ASX RELEASE

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OPTIMISATION STUDY SIGNIFICANTLY ENHANCES NOVA PROJECT VALUE

Independence Group NL (IGO or the Company) (ASX:IGO) is pleased to advise of a significant value up-lift for the Nova Project following the results of the recently completed Optimisation Study.

All dollar amounts refer to Australian dollars unless otherwise stated.

Key Highlights

- The Nova Optimisation Study (Optimisation Study or OS) has delivered a **36% improvement to the Project NPV**[1] compared to the Definitive Feasibility Study (DFS), on a like for like basis[2].
- The opportunity for an additional increase to the Optimisation Study Project NPV[1] of over 10% has been recognised and will be assessed further during the operational phase.
- There has been a **27% reduction in the expected Life of Mine (LOM) C1 cash costs** (after by-product credits) in concentrate from $1.66/lb to $1.21/lb nickel[2].
- **LOM all-in sustaining cash costs have decreased by approximately 21%** from $2.32/lb nickel (after by-product credit) in concentrate to an expected $1.83/lb nickel (after by-product credits) in concentrate[2].
- Even at current commodity prices[3], the projects physicals and financials are extremely robust, with LOM C1 cash costs (after by-product credits) in concentrate of $1.57/lb nickel.
- The Nova Project is now expected to deliver an additional 41%, 108% and 83% of free cash flow in CY17, CY18 and CY19 when compared to the DFS[2].
- Project initial capital remains at $443M, which includes a number of scope changes to unlock Project value including accelerated underground development.

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[1] *Relative NPV is pre-tax and real discount rate of 8.0%.*

[2] *The comparison between the Optimisation Study and DFS has been completed on a like for like basis with commodity prices and FX exchanged assumptions levelled using the latest Consensus Economics (October 2015) commodity price forecasts. Unit costs are reported as per the DFS with the unit costs for the Optimisation Study reported using Consensus Economics commodity price forecasts.*

[3] *Spot commodity price (in Australian dollars) are quoted as at 4 December 2015 being $12,026/t nickel, $6,224/t copper and $32,275/t cobalt at AUD:USD exchange of 0.73.*

IGO's Managing Director, Peter Bradford, commented: *"IGO has unlocked significant value from the Nova Project – taking an already solid project and making it even better. The study has shown that Nova is an extremely robust project that will be able to weather the commodity price cycle. This value has come through leveraging off the current accelerated mining rates, improving the mining sequencing and schedule, and capturing the operating costs savings that have been delivered on the Project."*

"The Life of Mine C1 and All-in sustaining cash costs (in concentrate) have been reduced by 27% and 21%, respectively. This has further pushed the Nova Project down the nickel cost curve, guaranteeing strong margins even at current depressed commodity prices. On a C1 cash costs basis and net of by-product credits, the Nova Project would be the fifth lowest cost nickel operation world wide[4]."

"There remains an opportunity to further increase the Project NPV by further improving the mining production rates and processing plant throughputs. This could deliver additional metal on an annualised basis, compared to the Optimisation Study. The Company will continue to assess the potential for this second stage of value creation once construction is complete and operations have ramped-up."

"IGO is committed to leveraging its development, operational and exploration experience to extract the best shareholder returns from the Nova Project. The first stage of this process has been in the delivery of the Optimisation Study, which has provided the IGO business framework for the Project. The next major milestone will be development of first ore in June quarter 2016, followed by production of first concentrate in December 2016 and generation of first revenue."

Nova Project Optimisation Study Details

The Optimisation Study has been completed to bankable feasibility study standards and has captured additional value over and above the DFS which was released to the ASX on 14 July 2014.

The Optimisation Study has focused on unlocking value through:

- improved mining schedule and sequencing, including modifications of the mine design to prioritise higher-value ore early in the life of the mine;
- accelerated ramp-up of the production profile designed to fill the processing plant earlier;
- capturing the current contracted and forecast operating cost structure; and
- reviewing capital and capital efficiencies.

The Optimisation Study provides a comparison on value relative to the DFS and represents the IGO life of mine (LOM) operational framework for the Nova Project.

[4] *Source CRU Consulting & IGO based on 2019E C1 cash costs (net of by-product credits) nickel cost curve.*

Value Creation (comparison against the DFS)

Key outcomes of the Optimisation Study, compared to the DFS, are shown in Figure 1. The Nova Project optimised case, on a like for like basis[2] with the DFS, will deliver a 36% improvement to the Project NPV.

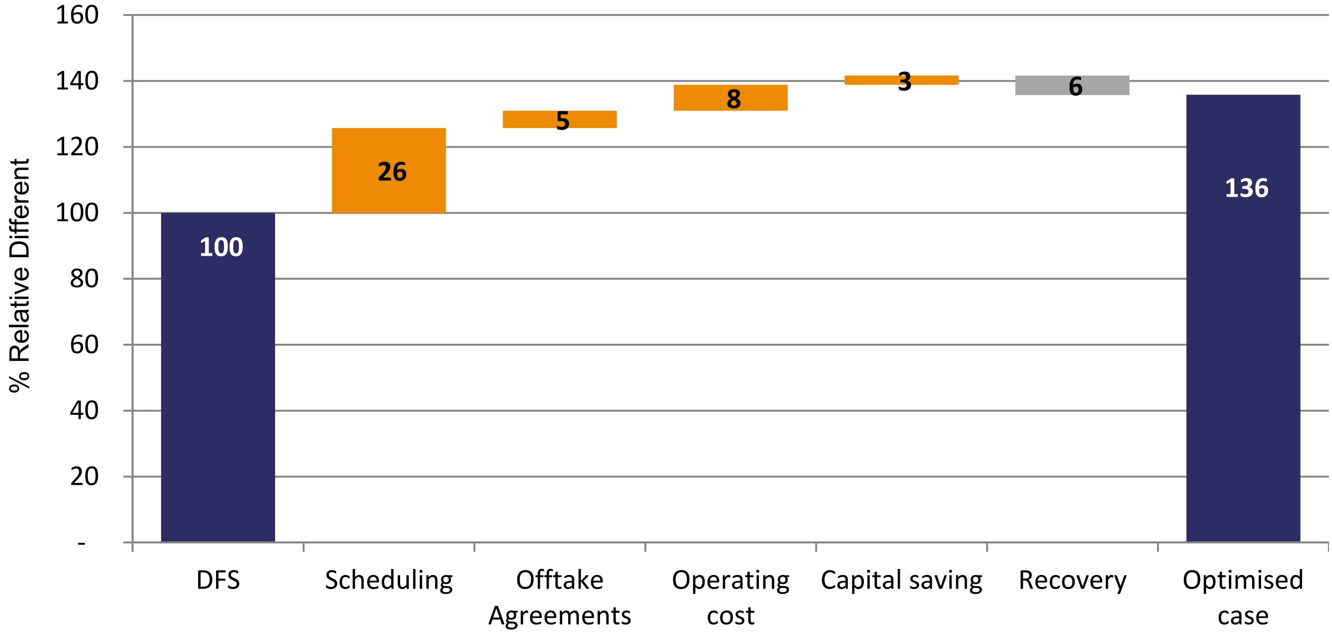


Figure 1: Waterfall graph showing the relative NPV captured as part of the Optimisation Study in comparison to the DFS, which results in a 36% improvement in the Project NPV, on a like for like basis. Further potential to deliver additional value has been recognised with future continuing improvements to mining and processing throughputs.

A summary of the value realised on the Optimisation Study for the Nova Project, relative to the DFS NPV, includes:

- a 26% increase associated with improved mining scheduling and accelerated ramp-up of ore-feed to the processing plant at a sustained 1.5Mtpa rate;
- a 5% increase due to offtake agreements exceeding DFS assumptions;
- an 8% increase due to improved operating cost structure over the LOM;
- a 3% increase in NPV resulting from a $30M reduction in capital costs compared to the DFS (as reported on 27 January 2015); and
- a 6% decrease in NPV resulting from a change in the metallurgical recovery assumptions made in the DFS. This results in a decrease in the nickel recovery from 89% to 88% and a decrease in the copper recovery from 95% to 89%, excluding the ramp-up period.

The key parameters are summarised in the table below. To enable a like for like comparison between the DFS and the Optimisation Study, cash flow input assumptions have been levelled using Consensus Economics (October 2015) commodity price forecasts.

Mine design input parameters used to generate LOM physicals have been updated from the DFS to the Optimisation Study. A low price mine design has been produced at prices closer to current market conditions; the result of this is that the mine design is insensitive to volatility in commodity price assumptions (refer to Table 6).

Table 1: Summary of key physical and financial parameters

Area	Measure	Unit	DFS	OS
Mine Design Parameters	Nickel	$/t	US$16,408/t **$18,231/t**	US$14,038/t **$18,231/t**
	Copper	$/t	US$7,655/t **$8,506/t**	US$ 6,550 **$8,506/t**
	Cobalt	$/t	US$26,417 **$29,394/t**	US$22,633/t **$29,394/t**
	FX	AUD:USD	0.90	0.77
DFS & Optimisation Study Cash Flow Comparison Assumptions	Commodity and FX Pricing Assumptions	Consensus Economics Commodity and FX Assumptions (October 2015)		
Production	Commissioning	Date	Q4 2016	Q4 2016
	First Concentrates	Date	Q4 2016	Q4 2016
	Annualised mining and processing rate	Mtpa	1.5	1.5
	LOM	Years	11.0	10.3
	LOM Ore Mined	Mt	14.2	14.6
	LOM Nickel Grade	%	2.0	2.0
	LOM Copper Grade	%	0.8	0.8
	LOM Cobalt Grade	%	0.07	0.07
	Ni Metal (payable)	t	185,000	184,000
	Cu Metal (payable)	t	107,000	102,000
	Co Metal (payable)	t	2,000	3,000
Operating Costs	C1 cash costs (after by-product credits) in concentrate[1]	$/lb	1.66	1.21
	C1 cash costs (after by-product credits) payable	$/lb	Not Reported	1.65
	All-in sustaining cash costs (after by-product credits)[2]	$/lb	2.32	1.83
Capital Costs	Initial Capital[3]	$M	473	443
	Sustaining Capital[4]	$M	152	148

1) *C1 cash costs include all operating costs excluding royalties.*
2) *All-in sustaining cash costs includes C1 cash costs plus royalty payments and sustaining capital costs.*
3) *Initial Capital costs includes additional scope of works to capture project value, within the Optimisation Study. The revised initial capital expenditure cost was reported by ASX Release on 27 January 2015.*
4) *Sustaining capital costs includes closure costs estimated at $25M.*

Mineral Resource

The Mineral Resource remains unchanged to that reported in 2014 and forms part of the IGO Annual Mineral Resource and Ore Reserve Update (ASX Release 28 October 2015).

Underground grade control diamond drilling is scheduled to commence in 2016 during the June quarter. The program is to be undertaken from a dedicated hangingwall drill drive from the 2030 level and is designed to:

- Complete the grade control drill out of the first two years of scheduled production;
- Upgrade Inferred classified mineralisation captured in the LOM mining inventory to Indicated status associated with the linking zone between Nova and Bollinger deposits;
- Test the potential extension of mineralisation on the margin of the Nova deposit; and
- Provide a platform of holes to identify electromagnetic responses beneath the Nova deposit.

Ore Reserve

The Ore Reserve for the Nova Project has been updated as part of the Optimisation Study.

The Probable Ore Reserve estimate is 13.6Mt at 2.0% Ni, 0.8% Cu, and 0.1% Co for contained metal of 275kt of Ni, 112kt of Cu and 9kt of Co metal. The Ore Reserve Estimate represents a conversion from the total Indicated Resource to Probable Reserve of approximately 94% of the *in-situ* metal content.

The previous 30 June 2015 Ore Reserve and the new December 2015 Ore Reserve are not materially different and are both based on the same May 2014 resource estimation as well as similar mining methodology and design.

