GSN's oxide waste 1.8 t/m³ based on GSN's MRE consultant's 2018 waste assignments – GSN's transitional waste 2.8 t/m³ based on GSN's MRE consultant's 2018 waste assignments – GSN's fresh waste 2.9 t/m³ based on GSN's MRE consultant's 2018 waste assignments
Classification	<ul style="list-style-type: none"> • IGO has classified the Silver Knight MRE into JORC Code classes of Indicated and Inferred based on informing data spacing and geological confidence. • The main continuous zone of sulphide mineralisation has been classified as Indicated Mineral Resource, while isolated discontinuous pods have been classified as Inferred Mineral Resources. • The primary reasons for having no Measured Mineral Resources, despite the deposit having relatively close drill spacing, is the uncertainty in metallurgical recovery and the yet incomplete full migration and verification of GSN's data into IGO data systems. • The MRE appropriately reflects the view of the Competent Person.
Audits or reviews	<ul style="list-style-type: none"> • The MRE was reviewed in-house by one of IGO Nova's mineral resource estimators and no fatal flaws were identified.
Relative Accuracy/ Confidence	<ul style="list-style-type: none"> • The MRE for Silver Knight has been estimated using standard industry practices for the style of mineralisation under consideration. • 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. • 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. • There is no production data for Silver Knight as the resources have not yet been exploited.

GREENBUSHES JORC CODE TABLE 1 CHECKLIST

SECTION 1 – GREENBUSHES – SAMPLING TECHNIQUES AND DATA

JORC Criteria	Explanation
Sampling techniques	<ul style="list-style-type: none"> Talison Lithium Pty Ltd (Talison) has drill-sampled the Greenbushes Central Lode, Kapanga and Tailings Storage Facility 1 (TSF1) Mineral Resource estimate (MRE) volumes, with the Central Lode and Kapanga drilled by reverse circulation percussion (RC) drilling and diamond core drilling (DD). The TSF1 MRE volume was drilled using sonic drilling (SD). The holes drilled from surface at the Central Lode and Kapanga have collar spacings ranging from 25m to 50m across and along strike. The DD holes drilled from underground workings at the northern end of the Central Lode have a close spaced pattern, fanning out from the workings. The underground infill drilling took place from the hangingwall and footwall mine infrastructure. The TSF1 SD holes are drilled on a nominal 200m grid spacing. Apart from a few holes drilled to collect geotechnical information, the Central holes drilled from surface generally plunge towards local mine grid east to intersect the mineralisation at a high angle. Sample representativity has been ensured by monitoring core recovery to minimise sample loss. SD holes drilled to test the TSF1 resource are vertical For the 31 Aug 2021 Central Lode MRE, the drill hole database included 1,177 drill holes for a total length drilled of 194,375m, and comprised 560 RC holes with the remainder being DD. For the 31 Aug 2021 Kapanga MRE, the drill hole database include 240 holes for total length drilled of 47,217m. For the 31 Mar 2018 TSF1 MRE, the drill hole database include 34 SD drillholes for a total length of 759m.
Drilling techniques	<ul style="list-style-type: none"> RC drilling using face-sampling bits was used for shorter near-surface holes with hole diameters of either 5½ inch (140mm) or 5¼ inch (133mm). Surface collared RC holes and DD RC pre-collar lengths range from 6 to 150m while DD hole lengths range from 50 to 1,084m. DD has been used for deeper holes and for drilling from underground platforms, with a few diamond tail extensions drilled from RC pre-collars. Triple tube DD has been used in areas of broken ground to improve core recovery. The core from some DD holes drilled to collect data for geotechnical studies has been oriented. The DDs drilled for Central Lode and Kapanga MRE work include several different core diameters including 36.4mm (BQ), 47.6mm (NQ) and 63.5mm (HQ2, HQ3). The TSF1 MRE drilling comprised SD to collect 3-inch (76.2mm) cores.
Drill sample recovery	<ul style="list-style-type: none"> RC recovery: <ul style="list-style-type: none"> Selected RC holes have had the cuttings from 1m downhole intervals weighed over the entire hole length to provide data for assessment of the expected mass against the actual recovered mass. A few of the older RC holes have had samples collected over 2m down hole intervals. Generally RC recovery is logged qualitatively as 'good' to 'poor' with recovery generally logged as 'good' except for samples collected within the first few metres from surface. The lithia grades from nearby RC and DD holes have been compared to assess the potential for grade bias due to RC fines losses. No material biases between the two drill methods have been identified. DD recovery: <ul style="list-style-type: none"> Recovery has been measured as the percentage of the total length of core recovered compared to the drill interval. Core recovery is consistently high (95 to 100%) in fresh rock with minor losses occurring in heavily fractured ground or for DD drilling in the regolith. Triple tube DD has been used to maximise recovery in zones of broken ground. Recovery monitoring and triple tube drilling are the main methods used to maximise core recovery. The TSF1 SD recovery was very high – effectively 100%. There is no relationship between sample recovery and lithia grade in any of the drill methods used and the potential for upgrade or downgrade of samples due to partial sample losses is considered low risk.
Logging	<ul style="list-style-type: none"> RC cuttings and DD and SD cores have been logged geologically and geotechnically with reference to a logging standard library, to levels of detail that support MRE work, Ore Reserve estimation (ORE) and metallurgical studies. The information collected is considered appropriate to support any downstream studies by the Competent Person. Qualitative logging includes codes for lithology, regolith, and mineralisation for RC, DD and SD samples, with sample quality data recorded for RC such as moisture, recovery, and sub-sampling methods. DD cores are photographed, qualitatively structurally logged with reference to orientation measurements where available. Logs for older holes have not yet been converted to digital format with only lithia and tantalum assay data available digitally for the current estimate. Geotechnical quantitative logging includes QSI, RQD, matrix and fracture characterisation. The total lengths of all drill holes have been logged.



