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## UPDATED FISHER EAST SCOPING STUDY – STRONG CASE FOR DEVELOPMENT

Rox Resources Limited (ASX: RXL) (“Rox” or “the Company”) is pleased to report the outcomes from an updated Scoping Study undertaken on the Fisher East Nickel project (the “Project”), located 150km north-east of Leinster in Western Australia.

The original Scoping Study was completed in 2015 and the recent update, undertaken on the back of the positive outlook for nickel, demonstrates a project with strong economic and technical credentials at a consensus projected forward nickel price. In addition, there is significant upside to project economics from an increased resource base. Capital costs are relatively low, with competitive cash operating costs. The high-level study considered two primary development scenarios, building a stand-alone concentrator or toll milling at a nearby operation.

Rox Managing Director, Mr Ian Mulholland said *“The improving nickel price outlook prompted us to re-examine the development prospects for Fisher East and the results demonstrate that we have a potentially robust nickel project both financially and technically.”*

*“The updated Scoping Study shows the project can deliver significant value to Rox shareholders under both a standalone concentrator option or taking advantage of nearby toll treating opportunities, such as Leinster. Developing a concentrator generates strong cashflow and competitive costs, while toll treating can be undertaken with significantly lower pre-production capital costs and only slightly higher operating costs.”*

*“Additions to the mineable resource inventory will only improve the project economics, as will the improving prospects for the nickel price which are related to increasing demand from electric vehicle batteries and declining LME nickel stockpiles. We have recently delineated depth extensions at the Camelwood and Musket deposits, and the Sabre resource is yet to be drilled out. These extensions are likely to lead to increases to mine life and enhance project economics.”*

### CAUTIONARY NOTE

The Study referred to in this announcement is a technical and economic investigation of the viability of the Fisher East Project. It is based on low accuracy technical and economic assessments, (+/- 35% accuracy) and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Study will be realised. The Production Target referred to in this presentation is based on JORC Resources which are approximately 96% Indicated and 4% Inferred. The mine plan has been generated using stope optimisation and averaging of grades over multiple year periods prior to the application of mining dilution. To achieve the outcomes indicated in this study initial funding in the order of A\$48 to A\$87 million is likely to be required. Investors should note that there is no certainty that Rox will be able to raise funding when needed. It is also possible funding may only be available on terms that may be dilutive to or otherwise effect the value of Rox’s shares.

## Key Points

### Financially robust and technically low risk project

- Pre-tax **Net Cash Flow** of ~A\$146 million, **NPV<sub>10</sub>** of ~A\$79 million and an **IRR** of ~44% (Concentrator Case) at a US\$7.50/lb nickel price, and a 0.75 AUD:US exchange rate
- Pre-tax **Net Cash Flow** of ~A\$102 million, **NPV<sub>10</sub>** of ~A\$58 million, and an **IRR** of ~55% (Toll Mill Case) assuming same nickel price and exchange rate
- Straight forward mining and processing technologies

### Pre-production capital requirements of ~A\$87.0 million (Concentrator Case) and ~A\$48.0M (Toll Mill Case)

- Option to Toll Mill at a nearby concentrator<sup>1</sup> offers much reduced up-front capital
- Life of mine sustaining capital of ~A\$38 million (Concentrator Case) and ~A\$37 million (Toll Mill Case)

### Strong upside to expand existing Mineral Resources

- Scope to improve financial outcomes with additional mineable resources

### Competitive C1 cash operating costs

- **C1 cash cost** of ~A\$4.20/lb (US\$3.15/lb) and **All in Sustaining Cost (ASIC)** of ~A\$4.80/lb (US\$3.60/lb) nickel in concentrate (Concentrator Case)
- **C1 cash cost** of ~A\$4.60/lb (US\$3.45/lb) and **ASIC** of ~A\$5.10/lb (US\$3.80/lb) nickel in concentrate (Toll Mill Case)

### Production Details

- Mine life of ~6 years
- Optimum mining rate is ~500,000 tpa, which if achieved, and based on metallurgical recoveries of 88%, would result in recovery of **~7,300 tonnes of nickel per annum**, and recovery of ~44,100 tonnes of nickel in concentrate over the life of mine over 6 years
- Project is well placed to benefit from the improving nickel price

<sup>1</sup> There is no toll milling arrangement currently in place and there is no guarantee that one will be able to be put in place

## **Cautionary Statement – Scoping Study Parameters**

The updated Scoping Study is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the updated Scoping Study will be realised.

The updated Scoping Study and the production targets derived from the updated Scoping Study are preliminary in nature as the conclusions are drawn on Inferred Mineral Resources (12%) and Indicated Mineral Resources (88%).

The Indicated Mineral Resources and Inferred Mineral Resources underpinning the conclusions from the updated Scoping Study, including the production targets, have been prepared by a competent person in accordance with the requirements of JORC Code 2012 Edition. This announcement does not include an estimate of Ore Reserves as the supporting modifying factors have not been determined to a sufficient level of confidence.

Some (12%) of the Mineral Resources used in the study are Inferred Mineral Resources. When subset to the Resources in the Mining Plan there are only 4.2% Inferred Resources. There is a lower level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the predictions of expected costs or production rates contained herein, and the production targets themselves, will be realised.

Unless otherwise stated all financial figures are in Australian dollars, are undiscounted and are not subject to inflation or escalation factors. All years are calendar years.

At this stage no toll milling agreement has been negotiated and there is no certainty that an acceptable toll milling agreement can be negotiated.

The forward nickel price and exchange rate assumptions in this report are based on a careful consideration of market forecasts and consensus by a number of third parties. There is no guarantee that this nickel price or exchange rate will be realised.

The Company has concluded that there is a reasonable basis for providing the forward-looking statements included in this report and detailed reasons for that conclusion are contained herein. The Company cautions though that there is no certainty that the forecast financial information or production targets will be realised. Material assumptions underpinning the production target and forecast financial information derived from the production targets are set out in this announcement.

## Key Project Metrics

Mineral Resources	Cut-Off Grade 1.0% Ni		
	Tonnes (Mt)	Grade % Ni	Ni Tonnes (kt)
Indicated	3.7	1.9	71,000
Inferred	0.5	1.5	7,000
<b>Total</b>	<b>4.2</b>	<b>1.9</b>	<b>78,000</b>
Resources in the Mining Plan	Cut-Off Grade 1.2% Ni		
	Tonnes (Mt)	Grade % Ni	Ni Tonnes (kt)
Indicated	2.6	1.8	48,000
Inferred	0.3	0.8	2,100
<b>Total</b>	<b>~2.9</b>	<b>~1.7</b>	<b>~50,100</b>
Capital Costs	Concentrator Case		Toll Mill Case
Pre-Production	~A\$87m		~A\$48m
Sustaining	~A\$38m		~A\$37m
Production Parameters			
Life of Mine	~6 years		~6 years
Processing	~500ktpa		~500ktpa
Nickel in concentrate – LOM tonnes	~44,100		~44,100
Nickel in concentrate – Annual tonnes	~7,300		~7,300
Financials			
Nickel Price	US\$7.50/lb		US\$7.50/lb
Exchange Rate (AUD:US)	0.75		0.75
C1 Cash Costs	~A\$4.20/lb (US\$3.15/lb)		~A\$4.60/lb (US\$3.45/lb)
All in Sustaining Costs	A\$4.80/lb (US\$3.60/lb)		A\$5.10lb (US\$3.83/lb)
<b>Net Cash Flow (pre-tax)</b>	<b>~A\$146m</b>		<b>~A\$102m</b>
<b>Pre-tax NPV<sub>10</sub></b>	<b>~A\$79m</b>		<b>~A\$58m</b>
<b>IRR</b>	<b>~44%</b>		<b>~55%</b>
<b>Payback</b>	<b>~2.3 years</b>		<b>~1.8 years</b>

All estimates are +/- 35%

### For more information:

#### Shareholders/Investors

Ian Mulholland  
Managing Director  
Tel: +61 8 9226 0044  
admin@roxresources.com.au

#### Media

Michael Weir / Cameron Gilenko  
Citadel-MAGNUS  
Tel: +61 8 6160 4903  
[mweir@citadelmagnus.com](mailto:mweir@citadelmagnus.com)

## Scoping Study Overview

CSA Global Pty Ltd mining consultants was commissioned to re-examine mining techniques and costs, refine operating and capital costs, and produce a conceptual mining study of the Fisher East nickel project. This data was then applied to a previous Scoping Study undertaken by CSA Global Mining Consultants for Rox (ASX:RXL 17 February 2015) to provide an updated high level scoping study.

Strong returns are indicated, and there is potential to significantly improve the project economics with the addition of further mineable resources. Capital and operating costs are estimated to +/- 35% at this Scoping Study level.

The first step of the conceptual mining study was to run a series of stope optimisations at different cut-off grades, minimum mining widths and stope dimensions to determine an optimum mining scenario. This was 15m high stopes, with a minimum mining width of 1.8m, and a cut-off grade of 1.2% Ni.

This then led to the development of a detailed mine schedule which was input into two processing option models, Concentrator and Toll Mill, to determine the financial outcomes in the updated Scoping Study. A constraint of 500,000tpa of processed ore was used to reflect the maximum production likely from the optimum mining scenario.

The “Concentrator Case” is based on building a concentrator plant on site with all associated infrastructure, including mine access, haul road, accommodation etc.

The “Toll Mill Case” is based on hauling run of mine (ROM) ore to a nearby processing plant for toll treatment, and would require negotiation of an agreement with a third-party processing facility, which has not yet occurred.

Key observations and conclusions of the updated Scoping Study are:

- The “Resources in the Mining Plan”, drawn from the total Mineral Resource of 4.2 Mt @ 1.9% Ni (ASX:RXL 5 February 2016) are ~2.9 Mt @ 1.7% Ni fully diluted. Approximately 96% of the Resources in the Mining Plan are drawn from Indicated Resources.
- A production rate of 500,000 tonnes per annum (tpa) was the optimum, and produced the best capital and operating efficiencies.
- Up-front capital costs are estimated to +/- 35%, with mid-points being:
  - ~A\$87 million for the Concentrator Case, with additional ~A\$38 million sustaining capital over the life of mine.
  - ~A\$48 million for the Toll Mill Case, with additional ~A\$37 million sustaining capital over the life of mine.
- More analysis needs to be undertaken on metallurgy and processing, logistics and infrastructure, which would occur at the pre-feasibility stage.
- The Concentrator Case produces a more attractive financial return than the Toll Mill Case, but the Toll Mill Case has a lower up-front capital requirement, which may be easier to finance.
- The addition of further resources is likely to improve project economics.

*Unless stated, all amounts are quoted as A\$. All estimates are +/- 35%.*

It is important to note that the project's Mineral Resources are not yet fully defined. Drilling completed earlier in 2018 delineated 150m depth extensions to both the Camelwood and Musket orebodies. In addition, drilling at Sabre has intersected ore grade mineralisation over a 400m strike length and to 250m depth which needs to be drilled out to resource status.



Figure 1: Fisher East and Collurabbie Project Locations



## Study Details

### Mineral Resource and Resources in the Mining Plan

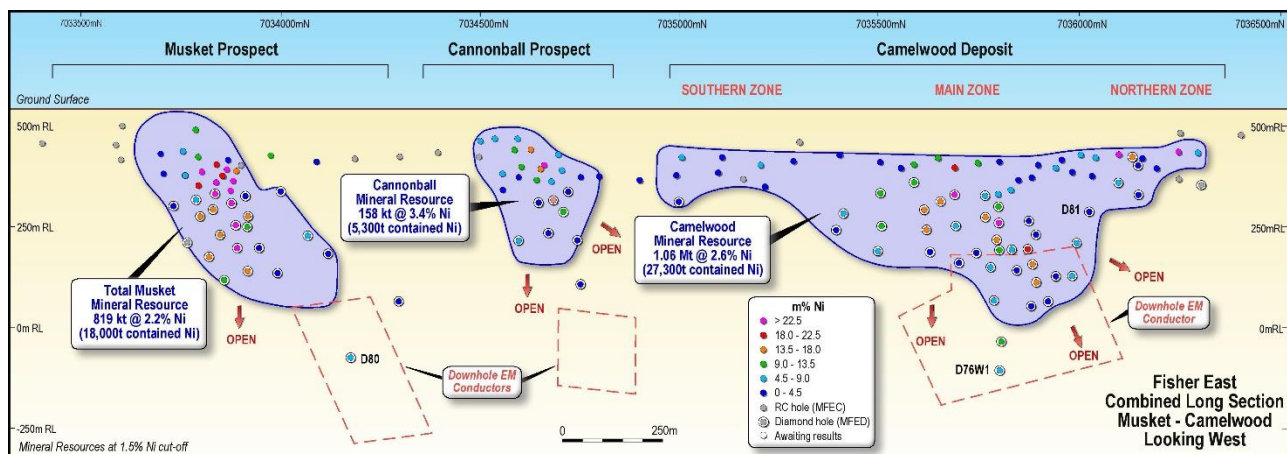
The updated Scoping Study is based on the published Mineral Resource for the Camelwood, Cannonball and Musket deposits (ASX:RXL 5 February 2016). At a cut-off grade (COG) of 1.0% Ni, this was:

*Table 1: Fisher East Mineral Resources at a 1.0% Ni Cut-Off Grade*

Mineral Resources	Cut-Off Grade 1.0% Ni		
	Tonnes (Mt)	Grade % Ni	Ni Tonnes (kt)
Indicated	3.7	1.9	71,000
Inferred	0.5	1.5	7,000
<b>Total</b>	<b>4.2</b>	<b>1.9</b>	<b>78,000</b>

Indicated resources comprise ~88% of the Total resource, with Inferred resources ~12%. Drill spacing is ~50 x 50m in Indicated areas and wider in Inferred areas.

Figure 2 shows a long section of the three deposits, and Figures 3 and 4 show cross sections through the Camelwood and Musket orebodies respectively.