The December 2015 Ore Reserve incorporates newly generated Net Smelter Return (NSR) values for each block in the resource model as well as a revised mining sequence and schedule, and additional and updated geotechnical design parameters. The NSR values have been generated with updated costs structures and payabilities, as captured in the Optimisation Study, versus the assumptions used in the DFS.

Table 2: Nova Ore Reserve - June 2015

Deposit	Reserve Category	Tonnes (Mt)	Grade Ni (%)	Contained Ni (kt)	Grade Cu (%)	Contained Cu (Kt)	Grade Co (%)	Contained Co (kt)
Bollinger	Proven	-	-	-	-	-	-	-
	Probable	2.8	2.0%	55	0.8%	22	0.08%	2
	Sub-total	2.8	2.0%	55	0.8%	22	0.08%	2
Nova	Proven	-	-	-	-	-	-	-
	Probable	10.3	2.1%	218	0.9%	90	0.07%	7
	Sub-total	10.3	2.1%	218	0.9%	90	0.07%	7
Total	Proven	-	-	-	-	-	-	-
	Probable	13.1	2.1%	273	0.9%	112	0.07%	9
	Total	13.1	2.1%	273	0.9%	112	0.07%	9

Notes:

1. *Ore tonnes have been rounded to the nearest hundred thousand tonnes.*
2. *Contained metal tonnes have been rounded to the nearest thousand tonnes for Ni and Cu. This may result in slight rounding differences in the total values in the table above.*
3. *An NSR cut-off value of $105/t stope ore has been used in the evaluation of the Ore Reserve.*
4. *No depletion occurred during the period.*
5. *Revenue factor inputs are as used in the Nova DFS: Ni US$16,408/t, Cu US$7,655/t, Co US$26,417/t. Exchange rate AU$1.00 : US$0.90.*
6. *Metallurgical recoveries – 89% Ni in nickel concentrate with Co; 95% Cu in copper concentrate with Ag.*
7. *Sub-level open-stoping with paste backfill is the primary method of mining to be used at Nova.*
8. *The Ore Reserve was estimated as part of the DFS. The Probable Ore Reserve underpinned the Life of Mine plan announced in the ASX release by Sirius Resources NL dated 14 July 2014.*
9. *The Competent Persons statement is incorporated in the JORC Code (2012) Competent Persons Statements section of this report.*
10. *JORC Code (2012) Table 1 Parameters are in Appendix A of the ASX release dated 14 July 2014.*

Table 3: Nova Ore Reserve – December 2015

Deposit	Reserve Category	Tonnes (Mt)	Grade Ni (%)	Contained Ni (kt)	Grade Cu (%)	Contained Cu (Kt)	Grade Co (%)	Contained Co (kt)
Bollinger	Proven	-	-	-	-	-	-	-
	Probable	2.7	2.2%	59	0.9%	24	0.09%	2
	Sub-total	2.7	2.2%	59	0.9%	24	0.09%	2
Nova	Proven	-	-	-	-	-	-	-
	Probable	10.9	2.0%	216	0.8%	89	0.06%	7
	Sub-total	10.9	2.0%	216	0.8%	89.0	0.06%	7
Total	Proven	-	-	-	-	-	-	-
	Probable	13.6	2.0%	275	0.8%	112	0.07%	9
	Total	13.6	2.0%	275	0.8%	112	0.07%	9

Notes:

1. *Ore tonnes have been rounded to the nearest hundred thousand tonnes.*
2. *Contained metal tonnes have been rounded to the nearest thousand tonnes for Ni and Cu. This may result in slight rounding differences in the total values in the table above.*
3. *An NSR cut-off value of $64/t of stope ore has been used in the evaluation of the Ore Reserve, which includes mining and G&A operating costs. Processing costs are captured as a variable to the NSR block value.*

4. *No depletion occurred during the period.*
5. *Revenue factor inputs are as follows: Ni US$14,038/t, Cu US$6,550/t, Co US$22,633/t. Exchange rate AU$1.00 : US$0.77.*
6. *Metallurgical recoveries vary depending on material type however average 88% Ni in nickel concentrate with Co; 89% Cu in copper concentrate with Ag post ramp-up i.e. in steady state operations.*
7. *Sub-level open-stoping with paste backfill is the primary method of mining to be used at Nova.*
8. *The Ore Reserve has been estimated as part of the Optimisation Study. The Probable Ore Reserve underpins the Life of Mine plan.*
9. *The Competent Persons statement is incorporated in the JORC Code (2012) Competent Persons Statements section of this report.*
10. *JORC Code (2012) Table 1 Parameters are in Appendix A of this report.*

Mining Inventory

The Mining Inventory includes a small portion (approximately 5% of contained nickel metal) of Inferred Resources, captured within the mining stope designs. The Total Mining Inventory is 14.6Mt at 2.0% Ni, 0.8% Cu and 0.07% Co for contained metal of 289kt Ni, 119kt Cu and 10kt Co. It is expected that the grade control drilling program will upgrade the confidence of the Inferred material within the Mining Inventory to Indicated classification.

Like the total Ore Reserve, the total Mining Inventory has increased marginally in the Optimisation Study compared to that estimated in the DFS, as shown in Table 4 and Table 5. The Mining Inventory total tonnage has increased by 3% for a 1% increase in contained nickel metal. The change is due to re-generation of the NSR values on each block in the resource model as well as updated the geotechnical design parameters.

Table 4: LOM Mining Inventory as per the DFS

		Tonnes (Mt)	Grade Ni (%)	Grade Cu (%)	Grade Co (%)	Contained Ni (kt)	Contained Cu (kt)	Contained Co (kt)
Mineral Resource	**Indicated**	13.1	2.1	0.9	0.07	273	112	9
Additional Resources	**Inferred**	1.1	1.0	0.4	0.04	12	6	1
Total Mining Inventory		14.2	2.0	0.8	0.07	285	118	10

Table 5: LOM Mining Inventory generated as part of the Optimisation Study

		Tonnes (Mt)	Grade Ni (%)	Grade Cu (%)	Grade Co (%)	Contained Ni (kt)	Contained Cu (kt)	Contained Co (kt)
Mineral Resource	**Indicated**	13.2	2.1	1.0	0.08	275	112	9
Additional Resources	**Inferred**	1.4	1.0	0.6	0.05	14	6	1
Total Mining Inventory		14.6	2.0	0.8	0.07	289	119	10

Mine Schedule and Design

The base case mine plan is founded on a 1.5Mtpa underground mining operation with decline access as per the DFS. The stoping extraction methods include:

- Transverse/Longitudinal Sublevel Open Stoping (86% planned production);
- Longitudinal Open Stoping of moderate dipping ore (4% planned production);
- Longitudinal Open Stoping of sub-vertical ore with pillars (4% planned production); and
- Longitudinal Open Stoping of sub-vertical ore with paste fill (6% planned production).

The geographical areas of the differing ore zones and their respective predominant mining methods are shown in Figure 2.

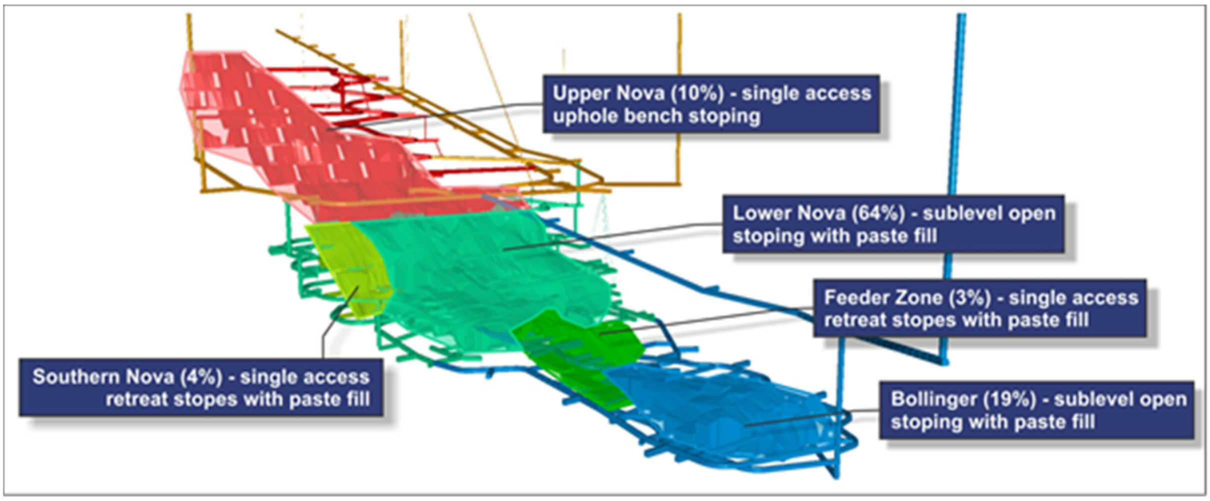


Figure 2: Generalised stoping areas for the Nova Project.

Trade-off studies were completed on eight different mining sequences as part of the Optimisation Study designed to:

- Accelerate the mining production profile in order to meet plant capacity earlier;
- Bring forward high value ore (on a NSR value basis) earlier in the LOM production profile;
- Maximise mining and operational flexibility providing the option to increase mining rates beyond the 1.5Mtpa; and
- Ensuring that the mining schedule is de-risked from a geotechnical design point of view.

The optimal Lower Nova mining sequencing was determined to be the Centre-Out approach complemented with some early western fringe stope production, in which:

- Initial stopes are extracted on the north-western and south-western margins of the Nova deposit to maximise early production and provides an accelerated mining profile ramp-up;
- Principal extraction is via the Centre-Out mining sequence of both primary and secondary stopes in the predetermined order. This allows targeting of the highest NSR ore early in the LOM, along with providing mining flexibility and accelerated ramp-up to the nominal 1.5Mtpa production rate. Mining towards the west will be with an echelon arrowhead front to improve geotechnical stability;

- Extraction of Bollinger will be done with a similar Centre-Out sequence, which brings forward high value production compared to the DFS, and increases operational flexibility with a spatially separate production area early in the LOM; and
- Mining of the lower value Upper Nova area is deferred towards the end of the LOM.

Ore and waste will be hauled in 60t underground trucks up a one in seven gradient decline. The decline has been designed to allow conveyor haulage to be retrofitted at a later date if deemed appropriate.

The LOM sequence is illustrated in the following diagram:

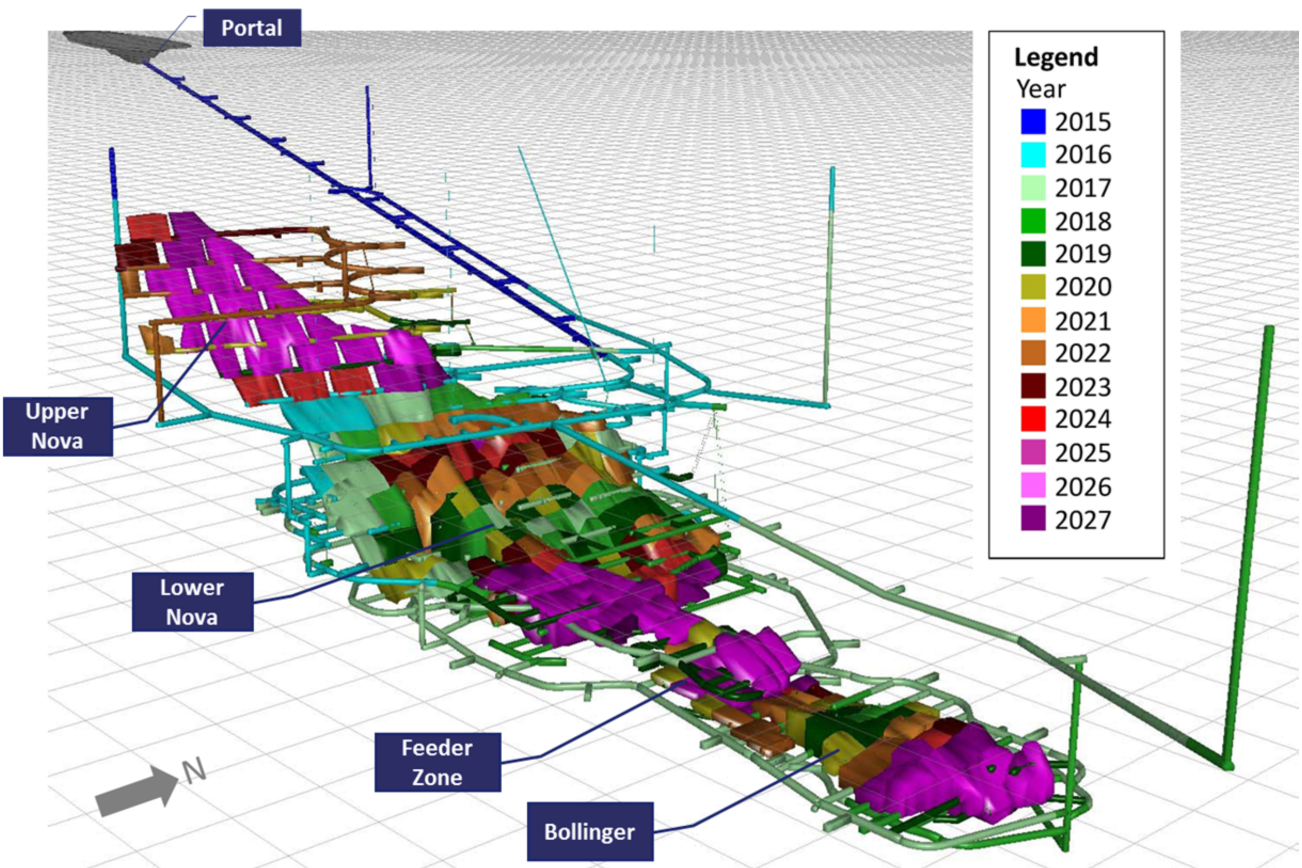


Figure 3: The development and stoping sequence has been designed to improve the project NPV and accelerate early mill feed. A Centre-Out mining sequence focused on Lower Nova and Bollinger has maximised the number of stopes available along with targeting the highest NSR portions of the deposit.

The ability to leverage-off the accelerated development rates with the modifications to the DFS mining sequence has greatly improved the early ramp-up of the mill ore-feed. This translates into an improved Project NPV.

The production profile for the Optimisation Study compared to the DFS is shown in the following figures:

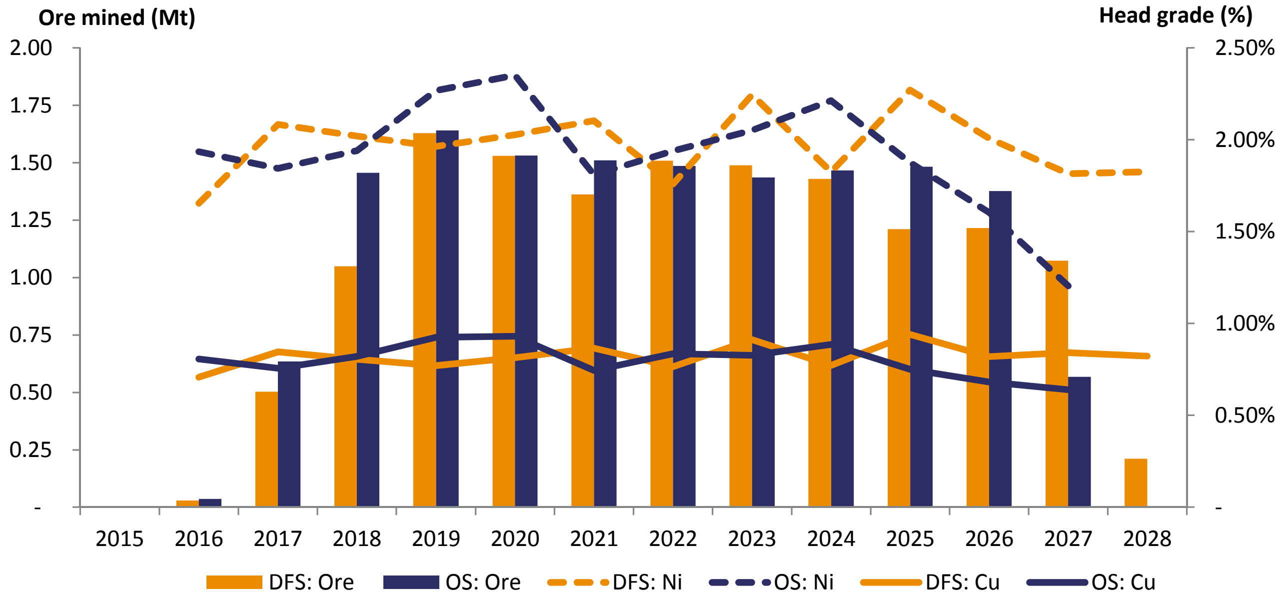


Figure 4: Production schedule for the Optimisation Study against the DFS showing mined ore (Mt) and grades (nickel % and copper %) for each financial year. The mining schedule has captured additional value through improving the available ore in FY17 and FY18. The schedule has also targeted higher grades earlier in the LOM (FY19 and FY20) with the deferral of the lower grades (FY26 and FY27).

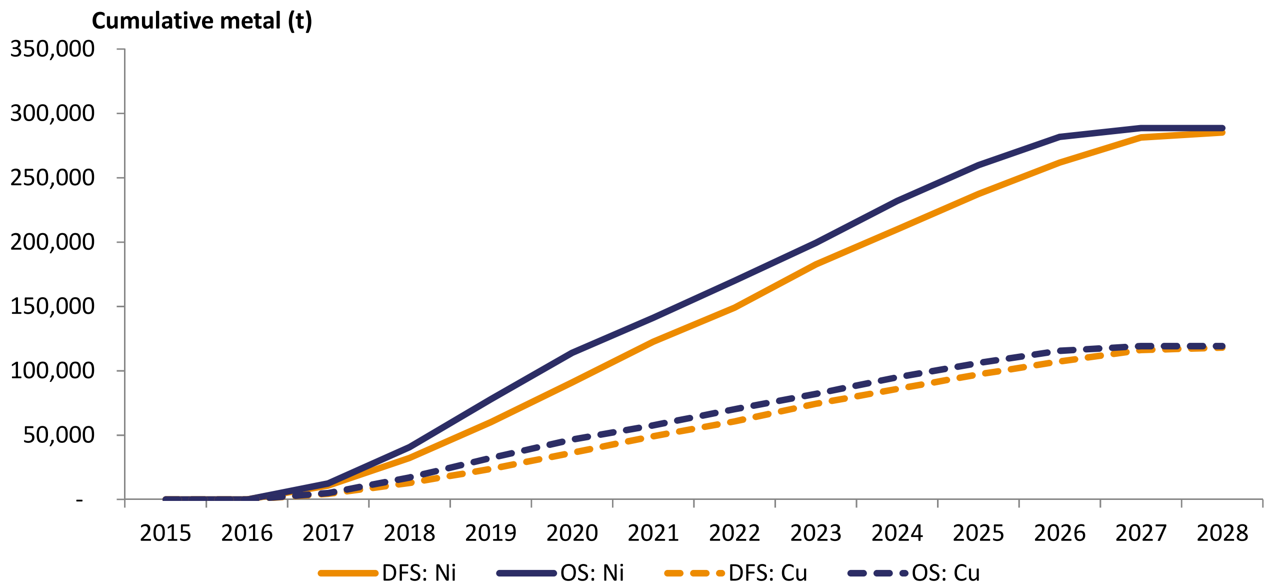


Figure 5: Graph showing cumulative metal as a comparison between the DFS and Optimisation Study (mined). The Optimisation Study has delivered an accelerated metal profile early in the LOM (on a like for like basis at 1.5Mtpa). Further improvements have been recognised to continue to improve the mining rates and throughputs.

The LOM ventilation requirements have been increased by 230m^3/s in the Optimisation Study, from 330m^3/s as per the DFS, to 560m^3/s. The increase in the LOM ventilation flow requirements is due to:

- Allowing for the ventilation system to comprise of a number of parallel circuits; and
- Ensuring ventilation provides no LOM constraints with respect to unlocking potential future production increases.

In addition, the maximum velocity of exhaust air has been constrained to a maximum of 14m/s to limit potential environmental issues resulting from expelling air with entrained contaminated water.

The increased cost to develop the additional ventilation requirement is $17M, which is captured in the initial and sustaining capital costs.

Commodity Price Sensitivities

A lower commodity price scenario was evaluated as part of the Optimisation Study to assess the sensitivities associated with revenue factor assumptions used in the mine design. The economic limits of stoping and development were re-calculated for the low-price assumptions, as shown in Table 6, which allowed comparison physicals to be developed and scheduled into a valid scenario.

Table 6: Input assumptions into the low commodity price scenario

Commodity	Unit	Price
Nickel	$/t	14,500
	US$/t	10,875
Copper	$/t	7,000
	US$/t	5,250
Cobalt	$/t	25,000
	US$/t	18,750
FX	AUD:USD	0.75

The evaluation demonstrated that the Nova Project mining inventory and associated mine design is extremely insensitive to commodity price volatility, demonstrating the quality and robustness of the Project. With a 20% and 18% decrease in Australian dollar nickel and copper commodity price assumptions respectively, the ore inventory would only reduce by 7%, and the contained nickel metal by 3% and contained copper metal by 3%. The underground development would remain relatively unchanged with a slight reduction in development metres on the margins of both the Nova and Bollinger Deposits.

Table 7: Summary of mining physicals and the variance between the Optimisation Study and a low price commodity scenario.

Description	Units	OS	Low Price Scenario	Physical Variation	% Variation
Ore Tonnes	Mt	14.6	13.6	-1.1	-7%
Ni Grade	%	2.0	2.1	0.09	5%
Ni Metal	kt	289	280	-8.20	-3%
Cu Grade	%	0.8	0.8	0.03	4%
Cu Metal	kt	119	115	-4.00	-3%
Underground Development	m	39,690	38,570	-1,120	-3%

Note: Ore and contained metal tonnes have been rounded to the nearest hundred thousand tonnes and thousand tonnes respectively. This may result in slight rounding differences in the total values in the table above.

