

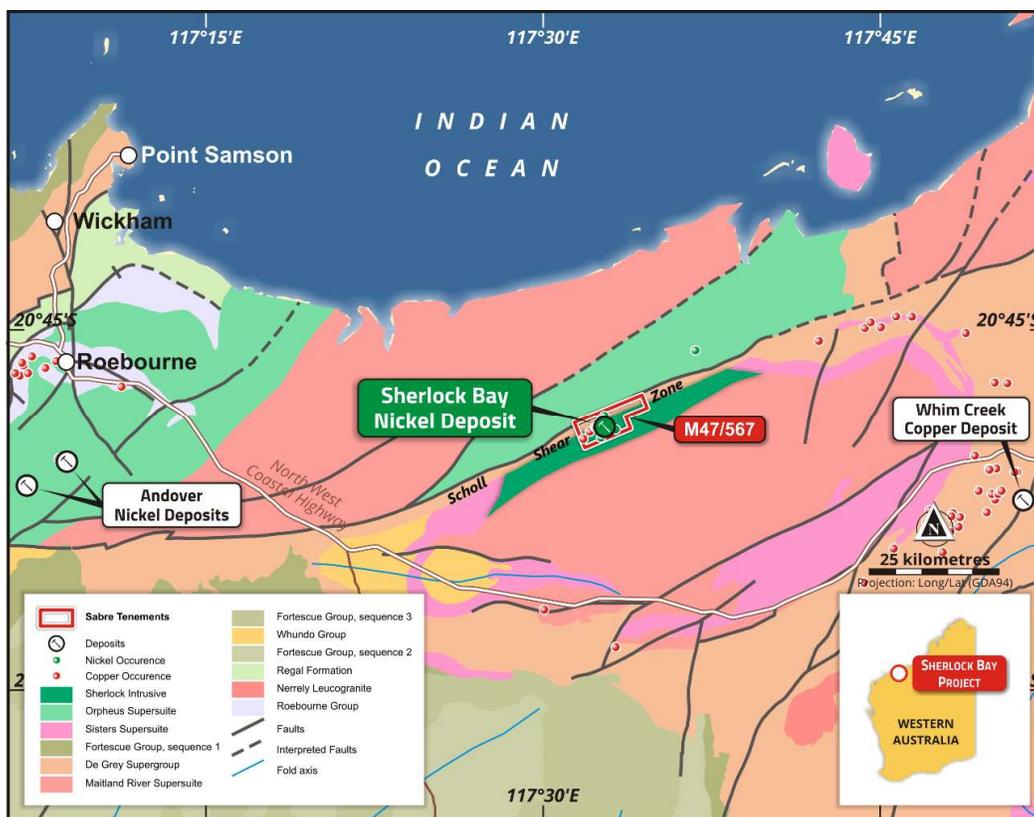
**ASX ANNOUNCEMENT**  
27 January 2022

ASX code: **SBR**

## SHERLOCK BAY NICKEL PROJECT SCOPING STUDY DELIVERS POSITIVE CASHFLOW

### *Testing of Identified High-Grade Nickel Sulphide Potential to Enhance Economics*

- Sabre Resources Ltd (“**Sabre**” or “**the Company**”) is pleased to announce the positive results of its Scoping Study on the Company’s 70% owned Sherlock Bay Nickel -Copper-Cobalt Project (“**Sherlock Bay**”, or “**the Project**”), a significant nickel sulphide resource located on granted mining lease, M47/567, 40km east of Roebourne in the Pilbara Region of Western Australia (see Figure 1 below).



**Figure 1: Sherlock Bay Nickel-Copper-Cobalt (sulphide) Project, regional geology and location plan**

- The Scoping Study was initiated based on forecasts for **rapidly increasing demand for battery metals such as nickel (Ni), copper (Cu) and cobalt (Co), for the electric vehicle and other renewable energy industries.** This increasing demand and supply issues are already having a significant positive impact on nickel prices, having risen by nearly 60% from just over US\$15,000/t (\$7/lb) at the start of the Scoping Study to a spot price of US\$24,000/t (\$10.90/lb) at the end of last week (21/1/22).
- In addition to the positive cashflow outcomes of the Scoping Study, which are laid out in the following sections following an important Cautionary Statement, **the Company has identified significant upside-potential for additional, high-grade, nickel sulphide resources** below both the Symonds and Discovery resource zones which are increasing in grade and open at relatively shallow depth. **Drilling is planned to target this higher-grade material, the discovery of which would have a significant impact on the potential financial viability of the Project.**

## Cautionary Statement, Sherlock Bay Nickel Project Scoping Study:

The Sherlock Bay Nickel Project Scoping Study ("**Scoping Study**") prepared by Sabre Resources, referred to in this announcement, has been undertaken to determine the potential viability of mining and processing currently identified nickel sulphide Mineral Resources estimated for the Sherlock Bay Nickel Project ("**the Project**" or "**SBNP**").