SECTION 1 – GREENBUSHES – SAMPLING TECHNIQUES AND DATA	
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Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • RC sampling: <ul style="list-style-type: none"> – RC samples were collected from a splitter (riffle, static cone and rotary cone) that collected a 3-5kg split of the primary lot from each downhole sampling interval. – Most samples were collected from dry ground conditions. – The main protocol to ensure the RC samples were representative of the material being collected was monitoring of sample recovery and more recently, collection and assay of 5% replicates of primary samples. • DD sampling: <ul style="list-style-type: none"> – DD cores samples have been collected over intervals determined by geological boundaries but generally targeting a 1m length within the same zone of contiguous geology. – Cores were generally half-core sampled with the core cut longitudinally using a core saw having a wet diamond impregnated cutting blade. – Some of the larger diameter HQ core collected for metallurgical test was quarter core sampled. • SD sampling: <ul style="list-style-type: none"> – The TSF1 SD sample intervals are 1.5m down hole with the SD core captured in half PVC pipe and cut with a blade or wire to prepare a 'half core' tailings sample. • Laboratory preparation: <ul style="list-style-type: none"> – All samples were delivered in pre-numbered sample bags to Talison's on-site laboratory, with the sample chain-of-custody from the drill site to the laboratory managed by the Talison's site technical staff. – The laboratory then took over the chain-of-custody and used an internal digital tracking system for sample management. – The samples were then oven dried for 12 hrs at ~110°C before being crushed to a particle size distribution (PSD) of 100% passing 5mm. – A riffle, or more recently a rotary splitter, was then used to collect a ~1kg sub-sample from the crushed lot. – For samples deemed likely to represent technical grade (TG) mineralisation (which must be low in iron concentration), the crushed lots were pulverised using tungsten grinding bowls, otherwise non-TG samples were pulverised using standard steel grinding bowls. – Following pulverising, a pulp sub-sample was collected into a small packet to serve as the assaying source lot. • Quality controls: <ul style="list-style-type: none"> – All laboratory sample preparation was carried out by trained technicians who followed the specified laboratory procedures for each sample preparation workflow. – The laboratory inserted blanks and certified reference materials at a 1:20 frequency in every batch with a duplicate pulp collected for assay every 20th sample. – Sample pulps are retained for future reference and coarse rejects are discarded. – Talison's reviews of quality sample results confirm that the levels of precision, accuracy and levels of potential sample cross contamination are acceptable for MRE work. The precision half absolute relative difference values for field duplicates having grades $\geq 0.2\%$ Li₂O is less than $\pm 10\%$ relative for 85% of replicates collected since 2016. • Sample size versus grain size: <ul style="list-style-type: none"> – Lithia bearing spodumene typically comprises between 15 to 55% of the mineralisation, and as such is in relatively high concentration. – While no specific heterogeneity tests have been completed, the sample sizes collected at the primary and sub-sampling stages are consistent with industry norms for the style of mineralisation under consideration.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • No geophysical tools have been used to determine any analyte concentrations for MRE work • A small aliquot of the sample preparation pulp was collected and digested in sodium peroxide and the resulting solution concentration of lithia • A suite of 36 accessory analytes were also determined using fusion digestion and X-ray fluorescence, however these additional analytes are not included in the Publicly Reported MRE, albeit iron grade has been used to assist in the interpretation of zones of TG mineralisation. • Talison's technical staff maintains standard work procedures for all data management steps, with an assay importing protocol established that ensures quality control samples are checked and accepted before data can be loaded.
Verification of sampling and assaying	<ul style="list-style-type: none"> • Significant drill hole intersections of mineralisation have been routinely verified by Talison's senior geological staff and have also been inspected by several independent external auditors. • Twin holes have been drilled to compare assay results from RC and DD drilling. From these comparisons Talison's geologist consider that there is no material down hole smearing of grades in the RC drilling and sampling. • There have been no adjustments or scaling of assay data.



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Location of data points	<ul style="list-style-type: none"> Surface drill hole collars have been located using DGPS surveying equipment. Talison reports that the precisions of the surface collar surveys are within $\pm 10\text{cm}$ of true location in three dimensions. Underground DD collars were surveyed using total station equipment during the time of underground mining. The plunges of drill hole paths have been surveyed using single shot cameras for holes drilled prior to 2007, and gyroscopic or Reflex electronic survey tools for more recent drilling. Generally, holes have the plunge recorded every $\sim 30\text{m}$ down hole. A few early RC holes have not been surveyed and the short vertical SD holes in TSF1 do not have hole path surveys. The mine grid eastings are approximately aligned to the strike of the main pegmatites with the trend of mine grid north approximately 11° west of Magnetic North and 15.7° west of True North. The transformation between local and MGA grid is a two point transform using the following paired coordinates: <table border="1" data-bbox="592 607 1198 757"> <thead> <tr> <th>Location</th> <th>Local X</th> <th>Local Y</th> <th>MGA X</th> <th>MGA Y</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>10,166.941</td> <td>10,524.225</td> <td>414,290.966</td> <td>6,251,535.324</td> </tr> <tr> <td>B</td> <td>9,833.499</td> <td>12,778.814</td> <td>413,362.002</td> <td>6,253,615.642</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Talison adds constant of 1,000m to the mine grid elevations relative to AHD elevations. The digital terrain model is a synthesis of photogrammetric surveys and regular pit surveys and of good quality for MRE work. The precision of the TSF1 survey is considered have a precision of $\pm 1\text{m}$ in three dimensions. 	Location	Local X	Local Y	MGA X	MGA Y	A	10,166.941	10,524.225	414,290.966	6,251,535.324	B	9,833.499	12,778.814	413,362.002	6,253,615.642
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B	9,833.499	12,778.814	413,362.002	6,253,615.642												
Data spacing and distribution	<ul style="list-style-type: none"> The drill hole spacing for the Central Lode and Kapanga MREs ranges from 25mN by 25mE to 50mN by 100mE (local grid) over most of the MRE area. The drill hole spacing for the TSF1 estimate is $\sim 200\text{m}$ square collar spacing. Down hole sample intervals for the Central Lode and Kapanga are 1m, while a 1.5m metre down hole interval was used for the TSF1 estimate. The Competent Person considers that these data spacings are sufficient to establish the degree of geological and grade continuity appropriate for the MRE and ORE estimation procedures, and the JORC Code classifications applied by Talison. 															
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Nearly all drill holes are oriented to intersect the mineralisation at a high angle and as such, the Competent Person considers that a grade bias effect related to the orientation of data is highly unlikely. 															
Sample security	<ul style="list-style-type: none"> The sample chain-of-custody is managed by Talison's technical personnel. Samples were collected in pre-numbered bags, for transport from the primary collection site to the laboratory. Sample dispatch sheets are verified against samples received at the laboratory and other issues such as missing samples and so on are resolved before sample preparation commences. The Competent Person considers that the likelihood of deliberate or accidental loss, mix-up or contamination of samples is very low. 															
Audits or reviews	<ul style="list-style-type: none"> Field quality control data and assurance procedures are reviewed by Talison's technical staff on a daily, monthly and quarterly basis The sampling quality control and assurance of the sampling was reviewed by consultants Quantitative Geoscience in the 2000s, Behre Dolbear Australia in 2018, and as part of IGO's due diligence work by Snowden Mining Industry Consultants in 2019. No adverse material findings were reported in any of these reviews, A 2021 review by SRK Consulting Australasia (SRK) noted that Talison rigorous quality control programs for assay, which have been in place since 2007, cover $\sim 40\%$ of the Central Lode data and effectively all the Kapanga drilling. In a recent Competent Person Report review by Behre Dolbear Australia (BDA), BDA noted that there is an apparent positive bias for lithia when comparing nearby RC and DD samples, which may be material given most of the Kapanga drilling is RC. BDA further noted that a similar bias is observed by Talison in pit grade control samples, with a 5% factor applied to adjust grades down for forecasting plant head grades. 															