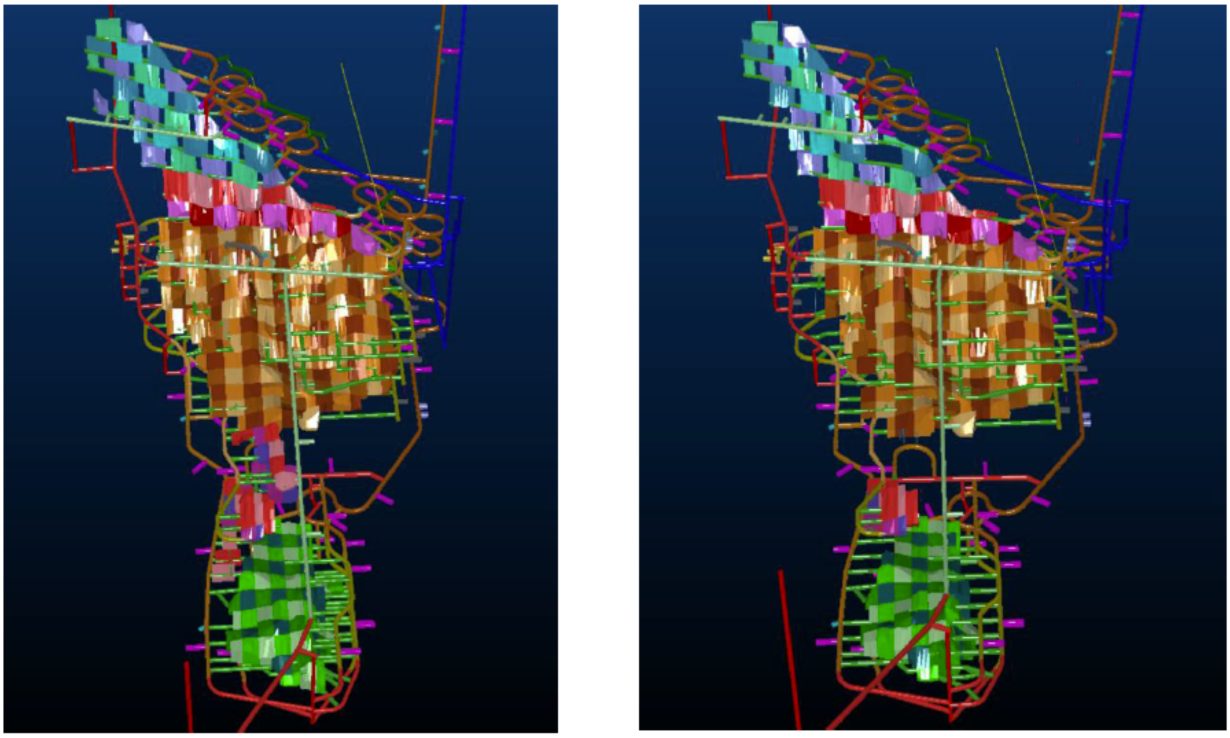
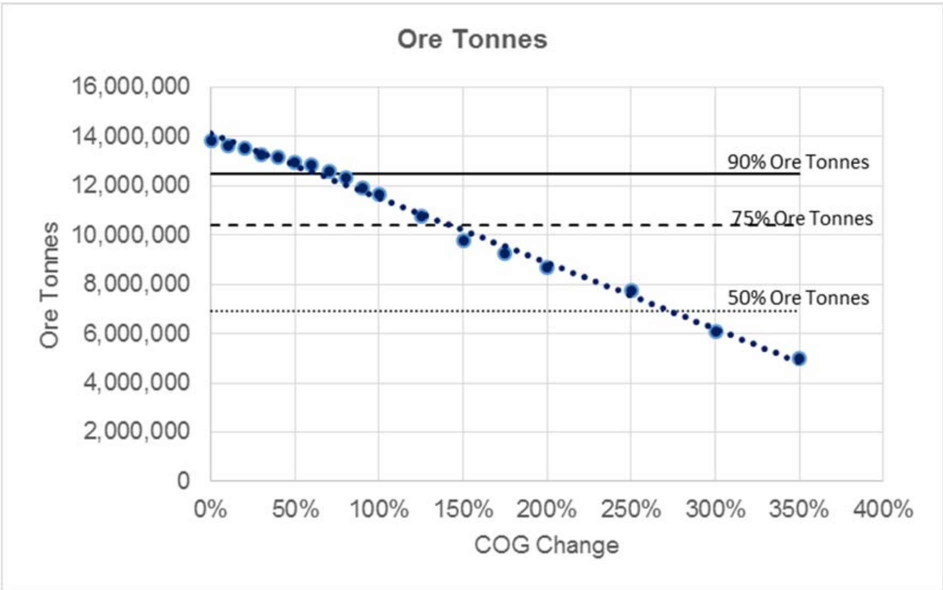


Figure 6: Image showing the a) stope & development design (on the left) with the Optimisation Study; and b) the stope & development design (on the right) with the low commodity price scenario. There is minor variance associated with the loss of lower value reserve tonnes on the margins of the Nova and Bollinger Deposits. The mine design would remain relatively unchanged.

The robustness of the Nova Project is further demonstrated when considering mining cut-off grade sensitivity for the Optimisation Study, as shown in the charts below of ore tonnes and nickel metal versus cut-off grade (CoG). A 50% increase in the NSR CoG would only result in a 7% decrease in Mining Inventory ore tonnes, 4% increase in nickel grade, and 3% decrease in nickel metal. A

100% increase in NSR CoG would result in the Mining Inventory ore tonnes being decreased by only 16%, nickel grade increasing by 9%, and nickel metal decreasing by only 8%.

Given the margin (% difference between NSR value and CoG) of the Nova Project on a tonne by tonne basis, the Project mining physicals and mine design are remarkably insensitive to changes in operating costs or commodity price assumptions.



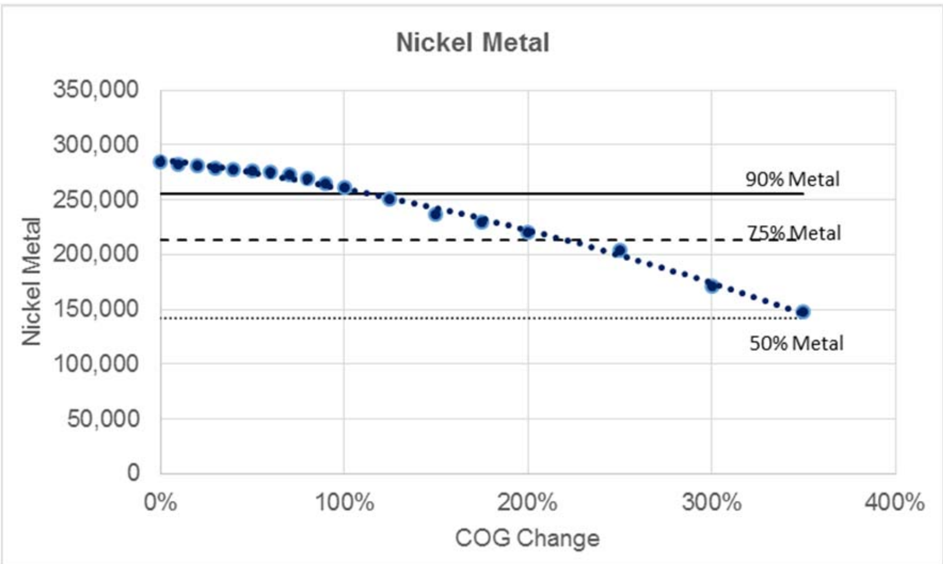


Figure 7: Graphs of a) Ore tonnes and b) Metal sensitivity for variable CoG's for the Optimisation Study physicals.

Metallurgy and Processing

No additional metallurgical test work has been completed for the Optimisation Study. The metallurgical assumptions are based on the DFS test work program involving multiple domains and material types, variability tests and over 200 flotation tests.

As part of the Optimisation Study, geometallurgical algorithms have been developed to model plant recovery, milling power and throughput, reagent consumption and ultimately processing plant operating costs. These parameters have been captured on a block by block basis utilising domain/lithology and assay variables (copper, nickel and sulphur). The resultant model as used in the Optimisation Study provides a better representation of the variability in metallurgical parameters versus the single global recovery estimates used in the DFS.

Adopting the geometallurgical methodology has resulted in an approximate 1% decrease in expected nickel recoveries and a corresponding 6% decrease in expected copper recoveries (steady state) compared to the DFS.

Table 8: Comparison of recovery assumptions between the DFS and the Optimisation Study

		DFS	OS
LOM including ramp-up	Nickel	88%	87%
	Copper	94%	89%
Steady state	Nickel	89%	88%
	Copper	95%	89%

The quality of the Nova Project nickel concentrate and copper concentrate are excellent with high grades and low impurities along with other desirable characteristics such as the high Fe:MgO ratio of the nickel concentrate. Both concentrates transport safely without any need for unconventional practices or packaging, and have characteristics that are sort after in the market.

The nickel concentrate will have an expected grade of 13.5% nickel and three-year offtake contracts have been executed with BHP Billiton (Nickel West) and Glencore for approximately equal shares of the production over that period.

The copper concentrate will have an expected grade of 29% copper and a three-year offtake contract has been entered into with Trafigura for production over that period.

There remains no change to the processing plant design criteria relative to the DFS except for an increase in the concentrator filter capacity and associated concentrate handling area to ensure capacity to treat high-grade ore feed without having to constrain plant throughput. This additional cost is captured within the Optimisation Study capital cost estimate.

Future Value

The Optimisation Study, like the DFS, has been based on a mining and processing throughput of 1.5Mtpa. It is apparent that the Nova Project at this rate of production is mine constrained, i.e. the processing plant is capable of processing all the ore produced in any given period.

Therefore, to make best use of processing plant capacity (i.e. capital invested), and continue to improve the Project returns, there is an opportunity to investigate and implement options to increase mine production beyond 1.5Mtpa. At prefeasibility study levels, simulation of the underground haulage activity shows that mining production increases beyond 1.5Mtpa are possible, especially after Year 2 when the development waste haulage requirements reduce significantly. Increased stope productivity rates therefore are the key to annualised production rates beyond 1.5Mtpa.

Recognising this potential, the following investment to maintain the optionality for higher production rates are incorporated into the Optimisation Study capital costs:

- Provide sufficient ventilation for expanded future production rates;
- Provide the data transmission backbone (optical fibre) throughout the mine to allow advanced control systems (such as surface remote control); and
- Mine sequence choice that maximises the available stoping areas as well as concurrent, but operationally independent work areas.

The constraining activity for mine production is the average stope extraction rate. The large stopes at Nova result in infrequent blasting delays, which makes it possible, with the use of surface operated remote controlled loaders, to minimise shift change delays and materially improve stope utilisation and hence annualised production.

Debottlenecking of the processing plant will undoubtedly be required as processing rates are increased, however initial modelling suggests requirements will be relatively minor as the large cost items, including crushing, grinding and concentrate filtration have available capacity.

It is anticipated that further value enhancement of the Nova Project, beyond the current optimisation parameters, will commence in early 2017. This value enhancement has the potential to increase the NPV by over 10%, on the value captured as part of the Optimisation Study, by increasing the mining and processing throughputs.

Operating Costs

There has been a significant reduction in the operating costs compared to the DFS, with a 27% decrease in the C1 cash costs (after by-product credits) in concentrate to $1.21/lb nickel from $1.66/lb nickel.

Even at current depressed commodity prices (spot prices as at 4 December 2015) the C1 cash costs (after by-product credits) in concentrate are $1.57/lb.

The Optimisation Study has captured all contracted rates, versus the DFS, which was based on bottom-up cost estimates.

Forecast mining costs have decreased primarily due to materially lower rates achieved in the Barminco contract than those estimated for the DFS. Additionally, the price of diesel has decreased resulting in savings in diesel costs for the mobile plant and a lower cost of power generation.

The mining cost savings are partially offset by increased ventilation operating costs from the second primary fan, which was not contemplated in the DFS capital build schedule.

Most of the processing cost assumptions were in line with the DFS as no new test work has been undertaken. The cost savings achieved were attributable to (a) lower power cost achieved primarily through a lower forecast diesel price, and (b) the reduction of fixed costs as the mine life reduces slightly.

The majority of the General and Administration support costs have not changed from DFS estimates with updates only made where additional information has become available.

Since the release of the DFS, the price of diesel has fallen significantly. The DFS assumed a diesel price of $1.44/l, while the Optimisation Study assumes a diesel price of $1.25/l (before rebates).