This Scoping Study is a preliminary technical and economic study of the potential viability of producing a mixed (nickel + copper, cobalt) hydroxide product ("**MHP**") to supply precursor products to the growing lithium-ion battery and electric vehicle ("**EV**") industry as well as other downstream products including stainless steel.

The Scoping Study outcomes are based on low-accuracy technical and economic assessments (+/- 40% accuracy) that are not sufficient to support the estimation of Ore Reserves. Whilst each of the modifying factors have been considered and applied based on best available knowledge, there is no certainty that Ore Reserves or production targets will eventually be realised. Further exploration and evaluation work and upgraded studies (to at least pre-feasibility study level) will be required before the Company is in a position to estimate Ore Reserves and/or to provide any assurance of an economic development case.

The Mineral Resource estimate that forms the basis of the Scoping Study was prepared in compliance with the JORC Code (2012) and released on 12 June 2018. Sabre Resources confirms that it is not aware of any new information or data that materially affects the information included in the release of 12 June 2018. All material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed.

Over the life-of-mine considered in this Scoping Study, approximately 63% of the Production Target originates from Measured Mineral Resources, 27% from Indicated Mineral Resources (total 90% from Measured and Indicated Mineral Resources) and 10% from Inferred Resources. There is a low level of geological confidence associated with Inferred Mineral Resources. Importantly, the first 9 years of the planned 10-year mining plan almost entirely originates from Measured and Indicated Mineral Resources and the financial viability of the Project and any decision to mine would not be dependent on Inferred Resources in the production schedule that require further resource definition during the life of the mining operations to increase geological confidence.

To achieve the range of outcomes indicated in the Scoping Study, pre-production funding in the order of A\$380M for plant, infrastructure and mining development (excluding financing costs) is estimated. There is no certainty that the Company will be able to source that amount of funding when required. It is also possible that such funding will only be available on terms that may be dilutive to or otherwise affect the value of Sabre Resources existing shares. No consideration has been given to debt funding costs or gearing in the production scenarios presented in this Scoping Study.

Sabre has concluded it has a reasonable basis for providing the forward-looking statements in this release. However, a number of factors could cause actual results or expectations to differ materially from the results expressed or implied in the forward-looking statements. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

## Scoping Study Outcomes and Upside Opportunities:

- **Production Target of 22.5Mt @ 0.36% Ni, 0.074% Cu, 0.016% Co (0.41% Ni Equ.\*) producing >70,000t Ni recovered in high-payability Mixed Hydroxide Product (MHP) on 100% project basis.**  
*\*See nickel equivalent (Ni Equ.) calculation, Appendix 1.*
- **Annual production approximately 6,000tpa of recovered nickel over 10/13 year mine/process life.**
- **At a cash-cost of US\$6.60/lb Ni Equ.\* (US\$14,500/t), generates pre-tax operating cash-flow, life of mine, ranging from A\$180M to A\$850M based on sensitivities (excl. all capital costs, before tax).**
- **Pre-production capital cost for processing plant and associated infrastructure: A\$279M.**
- **The Project is cash-flow positive at "current" nickel pricing (At US\$10/lb or US\$22,040/t, 10-day average LME Ni for period ending 21/01/22) with projections of continued price appreciation based on global nickel consumption that is forecast to more than double by 2040<sup>4</sup>.**
- **Immediate upside for higher-grade extensions to both the Symonds and Discovery resources, that are increasing in Ni grade with depth and remain open, to be tested with new drilling planned.**

**Sabre Resources CEO, Jon Dugdale, said:**

*“The outcomes of the Sherlock Bay Nickel Sulphide Project Scoping Study indicate that the project is cash-flow positive at current nickel prices.*

*“This is a very positive outcome as nickel as well as copper and cobalt prices are projected to continue increasing due to rapidly growing demand for critical lithium-ion battery components to power the electric vehicle and other renewable energy industries.*

*“The Company has also identified potential for high-grade extensions to the Sherlock Bay nickel sulphide deposits that are improving in grade with depth. Drilling is planned to add high-grade resources that would potentially have a very positive impact on the economic viability of the Sherlock Bay Nickel Project.”*

**Operational and Financial Outcomes of Scoping Study:**

The following table summarising high-level operational and capital financial parameters should be read in conjunction with the details in the following sections of this release.