*Figure 2: Musket – Camelwood Long Section*

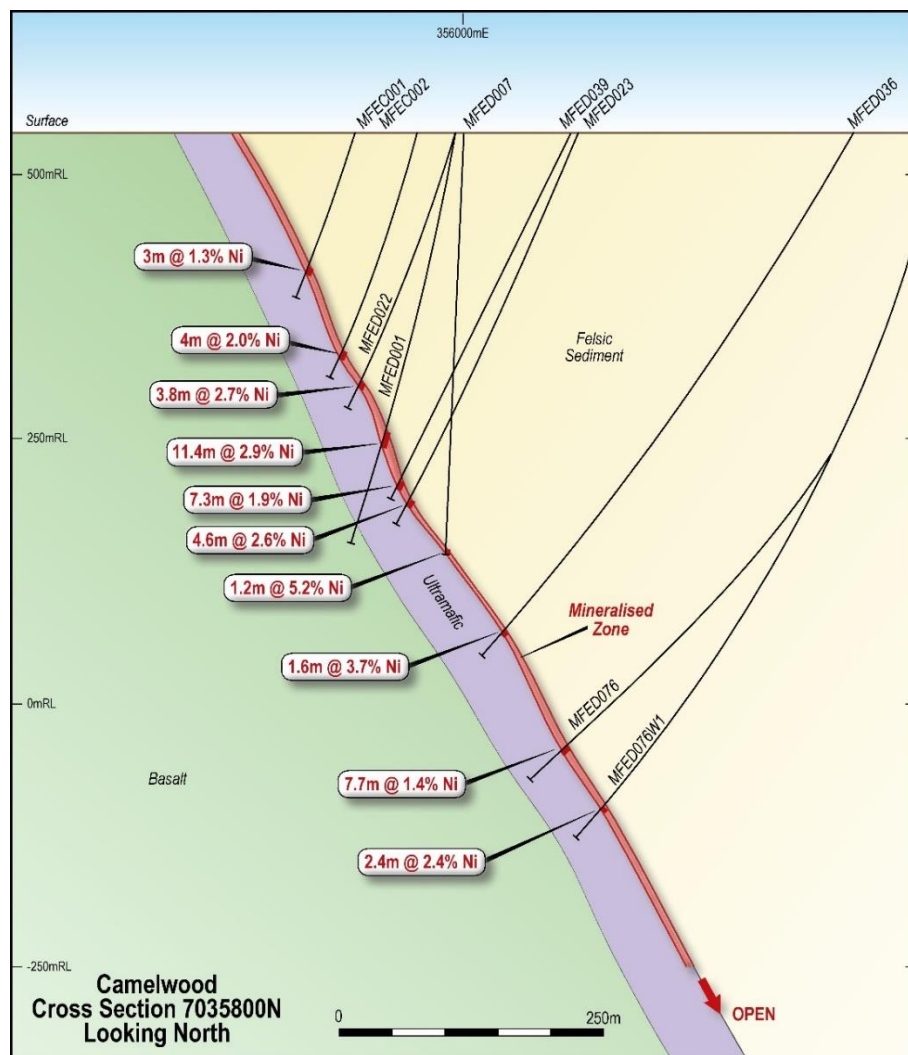


Figure 3: Camelwood Cross Section

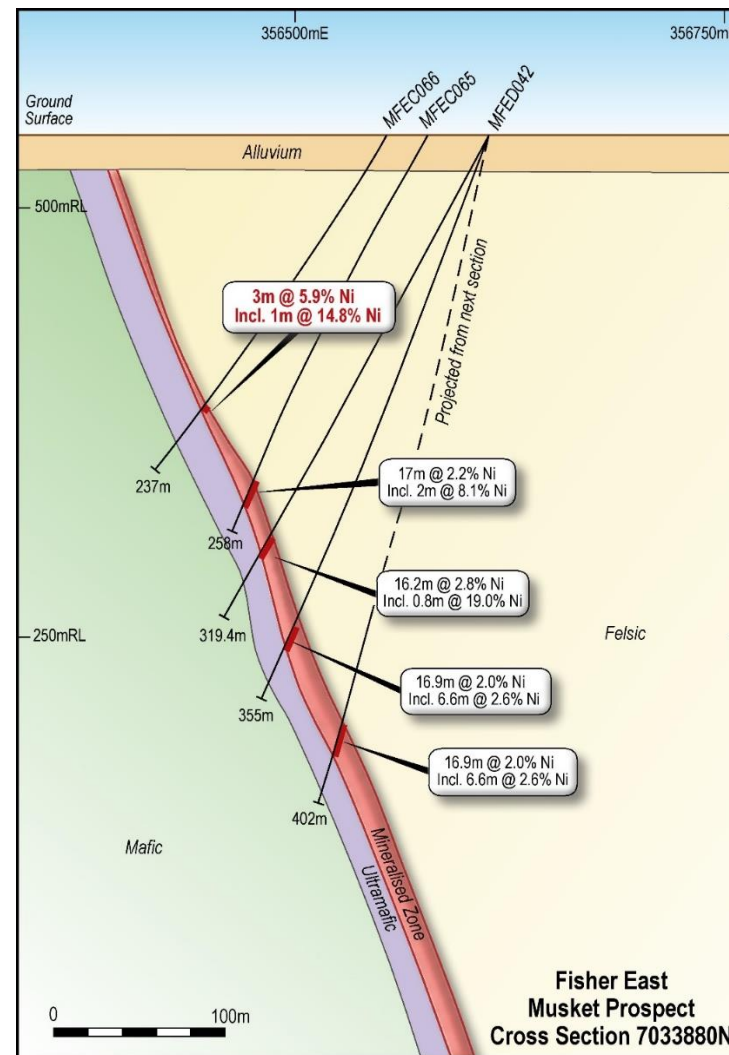


Figure 4: Musket Cross Section



An optimum subset of Resources in the Mining Plan was derived from stope optimisations of the resource models after applying the factors - minimum mining width of 1.8m, stope height 15m, and then calculating potential revenues at various cut-off grades. The optimum scenario was at a 1.2% Ni cut-off grade.

There are only 4.2% Inferred Resources (by metal content) in the Resources in the Mining Plan, with the majority, 95.8% Indicated. The conversion from Mineral Resources to Resources in the Mining Plan is 64% by metal content and 69% by tonnes.

*Table 2: Fisher East Resources in the Mining Plan*

Resources in the Mining Plan	Cut-Off Grade 1.2% Ni			
	Tonnes (Mt)	Grade % Ni	Ni Tonnes (kt)	%
Indicated	2.6	1.8	48,000	95.8
Inferred	0.3	0.8	2,100	4.2
<b>Total</b>	<b>~2.9</b>	<b>~1.7</b>	<b>~50,100</b>	<b>100.0</b>

## **Mining**

### *Mining Method Selection and Strategy*

The Musket, Cannonball and Camelwood deposits are steeply dipping tabular bodies 3-15m wide, with fresh sulphides at depths of about 100m beneath weathered material. The deposits are positioned approximately 500m to 1,000m apart along strike, with a combined footprint of 2,000m along strike as shown in Figure 5 below.

The preferred mining method selected was sublevel stoping with paste fill, a commonly used method in Western Australia for similar style deposits. A schematic (long-section) of sublevel stoping with paste fill sequence is provided below in Figure 6. This method was applied for the three deposits comprising the study: Camelwood, Cannonball and Musket. Other methods such as airleg stoping and Alimak stoping were considered, but were deemed suboptimal comparatively.

Key to optimising the mining method was to determine the right balance between sublevel heights, tunnel sizes, stoping widths and productivity. Previous study findings indicated that production capacity was not a major constraint (based on sublevel stoping with paste fill method). This was primarily due to the Musket and Camelwood deposits providing enough mine headings concurrently to sustain an annual production rate of around 200 to 300 ktpa each. The finding of this study determined that 15 m sublevels, with 3.0m x 3.0m mineralised development profiles achieve both the most profitable, and practical outcome.

A mine design and schedule were created using Deswik software to produce mining physicals for all three deposits based on the preferred mining method and design parameters. A high-level ventilation assessment was completed which validated that the requisite primary ventilation (as per WA Mine Regulations) was achievable for all three deposits. Other underground infrastructure and site infrastructure was included in the assessment to holistically verify that the mine plan is feasible and costed suitably.

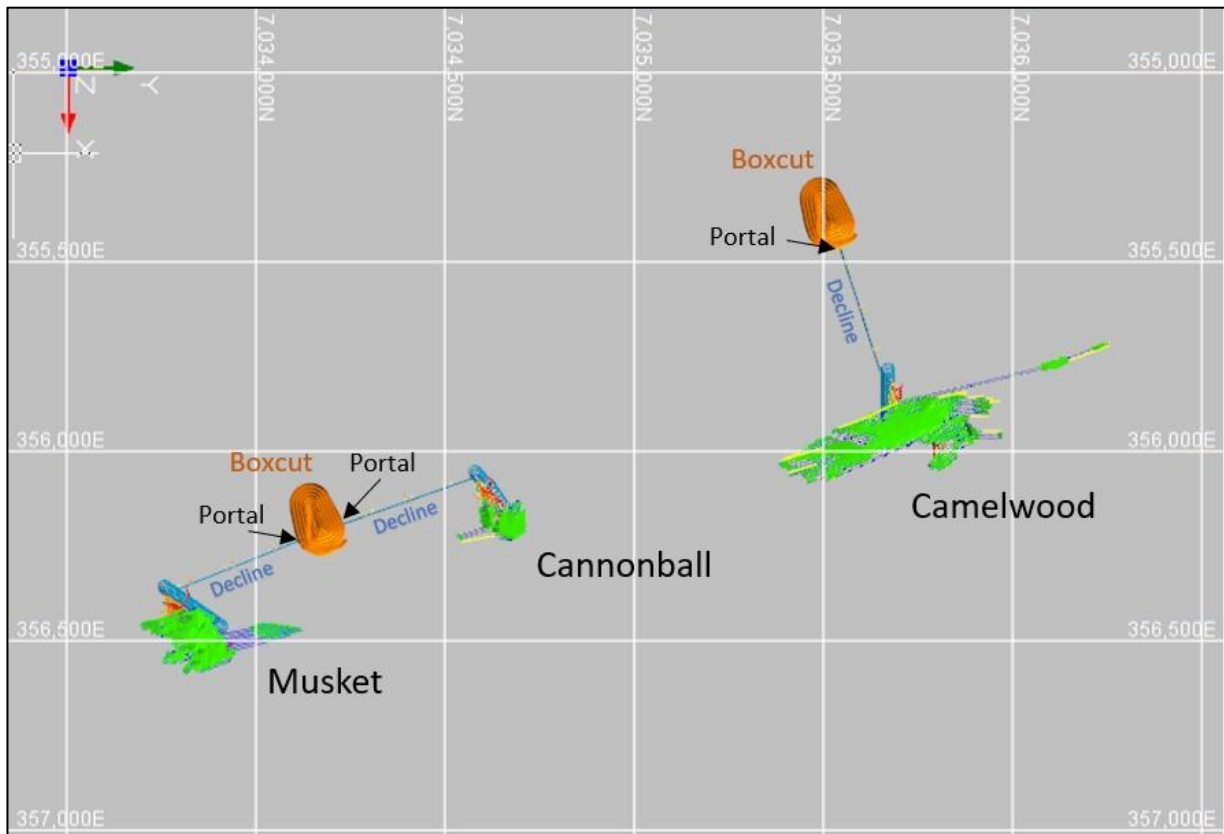


Figure 5: Deposit layout (north = right)

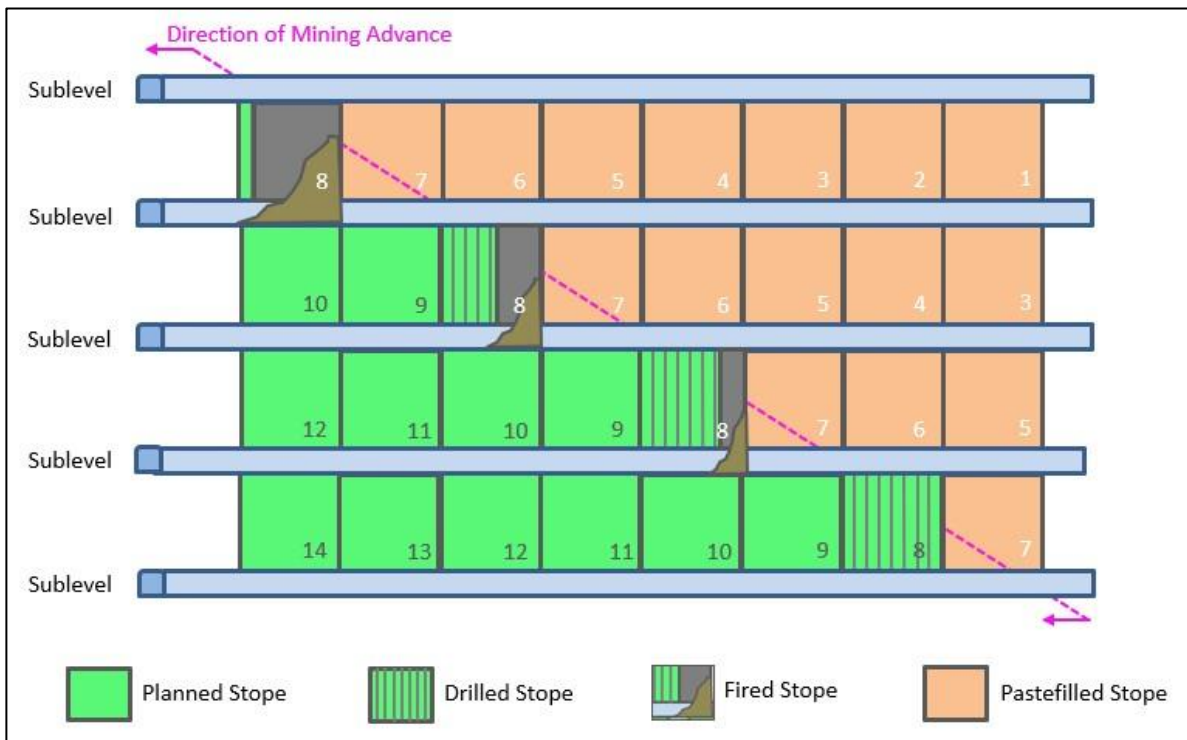


Figure 6: Diagram of Mining Sequencing

Underground stope optimisation was completed using Datamine's Mineable Stope Optimiser (MSO). An exercise was undertaken to assess the sensitivity of the project to a range of cut-off grades. It was determined that productivity, based on a target of 500 ktpa, is not a major constraint given the three separate deposits can be mined concurrently. To optimise the project, the stope and tunnel size analysis determined the optimal balance of cost and ore quality within the productivity limitations of the mining equipment.

#### *Underground Mine Design*

The optimal case selected was a 15 m sublevel, 3.0m x 3.0m mineralised drive profile with a cut-off grade of 1.2% Ni. A conceptual level mine design and schedule were produced using specialised mining software Deswik. The mine design includes essential capital development to access and mine the economic portions of all three deposits via underground methods.

Access to all deposits is via surface, with the Camelwood deposit featuring an independent boxcut and portal, and the Cannonball and Musket deposits sharing a common boxcut with separate portals for each deposit as shown in Figure 5.

A mining recovery of 95% is applied to represent mineable resource losses due to stope bridging, stope loading limitations and mixing with paste fill. The mining recovery also includes losses associated with human error misplacing mineable resources in incorrect stockpiles underground and/or on surface (waste rock dump instead of the RoM pad).

The mine designs are similar for the three deposits featuring a spiral decline access development (1:7 gradient) located in the footwall. The designs feature an access crosscut for each sublevel, escapeways, return airways, stockpiles and sumps positioned in the level access. A vertical raise bore will be required for the primary ventilation for each mine to surface. The mine layouts for the Cannonball/Musket and Camelwood deposits are shown in Figure 7 and Figure 8 respectively below.

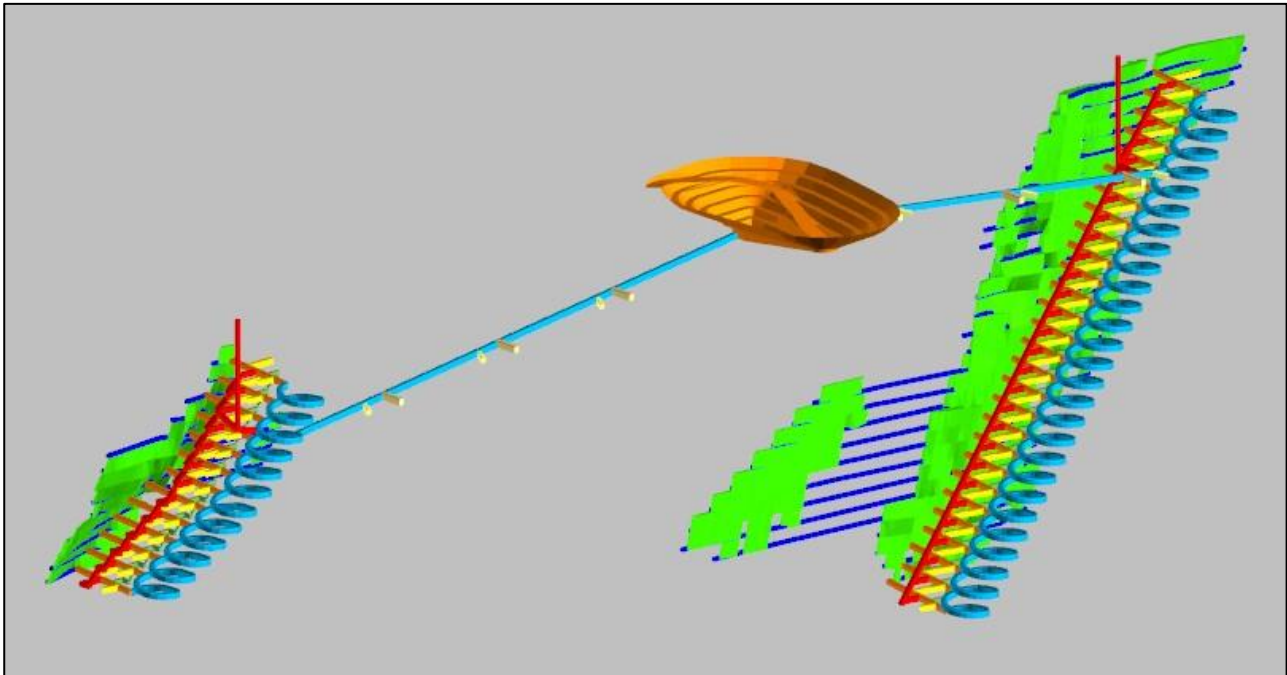
Mining will be undertaken using drill and blast mining methods and mechanised equipment for material transport. Drilling will be undertaken using mechanised electric-hydraulic jumbo drills. Blasting will involve blow-loaded ANFO, emulsion cartridge high explosive initiators and long-period non-electric detonators. Tunnelling and stoping will utilise mechanised wheel loaders to transport material throughout the underground mine.