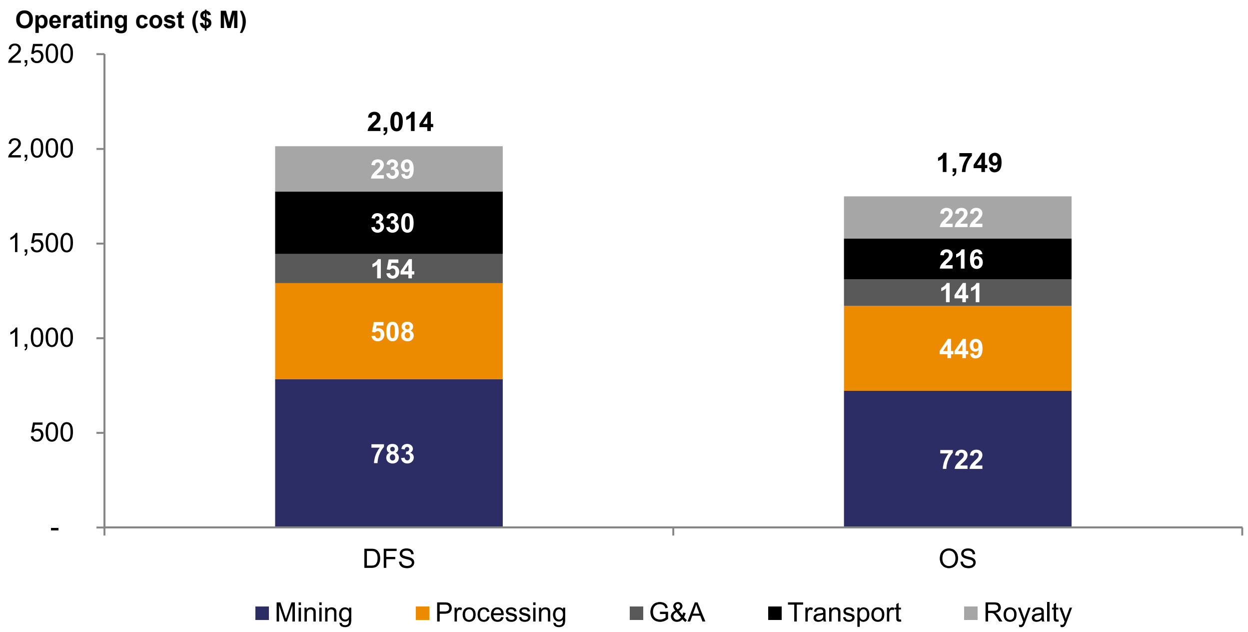


Figure 8: Graph showing the breakdown of LOM operating costs between the DFS and Optimisation Study

Table 9: Unit operating costs of the DFS and Optimisation Study

Description	Unit	DFS	OS
Mining	$/ t ore	54.97	49.37
Processing	$/ t ore	35.64	30.68
G&A	$/ t ore	10.83	9.61
Haulage and handling	$/ t ore	11.60	10.24
Shipping[1]	$ /t ore	11.60	4.51

[1] The Optimisation Study shipping costs per tonnes of ore assumes 50% of the nickel concentrate is treated at BHP Billiton Nickel West, hence this portion of the total ore tonnes does not incur any shipping costs.

The DFS assumed that all nickel concentrate was shipped to offshore markets. Subsequent to the completion of the DFS, a nickel concentrate offtake agreement was signed with BHP Billiton (Nickel West) with delivery of approximately half the nickel concentrate in the first three years of mine production to the Kambalda concentrator for blending and then despatch to the Kalgoorlie

Nickel Smelter. The Optimisation Study applied revised transport costs for this road-only freight charge.

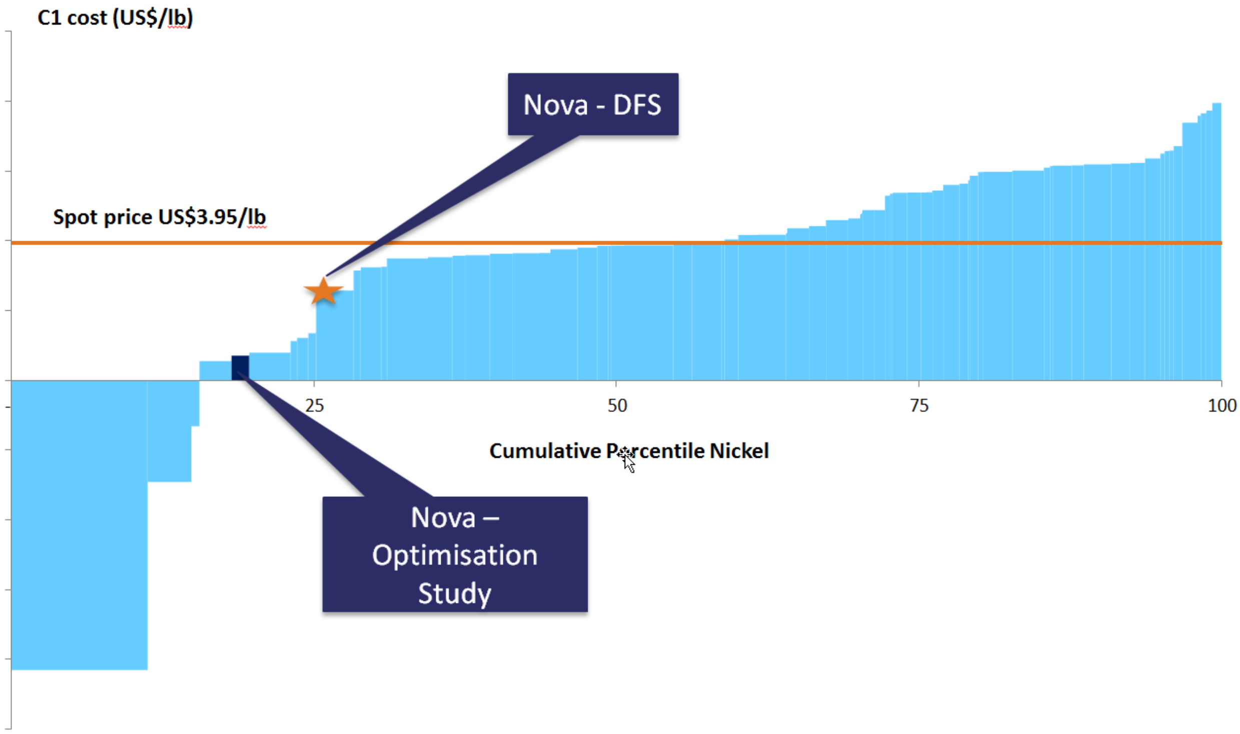


Figure 9: 2019E C1 cash cost curve for nickel showing relative position of the Nova Project on a like for like basis from DFS and Optimisation Study. The Nova Project on 2019E C1 cash costs is positioned at approximately the fifth lowest in the world and on a AISC cost would be ranked approximately tenth lowest (source: CRU & IGO). Spot price as at 9 December 2015.

Capital Costs

The Initial capital cost estimated in the DFS was $473M. This was subsequently revised down to $443M (inclusive of $22M of contingency) on 27 January 2015 because of increased competitiveness in cost inputs.

The initial capital cost estimate, through to production of first concentrate, remains at $443M for completion. The capital cost estimate incorporates a number of additional scope changes to provide optionality for further increases in mine production rates and higher processing throughputs, including:

- Upgrade in the size of the concentrate filter and concentrate handling area in the processing plant to ensure increased throughput (metal) can be achieved through the processing plant as part of planned further optimisation work;
- Continuation of the accelerated underground mining rates compared to DFS. It is forecast that as of end of October 2016, 8,510m of underground capital development will be completed compared to 6,915m as per the DFS;
- Additional hydrogeological drilling and dewatering to further de-risk the mine plan, given the accelerated underground development; and

- Commencement of work to upgrade the LOM underground ventilation capacity to enable further mine optimisation and improvement in operational flexibility.

JORC Code (2012) Competent Persons Statements

Nova Project Reserve

The information that relates to the Nova Project Ore Reserve is based on, and fairly represents information and supporting documentation compiled by Mr Shane McLeay who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr McLeay is a full-time employee of Entech Pty Ltd and is not a security holder of the Company. Mr McLeay has sufficient experience which is relevant to style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, 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). Mr McLeay consented to the inclusion in this report of the Nova Project Ore Reserve estimate, based on his information, in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Independence Group NL's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should", and similar expressions are forward-looking statements. Although Independence Group NL believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these Forward Looking statements.

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APPENDIX A

Nova Project Mineral Resource and Ore Reserve 2015

JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques **Note: Due to the similarity of the deposit setting, procedures and estimation these tables present the combined Nova-Bollinger tabulation. All references to the Bollinger deposit are in bold font, and Nova is in normal font.**	**The Bollinger deposit was sampled using diamond drill holes (DD) on a nominal 25m x 25m to 50m x 50m grid spacing. A total of 72 DD holes were drilled for 35,935m. Holes were generally angled towards grid west between -60^{0} and -90^{0} to optimally intersect the mineralised zones.** The Nova deposit was sampled using Reverse Circulation (RC) and diamond drill holes (DD) on a nominal 25m x 25m grid spacing. A total of 15 RC and 163 DD holes were drilled for 2,910m and 63,099m respectively. Holes were generally angled towards grid west at varying angles to optimally intersect the mineralised zones.
	Bollinger is defined by diamond drilling only, and uses the same measures employed at Nova for controls and sample representivity. The drill hole locations were picked up and downhole surveyed by survey contractors. Initial RC drilling identified the Nova target and diamond core was used to delineate the resource. The RC samples were collected by cone or riffle splitter. Diamond core was used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes. Sampling was carried out under Sirius protocols and QAQC procedures as per industry best practice.
	Diamond core is HQ and NQ2 size, sampled on geological intervals (0.2m to 1.2m), cut into half (NQ2) or quarter (HQ) core to give sample weights under 3kg. Samples were crushed, dried and pulverised (total prep) to produce a sub-sample for analysis by four acid digest with an ICP/OES or ICP/MS finish and fire assay (Au, Pt, Pd) with MS finish. Diamond core is HQ (metallurgical holes) or NQ2 size, sampled on geological intervals (0.2m to 1.3m), cut into half (NQ2) or quarter (HQ met) core to give sample weights under 3kg. Samples were crushed, dried and pulverised (total prep) to produce a sub-sample for analysis by four acid digest with an ICP/OES or ICP/MS finish and fire assay (Au, Pt, Pd) with MS finish. Reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised (total prep) to produce a sub-sample for assaying as above.
Drilling techniques	**Diamond drilling accounts for 100% of the current drilling at Bollinger and comprises NQ2 or HQ sized core. Pre-collar depths range from 20m to 84m and hole depths range from 450m to 667m. The core was oriented using a Camtech orientation tool.** Diamond drilling accounts for 96% of the drilling in the resource area and comprises NQ2 or HQ sized core. Pre-collar depths range from 6m to 150m and hole depths range from 144m to 667m. The core was oriented using a Camtech orientation tool with 71% of orientations rated as "good". RC drilling accounts for 4% of the total drilling and comprises 140mm diameter face sampling hammer drilling. Hole depths range from 90m to 280m.
Drill sample recovery	Diamond core and RC recoveries are logged and recorded in the database. Overall recoveries are >95% for Nova and **Bollinger** and there are no core loss issues or significant sample recovery problems.
	Diamond core at Nova and **Bollinger** is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. RC samples were visually checked for recovery, moisture and contamination.
	The Bollinger mineralisation is defined by diamond core drilling, which has high recoveries. The bulk of the Nova resource is defined by diamond core drilling, which has high recoveries. The massive sulphide style of mineralisation and the consistency of the mineralised intervals are considered to preclude any issue of sample bias due to material loss or gain.
Logging	Geotechnical logging at Nova and **Bollinger** was carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.
	Logging of diamond core and RC samples at Nova and **Bollinger** recorded lithology, mineralogy, mineralisation, structural (DD only), weathering, colour and other features of the samples. Core was photographed in both dry and wet form.
	All drillholes were logged in full, apart from rock roller diamond hole pre-collar intervals of between **20m to 60m depth (Bollinger)** and 20m to 60m (Nova).
Sub-sampling techniques and sample preparation	Core for Nova and **Bollinger** was cut in half (NQ2) and quarter core (HQ) onsite using an automatic core saw. All samples were collected from the same side of the core.
	RC samples were collected on the rig using cone splitters. All samples in mineralised zones were dry.
	The sample preparation of diamond core for Nova and **Bollinger** follows industry best practice in sample preparation involving oven drying, coarse crushing of the half core sample down to ~10mm