<b>Input/Outcome</b>	<b>Unit</b>	<b>Base Case - 2M tpa</b>
<b>Production Target:</b>		
<b>Mining/Processing</b>	<b>Processed '000 t</b>	22,547
	<b>Ni Grade</b>	0.356%
	<b>Cu Grade</b>	0.074%
	<b>Co Grade</b>	0.016%
	<b>Ni Equ. Grade</b>	<b>0.41%</b>
<b>Production</b>	<b>Recovered Ni t</b>	70,300
	<b>Recovered Cu t</b>	12,500
	<b>Recovered Co t</b>	2,400
<b>Project Life</b>	<b>Mine Operating</b>	10
	<b>Mill Throughput</b>	13
<b>Financials:</b>		
<b>Costs</b>	<b>Pre-production Capex Processing/Infrastructure</b>	A\$279M
	<b>Mining Capex including Sustaining</b>	A\$100M
	<b>Plant Sustaining Capex</b>	A\$30M
	<b>Total Capex incl. Sustaining</b>	<b>A\$409M</b>
	<b>Cash Cost/lb Ni Equ.</b>	<b>US\$6.60</b>
<b>Prices</b>	<b>Nickel Price/lb</b>	<b>US\$10.00</b>
	<b>Copper/lb</b>	US\$4.50
	<b>Cobalt Price/lb</b>	US\$32.00
<b>Outcomes Range:</b>	<b>Operating Cash Generated – EBITDA, Excl. Capex</b>	<b>A\$310M to A\$730M (Mid-point A\$520M)</b>
(See sensitivities p16)	<b>Free Cash Generated, Undiscounted, Pre-Tax</b>	<b>(A\$160M) to A\$380M (Mid-point A\$110M)</b>

The outcomes of the Scoping Study indicate that, based on a combined two open pit and two underground mines development strategy and a production rate of 2Mtpa following initial ramp-up over 10 years of mining with a 2 to 3 year processing tail, **the Project produces strong operating cash-flows and a positive cash-flow after return of capital at current Ni (and Co, Cu) pricing** (LME Ni price: US\$10/lb / US\$22,040/t – based on a 10 day average spot Ni price for period ending 21/1/22).

These financial outcomes provide the Company with a strongly cash-flow generating Base Case that is highly sensitive to increased Ni price and Ni production grade, with **upside potential to grow the high-grade component of the nickel resource** through drilling of extensions to both the Discovery and Symonds deposits at depth.

**The addition of higher-grade material would have a significant impact on the potential financial viability of the SBNP and, coupled with projected nickel price appreciation due to increasing demand for sulphide Ni (and Co, Cu) products as key components of lithium-ion batteries, presents a positive upside case for advancing the Project to feasibility and development.**

The SBNP includes two nickel sulphide deposits, Discovery and Symonds (see Figure 2), that have a current **JORC 2012 nickel sulphide Measured, Indicated and Inferred Mineral Resource of 24.6 million tonnes @ 0.40% Ni, 0.09% Cu, 0.02% Co, containing 99,200t Ni, 21,700 tonnes Cu and 5,400 tonnes Co<sup>1</sup>.**

In April 2021 the Company commenced the Scoping Study on the SBNP to determine the economic viability of the Project at current and projected Ni, Cu and Co prices. Global nickel consumption is forecast to more than double by 2040 and the proportion used in battery precursors for electric vehicles (EVs) is projected to increase from 7% to over 30% of demand with almost exponential demand growth by 2030<sup>4</sup>. Nickel sulphide projects are favoured by the market due to the high-payability (up to 90%) of the nickel intermediates produced, that are suitable for EV battery production. Nickel pricing has already more than doubled over the last 5 years due to this increasing demand (see Kitco.com nickel pricing chart below).



The current Scoping Study builds on previous work conducted from 2004 to 2007 by Sherlock Bay Nickel Corporation (“**SNBC**”). This work included:

- A pre-feasibility study (“**PFS**”) based on previous resource estimates and studies (2004 – 2005).
- A revised JORC 2004 Mineral Resource estimate (2005).
- Mining study by Australian Mining Consultants (“**AMC**”, 2005).
- Gap analysis for the PFS study completed by Ausenco (2007).
- Additional BioHeap column leaching testwork by Pacific Ore Technology (“**POT**”) 2005 – 2008).

The 2005 AMC mining study included one open pit mining the upper parts of the Discovery and Symonds orebodies and two, decline based, underground mines utilising sub-level caving (“**SLC**”) methods.