The three deposits are not connected via underground tunnels thus an independent primary ventilation system is required for each.

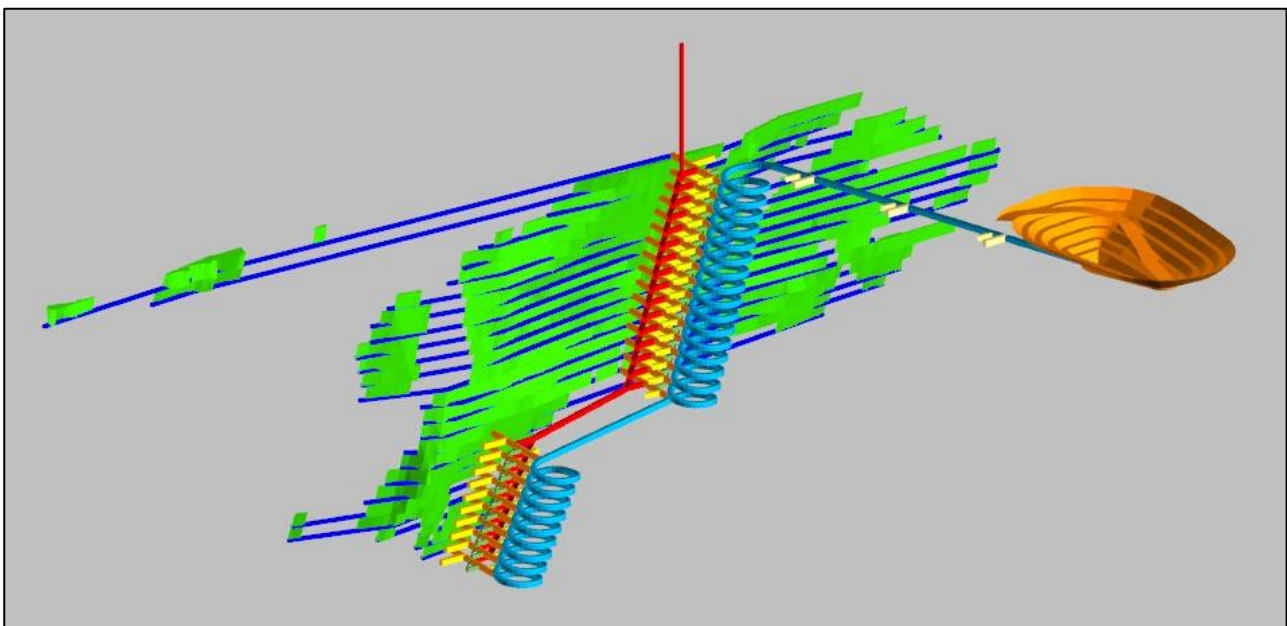
The sublevel stoping method assumes engineered backfill is placed into the stope voids and cured prior to the commencement of an adjacent stope. The backfill type assumed for the study is paste fill. The paste fill composition will be dry tails, water and cement. The addition of pozzolans may be required to meet requisite (optimal) curing characteristics and rheological properties to effectively distribute paste fill through the reticulation system.

A paste fill plant will be required on surface, assumed to be placed near the Cannonball deposit (because of its central location), feeding paste fill via steel pipework on surface to all three mines in turn. A pump will be required on surface to provide sufficient pressure to distribute the paste fill to the Camelwood and Musket deposits. It is possible that Cannonball may be gravity fed from the paste fill plant position. Further work determining the optimal location of the paste fill plant and required specifications is recommended in

subsequent studies.



*Figure 7: Oblique view looking south-east, Cannonball and Musket mine layouts*



*Figure 8: Oblique view looking south-east, Camelwood mine layout*

Dry tails will be farmed from the tailings dam and trucked to a stockpile at the paste fill plant via surface trucks. A loader will be required at the paste fill plant to feed tails into the mixing circuit. The paste fill plant throughput is estimated to be a maximum of 500 m<sup>3</sup>/day, or 30 m<sup>3</sup>/hour assuming 70% utilisation of the plant.

The curing time of the paste fill assumes 14 days before adjacent vertical wall exposure, and 28 days undercutting horizontal exposure. Based on similar projects, these parameters should be achievable with a cement ratio of 3 to 5% by mass.

#### *Underground Mine Schedule*

The mine plan assumes that the mines will operate 24 hours per day, 365 days per year, with two 12 hour shifts per day. The productivities estimated assume a utilisation of 9 hours per 12-hour shift, or 75%. Productivities for select equipment are based on achieved rates from analogous mines in Australia.

The mine schedule has been optimised based on Inferred or better resource classification material. Unclassified tonnage included in the summary (Table 3) is waste dilution incurred within the economic stope solid shapes and mineralised development solid shapes created in the mine design phase.

The overall mine life is 87 months, or 7.25 years. Steady state peak production is achieved at around 500 to 520 ktpa, after a 15-month ramp-up.

The decline advance rates after the first two years were reduced once not on the critical path, postponing unnecessary capital development. The stoping advance rate is set to around 6 weeks per 20 m stope length, which is slower than typical stope cycles of this size of around 4 weeks, thus the stope production and stoping front advance rate represented in the mine plan is conservative.

A summary of the LoM schedule physicals is provided below in Table 3 and Figures 9 to 11. Year 0 has been nominally set as 2020, although there is no guarantee that production will start in that year.

*Table 3: Total LoM schedule physicals*

Description	Units	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Total Mineable Resource	Kt	<b>2,894</b>	88	497	515	523	505	482	274	10
	Ni %	<b>1.73</b>	1.97	1.81	1.80	1.61	1.71	1.75	1.59	1.29
	Metal t	<b>50,066</b>	1,724	9,024	9,291	8,448	8,652	8,449	4,351	128
Total Waste Tonnes	Kt	<b>1,100</b>	393	250	123	129	104	86	13	2
Total Lateral Development	M	<b>34,145</b>	9,335	8,608	4,109	4,771	3,384	2,986	887	66
Long Hole Stopping	Kt	<b>2,657</b>	56	433	479	486	480	455	259	10
	Ni %	<b>1.74</b>	2.13	1.84	1.81	1.61	1.71	1.75	1.59	1.29
	Metal t	<b>46,102</b>	1,187	7,967	8,679	7,835	8,230	7,974	4,102	128
Mineralised Development	Kt	<b>237</b>	32	64	36	38	25	28	15	0
	Ni %	<b>1.67</b>	1.69	1.64	1.69	1.63	1.71	1.72	1.65	1.67
	Metal t	<b>3,963</b>	537	1,057	612	612	422	474	249	0
Total Indicated Tonnes	Kt	<b>2,637</b>	83	448	461	495	461	426	253	10
Total Inferred Tonnes	Kt	<b>138</b>	1	36	40	11	19	30	1	0
Total Unclassified Tonnes	Kt	<b>120</b>	4	13	14	17	26	26	20	0

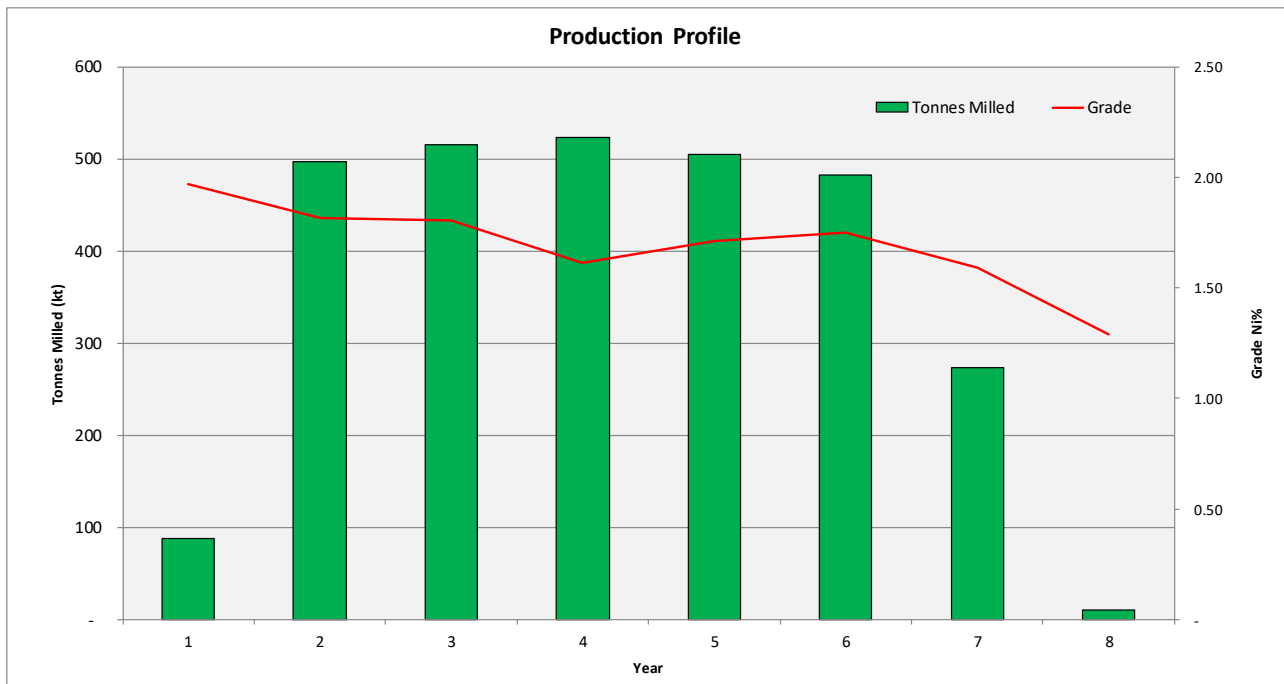


Figure 9: Production Profile

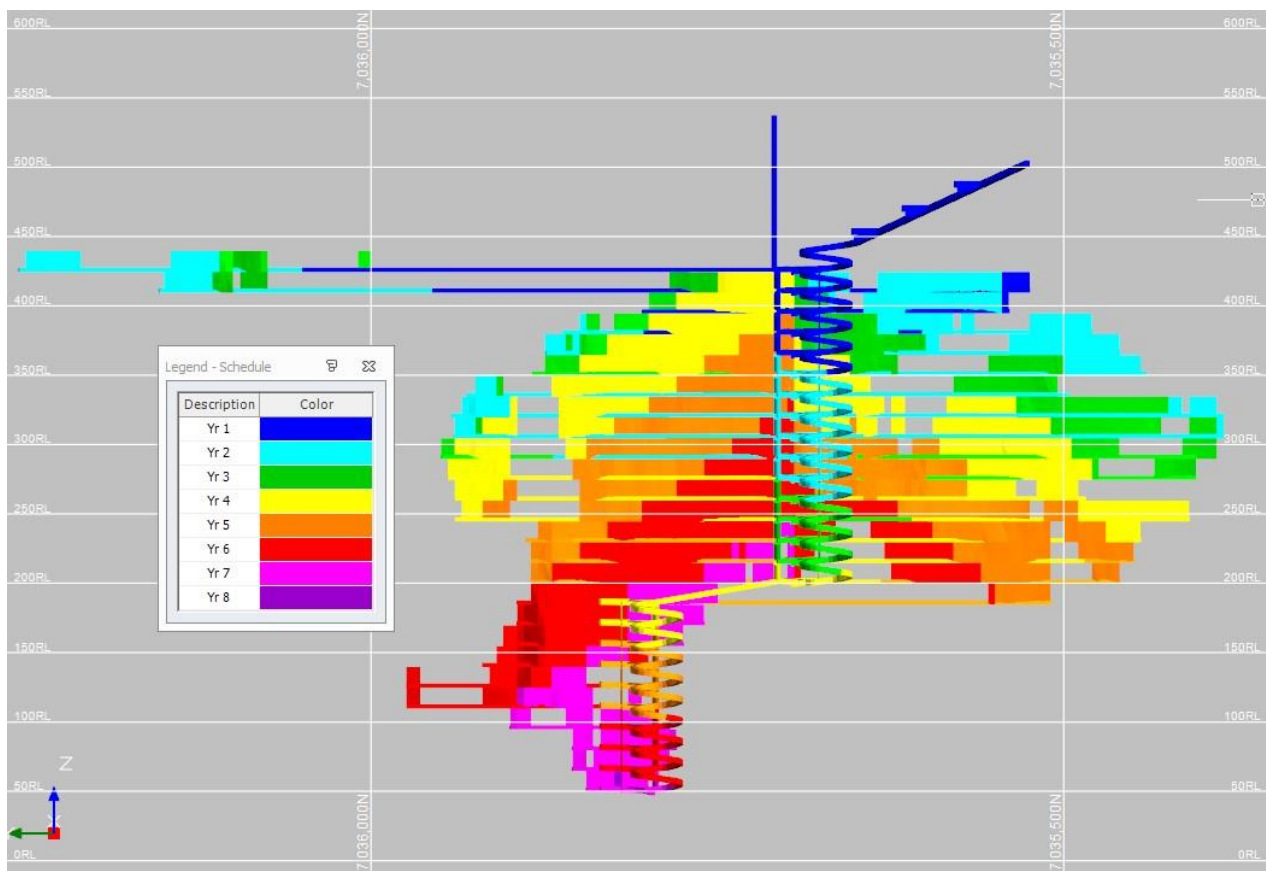


Figure 10: Yearly mine schedule by colour; development and stope activities, Camelwood



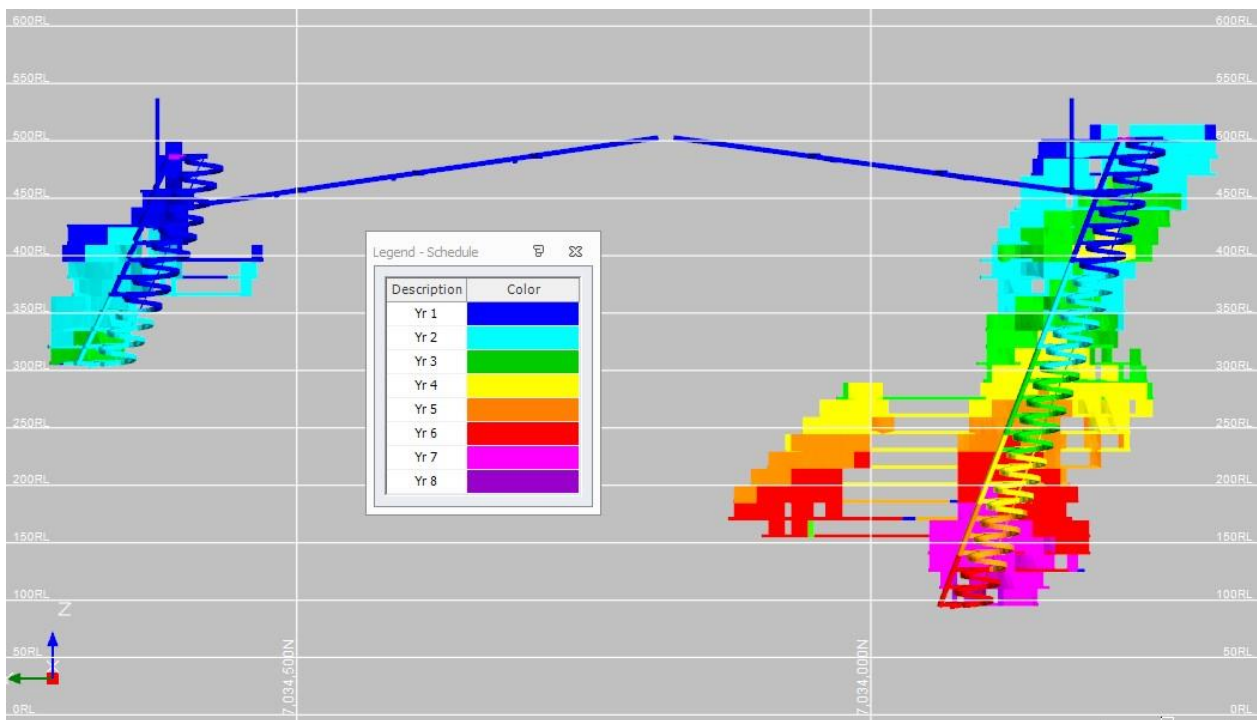


Figure 11: Yearly mine schedule by colour; development and stoping activities, Cannonball (left) and Musket (right)

## Metallurgy

In 2014 (ASX:RXL 8 April 2014) a series of sighter flotation tests were undertaken by Bureau Veritas Laboratories under the supervision of Mineral Engineering Technical Services Pty Ltd (METS), on a number of composite drill samples from Camelwood including primary massive sulphide (head grade 6.7% Ni), primary disseminated sulphide (head grade 2.4% Ni), transitional semi-massive sulphide (head grade 5.4% Ni) and transitional disseminated sulphide (head grade 2.4% Ni) mineralization.