Criteria	Commentary
	followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 85% passing 75µm. The sample preparation for RC samples is identical, without the coarse crush stage.
	Field QC procedures involve the use of certified reference material as assay standards, along with blanks, duplicates and barren washes. The insertion rate of these averaged 1:15 **for both projects**, with an increased rate in mineralised zones.
	No field duplicates have been taken. Samples are selected to weigh less than 3kg to ensure total preparation at the pulverisation stage. Field duplicates were taken on 1m composites for RC, using a riffle splitter. One twinned diamond hole was drilled at Nova. This hole supported the location of the geological intervals intersected in the first drillhole (no assays were taken as this is a metallurgical hole).
	The sample sizes are considered to be appropriate to correctly represent the sulphide mineralisation at Bollinger 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 sample sizes are considered to be appropriate to correctly represent the sulphide mineralisation at Nova 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.
Quality of assay data and laboratory tests	**The analytical techniques used a four acid digest multi element suite with ICP/OES or ICP/MS finish (25 gram FA/MS for precious metals).** The analytical techniques used a four acid digest multi element suite with ICP/OES or ICP/MS finish (25 gram or 50 gram FA/MS for precious metals). The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals. Total sulphur is assayed by combustion furnace.
	No geophysical tools were used to determine any element concentrations used in either resource estimate.
	Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75µm was being attained. One diamond hole had duplicates taken from the half core after coarse crushing and the results were within 3% of the original sample values. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. Umpire laboratory campaigns with two other laboratories have been carried out as independent checks of the assay results using **201 pulp samples and standards sent to ALS,** (Nova 2,590 samples) and these show good precision. Certified reference materials, having a good range of values, were inserted blindly and randomly. Results highlight that sample assay values are accurate and that contamination has been contained. The diamond drilled core pulp duplicates had more than 90% of its pairs with differences (half absolute relative differences or HARD values) below 10% (Ni, Cu, Co), which concurs with industry best practice results. Repeat or duplicate analysis for samples reveals that precision of samples is within acceptable limits.
Verification of sampling and assaying	**Both the Managing and the Technical Director of Sirius have visually verified significant intersections in diamond core from Bollinger in 2013. Optiro has viewed the intersections of metallurgical core and checked core photos against the assay and geology logs.** Optiro has visually verified significant intersections in diamond core as part of the resource estimation process.
	No twin holes have been drilled at Bollinger to date. Two PQ and one HQ metallurgical holes have been drilled at Nova since March 2013 and the logging supports the interpreted geological and mineralisation domains. One hole at Nova was twinned - SFRD0117 and SFRD0117W1M. The results confirmed the initial intersection geology. The twin (suffixed W1M) was used as a metallurgical hole.
	Primary data were collected for **both projects** using a set of standard Excel templates on toughbook laptop computers using lookup codes. The information was sent to ioGlobal for validation and compilation into a SQL database server.
	No adjustments or calibrations were made to any assay data used in **either** estimate.
Location of data points	Hole collar locations for **all holes** were surveyed by Whelans Surveyors of Kalgoorlie using RTK GPS connected to the state survey mark (SSM) network. Elevation values were in AHD RL and a value of +2,000m was added to the AHD RL by Sirius for local co-ordinate use. Expected accuracy is +/– 30mm for easting, northing and elevation coordinates. Downhole surveys used single shot readings during drilling (at 18m, then every 30m) and Gyro Australia carried out gyroscopic surveys using a Keeper high speed gyroscopic survey tool with readings every 5m after hole completion. Stated accuracy is +/-0.25° in azimuth and +/-0.05° in inclination. QC involved field calibration using a test stand. Only gyro data are used in the resource estimate.
	The grid system for **Nova-Bollinger** is MGA_GDA94, zone 51 (local RL has 2,000m added to value). Local easting and northing are in MGA.

Criteria	Commentary
	Topographic surface for **Nova-Bollinger** uses 2012 Lidar 50cm contours.
Data spacing and distribution	**The nominal drillhole spacing is 25m (northing) by 25m (easting) in the core of the deposit, and is up to 50m by 50m on the margins.** The nominal drillhole spacing is 25m (northing) by 25m (easting).
	The mineralised domains for **Nova-Bollinger** have demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resources and Reserves, and the classifications applied under the 2012 JORC Code.
	Samples have been composited to one metre lengths for **both projects**, and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).
Orientation of data in relation to geological structure	**The deposit is drilled towards grid west at angles varying from -60^0 and -90^0 to intersect the mineralised zones at a close to perpendicular relationship for the bulk of the deposit.** The deposit is drilled to grid west, which is slightly oblique to the orientation of the mineralised trend; however the intersection angles for the bulk of the drilling are nearly perpendicular to the mineralised domains. Structural logging based on oriented core indicates that main sulphide controls are largely perpendicular to drill direction.
	No orientation based sampling bias has been identified at **Nova-Bollinger** in the data at this point.
Sample security	Chain of custody was managed by Sirius. Samples for **Nova-Bollinger** were stored on site and were either delivered by Sirius personnel to Perth and then to the assay laboratory, or collected from site by Centurion transport and delivered to Perth, then to the assay laboratory. Whilst in storage, they were kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples.
Audits or reviews	A review of the sampling techniques and data was carried out by Optiro as part of each resource estimate and the database is considered to be of sufficient quality to carry out resource estimation. An internal system audit was undertaken by Sirius in November 2012.

Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	**Nova and Bollinger** are located wholly within M28/376. IGO has a 100% interest in the ML following acquisition of Sirius effective 22 September 2015. The tenement sits within the Ngadju Native Title Determination Area.
	The tenement is in good standing and no known impediments exist.
Exploration done by other parties	No previous systematic exploration has been undertaken at the **Nova-Bollinger** Project prior to the work by Sirius Resources.
Geology	The global geological setting is a Proterozoic aged gabbroic intrusion(s) within metasediments situated in the Albany Fraser mobile belt. It is a high grade metamorphic terrane. The sulphide mineralisation is related to, and part of, the intrusive event. The deposits are analogous to many mafic-hosted nickel-copper deposits worldwide.
Drill hole Information	No new exploration data are announced within this report.
Data aggregation methods	No new exploration data are announced within this report.
Relationship between mineralisation widths and intercept lengths	The Nova deposit is moderately east dipping in the west, flattening to shallow dipping in the east. The fans of drillholes are inclined between -54^0 and -90^0 to the west to allow intersection angles with the mineralised zones to approximate the true width. **The Bollinger deposit is dominantly flat lying and is drilled to grid west with drill holes inclined between -60^0 and -90^0. The intersection angles for the drilling appear to be close to perpendicular to the mineralised zones, therefore reported downhole intersections approximate true width.**
Diagrams	No new exploration data are announced within this report.
Balanced reporting	No new exploration data are announced within this report.
Other substantive exploration data	All samples are measured for their bulk density which in the **Nova-Bollinger** deposit range from 2.90 g/cm^3 to 4.66g/cm^3. Multi element assaying is conducted routinely on all samples for a suite of potentially deleterious elements including Arsenic, Sulphur, Zinc and Magnesium. Geotechnical logging was carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.
Further work	Underground mapping is currently conducted in the decline development and is confirming geotechnical assumptions. Mapping of ore development will start in early 2016 in parallel with diamond grade control drilling that will be conducted from a service drive above the Nova and Bollinger orebodies to a nominal 12.5m x 12.5m spacing. This work will start in early 2016 and will be an ongoing process to allow the geological model to be refined for final underground detailed design. The Mineral Resource will be updated with this new data in 2016.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Data templates with lookup tables and fixed formatting are used for logging, spatial and sampling data at **Nova-Bollinger**. Data transfer is electronic via e-mail. Sample numbers are unique and pre-numbered bags are used. These methods all minimise the potential for errors.
	Data validation checks are run by database management consultancy "ioGlobal" using their proprietary software ("ioHub"). ioGlobal have their own database model with a production and quarantine database for each client. Data are validated from quarantine to upload using a set of validation rules developed by Sirius and ioGlobal. **Data for Nova-Bollinger are stored in a single database.**
Site visits	**Mark Drabble (Principal Consultant - Optiro), who is acting as Competent Person, viewed the metallurgical drill core at AMMTEC on 28th June 2013.** Optiro carried out a site visit to the Nova deposit on the 21st of February 2013. Mark Drabble inspected the deposit area, the core logging and sampling facility and density measurement area. During this time, notes and photos were taken along with discussions were held with site personnel regarding the available drill core and procedures. Diamond core was also viewed in the Sirius offices in Perth on three occasions. A number of minor recommendations were made on procedures but no major issues were encountered. In addition, Mr Drabble viewed drill core in the Sirius offices in Balcatta on a number of occasions in 2013.
Geological interpretation	The confidence in the geological interpretation of Nova and **Bollinger** is considered good. The global geological setting is a gabbroic intrusion(s) within metasediments within a high grade metamorphic terrane. The sulphide mineralisation is related to, and part of, the intrusive event. **The Bollinger deposit appears to be intimately related to the Nova deposit and represents part of a number of intrusive events that transgress sedimentary layers to the immediate east of Nova**. The **Nova-Bollinger** deposit appears similar in style to many mafic-hosted nickel-copper deposits.
	Petrography and litho-geochemistry have been used to assist identification of the rock type subdivisions applied in the interpretation process.
	The **Nova-Bollinger** deposit is generally tabular in geometry, with clear boundaries which define the mineralised domains. Infill drilling has supported and refined the model and the current interpretation is thus considered to be robust.
	Geological controls and relationships were used to define sub-domains. Key features are sulphide content, form and multi-element geochemistry relationships.
	The Bollinger disseminated zone has small intervals of massive sulphide that required sub-domaining to constrain the estimation of metal around these samples. The Nova lower breccia zone has mixed grade populations due to variable clast versus massive sulphide content. This can be seen in the MgO and nickel grade relationships and influences the local rather than the global grade estimate. These factors have been addressed via the resource estimation process applied.
Dimensions	**The Bollinger Mineral Resource area abuts** the Nova area **and has dimensions of 300m (north) by 400m (east) and 125m (elevation). The Bollinger resource has a maximum depth of 450m below surface. The Nova and Bollinger deposits are conjoined by a feeder zone. The two resources areas are arbitrarily split along a North-South line defined by the 518,600mE MGA grid line**. The Nova Mineral Resource starts at a depth of 40m below surface. The Resource area has dimensions of 450m (north) by 550m (east) and 400m (elevation).
Estimation and modelling techniques	Grade estimation using Ordinary Kriging (OK) was completed for Nova and **Bollinger**. CAE Studio 3 software was used to estimate six elements; Ni%, Cu%, Co%, Fe%, Mg (ppm) and S%, as well as bulk density. Drill grid spacing ranges from 25m to 50m. Drillhole sample data were flagged using domain codes generated from three dimensional mineralisation domains and oxidation surfaces. Sample data were composited per element to a one metre downhole length using a best fit-method. There were consequently no residuals. Intervals with no assays were excluded from the compositing routine. The influence of extreme sample distribution outliers was reduced by top-cutting where required. The top-cut levels were determined using a combination of top-cut analysis tools (grade histograms, log probability plots and CVs). Top-cuts were reviewed and applied on a domain basis. Due to the folded nature of the Lower Massive domain at Nova **and the Massive domain at Bollinger,** an industry accepted unfolding routine was carried out using CAE Studio 3 software. Variography and grade estimation of these domains were completed in unfolded space. It was noted that the Lower Massive domain at Nova **and the Massive and the Carapace domain at Bollinger** showed evidence of sub-populations within the domains which were not able to be wireframed separately at the available grid spacing. A categorical indicator approach using three grade bins at Nova **and two grade bins within the Bollinger domains was considered appropriate to sub-domain these populations.** It was interpreted that these sub-domains represented massive, breccia and/or low-grade mineralisation. **Several domains which demonstrated a moderate degree of folding at Bollinger were estimated using flattening routines or Dynamic Anisotropy in order to optimise the grade estimation.**