Processing studies were based on processing 2Mtpa of sulphide ore in a flowsheet, based on the POT testwork, comprising crushing then heap-leaching of ore followed by solution neutralisation, copper cementation to produce a separate copper product and precipitation of nickel and cobalt as a mixed hydroxide product (“**MHP**”) containing about 44% nickel and 2% Co (dry basis).

Following the 2018 resource update<sup>1</sup>, AMC updated the mining study in August 2018<sup>2</sup> to include two optimised open pits operating for up to 5 years, overlapping with the underground SLC operations (see Figure 5). The underground mines continue for the remaining 8 years of a 10 to 12-year, 2Mtpa mining plan. The AMC mining report<sup>2</sup> demonstrated that, at the applied nickel price of US\$15,000/t (now >US\$23,000/t), significant operating cash-flows could be generated from both the open-pit and underground operations and, subject to additional studies required to determine updated processing capital and operating costs, there is potential for an economic mining project to be established at SBNP.

The current Scoping Study is based on inputs generated by Strategic Metallurgy Pty Ltd of Perth, who have completed the processing flow-sheet design, and Lycopodium, who have generated updated processing and surface infrastructure capital costs and processing operating costs. In addition, AMC conducted a review and comparison of the previous mining schedules in December 2021.

The Scoping Study has been coordinated and inputs reviewed and modelled by experienced and highly regarded consultants Dr Natalia Streltsova (metallurgy/processing) and Peter Lester (mining engineering, cash-flow modelling) of Vintage 94. Vintage 94 have incorporated the final AMC mining schedule as well as Opex-Capex input costs from AMC and Lycopodium into a Scoping Study level cash-flow target model that has generated the range of preliminary financial outcomes presented in this release.

### **Project Financing:**

To achieve the range of approximate outcomes indicated in the Scoping Study, pre-production funding in the order of A\$280M for plant and infrastructure (excluding financing costs) is estimated. The Company has not committed to advancing the project to the Feasibility Study stage, as a further increase in the nickel price and/or discovery of the additional higher-grade resource material required to generate a viable project development case with sufficient rate of return on capital (see sensitivities, Page 16).

The Company has sufficient funding (>A\$4.6M, September Quarter, 2021) to carry out the additional drilling required to define extensions to the high-grade resources projected to depth.

Demonstration of a viable project development case and a Bankable Feasibility Study (BFS) is required to generate funding options with a proportion of equity and debt that would be available from debt and/or equity providers. There is no certainty that the Company will be able to source the amount of funding when required. It is also possible that such funding will only be available on terms that may be dilutive to or otherwise affect the value of Sabre Resources existing shares. No consideration has been given to debt/equity funding costs or gearing in the production scenarios presented in this Scoping Study.

### Sherlock Bay Geology:

The Sherlock Bay nickel-copper-cobalt deposit (“**Sherlock Bay**” or “**Deposit**”) is located in the Pilbara region of northwest Western Australia, within / proximal to the Scholl Shear Zone (see Figure 1), a major regional strike-slip fault that traverses the north-western margin of the Caines Well Granitoid Complex in the West Pilbara Craton. Much of the deposit is covered by a veneer of sheetwash sediments averaging ~12 m thick (see Photo 1 below). The mineralised horizon is spatially associated with intermediate to felsic metavolcanic rocks, metasedimentary rocks and mafic-ultramafic intrusions - including the Sherlock Intrusion located immediately to the south and spatially (and genetically?) associated with the Deposit.



*Photo 1: View of Sherlock Bay nickel deposit, looking west*

The mineralised horizon is a steeply dipping banded quartz-magnetite-amphibole schist (also referred to as a siliceous banded iron formation or amphibole-bearing chert). There is broad correlation of Ni, Cu and Co grade to sulphide content with the main species being pyrrhotite (+/- pentlandite), pyrite and chalcopyrite.

Sherlock Bay includes two nickel sulphide deposits, Symonds and Discovery, both of which are tabular and trend northeast-southwest within an overall 1.5km strike length mineralised zone (see Figure 2 below) within the Scholl Shear Zone corridor (Figure 1). Each deposit is approximately 600m to 800m in strike length, approximately 15m to 20m wide and dip almost vertically to depths in excess of 500m. The deposits remain open down-dip/plunge (see longitudinal projection, Figure 3 and cross section, Figure 4).

The mineralisation is associated with a laminated silica-chlorite-carbonate-amphibole-magnetite assemblage within the host “chert” horizon. Ni-Cu-Co bearing sulphides occur as fine disseminations, veins, coarse blebs or within the bands apparently replacing magnetite. Nickel grades broadly correlate with pyrrhotite content. The entire chert unit is rarely completely mineralised, with nickel grades dropping to near background towards the “footwall” (south) in upper levels or “hangingwall” (north) at depth. The dip of the mineralised chert changes from steep west to steep east with depth – apparently correlating with an increase in grade down dip/plunge (see Figures 3 and 4 below).