SECTION 2 – GREENBUSHES – EXPLORATION RESULTS

JORC Criteria	Explanation																																																																															
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Greenbushes is 100% owned by Talison Lithium Australia Pty Ltd (Talison). Talison is 51% owned by TLEA which is the holding company for the Tianqi Lithium (51%) and IGO (49%) JV. The remaining 49% of Talison is owned by Albermale Co. The WA mineral tenements relevant to Greenbushes' MREs and OREs are tabulated below. <table border="1"> <thead> <tr> <th rowspan="2">Tenement type</th> <th rowspan="2">Name</th> <th colspan="2">Date</th> <th rowspan="2">Area (ha)</th> </tr> <tr> <th>Granted</th> <th>Expiry</th> </tr> </thead> <tbody> <tr> <td rowspan="13">Mining</td> <td>M01/02</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>969</td> </tr> <tr> <td>M01/03</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>1000</td> </tr> <tr> <td>M01/04</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>999</td> </tr> <tr> <td>M01/05</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>999</td> </tr> <tr> <td>M01/06</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>985</td> </tr> <tr> <td>M01/07</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>998</td> </tr> <tr> <td>M01/08</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>999</td> </tr> <tr> <td>M01/09</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>987</td> </tr> <tr> <td>M01/10</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>1000</td> </tr> <tr> <td>M01/11</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>999</td> </tr> <tr> <td>M01/16</td> <td>28 Sep 1994</td> <td>27 Dec 2036</td> <td>19</td> </tr> <tr> <td>M01/18</td> <td>28 Dec 1984</td> <td>27 Dec 2026</td> <td>70.4</td> </tr> <tr> <td>M70/765</td> <td>20 Jun 1994</td> <td>19 Jun 2028</td> <td>3</td> </tr> <tr> <td>Exploration</td> <td>E70/5540</td> <td>08 Mar 2021</td> <td>07 Mar 2026</td> <td>222.6</td> </tr> <tr> <td rowspan="2">General purpose</td> <td>G01/01</td> <td>17 Nov 1986</td> <td>5 Jun 2028</td> <td>10</td> </tr> <tr> <td>G01/01</td> <td>17 Nov 1986</td> <td>5 Jun 2028</td> <td>10</td> </tr> <tr> <td>Miscellaneous</td> <td>L01/01</td> <td>19 Mar 1986</td> <td>27 Dec 2026</td> <td>9</td> </tr> </tbody> </table> <ul style="list-style-type: none"> State Forest (managed by WA State Department of Biodiversity, Conservations and Attractions) covers ~55% of the tenure, with most of the remaining (~40%) being private land. M01/06, M01/07 and M01/16 cover the operating mining, and processing areas an area ~2000ha, and contains the entire MRE. The general purpose leases cover the processing facilities. There is a sublease agreement between Talison and Global Advanced Metals (GAM), with the latter owning the rights to all non-lithium metals on the tenements. 	Tenement type	Name	Date		Area (ha)	Granted	Expiry	Mining	M01/02	28 Dec 1984	27 Dec 2026	969	M01/03	28 Dec 1984	27 Dec 2026	1000	M01/04	28 Dec 1984	27 Dec 2026	999	M01/05	28 Dec 1984	27 Dec 2026	999	M01/06	28 Dec 1984	27 Dec 2026	985	M01/07	28 Dec 1984	27 Dec 2026	998	M01/08	28 Dec 1984	27 Dec 2026	999	M01/09	28 Dec 1984	27 Dec 2026	987	M01/10	28 Dec 1984	27 Dec 2026	1000	M01/11	28 Dec 1984	27 Dec 2026	999	M01/16	28 Sep 1994	27 Dec 2036	19	M01/18	28 Dec 1984	27 Dec 2026	70.4	M70/765	20 Jun 1994	19 Jun 2028	3	Exploration	E70/5540	08 Mar 2021	07 Mar 2026	222.6	General purpose	G01/01	17 Nov 1986	5 Jun 2028	10	G01/01	17 Nov 1986	5 Jun 2028	10	Miscellaneous	L01/01	19 Mar 1986	27 Dec 2026	9
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Exploration done by other parties	<ul style="list-style-type: none"> Mining in the Greenbushes region has been almost uninterrupted since the tin mineral cassiterite was first discovered in 1886, making Greenbushes the longest continuously operating mine in Western Australia. The first tin miner in the area was the Bunbury Tin Mining Co in 1888 followed by Vulcan Mines who carried out oxide tin sluicing operations from 1935 to 1943. From 1945 to 1956 tin dredging commenced using more modern equipment and in 1969, Greenbushes Tin NL commenced open pit mining of oxidised soft rock below surface. Hard rock open pit tin-tantalum mining and processing at 0.8Mt/a commenced in 1992 with the ore sourced from the now near completed Cornwall Pit. This mining included underground mine development in 2001 to source high grade tantalum ore when the process capacity was increased to 4Mt/a. In 2002, tantalum demand declined rapidly and the tantalum/tin treatment plant was placed into care and maintenance. Greenbushes Limited commenced open pit mining in 1983 and commissioned a 30kt/a lithium mineral concentrator in 1985. The mining and processing assets were subsequently acquired by Sons of Gwalia Ltd (SOG) in 1989 and the concentrate production capacity was increased to the 100kt/a in the early 1990s, then increased to 150kt/a by 1997, including the production of chemical grade lithium concentrate. Talison purchased Greenbushes Mine tenement package from SOG in 2009 and agreed to provide Global Advance Metals Ltd with the rights to explore and mine all other non-lithium minerals on the tenure. 																																																																															
Geology	<ul style="list-style-type: none"> The Greenbushes Central Lode Deposit is one of the world's largest and highest lithium grade hard rock deposits. The Central Lode is an elongate steeply northwest dipping, lithium rich pegmatite body, that intruded along the Donnybrook-Bridgetown shear zone ~2.53Ga years ago into the older and largely lithium-barren, high grade metamorphic country rocks of amphibolite (hangingwall) and granofels (footwall) of the Balingup Metamorphic Belt. The tectonic history of the region is complex with up to four phases of correlated deformation and metamorphism. The pegmatite is interpreted to have intruded around the time of the second major tectonic event and was subsequently crosscut by later east-west dolerite intrusives prior to the fourth event. All rocks have been weathered to depths of ~40m below natural surface. Greenbushes' lithium bearing pegmatites present as a series of linear dykes and/or en echelon pods that range from a few meters in strike length up to 3km, and with true thickness ranging from 10 to 300m. The pegmatites have intruded at the boundaries between the major sequences of country rocks. The Kapanga Deposit is a satellite deposit ~300m mine-grid east of the Central Lode with similar geology but with pegmatites generally thinner. The Kapanga pegmatites comprise a package of sub-parallel stacked lodes and pods of variable thickness Several compositional zones are recognised in the pegmatite, with lithium rich zones observed to occur preferentially on the footwall and hangingwall zones of the Central Lode pegmatite. Tin and tantalum occur in the albite zone of the pegmatite and were the 																																																																															