Criteria	Commentary
	Variography of these domains was completed in 2D space. For all domains, directional variograms were modelled using traditional variograms or normal scores transformations. Nugget values are moderate to high (Nova <0.5**, Bollinger <0.3).** Grade continuity was variable in either resource depending on mineralisation styles and ranged from 50m to 170m in the major direction. Small or poorly sampled domains where robust variography could not be generated used the variography of a geologically similar domain. Estimation searches for all elements were set to the ranges of the nickel variogram for each domain.
	No previous mining activity has taken place in this area. Check estimates have been run by Sirius during the development drilling of the deposit and have produced very similar global estimates for the Nova-Bollinger deposit.
	The main by-product of the resource is cobalt and recovery will be as a by-product with the pentlandite. This is dependent on any off-take agreement and may realise a credit.
	The non-grade elements estimated are Fe%, Mg% and S%.
	A single block model for Nova-**Bollinger** was constructed using an 8mE by 12mN by 4mRL parent block size with subcelling to 1mE by 1mN by 0.25mRL for domain volume resolution. All estimation was completed at the parent cell scale. Kriging neighbourhood analysis was carried out for Nova in order to optimise the block size, search distances and sample numbers used. Discretisation was set to 4 by 6 by 2 for all domains. The size of the search ellipse per domain was based on the nickel variography, due to the moderate-strong correlation of nickel with the other elements. Three search passes were used for each domain. In general, the first pass used the ranges of the nickel variogram and a minimum of 8 and maximum of 30 samples. In the second pass the search ranges were changed to double the ranges of the nickel variogram, maintaining a minimum of 8 samples. The third pass ellipse was extended to **3 times the range of the variograms for Bollinger** and 5 times for Nova. A minimum of 4 and a maximum of 30 samples were applied. A maximum of 5 samples per hole were used. In the majority of domains, most blocks were estimated in the first pass (particularly for the main domains); however, some more sparsely-sampled domains were predominantly estimated on the second or third pass. Non-estimated blocks, i.e. those outside the range of the third pass, were assigned the estimated domain mean and lower resource confidence classification. Hard boundaries were applied between all estimation domains, excluding the alteration envelope at Nova where a soft boundary with the disseminated domain was used.
	No selective mining units were assumed in this estimate.
	Neural networking (3D spatial analysis) was used to determine relationships between the variables at Nova in the initial estimate. These were then incorporated into the domain interpretation process. Strong positive correlation exists between nickel and all other elements estimated, with the exception of copper. The correlation between nickel and copper is variable; based on domain and mineralisation style. All elements within a domain used the same sample selection routine for block grade estimation.
	The geological interpretation correlated the sulphide mineralisation to geological and structural elements at Nova- **Bollinger**. The structural framework and understanding of primary magmatic and remobilised mineralisation was used to refine the mineralisation domains. These domains were used as hard boundaries to select sample populations for variography and estimation.
	Statistical analysis showed the populations in each domain at Nova and **Bollinger** to generally have a low coefficient of variation but it was noted that a very small number of estimation domains included outlier values that required top-cut values to be applied.
	Validation of the block model included a volumetric comparison of the resource wireframes to the block model volumes. Validating the estimate compared block model grades to the input data using tables of values, and swath plots showing northing, easting and elevation comparisons. Visual validation of grade trends and metal distributions was carried out. No mining has taken place; therefore no reconciliation data are available.
Moisture	The tonnages are estimated on a dry basis.
Cut-off parameters	A nominal grade cut-off of 0.4% Ni appears to be a natural grade boundary between disseminated and trace sulphides for the Nova-**Bollinger** mineralised system. This cut-off grade was used to define the mineralised envelope within which the higher grade sub-domains were interpreted. Mineral Resources are reported above a 0.6% NiEq Cut-off grade. NiEq% = ((Cu % x 0.95) x ($7,655/$16,408)) + (Ni % x 0.89).
Mining factors or assumptions	Mining of the Nova-**Bollinger** deposit will be dominantly by underground mining methods involving mechanised mining techniques. The geometry of the deposit will make it amenable to mining methods currently employed in many underground operations in similar deposits around the world. No assumptions on mining methodology have been made.
Metallurgical factors or assumptions	Mineralogy shows the main sulphide minerals as chalcopyrite, pentlandite and pyrrhotite. Chalcopyrite is largely liberated, however some fine pentlandite is associated with the pyrrhotite. Gangue minerals include olivine/pyroxene, amphibole, feldspars, garnets, quartz which are un-altered. The Concentrator is designed for a nominal 1.5Mtpa capacity. Processing will comprise conventional crushing, milling and classification circuits followed by dual flotation circuits to produce separate nickel (+cobalt) and copper (+silver) concentrates.

Criteria	Commentary
	Detailed testwork in 2013/2014 has developed a split concentrate flowsheet that has achieved separation between copper and nickel for production of separate concentrates with acceptable recoveries. The results to date show a robust processing flowsheet than can consistently achieve a copper concentrate grading 27 – 31% Cu for 95% overall recovery and a nickel concentrate grading 13 - 17% Ni for 89% overall recovery.
Environmental factors or assumptions	No assumptions have been made.
Bulk density	Bulk density has been estimated from density measurements carried out on **7,950 (Bollinger)** and 12,429 (Nova) full length core samples using the Archimedes 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. Density standards were used for QAQC using an aluminium billet, and pieces of core with known values. The density ranges for the mineralised units are listed below: Massive sulphides 2.0 to 4.7g/cm^3 (average: 3.9g/cm^3), net textured sulphides 3.0 to 4.4g/cm^3 (average: 3.6g/cm^3) and disseminated sulphides 2.5 to 4.6g/cm^3 (average: 3.5g/cm^3).
	The host geology comprises high grade metamorphic rocks that have undergone granulite facies deformation. 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. Sensitivity to these issues is thus low.
	The bulk density values were estimated using the nickel search parameters and **7,950** plus 12,429 density samples taken within the geological domains.
Classification	**The Mineral Resource classification at Bollinger is based on good confidence in the geological and grade continuity, along with 25m by 25m spaced drillhole density in the core and bulk of the deposit, and 50m x 50m on the margins.** The Mineral Resource classification at Nova is based on good confidence in the geological and grade continuity, along with 25m by 25m spaced drillhole density throughout. Estimation parameters including Kriging efficiency have been utilised during the classification process.
	The input data are comprehensive in coverage of the mineralisation and do 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 which supported the initial interpretation. The validation of the block model shows good correlation of the input data to the estimated grades.
	The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	This is the maiden **Bollinger** Mineral Resource estimate and an update of the Nova March 2013 Mineral Resource estimate. The Nova resource was reviewed by Sirius and Optiro and some improvements made to the geological domains as a result of the new information at Bollinger.
Discussion of relative accuracy/confidence	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code.
	The statement relates to global estimates of tonnes and grade.
	No production data are available for comparison and reconciliation. The boxcut has been completed and decline access to the orebody is underway.

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	The Underground Ore Reserve estimate is based on the Mineral Resource estimate carried out by Optiro Pty Ltd. ASX announcement 15 July 2013 "Maiden Bollinger Resource and Scoping Study Update".
	The Mineral Resources reported are inclusive of the Ore Reserve.
Site visits	The most recent site visit was conducted in July 2015.
Study status	IGO has undertaken an Optimisation Study for the Nova Project that follows on from, and updates, the 2014 Sirius Resources NL Definitive Feasibility Study (DFS). Current Ore Reserve estimates are based around the DFS assumptions updated as appropriate in the Optimisation Study.
Cut-off parameters	In order to determine the economically mineable part of the resource, the total value of the mineralised material was calculated, including recognition of the value of nickel, copper and cobalt in the ore. This value, commonly referred to as a Net Smelter Return (NSR) is calculated in Australian dollars per ore tonne and represents the value of the products produced from one tonne of ore if sold at the mill gate i.e. pre-concentration. It is calculated from the revenue received from the payable metal (mill recovered) contained in the ore less all costs and charges downstream of the mine including site

Criteria	Commentary
	concentration, transportation, smelting, refining and progressive metal loss throughout these stages. NSR cut-off calculations were conducted by Entech Pty Ltd (Entech) prior to designing the underground mine, and again following completion of the design, scheduling and cost modelling. The initial estimation used for the Optimisation Study mine design was based on processing, treatment, refining, mining, administration and operating cost estimates from the DFS operating cashflow model updated with cost information from recently awarded mining contracts. The design-basis operating cost generated from the Nova Underground financial model is $64/t comprising: • Mining cost of $53/t • Admin cost of $11/t. Processing costs have been excluded from the cut-off value as they are included in the NSR calculation for individual blocks in the block model. Metal prices were provided by IGO and are equivalent in AUD terms as used in the 2013 Mineral Resource estimation. The prices are based on 12 month averages (not volume-weighted) of Australian Dollar spot prices from the London Metal Exchange between June 2012 and July 2013. Those values have been back-calculated to US dollars with the exchange rate shown below: • Nickel – US$6.37/lb • Copper – US2.97/lb • Cobalt – US$10.27/lb • Exchange rate - $A 1: $US 0.77 Three cut-off values have been generated for the Nova underground, these are: • Economic: cut-off includes all operating costs associated with the extraction of ore material, • Incremental Stoping: cut-off grade applies to all material that does not require any additional development i.e. only stoping costs are accounted for, and • Incremental Development: cut-off applies to material that will be mined in the process of gaining access to economic material.
Mining factors or assumptions	The Ore Reserve estimate has been calculated by generating detailed mining shapes for each stoping block as well as development. Designed stope shapes include planned dilution, being waste material that is located within the mineable stope shape. Additional unplanned dilution is also generally incurred from the walls of stopes due to re-distribution of stress within the rock mass as voids are created in the mine, blast damage, poor mining practice (such as poor blasthole drilling setup). This additional material is also included in Ore Reserve Estimate. A 7% unplanned dilution factor has been applied based on kinematic and empirical methods. Entech considers this to be appropriate given the ground conditions and proposed style of mining.
	The selected mining method for the Nova Project is long-hole sub-level open-stoping which is widely used in many underground mines in Western Australia and is deemed appropriate considering the nature of the ore body, and the desire to extract the maximum value from the deposit.
	Stope sizes are generally 25mW by 25mH by the orebody width and have been created to suit the Mineral Resource model. As the resource changes in width and dip the mining method changes from large multi-lift stopes to echelon retreat single access stopes. Geotechnical assessment of the mineralised zone is also favourable for the selected mining method. In consultation with geotechnical consultants Dempers and Seymour geotechnical parameters have been set out for the size of the stoping blocks as well as support standards and development stand-off distances. All mining shapes included in the Ore Reserve estimate abide by the recommendations supplied by Dempers and Seymour.
	A mining recovery factor of 95% has been applied post geological interrogation to generate the final diluted and recovered Ore Reserve estimate. This mining recovery is applied to allow for any ore loss due to mining related issues such as; underbreak due to poor drilling and blasting techniques, stope bridging or freezing or material being left in stopes due to inaccessibility.
	Minimum mining width for stoping is 4m.
	Grade control drilling is planned to be carried out from UG drill platforms on a nominal 10m x 10m pattern on the footwall.
	No Inferred Mineral Resources have been included in the Ore Reserve Estimate. Any Inferred Mineral Resource contained within a mining block (stope or development) is classified as waste and is used to dilute the overall Ore Reserve.