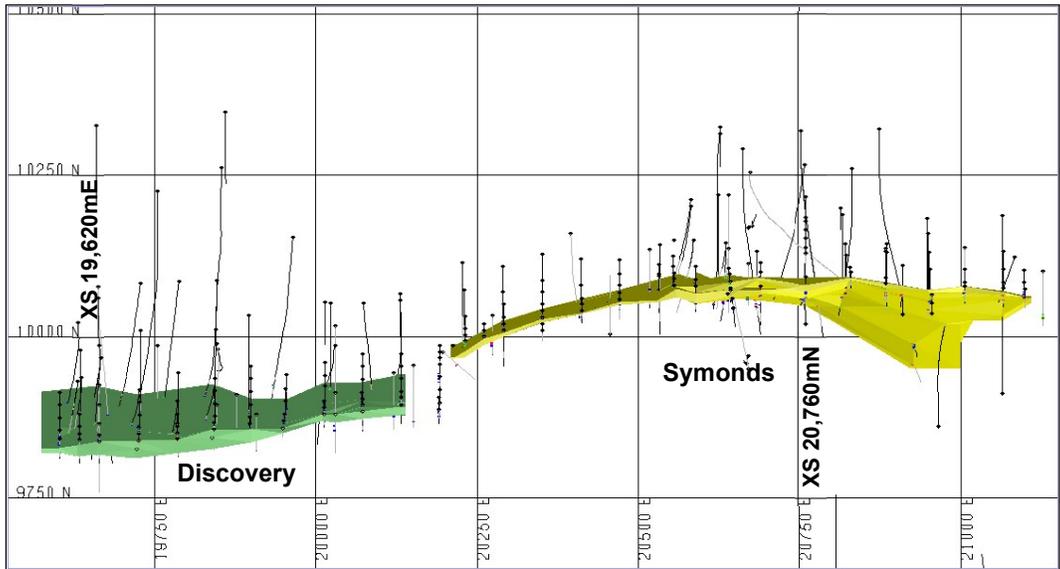


Figure 2 - Discovery and Symonds 0.20% Ni mineralisation envelope, plan view

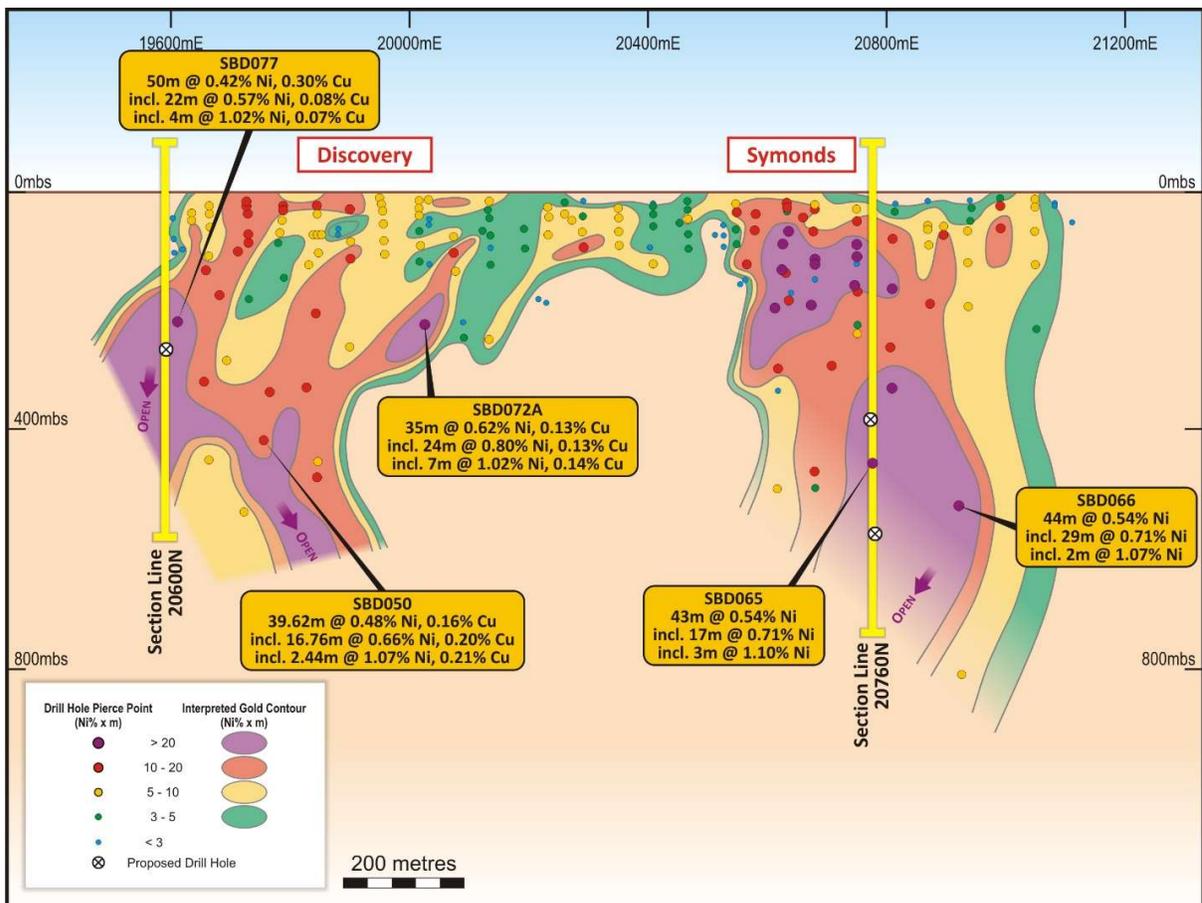


Figure 3 – Sherlock Bay longitudinal projection with Discovery and Symonds nickel deposits, Ni% x m contours