SECTION 2 – GREENBUSHES – EXPLORATION RESULTS	
JORC Criteria	Explanation
	<p>motivation for the historic mining at Greenbushes, mainly from the Cornwall Pit. Generally, the mineralisation presents as stacked higher grade lenses within a low grade alteration envelope. The zonation at Kapanga is broadly similar, with concentration of spodumene in the upper parts of the local sequence.</p> <ul style="list-style-type: none"> The high-grade lithium zone of the pegmatite comprises mostly spodumene, apatite and quartz, with local parts of the zone containing up to 50% of the lithium bearing mineral spodumene, which has a lithium concentration of ~8% Li₂O. Greenbushes' TSF1 mineral resource is the processing waste from earlier phases of tin and tantalum mining and processing from the Central Lode deposits. As such the tailings have similar mineralogy to the Central Lode pegmatite. The TSF1 'geology' is characterised by a ~7m thick upper layer of higher-grade 'enriched' tailings overlying a ~7.5m lower grade layer 'depleted' layer, which in turn overlies the pre-existing natural surface. All rocks have been extensively lateritised during peneplain formation in the Tertiary, with weathering and lithium leaching effects reaching to depths of up 40m below surface.
Drill hole Information	<ul style="list-style-type: none"> A summary of the many holes used to prepare the Greenbushes MREs is impractical for this Public Report. The Competent Person considers the MREs give a balanced view of all the drill hole information.
Data aggregation methods	<ul style="list-style-type: none"> No drill hole intercepts are reported so this item is irrelevant.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> Apart from a few geotechnical drill holes and selected underground fan DD holes, the majority of the MRE related drilling intersects the mineralisation at a high angle and as such approximates true thicknesses in most cases. The Competent Person considers that the risk of a grade bias introduced due to a relationship between intersection angle and grade is very low.
Balanced Reporting	<ul style="list-style-type: none"> The Competent Person considers that the MREs are based on all available data and provide a balanced view of the deposits under consideration.
Other substantive exploration data	<ul style="list-style-type: none"> For this active mine there is no other substantive exploration data material to the MRE.
Diagrams	<ul style="list-style-type: none"> Representative diagrams of the geology and mineral resource extents are included in the main body of this Public Report.
Further work	<ul style="list-style-type: none"> Exploration drilling is continuing within the Greenbushes tenements with several advanced exploration targets on regional pegmatites.

SECTION 3 – GREENBUSHES – MINERAL RESOURCES	
JORC Criteria	Explanation
Database integrity	<ul style="list-style-type: none"> Talison capture all geoscientific drill hole information for MRE work using laptop interfaces. The data is then stored in an SQL Server database and managed using acquire software, which is a well-recognised industry software for geoscientific data storage, manipulation and validation. Much of the older drill hole data was manually captured on hard copy log sheets. Talison has focussed on verifying the assay data from early drill holes and not all geological logging has been captured in the SQL database. However, as interpretation of the mineralisation is primarily driven by lithia assays, the Competent Person considers that the lack of complete geology transfer to be not material. Talison selected a random sample of historical assay data transferred into the QSL database and compared the results to the original records to confirm the loading of historical assay records was correct – no material issues were found in this audit process. Talison validates all data following loading through visual inspection of results on-screen both spatially and using database queries and cross section plots. Typical checks carried out against original records to ensure data accuracy include items such as overlapping records, duplicate records, missing intervals, end of hole checks and so on. The Competent Person considers the risk of data corruption through transcription errors between initial collection and use in the MRE process to be very low risk.
Site visits	<ul style="list-style-type: none"> The Competent Person for the MRE is the Geology Superintendent for Greenbushes and as such has detailed knowledge of the data collection, estimation, and reconciliation procedures for this MRE revision.