Criteria	Commentary
	Infrastructure required for the Nova Project has been accounted for and included in all work leading to the generation of the Ore Reserve estimate. The Nova Project infrastructure includes: • All site surface infrastructure, including: o Processing facilities, including crushing, grinding, flotation and dewatering o Tailings storage facility o Offices, workshops, warehouses and associated facilities o Borefield and pipeline o Camp o Airstrip o Access Road o Power Station • As of December 2015 all of the above infrastructure was complete exceptt for the processing facilities and power station (both currently under construction) • Paste filling infrastructure. The backfilling of the production stopes is an integral component of the mining method at Nova for all stope sizes and configurations. Paste fill utilising classified live tailings is the nominated fill type. A Paste Plant will be located above the orebody on the surface and will comprise: tailings storage tank(s); filter; binder storage; mixer and associated facilities. Paste will be delivered underground by gravity through a reticulation system consisting of boreholes and horizontal piping. • All power and pumping reticulation will be fed through decline development, ventilation rises and service holes drilled in close proximity to the decline to minimise cable and pipe runs along the decline path. • Ventilation fans will be installed on surface at the top of the raisebored shafts to supply fresh air to underground workings. A return air ventilation system to be located on the opposite side of the deposit to the decline to allow for flow through ventilation. Caged ladderways will be installed in fresh airways throughout the mine to establish a second means of egress from the underground working areas.
Metallurgical factors or assumptions	Mineralogy shows main sulphide minerals as chalcopyrite, pentlandite and pyrrhotite. Chalcopyrite is largely liberated, however some fine pentlandite is associated with the pyrrhotite. Gangue minerals include olivine/pyroxene, amphibole, feldspars, garnets, quartz, all of which are un-altered. The Feasibility and Optimisation Studies contemplate a 1.5Mtpa capacity plant. Processing will comprise conventional crushing, milling and classification circuits followed by dual flotation circuits to produce separate nickel (+cobalt) and copper (+silver) concentrates.
	The Nova-Bollinger deposit is different from other local nickel deposits such as Norlisk – Lake Johnston, Western Areas – Forrestonia, Panoramic – Lanfranchi and Mincor – Widgemooltha, all of which are near Norseman to the West and North. The nearest analogous deposits are in Canada such as Thompson (owned by Vale), Raglan (owned by Xstrata) and Voisey's Bay (owned by Vale) who are using fresh water in the processing.
	The split concentrate flowsheet has achieved separation between copper and nickel for production of separate concentrates with acceptable recoveries. The results to date show a robust processing flowsheet than can consistently achieve a copper concentrate grading 27 – 31% Cu for 89% overall recovery and a nickel concentrate grading 13 - 17% Ni for 88% overall recovery. Testwork shows the copper concentrate to be low in nickel (<0.5%) and represents <0.5% nickel recovery. Flotation testwork investigated two potential reagent regimes for split flotation. The selected regime utilises TETA (tri-ethylene-tetra-amine) with sodium sulphite. These reagents are all used in commercial flotation processes, more commonly in North America, less commonly in Australia. Selective sulphide flotation is considered a well-tested technology. Flotation testing has shown the ability to produce a combined bulk concentrate or a separate split concentrate in the hyper-saline site water. Economic evaluations concluded that the split concentrate option will achieve a higher revenue than a combined concentrate, primarily due to the increased payability of copper. Split concentrates also offers flexibility with marketing options and was adopted as the preferred flowsheet for the project. Composite A was formulated as the main testing composite to be used in development testwork. Composite A is based on the following criteria: • Year 1-3 stoping material • All MET holes below 2005 RL

<table>
<tr><th>Criteria</th><th>Commentary</th></tr>
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Including mining dilution as advised by Entech, and agreed by IGO, nominally 2.5m HW and 0.5m FW.
Every second metre from 9 drill holes.

Composites B - P include all major material types of Disseminated in Gabbro, Stringer in Sediment, Upper Massive, Lower massive/breccia and Net-textured, including dilution coming from HW Waste, FW Waste and HW Gabbro Disseminated. The metallurgical composites represent 83% of the known resource. Geo-metallurgical algorithms have been derived for the main geological lithology's and have been applied to the mining schedule to determine the overall recoveries used in the financial modelling, (as well as some operating cost information). The recoveries (excluding the plant ramp-up period) were as follows:
<table>
<tr><th>Metallurgical Recoveries</th><th>Copper Concentrate</th><th>Nickel Concentrate</th></tr>
<tr><td>Ni</td><td>1%</td><td>88%</td></tr>
<tr><td>Cu</td><td>89%</td><td>3%</td></tr>
<tr><td>Co</td><td>1%</td><td>85%</td></tr>
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</td></tr>
<tr><td></td><td>No deleterious elements were observed in the concentrates, with the exception of chloride from the process water. Concentrate washing has been investigated as a mitigation measure.</td></tr>
<tr><td></td><td>
Copper Concentrate specification – Cu 27-31%, S 29-33%, Fe 29-30%, MgO <1%, SiO_2 <2.5%, As 0.005%, Sb 0.001%, Bi 0.003%, Cd <0.002%, Pb 0.016%, Zn 0.046%, Ni 0.64%, Co 0.02 %, Cl + F <300 ppm, Hg <1 ppm, Al_2O_3 0.56%.
Nickel Concentrate specification – Ni 13-17%, Cu 0.20-0.6%, Co 0.43-0.49%, Au 0.05g/t, Ag 4.8g/t, S 31-34%, Fe 41-44%, MgO <1.5%, SiO_2 <3.0%, As 0.002%, Pb 0.005%, Zn 0.020%, Cl + F <300 ppm, Al_2O_3 0.9%.
The main minerals of chalcopyrite, pentlandite and pyrrhotite can be defined by Cu, Ni, Fe and S grades. The deposit has been modelled with Ni, Cu, Co, Fe, S and MgO for all major material domains.
</td></tr>
<tr><td>Environmental</td><td>
All environmental approvals for the proposed mining activities have been secured.
Waste rock and tailings characterisation studies have been completed. Negligible waste rock will be disposed of on surface. Tailings are highly acid-forming and the costs of appropriate impoundments have been allowed. Construction of the Tailings Storage Facility (TSF) has been completed to full Life of Mine capacity.
Export licence permitting for concentrate export with the Esperance Port Authority is currently in progress. It is expected that this will be finalised before commissioning of the plant and will not be a constraint on normal business.
</td></tr>
<tr><td>Infrastructure</td><td>
The majority of the significant surface infrastructure for the Nova Project has been constructed, or is currently under construction. The concentrator is planned to be commissioned in late 2016. Decline access to the orebody is well advanced, having commenced in May 2015 and will begin supplying ore to the concentrator in line with the commissioning schedule.
The proposed infrastructure lies partly on Fraser Range Station (a pastoral lease administered by Pastoral Lands Board) and unallocated crown land. Some infrastructure (access road, borefield, pipeline) is located on mining tenure held by other companies, and appropriate access agreements have been entered into.
Modelling has shown that there will be sufficient water available to develop the Nova Project. Dewatering of a confined aquifer overlaying the ore zone (the Botryoidal Aquifer) is well advanced and this water is being stored in the TSF for use in the initial years of processing. Further exploration for Life of Mine (LOM) water supply is continuing.
</td></tr>
<tr><td>Costs</td><td>
Capital costs used in the production of the Ore Reserve estimate have been gathered from budget, tendered or awarded contract pricing. All major capital contracts have been awarded, including:

Processing Plant – GRES (EPC-style contract; construction in progress).
TSF, Access Road, Aerodrome (all completed).
Borefields – (initial scope completed).
Underground (Fixed Plant) – Supplier contracts and estimates.

As firm contracts have been let during the implementation phase, costs have generally being seen to be in line with, or less than those used in the DFS and previous Ore Reserve estimate.
</td></tr>
<tr><td></td><td>Operating costs for the underground operation are based on awarded contract rates from the mining</td></tr>
</table>

Criteria	Commentary
	contractor, Barminco Ltd. Major operating costs for other areas are based on awarded contracts as well as supplier contracts and include processing operating costs based on geo-metallurgical estimation of reagent and power consumption coupled with Ausenco derived (and updated as appropriate) fixed processing costs and General & Administration costs. A capital and operating cost model has been developed in Excel and has been used to complete a life of mine cash flow estimate.
	Smelter terms have been determined from firm sales contracts with Trafigura (100% of copper concentrate production), Glencore (50% of nickel concentrate production) and BHPB (50% of nickel concentrate production) and include: • Nickel payability within the nickel concentrate. • Minor elements payability within the nickel concentrate (if appropriate). • Copper payability and TC/RCs within the copper concentrate. • Minor precious metals elements within the copper concentrate (if appropriate). • The presence of deleterious elements has been assessed and it has been determined that no penalties will be applied.
	Product inland transport costs have been estimated from indicative pricing from several experienced contractors. Shipping costs from the Port of Esperance have been estimated by an experienced shipping broker, Braemar Seascope.
	Royalty allowances are in accordance with Division 5 of the WA Mining Act (Ni and Co = 2.5% of gross FOB metal value in $A; Cu = 5% of nett Free on Board (FOB) metal value in A$). In addition, appropriate allowances have been made for costs under the Ngadju Mining Agreement.
Revenue factors	Head grade of the project is dependent on the material scheduled to be mined from underground. Treatment, recovery and transportation charges have been applied in the economic evaluation as outlined previously.
	Cashflow modelling has used the pricing of the NSR calculations (as described in “cut-off parameters’) which shows the project has a strong positive NPV. Further analysis at spot pricing (4 December 2015) financial modelling still shows a strongly positive NPV, albeit reduced when compared to the higher CoG pricing.
Market assessment	Demand for the Nova concentrates has been confirmed by completion of sales contracts for the first 3 years of production to credible industry partners. It is assumed that similar levels of interest will enable LOM sales to occur when re-negotiation occurs shortly before expiry of the contracted term.
	The Nova concentrates are expected to continue to find ready buyers due to the desirable inherent characteristics compared to other concentrates such as: • relatively high head grades (13.5% Ni in nickel concentrate; 29% Cu in copper concentrate), • low impurities (no penalty charges under existing contracts), • very high Fe:MgO ratio (circa 62) for the nickel concentrate.
Economic	The Ore Reserve estimate is based on a financial model that has been prepared at a “Feasibility Study” level of accuracy. All inputs from underground operations, processing, transportation and sustaining capital as well as contingencies have been scheduled and evaluated to generate a full life-of-mine cost model. Economic inputs have been sourced from awarded contracts, suppliers or generated from database information relating to the relevant area of discipline. A discount rate of 8% (real) has been applied.
	The NPV of the project is strongly positive at the assumed commodity prices.
Social	Key project stakeholders have been engaged including: • The Fraser Range Pastoral Lessees, • Southern Hills Pastoral Lessees, • The Esperance Ports Sea and Land; and • The Shires of Esperance and Dundas. None has expressed material concerns with the proposed development.

Criteria	Commentary
	Apart from the Fraser Range homestead and caravan park, there are no permanent residences within the Project Area or its environs. All agreements with key stakeholders including traditional owners have either been issued, or are expected to be issued in due course. Those not yet finalised will not affect the Ore Reserve estimate.
Other	Groundwater model simulations indicate that the Nova Project shall have excess water for the first 12 months during construction and development. However, as the aquifers are successfully dewatered and mineral processing commences, the Project is likely to fall into a water deficit scenario late in the mine life. Three additional water supply bores have been identified and these need to be drilled, constructed and equipped. Additional bores may be required but this can be re-assessed once dewatering and other pumping data becomes available. Although it is not expected, if further groundwater resources are necessary later in the Project's life, there are multiple options for further groundwater resource development within a 50km radius of the Project. These include: • additional discrete fractures that could be identified within the Nova lease • off-lease palaeochannel aquifers • off-lease fractured rock aquifers. A Reverse Osmosis (RO) plant will be required to produce all potable water requirements including concentrate washing. This plant will be designed to treat water quality expected from the borefield. The RO plant will produce the Project's potable water requirement which is then distributed across the site and to the accommodation village.
	Nova and Bollinger are located wholly within Mining Lease M28/376. IGO (previously Sirius) has a 100% interest in the tenements. The tenements sit within the Ngadju Native Title Determination.
Classification	The Ore Reserve is based on Probable Ore Reserves, no Proved Ore Reserves are reported. Indicated Mineral Resources have been converted to a Probable Ore Reserve. No Measured category Mineral resources have been estimated to date.
	The Competent Person is satisfied with the classification of the Underground Mineral Resource and hence the conversion to Ore Reserve is appropriate.
Audits or reviews	The Ore Reserve has been peer reviewed internally and is in line with current industry standards.
Discussion of relative accuracy/confidence	The Ore Reserve has been completed to a Definitive Feasibility standard; hence confidence in the resulting figures is high.
	Confidence in the mine design and schedule are high.
	Most modifying factors have been applied to designed mining shapes on a global scale as there are limited local data. Metallurgical recovery, milling power and processing operating costs for the site concentrator are applied by lithology from geo-metallurgical algorithms. Geotechnical parameters are generally applied based on a three dimensional block model of Mining Rock Mass Ratings.