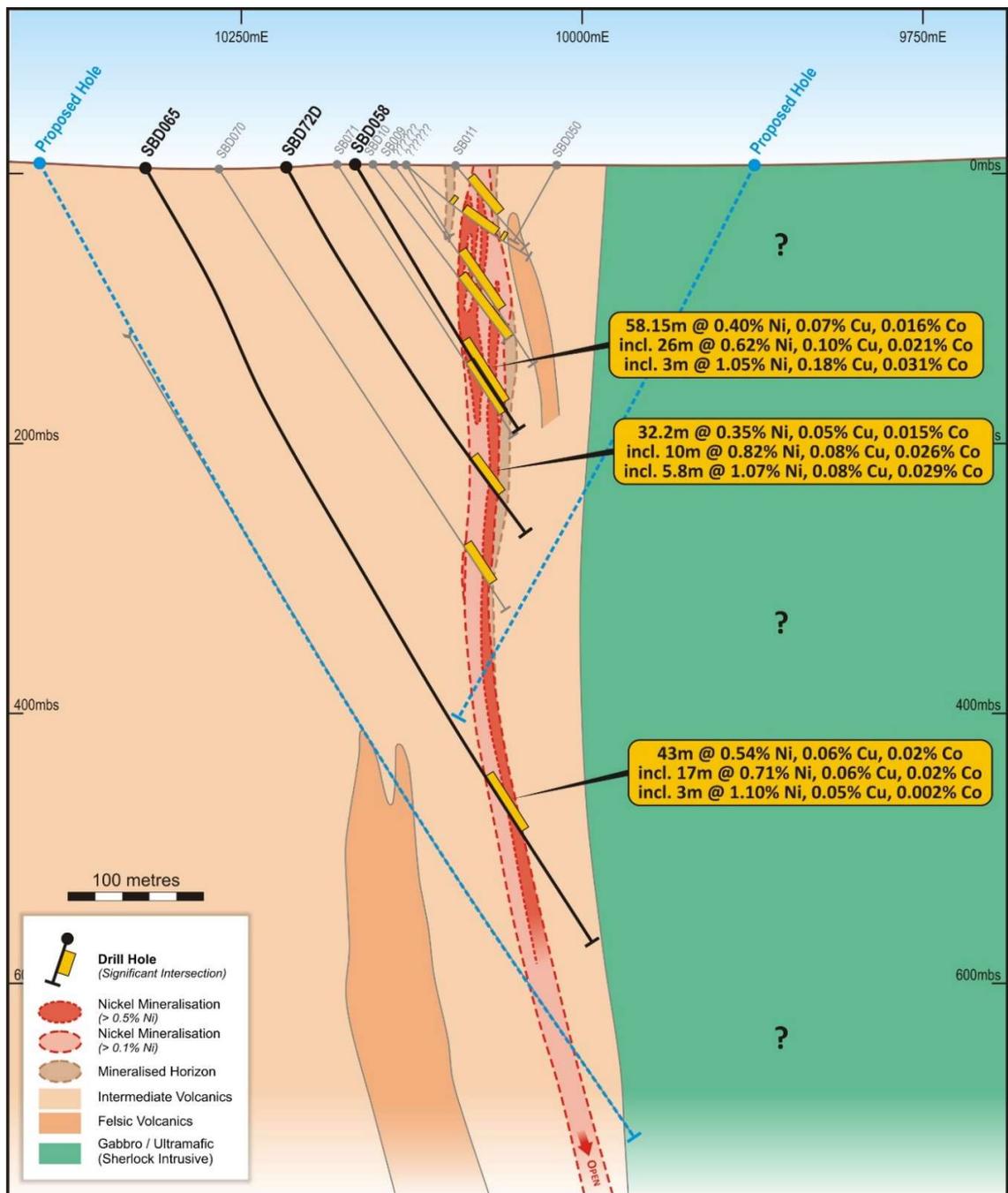


Figure 4 – Symonds Nickel Deposit, cross section 20,760mE showing high-grade mineralisation, open at depth

### Sherlock Bay Mineral Resource Estimate:

The Sherlock Bay Mineral Resource estimate that forms the basis of the Scoping Study was prepared in compliance with the JORC Code (2012), released on 12 June 2018<sup>1</sup> and totals:

**24.6 million tonnes @ 0.40% Ni, 0.09% Cu, 0.02% Co<sup>1</sup>, (0.47% Ni. Equ.\*), containing 99,200t Ni, 21,700 tonnes Cu and 5,400 tonnes Co**

(\*see nickel equivalent (Ni Equ.) calculation, Appendix 1)

Sabre Resources confirms that it is not aware of any new information or data that materially affects the information included in the release of 12 June 2018. All material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not materially changed.

The drilling information that forms the basis of the Mineral Resource includes drilling by Texas Gulf who discovered the deposit in the 1970s and the majority of the drilling by Sherlock Bay Nickel Corporation (“SBNC”, later re-named Australasian Resources Ltd, ASX:ARH) between 2003 and 2007. A total of 201 