The primary massive sulphide sample, containing mainly pentlandite and pyrrhotite gave a first pass result of 91 - 95% recovery of nickel with a concentrate grade of 14 - 17% Ni, low MgO (2.6% - 2.8% MgO), and a high Fe/Mg ratio (15 - 16) well in excess of typical smelter parameters. Concentrations of deleterious elements such as arsenic were low (50-100 ppm). The concentrate also contained minor amounts of copper and cobalt. The primary disseminated sulphide sample contained a significant amount of talc (which contains high amounts of MgO), so required an additional talc pre-float, which removed about 34% of the MgO before the sulphide flotation stage. A concentrate grade of 8.1% Ni was achieved with nickel recovery of 60%. MgO content was low (2.5% MgO), and the Fe/Mg ratio was 16, indicating that this material will produce a suitable smelter product.

The transitional samples, containing mainly violarite, pyrite and talc, both achieved good nickel concentrate grades (11 - 15% Ni), at recoveries ranging from 40 - 80%. MgO values were higher than for the primary sulphide samples (transitional semi-massive sulphide, 6.3% MgO; and transitional disseminated sulphide, 16% MgO).

Based on this preliminary work, Strategic Metallurgy was commissioned to undertake further flotation test work including additional massive and disseminated sulphide material from Musket, and refine the flowsheet. Their report formed part of the 2015 Scoping Study (ASX:RXL 17 February 2015), and was reported therein.

Three processing flowsheets were examined based on the notably high talc content of the disseminated ore, viz:

- Talc-pre-flotation,
- Conventional direct depression of talc with guar gum,
- Modified depression of talc using guar gum and sodium dithionite.

Preliminary comminution work index was also determined on one sample.

Key observations were:

- The modified direct depress flowsheet produced the best result for the Musket and Camelwood Primary Disseminated materials,
- A final concentrate grade of 12% nickel was achieved for all composites tested, and
- The results were generated at a primary grind size of 75µm which suggests fine grinding is not required (see Table 4).

The metallurgical test work provided the results detailed in Table 4.

*Table 4: Metallurgical Test Work Results*

Ore Type	Head Grade (Ni%)	Primary Grind Size (µm)	Rougher Ni grade (%)	Rougher Nickel Recovery (%)	Nickel Recovery at 12% Concentrate Grade	Fe/MgO	MgO%	Bond Ball Mill Work Index (kWh/t)
<b>Camelwood Primary Disseminated</b>	2.4	75	6.3	86.2	73.7	12:1	8.7	10.9
<b>Camelwood Primary Massive</b>	6.7	53	12.2	96.7	96.7	16:1	2.4	NT <sup>1</sup>
<b>Camelwood Transitional Semi-Massive</b>	5.4	32	11.7	79.9	79.7	4:1	6.1	NT <sup>1</sup>
<b>Musket Primary Disseminated</b>	2.1	75	10.3	84.2	81.2	4:1	8.0	NT <sup>1</sup>
<b>Musket Primary Massive</b>	20.0	75	23.0	99.7	100.0	111:1	0.3	NT <sup>1</sup>

NT<sup>1</sup> No test work undertaken

The following test work was recommended as the next step:

- A trade-off study on pre-flotation vs. modified direct depress is recommended in the next phase of test work,
- Improvements in recovery of disseminated ores due to the relatively high talc content, which would lead to a lowering of the MgO content (and increase of Fe/MgO ratio),

- Optimisation of the reagent regime, especially on the disseminated material,
- Additional testing on cleaning of concentrate to achieve a higher-grade concentrate,
- More comminution test work including Bond Crushing Work Indices, Bond Ball Mill Work Indices, Bond Rod Mill Work Indices, Bond Abrasion Indices, SMC Competency Tests, and Full JK Drop Weight tests,
- ROM samples which will more accurately represent material that would be presented to a processing plant from a mining operation, and
- Optimising grind size.

### ***Processing***

The optimum mine schedule allows a 500,000tpa processing rate and capital and operating costs were derived accordingly.

The metallurgical test-work undertaken has enabled a high-level conceptual flowsheet to be derived, with associated capital and operating costs estimated. Payabilities were benchmarked against other nickel sulphide operations. The proposed flowsheet consists of three-stage crushing, ball mill grinding, flotation, concentrate handling and tailings disposal (Figure 12).

Massive sulphide ore achieved 97 to 100% recovery, while the disseminated sulphide ore achieved 74 to 81% recovery, both at a nominal concentrate grade of 12% Ni as listed in Table 4. Higher concentrate grades may be able to be achieved but at likely slightly lower recoveries.

Preliminary comminution work indices were determined for the Camelwood disseminated sample in order to assess the grinding requirements. These tests indicated a Bond Ball Mill Work Index of 10.9 kWh/tonne (soft to moderate hardness) and a low Bond Abrasion Index of 0.027.

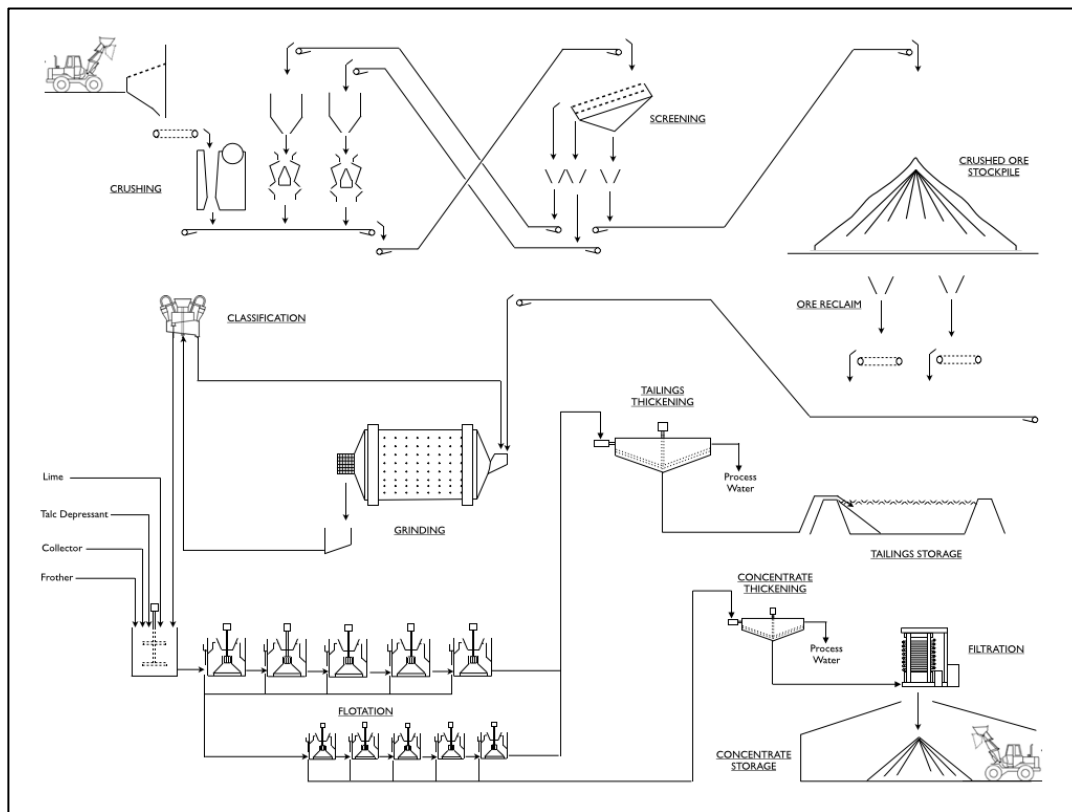
The quality of the overall concentrate is expected to be acceptable for smelting, with individual Fe/MgO ratios shown in Table 4. Arsenic (As) was less than 100 ppm for each concentrate, which is well within acceptable limits. It is unlikely that just one ore type (as shown in Table 4) would be processed at a time, rather, a “run of mine” (ROM) sample would be a mixture of these ore types, to achieve a targeted concentrate with <4% MgO and > 6:1 Fe/MgO, with low As (< 100ppm).

Based on the metallurgical test work and the blend of material types in the Resources in the Mining Plan, an overall metallurgical recovery of 88% and concentrate grade of 13% Ni has been assumed. This will need to be confirmed by further specific sampling and follow-up characterisation test work.

Capital cost estimates were based on benchmarked capital costs of recent Australian base metal process plants, scaled to account for throughput and indexed according to construction date. The average derived capital cost for a new 500,000tpa processing plant was A\$52.0 million. A second-hand plant could cost less.

The indicative processing cost of A\$39.00 per tonne was developed based on the flowsheet and costs associated with the operation and maintenance of such a plant.

Capital and operating costs are +/- 35%.



*Figure 12: Conceptual Process Flowsheet*

## Environment

Outback Ecology have conducted pre-feasibility level environmental studies.

A Vegetation, Flora and Fauna Assessment was conducted over the Project area. During the survey 63 flora species were recorded, but none were of conservation significance.

Vegetation condition was uniformly very good over the vast majority of the Study Area. A total of nine vegetation communities were recorded, that are representative of the dominant vegetation types that occur throughout the region. None are considered as a Threatened or Priority Ecological community, and none are considered locally or regionally significant. The majority of the vegetation in the project area was considered to be “very good”, only degraded by feral grazing and exploration activity.

The broad fauna habitats within the project area are considered widespread and common in the region and have limited significance for fauna conservation. A total of 28 fauna were recorded during the study, none of which are considered of conservation significance.

A Surface Water Assessment found that the project area lies in an extremely flat floodplain upstream of the terminal lake system. Proposed haul roads and foundations for site infrastructure should be located on fill placed above the design flood elevation or protected by flood protection bunds. Maximum 50-year ARI event flood level is estimated to be 1m. The high-level assessment of potential flood risk indicated a low likelihood of failure for properly engineered flood protection measures, primarily as a result of the low flood elevations and scour potential.

A Subterranean Fauna Assessment found that no stygofauna or troglotaunal assemblages exist in the project area. A Soil and Waste Characterisation was undertaken and recommendations made for surface soil stripping and stockpiling, waste management and landform design and rehabilitation. No issues were identified.

### ***Water and Tailings Storage***

The instantaneous raw water requirement for the Project (Concentrator Case) is 125-150 m<sup>3</sup>/hour for the first 3-6 months. After that the water requirement is 115-135 m<sup>3</sup>/hour. A bore field was developed for the historic Mt Fisher gold mine and is very close to the Project area. Anecdotaly the quality of this water was very good (potable and stock quality), but the bore field capacity is not fully known, since the gold mine did not have as high a water requirement as the proposed Project. Based on exploration drilling undertaken in the area, it is likely that the bore field capacity and water quality will be more than adequate for the Project, but more specific test work is required to substantiate this.

Waste and Tailings Storage Facilities (TSF) for the Project were considered. Waste storage will be minimal due to the underground mining method. Tailings storage would be along normal industry lines, but further test work to determine the potentially acid forming (PAF) nature of the tailings will be required.

### ***Infrastructure, Transport and Logistics***

A number of different conceptual transport and route options were considered. Two were selected, one each for the Concentrator Case (gravel road transport from the site south through Darlot to the Goldfields Highway and then bitumen to the port of Esperance), and the Toll Mill Case (gravel road to a nearby processing facility).

Each of these road options will require upgrading of existing shire roads to heavy haulage. In the Concentrator Case, the whole distance of 200km will need to be upgraded, while for the Toll Mill Case about 130km will need to be upgraded.

The Concentrator Case provided for road haulage of concentrate from site to Esperance; 200km on gravel, then 770km on bitumen. The Toll Mill Case provided for haulage of ROM ore a distance of 200km on gravel roads.

Haulage costs were obtained from a haulage contractor that included the road maintenance cost as well. Given the preliminary nature of this assessment, considerable scope lies in optimising these costs.

A mine camp and power generation facility were also considered and costed within the overall capital and operating cost estimates.

## **Capital and Operating Costs**

***All capital and operating costs have only been estimated to +/- 35%. The figures quoted are the mid-points of likely ranges.***

### ***Capital Cost***

Pre-production capital costs for the Concentrator and Toll Mill Cases were estimated as shown below in Table 5. For both cases, mine access capital is the same at ~A\$29m (+/- 35%). A new Process Plant and associated

Infrastructure is expected to cost A\$58m (+/- 35%), although a second-hand plant may bring this cost down. For the Toll Mill Case, the Infrastructure cost is largely for upgrading of the haulage road, plus site infrastructure associated with a mining only operation.

It is assumed that sustaining and delayed capital will be financed from operating cash flow surpluses. This capital, which is similar for both Concentrator and Toll Mill Cases, is largely mine development associated with extending declines beyond their initial extent and additional level development.

*Table 5: Pre-Production Capital Costs*

Capital item	Concentrator Case (A\$M)	Toll Mill Case (A\$M)
Mining Capital	29	29
Process Plant & Infrastructure	58	19
<b>Pre-Production Capital</b>	<b>87</b>	<b>48</b>
Post-Production Capital	38	37
<b>TOTAL</b>	<b>125</b>	<b>85</b>

*All cost estimates are +/- 35%*

### **Operating Cost**

Operating costs for the Concentrator and Toll Mill Cases were determined as listed in Tables 6 and 7 to +/- 35%. The mining cost was benchmarked and estimated to provide physicals (tonnes and grades) and then the processing and haulage costs were calculated from the mining physicals.

*Table 6: Operating Costs – per tonne of ore milled*

Item	Concentrator Case (A\$/t)	Toll Mill Case (A\$/t)
Mining & Development Cost	75	75
Transport Cost	21	40
Processing Cost	39	35
G & A	5	2.5
<b>C1 Cash Cost</b>	<b>141</b>	<b>153</b>
WA State Royalty	6	5
<b>Total Cash Costs</b>	<b>147</b>	<b>158</b>
Sustaining Capital	13	13
<b>All in Sustaining Cost</b>	<b>160</b>	<b>171</b>

*All cost estimates are +/- 35%*



Table 7: Operating Costs – per pound of nickel in concentrate

Item	Concentrator Case (A\$/lb)	Concentrator Case (US\$/lb)	Toll Mill Case (A\$/lb)	Toll Mill Case (US\$/lb)
Mining & Development Cost	2.25	1.69	2.25	1.69
Transport Cost	0.63	0.47	1.19	0.89
Processing Cost	1.16	0.87	1.04	0.78
G & A	0.15	0.11	0.07	0.06
<b>C1 Cash Cost (rounded)</b>	<b>4.20</b>	<b>3.15</b>	<b>4.60</b>	<b>3.45</b>
WA State Royalty	0.17	0.13	0.16	0.12
<b>Total Cash Costs</b>	<b>4.37</b>	<b>3.27</b>	<b>4.72</b>	<b>3.54</b>
Sustaining Capital	0.39	0.29	0.38	0.29
<b>All in Sustaining Cost (rounded)</b>	<b>4.80</b>	<b>3.60</b>	<b>5.10</b>	<b>3.83</b>

All cost estimates are +/- 35%

## Project Financials

### Financial Results

The key financial parameters used in this updated Scoping Study are shown below:

Table 8: Key Financial Assumptions

Financial Assumption	\$/t	\$/lb
Nickel Price US\$	US\$16,500/t	US\$7.50/lb
Nickel Price A\$	A\$22,000/t	A\$10.00/lb
Exchange Rate A\$/US\$	0.75	0.75

The above key financial assumptions were chosen based on a careful consideration of market forecasts and consensus for both commodity prices and exchange rates [e.g. Deutsche Bank (July 2018), UBS (June 2018), PCF Capital (Resources Thermometer September 2018), SNL (6 October 2018), Wood Mackenzie (as referenced in ASX:NIC 13 September 2018, page 23)]. The nickel price assumption used is in line with market consensus for 2021/2022 pricing. The Company is confident that the assumptions used are appropriate for nickel market supply and demand expectations over the proposed development period and provide a fair “baseline” set of assumptions.