SECTION 3 – GREENBUSHES – MINERAL RESOURCES	
JORC Criteria	Explanation
Geological interpretation	<ul style="list-style-type: none"> • Central Lode and Kapanga: <ul style="list-style-type: none"> – Talison, through consultants SRK prepared a three dimensional (3D) digital wireframe of the Greenbushes pegmatites using implicit modelling software. Talison also used pit grade control drill hole information and geological mapping to improve local precision of the interpretation where such data was available. – Talison prepared a second 3D digital wireframe in a similar process for the highly mineralised pegmatite using a >0.7% Li₂O threshold on one metre drill composites. The high-grade wireframe was nested inside the larger volume pegmatite wireframe. – Talison also prepared separate domains for the Kapanga Deposit with a higher grade near surface layer and lower grade deeper layer.. – Barren dyke 3D digital wireframes were also prepared to model these internal waste zones that crosscut the pegmatite mineralisation. – A depth of weathering surface was prepared to allow modelling of the oxidised near surface parts of the deposit.
Dimensions	<ul style="list-style-type: none"> • Central Lode and Kapanga: <ul style="list-style-type: none"> – The pegmatite zone in the MRE model is ~2.8km strike length (north-south in mine grid) and horizontal east-west widths ranging from ~150m to ~300m. – The maximum MRE modelled depth is ~800m below surface with depth varying along strike as a function of maximum drill depths on drill sections. – The Publicly Reported MRE is constrained by a 'break-even' pit optimisation shell that has dimensions of 2.8km along strike 150-180m wide horizontally and extending to a maximum depth of 580m below surface. • TSF1: <ul style="list-style-type: none"> – TSF1's MRE is has dimensions of ~1km north south and ~0.7km east west in the mine grid system. – The mean depth of the combined mineralised tailings (EZ+DZ) ranges between 8 to 15m below current surface.
Estimation and modelling techniques	<ul style="list-style-type: none"> • Central Lode and Kapanga: <ul style="list-style-type: none"> – Consultants SRK prepared the Central Lode/Kapanga MRE for Talison. – From the available drill hole data SRK prepared implicit models of the pegmatites and other lithologies using Leapfrog software. Talison review the outputs and accepted the interpretation for MRE work. – 3D implicit models of the pegmatite and waste rocks were prepared using implicit modelling software (Leapfrog), including inputs from pit mapping and in-pit grade control or blast hole drilling. These models were prepared to encompass both the Central Lode and Kapanga in the one model. – The Central Lode pegmatite was divided into separate high and low grade lithia domains using a 0.7% Li₂O threshold, with the high grade zone nested within the low grade zone. Kapanga was similarly split into higher grade near surface and lower grade deeper zone. – SRK pre-pared 3m long drill hole composites for lithia in the Central Lode pegmatite and found that no grade capping for extreme results was necessary. Composites for Kapanga were set to 1m lengths as the mineralisation is generally thinner. – Supervisor software was used to interpret the patterns of continuity of lithia using industry standard variography methods. SRK found practical ranges of continuity for lithia in the Central Lode of ~100m (80% of the variance), with low nugget effect. Similar results were interpreted for Kapanga but with higher nugget effect. – SRK used the ordinary block kriging algorithms implemented in Datamine Studio software to estimate the grade of lithia into a block model having parent block cubes of side 20m, with sub cells down to cubes of side 5m. Parent block discretisation was set a 3×3×3 grid within each parent estimation cell. – A two pass composite search strategy was implemented for estimation of the Central Lode, with the first pass estimating range set to 180×150×25m (major, semi and minor), then a double search for the second pass. Constrained searches of ~5% of the search neighbourhood ranges were of outlier values were identified. For the high grade zone at least 5 and at most 15 composites were required for a block estimate with a maximum of two samples per hole in the first pass. In the second pass the minim sample requirement was reduced to just one sample. The constrained search thresholds were set to 5.5% Li₂O in the high grade domain and 3% Li₂O in the low grade domain. – For Kapanga a three pass search strategy was applied, like the Central Lode but with a tripling of search distance for the tertiary sample search. The primary search was set to 100×100×20m, with a respective sample search minimum and maximum composite of 8 and 20, 7 and 20, and 2 and 15 for the expanding nested searches. A maximum of 3×1m composites were selected from any drill hole in each estimation zone. – Density for pegmatite was compute using a regression method applied to the block estimate lithia grades, while average data values were assigned to the other (waste) domains. – Talison validated the MRE model by comparing (input) data declustered means for each domain to the respective (output) block estimated grades both globally within each domain and locally using moving window 'swath-plots'. On-screen visual inspections were also completed in plan and section to ensure that the grade trends observed in the data were acceptably reproduced in the estimates without over extrapolation in areas of sparse drilling. SRK found that 90% of block were being estimated in the first search pass with 95% of mineralisation blocks having a kriging slope of regression >0.6, which SRK considers a norm benchmark for assignment of Indicated Mineral Resources. • TSF1: <ul style="list-style-type: none"> – Talison prepared a digital block model template in Surpac software in mine grid coordinates. – The parent block dimensions were set to 80m squares in the horizontal and 1.5m vertically, which approximates half the information spacing horizontally and agrees with the SD sampling length. Sub blocks were permitted down to 10m squares in the