Deutsche Bank (July 2018), for example, has forecast forward nickel prices based on expected supply, demand and market balance (Figure 13) as:

2018 US\$7.02/lb  
 2019 US\$8.42/lb  
 2020 US\$9.45/lb  
 2021 US\$9.35/lb

These price forecasts of up to US\$9.45/lb are well above the more conservative forecast of US\$7.50/lb used in this Study.

The nickel price assumption has been applied as a flat line in the financial model, and there has been no escalation of costs. The breakeven NPV and cash flow nickel pricing are also given as guidance. Since capital and operating cost estimates are +/- 35%, the figures following in this report also have that degree of accuracy.

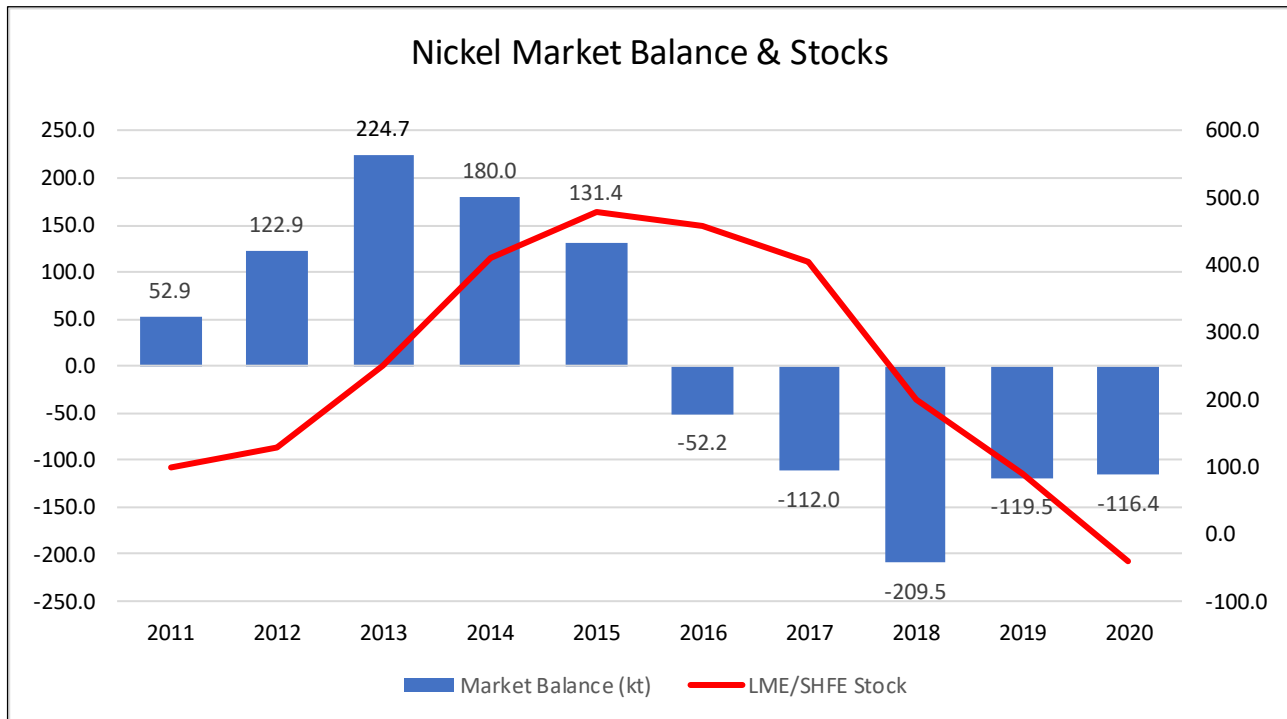


Figure 13: Nickel Market and Stocks – Predicted (2018-2020) and Actual (2011-2017)

Based on these assumptions, for the Concentrator Case gives:

- A nickel mine producing ~44 kt of nickel in concentrate (~12% Ni) over 7 years;
- Pre-tax NPV of ~A\$79m, Cash Flow of ~A\$146m, and IRR of ~44%;
- Capital payback of ~2.3 years; and
- C1 cost of ~A\$4.20/lb (US\$3.15/lb) and ASIC of ~A\$4.80/lb (US\$3.60/lb).

For the Toll Mill Case, the outcomes are:

- A nickel mine producing ~44 kt of nickel in concentrate (~12% Ni) over 7 years;
- Pre-tax NPV of ~A\$58m, Cash Flow of ~A\$102m, and IRR of ~55%;
- Capital payback of ~1.8 years; and
- C1 cost of ~A\$4.60/lb (US\$3.45/lb) and ASIC of ~A\$5.10/lb (US\$3.83/lb).

Table 9: Key Financial Metrics

Metric (pre-tax)	Unit	Concentrator Case	Toll Mill Case
Pre-tax Cash Flow	A\$M	~A\$146m	~A\$102m
Pre-tax NPV	A\$M	~A\$79m	~A\$58m
IRR	%	~44%	~55%
Capital Payback Period	Years	~2.3 Years	1.8 Years

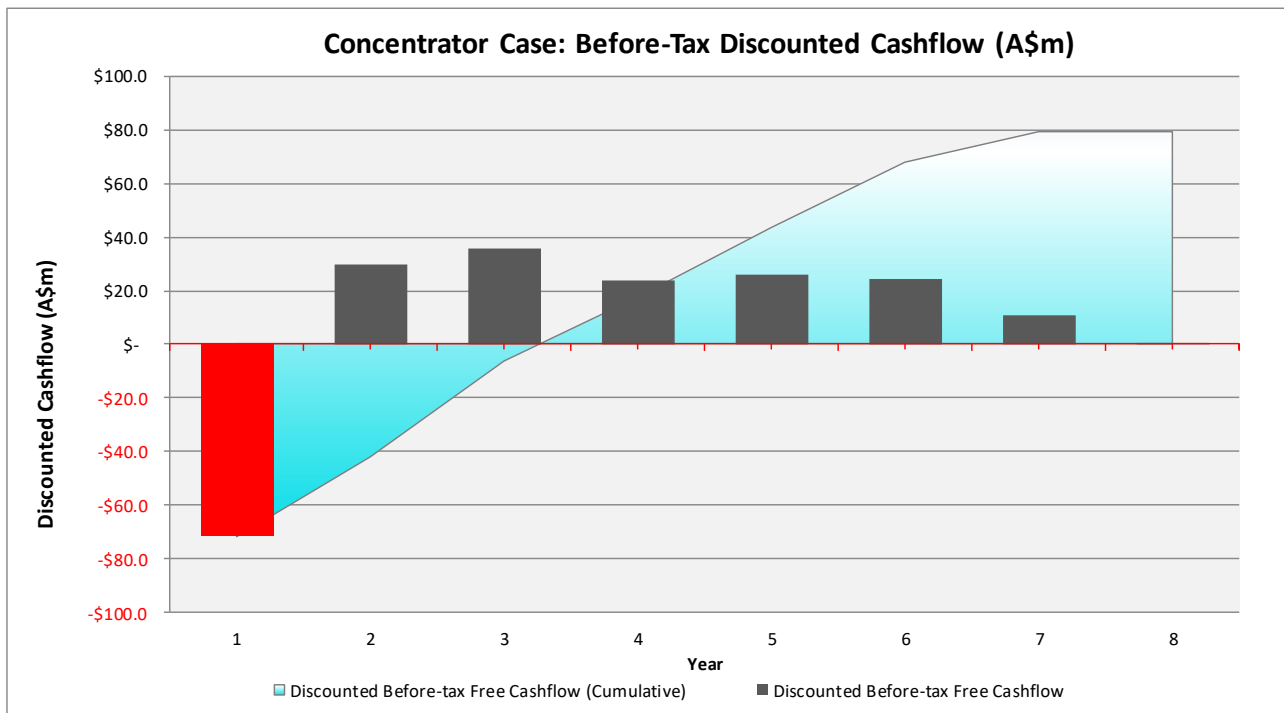


Figure 14: Concentrator Case – Before-tax Discounted Cash Flow

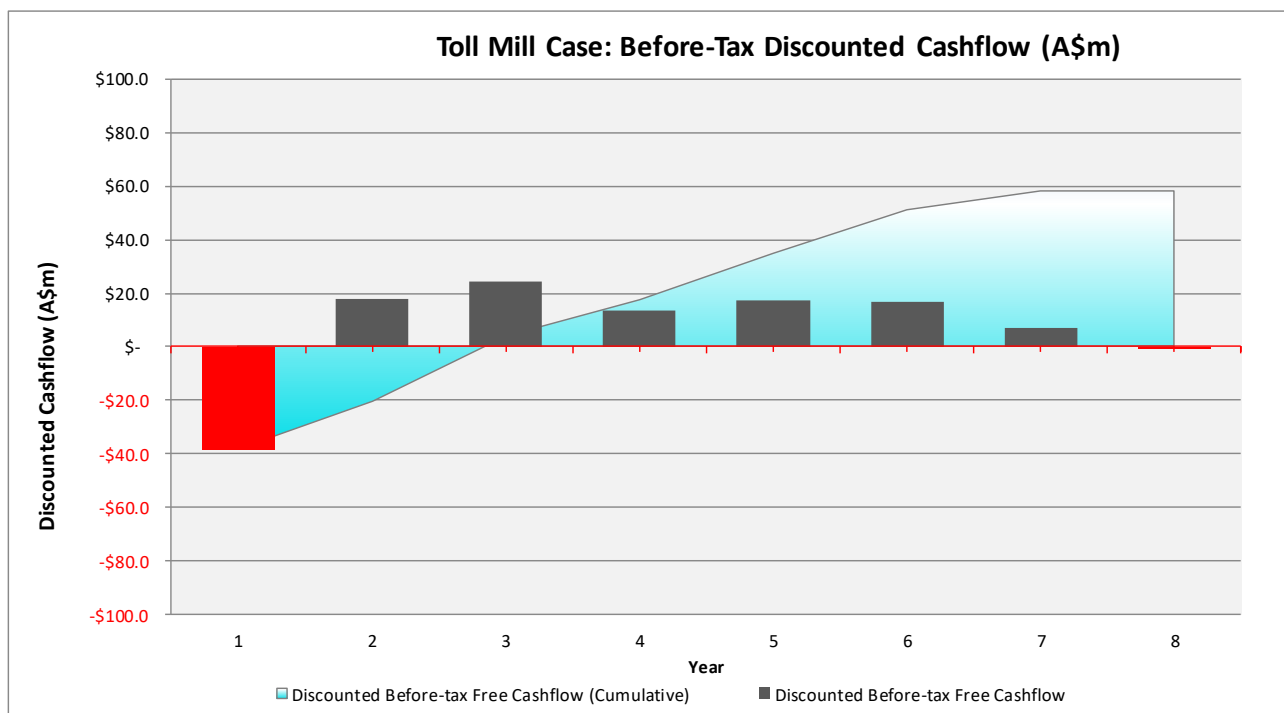


Figure 15: Toll Mill Case – Before-tax Discounted Cash Flow

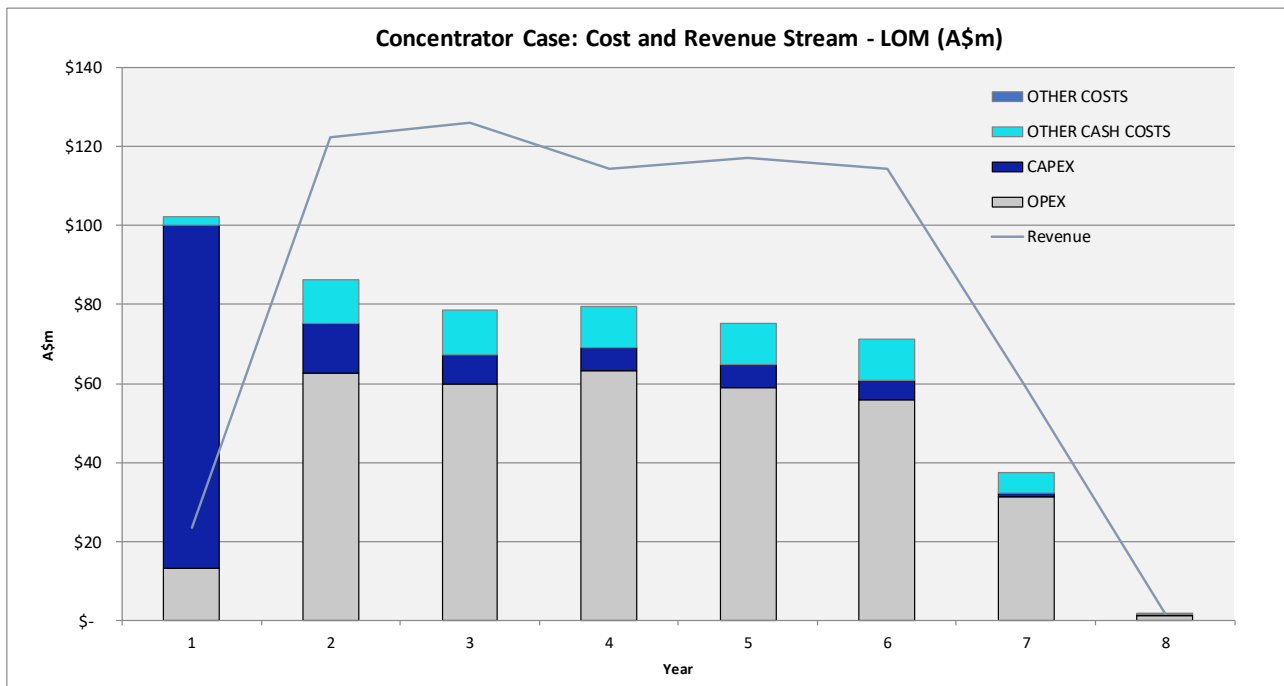


Figure 16: Concentrator Case – Cost and Revenue Stream

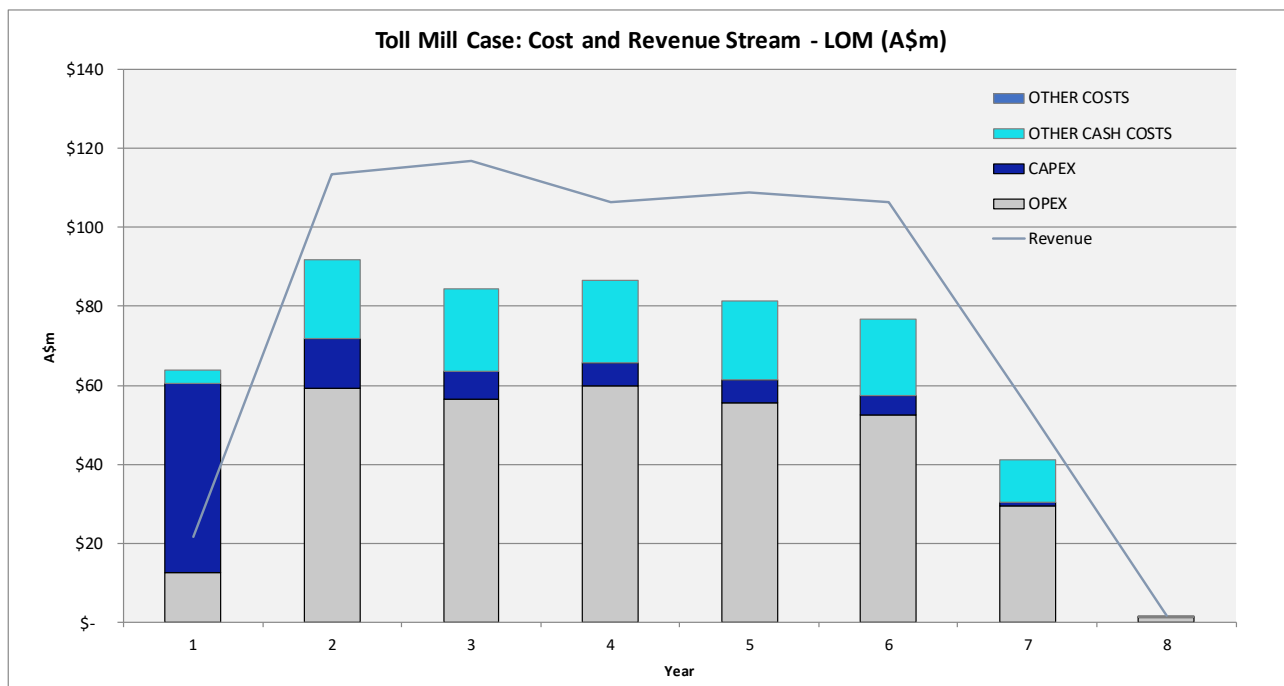


Figure 17: Toll Mill Case – Cost and Revenue Stream

### Sensitivity Analysis

The project is very sensitive to any factors which directly affect revenue, such as nickel price, exchange rate, metallurgical recovery, payability etc.

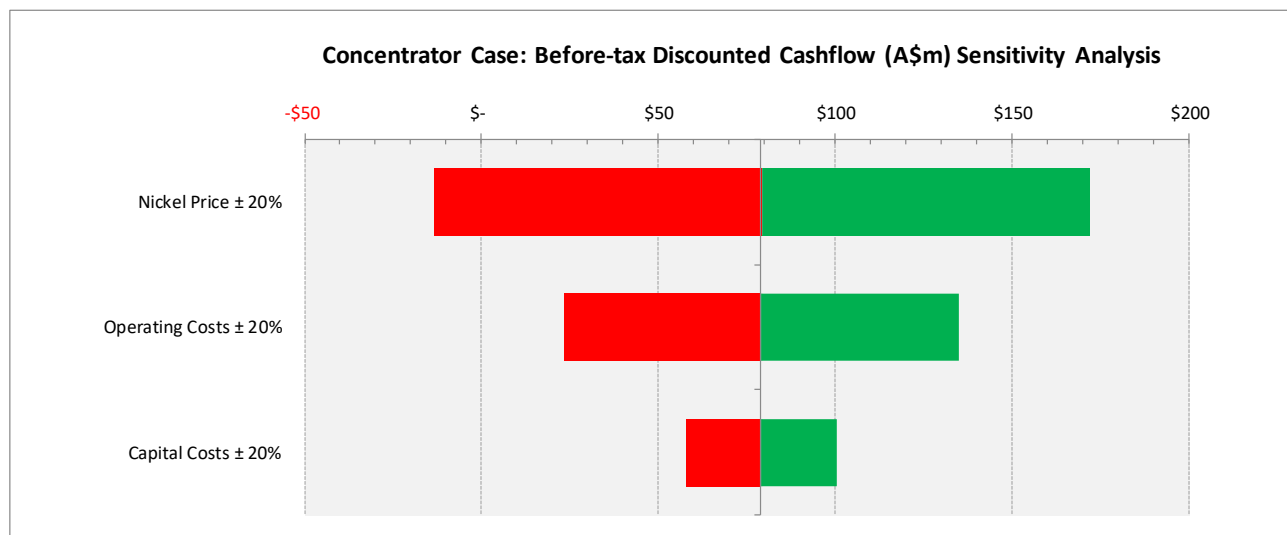
Tables 10 & 11 show sensitivity of pre-tax NPV to nickel price, operating cost, and capital cost. Figures 18 & 19 show these data graphically.

*Table 10: Before-tax NPV A\$m Sensitivity – Concentrator Case*

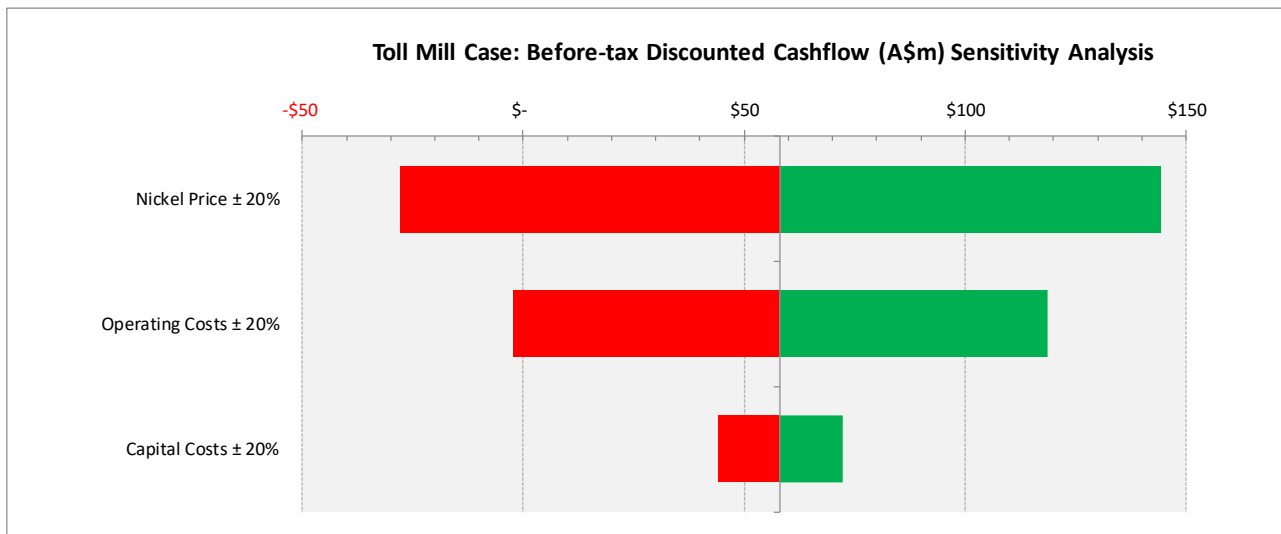
Parameter	-20%	-10%	0%	10%	20%
Nickel Price	-14	33	79	126	172
Operating Costs	135	107	79	51	24
Capital Costs	100	90	79	69	58

*Table 11: Before-tax NPV A\$m Sensitivity – Toll Mill Case*

Parameter	-20%	-10%	0%	10%	20%
Nickel Price	-28	15	58	101	144
Operating Costs	119	88	58	28	-2
Capital Costs	72	65	58	51	44



*Figure 18: Before-tax NPV A\$m Sensitivity Graph – Concentrator Case*



*Figure 19: Before-tax NPV A\$m Sensitivity Graph – Toll Mill Case*

### **Time Frame**

The time frame from the current date to achievement of production is estimated to be a minimum of 3 years as follows:

Pre-Feasibility Study	6 months
Definitive Feasibility Study	6-12 months
Project Approvals	6-12 months
Construction	12 months

These may vary depending on a number of factors, including the prevailing nickel price, labour costs, materials costs, availability of funding, project approvals and government regulations, availability of a suitably skilled work force, machinery and equipment etc.

### **Funding Requirements**

The Board of Rox Resources Limited believes there is a reasonable basis to assume the necessary funding for the Fisher East Project will be obtained for the following reasons.

- A mix of debt and equity is the most likely funding model so 100% of the capital expenditure will not need to be borrowed. Rox has not yet conducted any discussions with potential debt, equity and offtake providers, however the Company's board has general and recent experience in funding start up mining operations, and in their view it is reasonably expected that when the project parameters in this Scoping Study are met, that funding will be able to be arranged.
- Rox has received a number of expressions of interest from third parties with regards to assisting with project financing through joint ventures, project acquisition and the like. While these discussions are confidential, the proposals include funding to completion of DFS and potentially assisting to arrange finance for construction.



- As at 30 June 2018 Rox had approximately A\$10.4 million cash and therefore sufficient funds to complete additional resource drilling, an upgraded resource estimate, Pre-Feasibility Studies and Definitive Feasibility Studies.
- The Company has a receivable of A\$3.75 million cash due on 23 February 2023 from the sale of its Reward zinc project in 2017. That payment may be able to be re-negotiated to be paid earlier at a discount. It is currently carried in Rox's accounts at a discounted amount of \$2.4 million.
- The Board and Management of Rox have a strong financing track record in mining project finance and equity raising for numerous ASX listed companies besides Rox over the last 15 years.
- Rox and its Board have previously demonstrated the ability to raise exploration and development funding for Fisher East. Since 2013, approximately A\$22.5 million of equity capital has been raised.
- It is noted that two recent funding arrangements were announced for nickel sulphide projects. One involved debt funding of A\$40m (ASX:PAN 16 July 2018) for the Savannah Nickel Project, while the other comprised an equity raising of A\$69m (ASX:POS 17 September 2018) for the Black Swan and Silver Swan Nickel Projects.
- The nickel price appreciated 70% from June 2017 to June 2018 (from a low of US\$4/lb to a high of US\$7/lb). Based on research and publication by a number of third parties (see page 21), an improvement in the nickel market and price is expected over the next few years due to a declining market balance and stocks, and increasing demand for nickel for electric vehicle batteries as the electric vehicle market grows. The price assumption used in this Study is believed to be conservative against the published forecasts.

## Opportunities

By its nature, a Scoping Study is limited by a number of factors, such as the completeness of the information used and the extent of the options examined. In the case of this updated Scoping Study, a number of opportunities present themselves to improve the outcomes from the Project:

- While the conceptual mining schedule was optimised, it may be possible to further optimise the mining capital and development costs, which would be expected to positively affect the Project financial outcomes;
- Additional metallurgical test work to optimise and improve the nickel recovery from disseminated sulphide ores, and to optimise the concentrate specifications is required;
- An estimate of water ingress and overall mine water balance is recommended in further studies, including the amount of water supply required for processing, mine drill water and ablutions etc.;
- Further work investigating the use of Armco tunnels to reduce the cost of boxcut establishment is recommended in future studies to reduce capital costs. In addition, assess the optimality of independent boxcuts for Musket and Cannonball, factoring in scheduling, development requirements and overall costs;
- For the paste fill option, further work is recommended detailing the type and specifications of a suitable backfill plant and the design of distribution and reticulation lines to the three deposits;
- Further work undertaking trade-off studies on mining methods to optimise the project, for example bottom-up mining in the upper levels utilising waste rock to backfill stopes (Avoca). These methods will delay the need for the paste fill plant, reduce operating costs whilst maintaining full recovery of the resource, and reduce the footprint of the waste rock facility on surface;

- Consider an early stage Toll Mill option (say for 2 years) and use the generated cashflow to fund the purchase and construction of a processing plant on-site. This will reduce capital drawdown and up-front funding required for the project;
- Consider opportunities to increase the size of the resource to further offset required project capital, and to improve project value and market attractiveness generally;
- Haulage rates assumptions were based on one provisional quote, which was in turn based on broad parameters, rather than a quote on a specific haulage route and material type. The Company believes there is an opportunity to substantially reduce the haulage costs;
- The capital cost estimates are for new equipment, however second-hand equipment if available, could substantially reduce the capital costs. This needs to be investigated.

## Next Steps

A number of recommendations were contained in the Scoping Study report, including the opportunities listed above, and these will now be pursued.

## Risks

Rox has identified a number of areas of risk to the project. These include (but not limited to):

Confidence in the Resource Model	The existing resource model contains approximately 12% Inferred Resources. Further drilling will be required to upgrade these to Indicated so that they can become Ore Reserves. Only 4.2% of the Resources in the Mining Plan comes from Inferred Resources. The Company is confident that it can upgrade the Inferred Resources to Indicated Resources because the geology and grade continuity has been demonstrated in areas adjacent to these Inferred Resources.
Geotechnical Risks	At this stage, no specific test work has been carried out to assess rock strengths. The rock mass through which most of the development will occur, is a very competent felsic metasedimentary rock, which in drill core looks very competent.
Processing Risks	The results from the metallurgical test work may not be able to be repeated on a large scale. In addition, processing costs could be different to that estimated.
Capital Cost Estimate Risk	The capital cost estimated may not be accurate, or applicable at the time it is to be deployed. Capital costs will be further refined at the PFS and DFS stages.
Operating Risks	The mine may not be able to operated as envisaged, for example, mining dilution or grade recovery may not be as estimated. The mine and processing plant may not operate as envisaged, with lower outputs likely to negatively affect financial outcomes.
Financing Risks	Given certain market conditions, the project may not be able to be satisfactorily financed.

Price and Exchange Rate Risks

The project may not be economic if the nickel price fell below the life of mine estimate, or the exchange rate changed to disadvantage the project.

Off-take Risks

Off-take terms may not be able to be reached, or be on such terms as to render the project uneconomic. In addition, for the Toll Mill Case, a toll milling or ore sale agreement with a third-party may not be able to be secured.

## About Rox Resources

Rox Resources Limited is an emerging Australian minerals exploration company. The company has a number of key assets at various levels of development with exposure to gold, nickel, copper and platinum group elements (PGE's), including the Mt Fisher Gold Project (WA), the Fisher East Nickel Project (WA), and the Collurabbie Nickel-Copper-PGE Project (WA).

### Fisher East Nickel Project (100%)

The Fisher East nickel project is located in the North Eastern Goldfields region of Western Australia and hosts several nickel sulphide deposits. The total project area is ~350km<sup>2</sup>.

Discovery of, and drilling at the Camelwood, Cannonball and Musket nickel prospects has defined a JORC 2012 Mineral Resource (ASX:RXL 5 February 2016) of **4.2Mt grading 1.9% Ni** reported at 1.0% Ni cut-off (Indicated Mineral Resource: 3.7Mt grading 1.9% Ni, Inferred Mineral Resource: 0.5Mt grading 1.5% Ni) comprising massive and disseminated nickel sulphide mineralisation, and containing **78,000 tonnes of nickel**. Higher grade mineralisation is present in all deposits (refer to ASX announcement above) and is still open at depth beneath each deposit. Additional nickel sulphide deposits continue to be discovered (e.g. Sabre) and these will add to the resource base. Exploration is continuing to define further zones of potential nickel sulphide mineralisation.

### Mt Fisher Gold Project (100%)

The Mt Fisher gold project is located in the North Eastern Goldfields region of Western Australia, adjacent to the Fisher East nickel project, and hosts several gold deposits. The total project area is ~220km<sup>2</sup>.

Drilling by Rox has also defined numerous high-grade gold targets and a JORC 2012 Measured, Indicated and Inferred Mineral Resource (ASX:RXL 11 July 2018) of **1.0 million tonnes grading 2.7 g/t Au** reported at a 0.8 g/tAu cut-off exists for **89,000 ounces of gold** (Measured: 170,000 tonnes grading 4.1 g/t Au, Indicated: 220,000 tonnes grading 2.7 g/t Au, Inferred: 630,000 tonnes grading 2.3 g/t Au) aggregated over the Damsel, Moray Reef and Mt Fisher deposits.

### Collurabbie Gold-Nickel Project (100%)

The Collurabbie project is located in the highly prospective North Eastern Goldfields region of Western Australia and is prospective for gold and nickel. The project area of ~123km<sup>2</sup> hosts the Olympia nickel sulphide deposit and a number of other prospects for nickel sulphide mineralisation. A JORC 2012 Inferred Mineral Resource of **573,000t grading 1.63% Ni, 1.19% Cu, 0.082% Co, 1.49g/t Pd, 0.85g/t Pt** has been defined at Olympia (ASX:RXL 18 August 2017). The style of nickel sulphide mineralisation is different to that at Fisher East, with a significant copper and PGE component at Collurabbie, and has been compared to the Raglan nickel deposits in Canada (>1Mt contained nickel).