SECTION 3 – GREENBUSHES – MINERAL RESOURCES	
JORC Criteria	Explanation
	<p>horizontal and 0.75m in the vertical to ensure acceptable precision by block volume of the wireframe volumes defining each estimation layer.</p> <ul style="list-style-type: none"> – The wireframe surfaces were used to prepare blocks for the EZ and DZ as well as the dam walls and the basal clay zone. - Only lithia grade and density were estimated. – Block grades were estimated from the 1.5m long composites using an inverse distance squared algorithm with a 200m wide horizontal, and 50m vertical search that estimated grades for 98% of the model volume in each layer. Blocks not estimated in the search were assigned the mean grade of composites from each zone. – A minimum of three and a maximum of 16 composites were required for a block to be estimated. – Talison validated the MRE model by comparing (input) data declustered means for each domain to the respective (output) block estimated grades both globally within each domain and locally using moving window 'swath-plots'. On screen visual inspections were also completed in plan and section to ensure that the grade trends observed in the data were acceptably reproduced in the estimates without over extrapolation in areas of sparse drilling.
Moisture	<ul style="list-style-type: none"> • Tonnages for both the Central Lode, Kapanga and TSF1 were estimated on a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> • Central Lode: <ul style="list-style-type: none"> – Talison reported the estimate using a 0.5% Li₂O block model cut-off within a break-even pit optimisation shell. The cut-off grade is consistent with the operations' process tailing grades at the time the estimate was prepared. • TSF1: <ul style="list-style-type: none"> – Talison reported the estimate using a 0.7% Li₂O block model cut-off which is deemed the break-even grade for processing of tailings through the tailings retreatment plant (TRP) in the Feasibility Study.
Mining factors or assumptions	<ul style="list-style-type: none"> • Central Lode: <ul style="list-style-type: none"> – Talison has assumed that mining will continue by conventional open pit drill and blast, and load and haul as currently used in the active Central Lode pits. – RC grade control will be used to define ore prior to mining, and close spaced patterns will be used to delineate pods of TG ore. • TSF1: <ul style="list-style-type: none"> – The tailings will be processed through the TRP with expected lithia recovery of 70%.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • Central Lode: <ul style="list-style-type: none"> – Ore will be processed through the existing spodumene concentration plants to produce TG and CG saleable products. – Proposed new plants will have similar or superior design parameters to the existing plants. – Process plant recovery factors and mineralogy for the existing plants are based on historical processing metrics, with these recoveries considered achievable in new proposed chemical grade plants. – The process flowsheets keep deleterious elements at acceptable levels for customer products and multi-finger stockpile blending is also used to assist in meeting product specifications. – The technical grade concentrate produced ranges from 5.0 to 7.2% Li₂O and <0.15% Fe, and chemical grade concentrate grades 6.0% Li₂O • TSF1: <ul style="list-style-type: none"> – The tailings will be processed through the TRP with expected lithia recovery of 70%.
Environmental factors or assumptions	<ul style="list-style-type: none"> • Talison's senior management has confirmed to the Competent Person that Greenbushes Operation has all approvals in place to mine, process, and extract spodumene concentrates, and that there are no known impediments to gaining additional approvals for additional process plants, expanded infrastructure and water supply. See the relevant Ore Reserve sections further below for more details
Bulk Density	<ul style="list-style-type: none"> • Central Lode: <ul style="list-style-type: none"> – In situ density of the pegmatite was determined using conventional water displacement methods on 2,071 drill cores. – The data was used to derive a regression equation to estimate MRE block density based on lithia grade – where Density (t/m³) = 2.59 + 0.071 × %Li₂O. – A density value of 3.0 t/m³ was assigned to waste zones in the MRE model based on mining reconciliation information. – A value of 1.8t/m³ was applied to the oxidised near surface materials, also based on mining reconciliation information. • TSF1: <ul style="list-style-type: none"> – A density of 1.67t/m³ was assigned to all tailings (both EZ and DZ) being the average density of five SD core measurements throughout the deposit.



SECTION 3 – GREENBUSHES – MINERAL RESOURCES

JORC Criteria	Explanation
Classification	<ul style="list-style-type: none"> • Central Lode and Kapanga: <ul style="list-style-type: none"> – The MRE has been classified into the JORC Code categories of Measured, Indicated and Inferred Mineral Resource based on Talison's and the Competent Persons assessment of data quality, data spacing and estimation quality. – JORC Code Measured Mineral Resources were assigned to broken ore stockpiles, where grade control has given high confidence in the lithia grades. – Indicated Mineral Resources were assigned to volumes with average wider spaced data, and Inferred Resources have been assigned at depth and at the peripheries of the MRE, where the data is very widely spaced. • TSF1: <ul style="list-style-type: none"> – The MRE has been classified as JORC Code Indicated Mineral Resource based on Talison's and the Competent Persons assessment of data quality, data spacing and estimation quality. • The outcome of the MRE process reflects the Competent Person's view of the estimates
Audits or reviews	<ul style="list-style-type: none"> • Prior MRE estimates and the Talison's estimation processes have been reviewed in 2018 at a high level by Behre Dolbear Australia Pty Ltd, who concluded that the estimates were consistent with the requirements of the prevailing JORC Code and that reasonable prospects of eventual economic extraction had been demonstrated. • In 2020, Snowden Mining Industry Consultants reviewed the prior estimates and process for IGO and concluded there were no fatal flaws in the MRE processes applied for the Central Lode and TSF1 and the estimates were generally low risk. • The 2021 MRE revision has been reviewed internally by Talison's senior geological staff. • A December 2021, fatal flaw independent review prepared by resource and mining consultants RSC found no fatal flaws in Talison's method of preparation or reporting of the Aug-21 MRE and ORE.
Relative Accuracy/Confidence	<ul style="list-style-type: none"> • No specific statistical studies have been completed to quantify the estimation precision of either the Central Lode, Kapanga or TSF1 estimates. • The ore mined to process comparison for the Central Lode mining to date is very good with Talison reporting that the 2018 MRE model forecasts for the 12 months of prior mining, were within 6% relative of tonnages received to the mill and within 3% of reconciled contained lithia. • Base on reconciliation data reported by BDA for Greenbushes for new model and for the three years of production 2017 to 2019, the tonnage reconciliation from MRE model to reconcile mine production is 95% and the lithia grade 99%, which is very good performance