In addition, there is potential for gold mineralisation, with several strong drilling intersections including **2m @ 2.4g/t Au** from the Naxos prospect.

### Bonya Copper Project (40%)

Rox (40%) has agreed to sell its interest in the Bonya project to Thor Mining PLC for A\$550,000 in Thor shares (29 March 2018). Completion is expected during the quarter.

## **Appendix 1:**

### **Forward-Looking Statements:**

This report contains certain forward-looking statements. The words "expect", "forecast", "should", "projected", "could", "may", "predict", "plan", "will" and other similar expressions are intended to identify forward looking statements. Indications of, and guidance on, future earnings, cash flow costs and financial position and performance are also forward-looking statements. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility of the development of the Fisher East Project.

The Company notes that an Inferred Mineral Resource has a lower level of confidence than an Indicated Mineral Resource and that the JORC Code (2012 Edition) advises that to be an Inferred Mineral Resource it is reasonable to expect that the majority of the Inferred Resources could be upgraded to Indicated Resources with continued exploration. Based on advice from relevant Competent Persons (as listed in the relevant ASX release of 5 February 2016) the Company has a high degree of confidence that the Inferred Mineral Resources for the Musket, Cannonball and Camelwood deposits will upgrade to Indicated Mineral Resources with further exploration work. The Inferred Mineral Resources have not been extrapolated past the last drill hole and therefore have only been estimated to the last data point. The drill hole density was only reduced once there was evidence of reducing mineralisation.

The Company believes it has a reasonable basis for making the forward-looking statements in this report, including with respect to any production targets, based on the information contained in this announcement and in particular the JORC 2012 Mineral Resource for Camelwood, Cannonball and Musket as at 5 February 2016, independently estimated by Mining One Pty Ltd (ASX:RXL 5 February 2016), together with independent determination of Resources in the Mining Plan, mine design and scheduling, metallurgical test work, commodity price and exchange rate forecasts and appropriate operating cost data as compiled by CSA Global Pty Ltd from contributors to the Scoping Study. However, the production targets and forecast financial information are based on the Company's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions.

### **Competent Person Statements:**

#### **Exploration Results**

The information in this report that relates to previous Exploration Results, was either prepared and first disclosed under the JORC Code 2004 or under the JORC Code 2012 and has been properly and extensively cross-referenced in the text to the date of original announcement to ASX. In the case of the 2004 JORC Code Exploration Results and Mineral Resources, they have not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

#### **Resource Statements**

The information in this report that relates to nickel Mineral Resources for the Fisher East project was reported to the ASX on 5 February 2016 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 5 February 2016, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 5 February 2016 continue to apply and have not materially changed.

The information in this report that relates to nickel Mineral Resources for the Collurabbie project was reported to the ASX on 18 August 2017 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 18 August 2017, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 18 August 2017 continue to apply and have not materially changed.

The information in this report that relates to gold Mineral Resources for the Mt Fisher project was reported to the ASX on 11 July 2018 (JORC 2012). Rox confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 11 July 2018, and that all material assumptions and technical parameters underpinning the estimates in the announcement of 11 July 2018 continue to apply and have not materially changed.

## Appendix 2: JORC Tables

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	<p>The Fisher East deposits have been sampled at a nominal 40 m by 40m to 80m by 80 m spacing using a combination of 5.5" (140 mm) reverse circulation percussion (RC) and diamond drill (DD) holes. Core size was dominantly NQ2 size diameter. In summary, results of the following drilling were used for this resource estimation:</p> <ul style="list-style-type: none"> <li>• Camelwood: 38 RC holes for a drilled length of 6,470m and 41 DD holes for a drilled length of 15,562m;</li> <li>• Cannonball: 21 RC holes for a drilled length of 3,618m and 10 DD holes for a drilled length of 3,566.0m;</li> <li>• Musket: 25 RC holes for a drilled length of 4,594m and 20 DD holes for a total depth of 7,565.1m.</li> </ul> <p>Holes were drilled towards grid west at varying dips to intersect the mineralised zones at close to perpendicular.</p>
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	1m RC samples were collected by a cone splitter. Diamond core drilling was logged for lithology, structure, alteration, geotechnical and other attributes. Rox sampling and assaying procedures meet quality assurance and quality control (QA/QC) measures that are of industry best practice standards.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Diamond core is dominantly NQ2 size, sampled on geological intervals, with a minimum of 0.1 m up to a maximum of 1.5 m. NQ2 core is halved longitudinally by sawing; HQ core is quartered. RC drill holes were sampled on 1m intervals using cone splitter units. Samples were sent to Intertek Genalysis in Kalgoorlie, crushed to 10mm, dried and pulverised (total prep) in LM5 units (Some samples > 3kg were split) to produce a sub-sample. The pulps were then sent to Perth for analysis by four acid digest with a multi-element ICP-OES finish (code: 4A/OE-multi element). Au, Pt and Pd were analysed by 25 gram fire assay with a mass spectrometer finish. Internal laboratory QA makes use of blanks, certified reference materials, duplicate and replicate sampling and assaying.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<p>Drilling techniques were Reverse Circulation (RC) and diamond core (DD).</p> <p>The RC hole diameter was 140mm face sampling hammer. Hole depths range from 86m to 259m.</p> <p>DD hole diameter was NQ2 with HQ pre-collar and upper hole portions. Hole depths range from 162.3m to 751.1m. Pre-collars for diamond holes were drilled using a roller bit and reamed to HW casing size.</p> <p>Core was orientated using a Camtech orientation tool.</p>



Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	<p>Diamond drill core recoveries were logged and recorded in the database. Overall recoveries were &gt;95%, and there were no significant core loss or recovery problems.</p> <p>RC drill recoveries were very good; almost all samples were dry.</p>
	Measures taken to maximise sample recovery and ensure representative nature of the samples	<p>Diamond core was reconstructed into continuous sample runs on an angle iron used for orientation marking. Depths were measured and checked against marked depths on the core blocks.</p> <p>RC samples were visually checked for recovery, moisture and contamination and notes made in the logs.</p>
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<p>Samples used for the Mineral Resource estimate came from both RC and DD drilling, both of which had high recoveries. There is no observable relationship between recovery and grade, and therefore no sample bias from this cause.</p>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<p>Detailed geological and geotechnical logs were carried out on all diamond drill holes for recovery, rock quality designation (RQD) and structures including logging of structure type, dip, dip direction, alpha angle, beta angle, texture, fill material. This data is stored in the drill hole database.</p>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	<p>Logging of diamond core and RC chips recorded lithology, mineralogy, mineralisation, structure (for DD only), weathering, colour, and other sample features. Core was photographed wet and is stored in plastic core trays. RC chips are stored in plastic RC chip trays.</p>
	The total length and percentage of the relevant intersections logged	<p>All holes were logged in full except for the rock roller bit diamond hole pre-collars (0-80m in most cases).</p>
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	<p>Drill core was cut in half longitudinally on site using a core saw. All samples in a hole were collected from the same side of the core, preserving the orientation mark in the retained core.</p>
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	<p>RC samples were collected on the drill rig using a cone splitter. The majority of these samples were collected dry. Very few of the mineralised samples were collected wet, and these were noted in the drill logs and database.</p>
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	<p>Sample preparation followed industry best practice at the laboratory of Intertek Genalysis in Kalgoorlie. This involved oven drying, coarse crushing of diamond core to ~10mm, followed by pulverisation of the entire sample in an LM5 or equivalent pulverising mill to a grind size of 85% passing 75 microns.</p>
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	<p>Field QC procedures involve the use of Certified Reference Materials (CRM's) as assay standards, along with blanks, duplicates and barren waste samples. The insertion rate of these was approximately 1:20.</p>

Criteria	JORC Code explanation	Commentary
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	No diamond core field duplicates were taken. For RC drilling field duplicates were taken at an approximate 1:50 ratio using the same sampling techniques, that is a cone splitter.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered more than adequate to ensure that there are no particle size effects relating to the grain size of the mineralisation which lies in the percentage range.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The analytical technique involved a four-acid digest followed by multi-element ICP/OES analysis (Intertek analysis code 4A/OE). The four-acid digest involves hydrofluoric, nitric, perchloric and hydrochloric acids and is considered a "complete" digest for most material types, except certain chromite minerals.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical or portable analysis tools were used to determine assay values stored in the database.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Internal laboratory control procedures involve duplicate assaying of randomly selected assay pulps as well as internal laboratory standards. All of these data are reported to the Company and analysed for consistency and any discrepancies.  Check assays were undertaken at an independent third-party assay laboratory and correlated extremely well.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Both senior technical personnel from the Company (Managing Director, Chairman and Exploration Manager) have visually inspected and verified the significant drill core intersections.
	The use of twinned holes.	No drill holes were twinned.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected using a standard set of Excel templates on Toughbook laptop computers in the field. These data were transferred to Geobase Pty Ltd for data verification and loading into the drill hole database.
	Discuss any adjustment to assay data.	No adjustments or calibrations have been made to any assay data.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Drill hole surveying was carried out by a licensed surveyor with a DGPS unit.  Down hole surveys were carried out regularly with a minimum interval 30m downhole spacing with electronic digital magnetic Reflex or Ranger Survey Tool.
	Specification of the grid system used.	The grid system used was MGA_GDA94, zone 51.
	Quality and adequacy of topographic control.	A topographic surface was generated from drill collar surveys, in addition, digital terrain models were generated from low level airborne geophysical surveys.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Nominal drill hole spacing was 80 x 80 metres, with some areas in filled to 40 x 40 metre spacing.

Criteria	JORC Code explanation	Commentary
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The geology and grade of the mineralisation showed continuity from hole to hole that was sufficient to support the estimation of a Mineral Resource or Ore Reserve and the classifications contained in the JORC Code (2012 Edition).
	Whether sample compositing has been applied.	For diamond drill holes, no physical sample compositing was used. Nominal sample length was one metre with adjustments to match lithological boundaries where required.  For RC samples, mineralised zones were sampled at a one metre intervals; sample compositing occurred over 4 metre intervals for un-mineralised material.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The deposits strikes at about 345 degrees and dip to the east at between -60 to -75 degrees. Drill holes were oriented at 270 degrees, slightly oblique to the perpendicular direction, however, many drill holes swung slightly south (to about 255 degrees) so became oriented perpendicular to strike. This is confirmed in structural logging of mineralised zones.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No sampling bias is believed to have been introduced by this cause.
Sample security	The measures taken to ensure sample security.	Sample security is managed by the Company. After preparation in the field samples were packed into polyweave bags and dispatched to the assay laboratory in Kalgoorlie. For a large number of samples, these bags were transported by the Company directly to the laboratory. In some cases, the samples were delivered to a transport contractor who then delivered the samples to the laboratory. The laboratory procedure is to audit the samples on arrival and report any discrepancies back to the Company. No such discrepancies occurred.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Reviews of the sampling techniques and data were carried out by Optiro Pty Ltd as part of Mineral Resource estimates made for Camelwood in 2013 and for Musket in 2014, and by Mining One for the 2016 Total Mineral Resource estimate. The database is considered by Optiro and Mining One to be of sufficient quality to support the Mineral Resource estimate. In addition, from time to time, the Company carries out its own internal data audits.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Camelwood deposit is located on the eastern boundary of Exploration and Prospecting Licenses E53/1318, P53/1496 and extends into E53/1716. Musket and Cannonball deposits are both located within E53/1318.  All of the tenements are 100% owned by Rox Resources Limited.

Criteria	JORC Code explanation	Commentary
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	The tenements are all in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Only incidental and immaterial exploration by other parties was undertaken in the Fisher East area prior to the exploration by Rox.
Geology	Deposit type, geological setting and style of mineralisation.	The Fisher East nickel sulphide mineralisation occurs within an Archaean komatiite system, bounded by basaltic rocks and felsic metasediments. Nickel sulphide mineralisation is mostly situated on the ultramafic - felsic contact. The rocks associated with the mineralisation are strongly talc-carbonate altered. The deposit is analogous to Kambalda style nickel sulphide deposits. At Camelwood the mineralisation contains minor conformable intrusions of barren diorite.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	Drill hole collar coordinates, azimuths and dips, and drill hole intersections are listed in previous ASX announcements.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assay intervals have been length weighted. No top cuts have been applied. The interval reported were based on lithological logging of the drill core (see immediately below).

Criteria	JORC Code explanation	Commentary
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	<p>Geological logging of RC samples and diamond drill core recognised three layers of sulphide within the deposits:</p> <ul style="list-style-type: none"> <li>• highest grade mineralisation: massive and semi-massive sulphide;</li> <li>• higher grade mineralisation: matrix and minor disseminated sulphide; and</li> <li>• lower grade mineralisation: sparse disseminated sulphide.</li> </ul> <p>The highest grade mineralisation tends to occur at the original base of the higher grade mineralisation which, in turn, tends to occur at the original base of the lower grade mineralisation. The boundaries interpreted between these layers of mineralisation were used because:</p> <ul style="list-style-type: none"> <li>• the boundaries were evident visually to the geologists; this was particularly true for the boundary around massive/semi-massive sulphide;</li> <li>• in practice, the grade intervals coincided well with the lithology logging;</li> <li>• statistical analysis supported their use;</li> <li>• if the boundaries were not to be applied, grades from the highest-grade zone would smear out into the higher grade and lower grade zones with unwanted consequences for resource estimation and mine planning.</li> </ul> <p>Use of these boundaries meant that aggregate intercepts did not incorporate short lengths of high-grade results and longer lengths of low grade results.</p>
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used or reported.
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</p>	The deposits are east dipping (see <i>Orientation of data in relation to geological structure</i> above). Drill hole were planned with azimuths of 270° and dips between -50° and -78° degrees to the west. Given the angle of the drill holes and the dips of the host rocks and mineralisation, reported lengths of down hole intercepts will greater than true widths.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Typical cross-sections through Camelwood and Musket are shown in the text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results have been reported in numerous ASX releases.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<p>All core samples were measured for bulk density using the water displacement method. Multi-element assaying on all samples was carried out for a suite of potentially deleterious elements such as arsenic and magnesium.</p> <p>Geotechnical data was collected from all diamond drill holes including recovery and RQD. Structural information was recorded; structure type, thickness, lithology, and alpha/beta angles (dip and dip direction).</p> <p>Based on comminution and flotation test work of samples from the key Fisher East deposits, a processing flowsheet has been proposed consisting of three-stage crushing, grinding, flotation, concentrate handling and tailings disposal. Metallurgical recoveries from the test work included 97 to 100% recovery into 12% Ni concentrate from massive sulphide material and 74 to 81% recovery into 12% Ni concentrate from disseminated sulphide.</p>
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	<p>Numerous down-dip targets are located at depth especially beneath the Camelwood deposit and to the north of Musket where a significant down-hole electromagnetic conductor is present.</p> <p>Likely extensions to both of these deposits are possible. However, the depth of these targets makes exploration very expensive and it is unknown when this drilling will occur.</p>

### Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Rox geologists used data templates with lookup tables and fixed formatting for recording logging and sampling data. Data transfer was via email with a copy sent to both the Company and the external database consultant. Sample numbers are unique and pre-numbered bags were used to minimise any potential errors.

Criteria	JORC Code explanation	Commentary
	Data validation procedures used.	<p>Data validation checks are run by Geobase, and they maintain a “master copy” of the database. The Company uses working copies which are provided by Geobase on a regular basis.</p> <p>Upon receipt of and during the work for this resource estimate, Mining One made checks on the database, including checking that:</p> <ul style="list-style-type: none"> <li>• drill holes plotted within the geographical limits of the Fisher East project;</li> <li>• down-hole surveys were within the expected range;</li> <li>• down-hole azimuths were in the correct range;</li> <li>• there were no overlapping assay intervals;</li> <li>• there were no overlapping lithology intervals;</li> <li>• lithologies as plotted were consistent with Ni and S assays;</li> <li>• assays used for grade estimation fell within appropriate mineralisation interpretations;</li> <li>• Ni and S assays did not exceed the theoretical maxima for these elements given the mineral species present.</li> </ul> <p>These checks revealed no anomalies.</p>
Site visits	<p>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</p> <p>If no site visits have been undertaken indicate why this is the case.</p>	<p>Mick McKeown, the Competent Person for the 2016 Total Mineral Resource estimate, visited the Fisher East site, inspected the project area, examined drill core and observed core logging and sampling.</p> <p>Not applicable.</p>
Geological interpretation	<p>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</p> <p>Nature of the data used and of any assumptions made.</p> <p>The effect, if any, of alternative interpretations on Mineral Resource estimation.</p>	<p>There is a high degree of confidence in the geological models of deposits, based on consistent stratigraphy in drill holes and highly correlatable lithologies and mineralisation boundaries.</p> <p>Surveying of drill hole collars and drill hole paths, geological logging of RC chips and DD core and assay data were used to create the geological interpretation.</p> <p>There is a high degree of confidence in the geological models of deposits, based on consistent stratigraphy in drill holes and highly correlatable lithologies and mineralisation boundaries.</p>



Criteria	JORC Code explanation	Commentary
	The use of geology in guiding and controlling Mineral Resource estimation.	<p>Geological logging of RC samples and diamond drill core recognised three layers of sulphide within the deposits:</p> <ul style="list-style-type: none"> <li>• highest grade mineralisation: massive and semi massive sulphide;</li> <li>• higher grade mineralisation: matrix and minor disseminated sulphide; and</li> <li>• lower grade mineralisation: sparse disseminated sulphide.</li> </ul> <p>The highest grade mineralisation tends to occur at the original base of the higher grade mineralisation which, in turn, tends to occur at the original base of the lower grade mineralisation. The boundaries interpreted between these layers of mineralisation were used because:</p> <ul style="list-style-type: none"> <li>• the boundaries were evident visually to the geologists; this was particularly true for the boundary around massive/semi-massive sulphide;</li> <li>• in practice, the grade intervals coincided well with the lithology logging;</li> <li>• statistical analysis supported their use;</li> <li>• if the boundaries were not to be applied, grades from the highest-grade zone would smear out into the higher grade and lower grade zones causing over-estimation of grades.</li> </ul>
	The factors affecting continuity both of grade and geology.	The principal factors determining the continuity of “grade and geology” are described in the immediately previous entry in this table.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	<p>From north to south the deposits are Camelwood, Cannonball and Musket. The three deposits are tabular in shape with thicknesses much less than their strike and dip extents. The deposits occur over a combined strike length of just under 3 kilometres.</p> <p>Camelwood strikes at about 345° and dips at about -60° towards 075°. The strike length of Camelwood is about 1400m and the known down-dip extent ranges from 100m to 500m.</p> <p>Cannonball strikes at about 345° and dips at about -60° towards 075°. The strike length of Cannonball is about 300m and the known down-dip extent ranges from about 80m to 350m.</p> <p>Musket strikes at about 345° and dips at about -65° towards 075° and appears to plunge to the north at about 50°. The strike length of Musket is about 500m and the known down-dip extent ranges from 100m to 450m.</p>

Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	<p>Nickel and sulphur grades were estimated in the three mineralised zones described above:</p> <ul style="list-style-type: none"> <li>• highest grade mineralisation: massive and semi massive sulphide;</li> <li>• higher grade mineralisation: matrix and minor disseminated sulphide; and</li> <li>• lower grade mineralisation: sparse disseminated sulphide.</li> </ul> <p>At Camelwood and Musket all three zones are present; at Cannonball only the higher grade and lower grade zones are present.</p> <p>The interpretation of the mineralisation did not extend further than 25m along strike beyond the last drilled section.</p> <p>Surpac software was used for the resource estimate.</p> <p>Samples were composited to 1m lengths. Grades were estimated in each zone using only samples from within the zone.</p> <p>No top-cuts were applied because no rogue outlier grades were detected.</p> <p>Grade continuity for Ni and S, as indicated from variography for the higher and lower grade zones, was high in the plane of the mineralisation, ranging from 90m to 230m.</p> <p>Successful variography for Ni and S allowed for Ni and S grade estimation of the higher and lower grade zones using ordinary kriging. For the highest grade zones, the use of ordinary kriging was not possible and Ni and S grades were attributed to the blocks in these zones based on the average grades of nearest neighbour estimates of these zones.</p> <p>Grade continuity for Ni and S, as indicated from variography for the higher and lower grade zones, was high in the plane of the mineralisation, ranging from 90m to 230m.</p>
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Previous resource estimates were available for Camelwood and Musket. These estimates took appropriate account of the data and processes used to make those estimates.
	The assumptions made regarding recovery of by-products.	No recovery assumptions have been made regarding the recovery of by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	S grades were estimated.

Criteria	JORC Code explanation	Commentary
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	<p>Block models were created using a 10m E by 25m N by 5m RL parent block size with sub-celling to 0.625m E by 1.562m N by 0.312m RL to achieve reasonable three-dimensional modelling of the mineralisation. Estimation was completed at the parent cell scale. The parent cell size in the north-south direction was about half the nominal cross-section spacing.</p> <p>The size of the search ellipses was set to ensure that Ni and S grades were estimated for all blocks in the model; this required a maximum search distance of 300m. Density was estimated for each block based on the estimated S grade of the block.</p>
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in the estimate.
	Any assumptions about correlation between variables.	Strong positive correlation was observed between nickel and density. A regression-based density value was estimated based on estimated Ni grade where density was not present. No noticeable correlation could be determined between other elements. Each element within each domain used the same sample selection routine, but a slightly different search ellipse (based on variogram range) for block grade estimation.
	Description of how the geological interpretation was used to control the resource estimates.	<p>Samples in the drill hole database were flagged according to the zone in which the samples were interpreted.</p> <p>Wireframes representing the three mineralised zones were created and blocks in the block model were flagged according to the zone wireframe in which they were located.</p> <p>Checks were made to ensure that the grades of each zone were estimated using grades of samples from within the appropriate zone.</p>
	Discussion of basis for using or not using grade cutting or capping.	No top-cutting was applied because no rogue outlier grades were detected. All high-grade samples were accounted for within highest-grade zone of massive and semi-massive sulphide.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	<p>Validation of the block model tonnages included comparisons of volumes of the zone wireframes and blocks representing the zones in the block model.</p> <p>Validation of grade estimates were made by comparing average global grades made by ordinary kriging with average global grades estimated by a nearest neighbour method, and average global grades based on the averages of composited grades. There was reasonable to excellent agreement among all average global grades.</p> <p>Visual checks of estimated block grades against grades in nearby drill holes did not reveal any anomalies.</p> <p>No mining has taken place and no reconciliation data exists from such a source.</p>
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnages were estimated on a dry basis.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	A cut-off grade of 1.0% Ni, at a nickel price of AUD\$18,000 per tonne implies that material with a contained metal value of about AUD\$180 could be treated at a profit, which seems reasonable. This was also the cut-off grade used for previous resource estimates.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<p>CSA Global have conducted a Conceptual Mining Study and undertaken optimization studies. Based on these results, the selected mining method is sublevel stoping with paste fill, based on 15m high stopes, a minimum mining width of 1.8% Ni and a cut-off grade of 1.2% Ni. Decline access would be 4m x 4m, and development headings would be 3m x 3m.</p> <p>Mining Recovery is estimated at 95% with grade dilution estimated at 5%.</p> <p>Based on these parameters a production rate of 500,000 tpa is possible from the three deposits, Camelwood, Musket and Cannonball.</p>
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Based on comminution and flotation test work of samples from the key Fisher East deposits, a processing flowsheet has been developed by Strategic Metallurgy consisting of three-stage crushing, grinding, flotation, concentrate handling and tailings disposal. Metallurgical recoveries from the test work included 97 to 100% recovery into 12% Ni concentrate from massive sulphide material and 74 to 81% recovery into 12% Ni concentrate from disseminated sulphide.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	<p>Beyond the assumption that tailings could be disposed of in a tailings dam, no other assumptions have been made regarding waste or process residue disposal. Based on comminution and flotation test work of samples from the key Fisher East deposits, a processing flowsheet has been developed by Strategic Metallurgy consisting of three-stage crushing grinding, flotation, concentrate handling and tailings disposal.</p> <p>Outback Ecology have conducted pre-Feasibility level environmental studies, including Vegetation, Flora and Fauna, Surface Water Assessment, Subterranean Fauna Assessment, and Soil and Waste Characterisation. No issues were identified in any of these studies that would impact project approvals.</p>

Criteria	JORC Code explanation	Commentary
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	<p>The sulphide content of the mineralisation determines the density of the mineralisation. Densities and S grades have been determined for drill core samples in the three deposits using:</p> <ul style="list-style-type: none"> <li>• 1,284 samples for Camelwood,</li> <li>• 79 samples for Cannonball, and</li> <li>• 44 samples for Musket.</li> </ul> <p>Bulk density was determined for diamond drill core samples using the water displacement method.</p> <p>Graphs of density against % S for each deposit exhibit linear correlations with high correlation coefficients. Equations for calculating density from S grade were based on the results of the graphs for each deposit. Bulk densities in the mineralisation ranged from 2.8 to about 4.5 tonnes per cubic metre.</p>
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	The water displacement method adequately accounts for void spaces in the rock. Since the diamond drill core samples are fresh rock there are no moisture issues.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	See above.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	<p>Classification of the Mineral Resources was based on the geological continuity of the mineralisation. For parts of the deposits, where drilling intensity was adequate to reasonably reliably define the zone shapes and extents were classified as Indicated Mineral Resources: this was where the general drilling pattern was at a nominal 50m X 50m spacing.</p> <p>Beyond the Indicated Mineral Resource, the resource was classified as Inferred.</p>
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	Validation of the block model shows acceptable correlation of the input data to the estimated grades. The input data is comprehensive and no biases are believed to have been introduced. The geological model has a high degree of continuity and confidence. Infill drilling has confirmed this continuity.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the view of the Competent Persons.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Satisfactory reviews of the resource estimates for this report were made by Mining One and Rox personnel.
	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate	<p>The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code (2012 Edition).</p> <p>The block models and resource estimates are suitable for planning and scheduling of medium to long-term production over periods such as yearly or quarterly. The block model is not suitable for selection of blocks at the time of mining – block selection at the time of mining will require more sampling during a grade control program.</p>

Criteria	JORC Code explanation	Commentary
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The statement relates to global estimates of tonnes and grade.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	No production data is available.

## Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i>	Mineral Resources is based on ordinary kriging estimation method.
	<i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i>	This Scoping/Mining Study is not quoting any Ore Reserves.
<i>Site visits</i>	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	A site visit was conducted by the Competent Person for the Mineral Resource.
	<i>If no site visits have been undertaken indicate why this is the case.</i>	N/A
<i>Study status</i>	<i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i>	This Scoping/Mining Study is not quoting any Ore Reserves.
	<i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i>	Scoping Study level.
<i>Cut-off parameters</i>	<i>The basis of the cut-off grade(s) or quality parameters applied.</i>	Cut-Off Grades were determined by the optimum mining outcome based on minimum mining width, stope height and economic return.
<i>Mining factors or assumptions</i>	<i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i>	This Scoping/Mining Study is not quoting any Ore Reserves.
	<i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i>	The underground mining method and assumptions are based on a detailed stope optimisation and mine schedule.
	<i>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</i>	Standard geotechnical conditions based on observation of drill core.

Criteria	JORC Code explanation	Commentary
	<i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i>	Minimum mining width of 1.8m, stope height of 15m, production rate ~500,000tpa.
	<i>The mining dilution factors used.</i>	5%
	<i>The mining recovery factors used.</i>	5%
	<i>Any minimum mining widths used.</i>	1.8m
	<i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i>	Approximately 4.2% of the applied resource is Inferred. They will not significantly affect the outcome and can be easily converted to Indicated resources by further drilling.
	<i>The infrastructure requirements of the selected mining methods.</i>	A boxcut, decline, ventilation shaft and dewatering infrastructure will be required.
<i>Metallurgical factors or assumptions</i>	<i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i>	The metallurgical process is a standard crush and grind, followed by flotation, and is the same as used at other operating nickel sulphide concentrate plants in WA.
	<i>Whether the metallurgical process is well-tested technology or novel in nature.</i>	The process is well tested and used at other operating nickel sulphide concentrate plants in WA.
	<i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i>	The metallurgical sampling is at an early stage and a more comprehensive sampling, variability and material type test work program is planned to be the next step.
	<i>Any assumptions or allowances made for deleterious elements.</i>	No deleterious elements have reported to concentrates at any levels to be of concern.
	<i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i>	No bulk sampling has taken place. A bulk sample will not be required, since the mineralisation is relatively homogeneous within ore types and can be adequately sampled by drilling.
	<i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i>	This Scoping/Mining Study is not quoting any Ore Reserves.
<i>Environmental</i>	<i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i>	A full suite of environmental studies has been completed. These studies have not identified any hinderances to the permitting of the project.
<i>Infrastructure</i>	<i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i>	There is no existing infrastructure except road access. All infrastructure will need to be installed and the road upgraded to handle heavy haulage. The concentrate will be hauled to the port of Esperance where there are established container loading facilities for the product.
<i>Costs</i>	<i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i>	Capital costs were prepared by various experts named in the study. Mining – CSA Global, Plant – Strategic Metallurgy, Infrastructure – various – see text.



Criteria	JORC Code explanation	Commentary
	<i>The methodology used to estimate operating costs.</i>	Operating costs were derived by the expert consultants.
	<i>Allowances made for the content of deleterious elements.</i>	No deleterious elements have been identified.
	<i>The source of exchange rates used in the study.</i>	The long term average exchange rate of US\$:A\$ of 0.75 has been used.
	<i>Derivation of transportation charges.</i>	Transport costs are based on advice from haulage and shipping contractors named in the study.
	<i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i>	Payabilities are based on advice from a potential toll milling facility, or based on reported payabilities by other operating nickel sulphide concentrate producers.
	<i>The allowances made for royalties payable, both Government and private.</i>	Allowances have been made for the 2.5% nickel State Royalty. There are no private royalties payable.
Revenue factors	<i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i>	Head grade is derived from the mining schedule. Nickel price is based on a consensus of other published nickel studies of this type. Other revenue factors have been discussed above and in the text.
	<i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i>	See above.
Market assessment	<i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i>	Recent London Metal Exchange stockpiles of class 1 nickel have been decreasing, and demand increasing due to electric vehicle batteries etc.
	<i>A customer and competitor analysis along with the identification of likely market windows for the product.</i>	All nickel concentrates produced will be able to be sold and LME prices paid.
	<i>Price and volume forecasts and the basis for these forecasts.</i>	The Fisher East project will account for a very small percent of the overall nickel concentrate market (0.35%). This amount of supply is unlikely to upset any market balance.
	<i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i>	The nickel concentrates to be produced from Fisher East meet the specifications of smelters without any penalties.
Economic	<i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i>	Inputs include the mining schedule showing amount and grade of material, the metallurgical recoveries and payabilities of the concentrate – all discussed above. Capital and operating costs have been deducted and cash flows determined from which discounted cash flow, NPV and IRR have been determined.  The accuracy of these estimates is at the Scoping study level (~+/- 35%).
	<i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i>	NPV ranges and sensitivities have been illustrated in the text.

Criteria	JORC Code explanation	Commentary
<i>Social</i>	<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	The Fisher East nickel deposits are situated on Exploration Licences on a pastoral lease. There is no determined native title claim. Relations with all affected parties are believed to be good.
<i>Other</i>	<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p> <ul style="list-style-type: none"> <li><i>Any identified material naturally occurring risks.</i></li> <li><i>The status of material legal agreements and marketing arrangements.</i></li> <li><i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></li> </ul>	This Scoping/Mining Study is not quoting any Ore Reserves.
<i>Classification</i>	<p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p> <p><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	This Scoping/Mining Study is not quoting any Ore Reserves.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of Ore Reserve estimates.</i>	This Scoping/Mining Study is not quoting any Ore Reserves.
<i>Discussion of relative accuracy/ confidence</i>	<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p>	<p>This Scoping/Mining Study is not quoting any Ore Reserves.</p> <p>The Scoping Study is believed to be +/- 35% with regard to cost estimates.</p> <p>N/A</p>

Criteria	JORC Code explanation	Commentary
	<i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i>	N/A
	<i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	There are no applicable production data.