SECTION 4 – GREENBUSHES – ORE RESERVES

JORC Criteria	Explanation
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> • The MREs for the Central Lode, Kapanga and TSF1 described in the previous sections of this JORC Table 1 were used as the basis for ORE work. • The MREs are inclusive of the ORE for both the Central Lode, Kapanga and TSF1 estimates
Site Visits	<ul style="list-style-type: none"> • The Competent Person for the estimate is Andrew Payne, who is a qualified mining engineer, and an employee of Talison Lithium who holds the position of Mine Planning Superintendent.
Study Status	<ul style="list-style-type: none"> • Central Lode and Kapanga: <ul style="list-style-type: none"> – The Central Lode open pit mine has been in operation since the mid-1980s. – The Aug-2021 ORE study is based on operational budgets, well understood OPEX and CAPEX costs with the level of study equivalent to Feasibility Study or better as defined in the prevailing JORC Code. – Process expansions have been costed and scheduled for in-house studies at least a Pre-Feasibility if not Feasibility Study level. • TSF1: <ul style="list-style-type: none"> – The study for the exploitation of the TSF1 ORE is consistent with Feasibility Study as defined in the prevailing JORC Code. – The construction of the TRP is complete and commissioning is imminent.
Cut-off parameters	<ul style="list-style-type: none"> • Central Lode, Kapanga and stockpiles: <ul style="list-style-type: none"> – The cut-off grade is a $\geq 0.7\%$ Li₂O ORE model block threshold after application of key Modifying Factors such as mining, processing and product delivery cost assumptions. – An analysis of a breakeven cut-off grade has been completed and is well below 0.7% Li₂O – A cut-off lower than 0.7% Li₂O is not appropriate for the ORE until test work is completed to test if that material is able to be processed. Material between 0.5% and 0.7% Li₂O and all pegmatite $< 0.5\%$ Li₂O are stockpile for potential processing later. – The ORE is reported within the LOM final pit design. • TSF1: <ul style="list-style-type: none"> – The cut-off grade is a $> 0.7\%$ Li₂O ORE model block threshold after application of key Modifying Factors such as mining, processing and product delivery cost assumptions.



SECTION 4 – GREENBUSHES – ORE RESERVES	
JORC Criteria	Explanation
	<ul style="list-style-type: none"> Costs considered include processing and maintenance fixed and variable costs, general administration costs, ore premium including re-handle and overhaul, closure costs and all non-mining related stay-in-business capital expenses.
Mining factors or assumption	<ul style="list-style-type: none"> Central Lode: <ul style="list-style-type: none"> The recovery and yield factors translating Resources to Reserves are determined from process plant performance (Technical Grade Plants and Chemical Grade Plant 1) over the last 12 months. Chemical Grade Plant 2 (CGP2) is being commissioned at the time of compiling the Ore Reserve and has not yet reached the modelled recovery or yield. Modelled recoveries and yields for CGP2 have been used to derive the Ore Reserve as those recoveries and yields are expected beyond plant commissioning. The Resource-to-Reserve translation factors for the 2020 Reserves are 100% of tonnes and 100% of the lithium grade. The Mineral Resource has been reconciled / calibrated to process plant performance, so no factors were necessary. The mining method is contractor mining open pit drill and blast, load and haul, which has been executed at the operation since the mid-1980s. The pit development plan is a series of staged cutbacks using practical mining widths and equipment access, and achievable vertical advance rates. The pit optimisation that was used to guide the mine design was prepared in Whittle Software using geotechnical parameters recommend by well-respected geotechnical consultant. Inferred Resources are not applied to the pit optimisation determining the Reserve shell and Pit Design; however Inferred Resources have been included in the LOM schedule that underpins the cashflow model. Inclusion of these Inferred Resources is not expected to alter the Ore Reserve. The voids from a former underground mine have not been excluded from the ORE, but the tonnage of ~200kt is not material in terms of the reporting estimation precision TSF1: <ul style="list-style-type: none"> Only the top ~7m of TSF1, which comprises the EZ of mineralisation, is considered for the ORE. An average of 0.2m has been considered as ore loss, mainly due to the vegetation cover. An average of 0.2m has been considered as floor dilution from the underlying DZ. The TSF walls are assumed to remain with a 3:1 slope angle around the margins of the extracted ORE. There are no Inferred Mineral Resources associated with the ORE for TSF1.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> Spodumene concentrates have been extracted and sold from Talison's Greenbushes Operation since the mid-1980s using conventional crushing, grinding, gravity, and flotation circuits. Processing plant recovery factors from the three (3) existing plants applied to the Reserves calculation are based on historical performance capabilities of the plant, ore grades and ore quality, except for CGP2. This plant was being commissioned at the time of compiling the ORE and has not yet reached the modelled recovery or yield. Modelled recoveries and yields have been used to derive the Ore Reserve as those recoveries and yields are expected beyond plant commissioning. The process flowsheets keep deleterious elements at acceptable levels for customer products and multi-finger stockpile blending is also used to assist in meeting product specifications. Talison defines 'yield' as the mass percent of ore feed to the process plants that reports to concentrate. The yields are consistent with the lithia (and hence spodumene mineral) grades fed to each respective plant. The technical grade concentrate produced ranges from 5.0 to 7.2% Li₂O and <0.15% Fe, and chemical grade concentrate grades 6.0% Li₂O. The tailings re-treatment plant (TRP), which is soon to be commissioned, will process the TSF1 ORE at ~2Mt/a. The flow sheet involves scrubbing, attrition, desliming, magnetic separation of iron minerals, the flotation of lithium minerals followed by filtration to a concentrate. Greenbushes produces five technical grade products, ranging from 5.0% to 7.2% Li₂O with different target maximum ferric oxide grades ranging from a 0.12% up to 0.25% Fe₂O₃. Chemical grade concentrate grades 6% Li₂O with a 1.0% Fe₂O₃ grade
Environmental	<ul style="list-style-type: none"> Greenbushes operates under the Department of Mines, Industry Regulation and Safety (DMIRS) requirements and a Department of Water and Environmental Regulation (DWER) environmental licence. Current permits allow a processing rate of ~4.8Mt/a of ore. Approvals to expand the processing capacity to ~9.5Mt/a are in progress with the relevant state and federal authorities and Talison expects that the expansions will be managed under the existing licences described above. To meet a ~9.5Mt/a process rate will require the identification of new surface water catchment sources. All approvals for the exploitation of the TSF1 ORE are in place. Greenbushes Operation is within a state forest and Talison are in ongoing consultation with the Department of Biodiversity, Conservation and Attractions with respect to mine closure.
Infrastructure	<ul style="list-style-type: none"> Greenbushes has mined and processed lithium ore since the mid-1980s and all necessary infrastructure is in place to support the currently approved operations. The two planned additional chemical grade plants (CGP3 and CGP4) will require additional power supply and Talison are working with Western Power to install a 133kV powerline from Bridgetown to the mine to power the new processing operations. A 250 room camp has been established for the CGP2 construction workforce and can be used in future for construction of future plants CGP3 and CGP4. Investigations are underway to provide additional catchment water supply from the eastern side of the mine area.



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JORC Criteria	Explanation
	<ul style="list-style-type: none"> An additional TSF is required to store excess tailings. Strategies for the location of this facility are being formulated. A lack of tailings storage is not expected to impact on planned production targets and therefore Ore Reserves. Strategies are being formulated to provide additional waste dump capacity to support the mining of these Reserves. Land tenure or government approvals are not expected to impact on planned production targets and therefore Ore Reserves Applications are in progress to clear areas for additional waste rock dumping. No other significant infrastructure is anticipated and sustaining capital costs for infrastructure are included in current plans and supporting studies. With the construction of CGP2, Talison has added a concentrate storage shed and associated materials handling facilities at the Port of Bunbury. Additionally, a water treatment plant has been installed at the mine site. The ramp-up schedule for the pit optimisation study assumed product CY end productions of ~0.88Mt (CY21), ~1.13Mt (CY22 and CY23), ~1.13Mt (CY24), ~1.54Mt (CY25), ~1.7Mt (CY26), and ~2.1Mt (C27 onwards) In August of 2019 Talison received Ministerial Approval No. 1111 to undertake Stage 3 and Stage 4 expansion of Greenbushes including development of larger open, construction of two additional chemical grade processing plants and the TRP, and additional crusher and centralised ROM, a new mine services area and explosives storage and handling facility, expansion of the Floyd's Waste Dump, and a establishment of new infrastructure corridors for a bypass road, powerline, pipeline and road corridors.
Costs	<ul style="list-style-type: none"> Capital costs for production expansions include the cost associated with the completion of the TRP plant and the construction of CGP3 and CGP4. The remaining costs for the TRP are based on EPCM estimates by the construction contractor and Talison estimates for owner's costs. The costs for the additional two chemical plants are based on in-house Feasibility Studies and Talison's prior experience with the construction of the newly commissioned CGP2 plant. Sustaining capital costs are estimated based on Talison's prior experience of cost relative to the value of installed processing operations. Mining costs are based on current open pit contractor mining costs and have been adjusted for 'rise and fall' terms. Processing costs (including tailings costs), product transportation costs and administration costs are based on operating budgets, that have been adjusted for planned increases in production and are based on Talison's past extensive experience relating to fixed and variable costs. WA State royalties are levied at 5% of sales revenue after allowing for deductions of overseas shipping costs, where applicable.
Revenue factors	<ul style="list-style-type: none"> Long term chemical grade product prices and exchange rates are based on reputable, independent forecasts. Long term technical grade product prices are based on current prices and are assumed to remain flat in real terms. Price and foreign exchange assumptions for Greenbushes are managed by Talison. Sales agreements are commercial in confidence but are consistent with independent forecasts.
Market assessment	<ul style="list-style-type: none"> The continued strong growth in the rechargeable battery sector is expected to drive increasing demand for lithium. Talison expects to see a decline in market share as forecast lithium market growth outpaces the rate of growth of Talison's sales because of production expansions.
Economic	<ul style="list-style-type: none"> An inflation rate of 2.5% per annum was assumed for all prices and costs, except capital costs in 2022 where 6.25% was assumed. The NPV of the mine plan was determined using a nominal discount rate of 10% per annum. The NPV is most sensitive to changes in product price, exchange rates and sales volumes.
Social	<ul style="list-style-type: none"> Talison has strong working relationships with the local community and key stakeholders and considers that it has a social licence to operate. Proactive community programs include community programs and projects, tourism, environmental activities, and schools and education programs. Talison is also a significant employer in the local community with most of its workforce living within a 20 minute drive from the operation.
Other	<ul style="list-style-type: none"> Talison considers that there: <ul style="list-style-type: none"> Are no material naturally occurring risks associated with the current operation or planned future expansions. No material issues relating to current legal and marketing agreements. Are reasonable grounds to expect that all necessary government approvals will be received within the timeframes anticipated for the Feasibility Study expansion plans.
Classification	<ul style="list-style-type: none"> The OREs are classified after due consideration of the MRE classifications with Measured Mineral Resources converting to Proved Ore Reserves and Indicated Mineral Resources converting to Probable Ore Reserves after due consideration of all Modifying Factors as described in the JORC Code. The results reflect the Competent Persons view of the Central Lode and TSF1 OREs. No portion of Probable Reserves is derived from Measured Resources.
Audits and reviews	<ul style="list-style-type: none"> The prior ORE estimates have been reviewed in 2018 at a high level by Behre Dolbear Australia Pty Ltd, who concluded that the estimates are consistent with the requirements of the prevailing JORC Code and that reasonable prospects of eventual economic extraction had been demonstrated.



SECTION 4 – GREENBUSHES – ORE RESERVES	
JORC Criteria	Explanation
	<ul style="list-style-type: none"> • In 2019 and 2020, Snowden Mining Industry Consultant reviewed the estimates and concluded there were no fatal flaws in the prior ORE processes applied for the Central Lode and TSF1 and the estimates were generally low risk. • A December 2021, fatal flaw review prepared by resource and mining consultants RSC found no fatal flaws in Talison's method of preparation or reporting of the Aug-21 MRE and ORE. • A December 2021, review of the mine design for the Central Lode – Kapanga Pit by geotechnical consultants PSM found the pit design largely compliant with prior design recommendations, with suggestions as to so minor revisions related to small local areas of potential higher failure risk related to steeper than recommend over slopes and the presence of underground workings. • BDA in a 2021 review for a Tianqi Prospectus, stated that planned mining rates and mining recovery factors are a acceptable basis for future planning, and that geotechnical conditions are good. BDA also reported that Talison's planned expansions are practical and achievable at low risk give planned replication of existing facilities in which Talison has developed significant expertise. Additionally, BDA stated that it could see no reason that future development applications for the operation would not be forthcoming.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> • No specified statistical studies have been completed to quantify the estimation precision of either the Central Lode or TSF estimates. • The August 2021 ORE is underpinned by a new block model which has been calibrated to historical mine to mill reconciliations and therefore no factors have been applied to neither tonnes nor grade.