holes for 31,092m are included in the resource. Drillhole spacing ranges from 20m by 60m spacing in the upper parts of the deposit (predominantly Measured and Indicated Resources), to 120m x 120m below 400m depth (predominantly Inferred Resources).

The Mineral Resources have been classified as Measured, Indicated and Inferred Mineral Resources in accordance with the JORC Code, 2012 Edition and are shown in Table 1 below:

**Table 1: Sherlock Bay Ni Cu Co Deposit May 2018 Mineral Resource Estimate (0.15% Ni Cut-off):**

Total Sherlock Bay Nickel Deposit							
	Tonnes Mt	Ni%	Cu%	Co%	Ni t	Cu t	Co t
Measured	12.48	0.38	0.11	0.025	47,100	13,200	3,100
Indicated	6.1	0.59	0.08	0.022	35,700	4,700	1,300
Inferred	6.1	0.27	0.06	0.016	16,400	3,700	900
<b>Total</b>	<b>24.6</b>	<b>0.40</b>	<b>0.09</b>	<b>0.022</b>	<b>99,200</b>	<b>21,700</b>	<b>5,400</b>

(Note that rounding discrepancies may occur in summary tables)

See JORC Table 1 - Section 3, Estimation and Reporting of Mineral Resources, for resource estimation parameters.

### Scoping Study Input Costs:

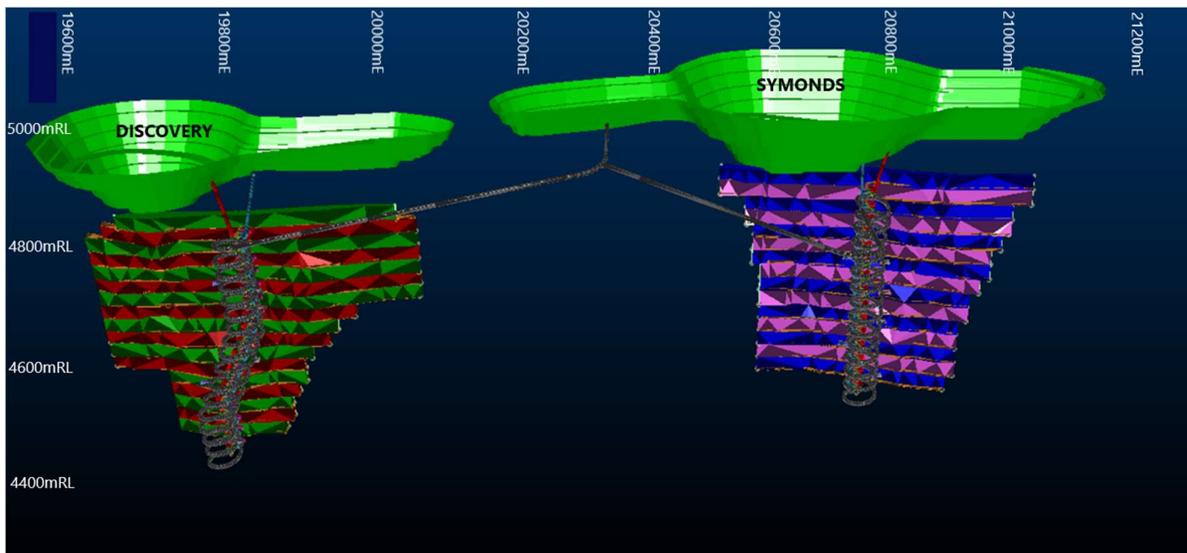
#### Mining and Production Target Inputs:

AMC completed their initial study in 2005, that included one open pit, with a saddle between the Discovery and Symonds deposits and two, decline based, underground mines utilising sub-level caving (“SLC”) methods.

The 2005 AMC study generated optimised pit shells using Whittle optimisation and applied a Whittle dilution factor of 105% and 3% ore loss to the model. The second AMC study in 2018 applied a regularisation dilution model to the open-pits optimisation, which had the effect of incorporating an additional 2Mt (total 6.36Mt) of lower grade “ore” at the ore-waste boundary, which has had the effect of reducing overall open-pit grade by 16% to a realistic 0.31% Ni.

Waste to ore ratio for the open pits is approximately 5:1 after applying overall slope angles of 40° (batter angles 65° and 5m berms every 20m). Cost inputs to the 2018 model included a \$3.50/t mining cost and a conceptual processing cost of ~\$15/t. This processing cost is well below the processing cost input for the current Scoping Study; however, the AMC optimisations were also done at a much lower nickel price which more than offsets the lower processing cost input.

The 2018 AMC study has incorporated the underground model from the 2005 AMC study which includes separate declines to access the Discovery and Symonds lodes, accessed from a single portal within Symonds open pit (see Figure 5 below). Mining to be conducted from the top down, to provide early higher-grade feed for the plant, utilising the SLC method with 25m sub-level spacing. Production blast holes are drilled as up-holes from one level to the other and mined in a retreating manner from the limits of the orebodies. The mining rate applied by AMC, assuming mining the two resource zones (Discovery and Symonds) at the same time, is 1Mtpa production from each (total 2Mtpa).



**Figure 5 – AMC mining Study 2018, optimised open-pits and underground development and mining layout<sup>2</sup>**

The combined project in the AMC Mining Study (2018)<sup>2</sup> includes two, optimised, open pits that would operate for up to 5 years and overlap with the underground development and establishment of SLC operations from year 3. The underground mines continue for the remaining 8 years of a 10-year mining plan, producing 2.0Mtpa of “ore” per annum once full production levels are reached (see Graph 1).

The overall cost inputs from the AMC Mining Study, 2018<sup>2</sup> are summarised in Table 2 below:

**Table 2: Mining Operating Costs Summary:**

Area	L.O.M \$M	L.O.M. Mined Mt	L.O.M Cost/t
O/C	\$149	6.36	\$23.43
U/G	\$431	16.19	\$26.68
<b>Total</b>	<b>\$580</b>	<b>22.55</b>	<b>\$25.74</b>

Capital and sustaining costs from the AMC 2018 study total **\$100M**.

### Processing Inputs:

Previous processing studies were based on processing 2Mtpa of ore grading 0.53% Ni, 0.13% Cu, 0.03% Co in a flowsheet comprising heap leaching of ore followed by solution neutralisation, copper cementation, to produce a separate copper product and precipitation of nickel and cobalt as a mixed hydroxide product (“**Mixed Hydroxide**” or “**MHP**”) containing about 44% Ni and 2% Co (dry basis).

The heap leach flowsheet was based on the BioHeap column leaching testwork on the Sherlock Bay sulphide mineralisation by Pacific Ore Technology (“**POT**”) in 2005 to 2008. The POT patented BioHeap process involved the use of saline tolerant bacteria to be sourced from the Sherlock Bay site. Nickel

extraction ranged in testwork from 60% to over 90% with the highest nickel extraction reported in tests with a pH<1.8 at low pH and low Cl levels. Recoveries are expected to scale-up to average >80% in the highly saline conditions (27,500ppm Cl) expected at site.

The BioHeap technology has been successfully demonstrated at commercial scale at the nearby Radio Hill nickel sulphide project by Titan Resources during 1999-2002. Titan operated two 5000t / 5m high heaps treating disseminated sulphide ore grading 0.75% Ni plus Cu and Co.

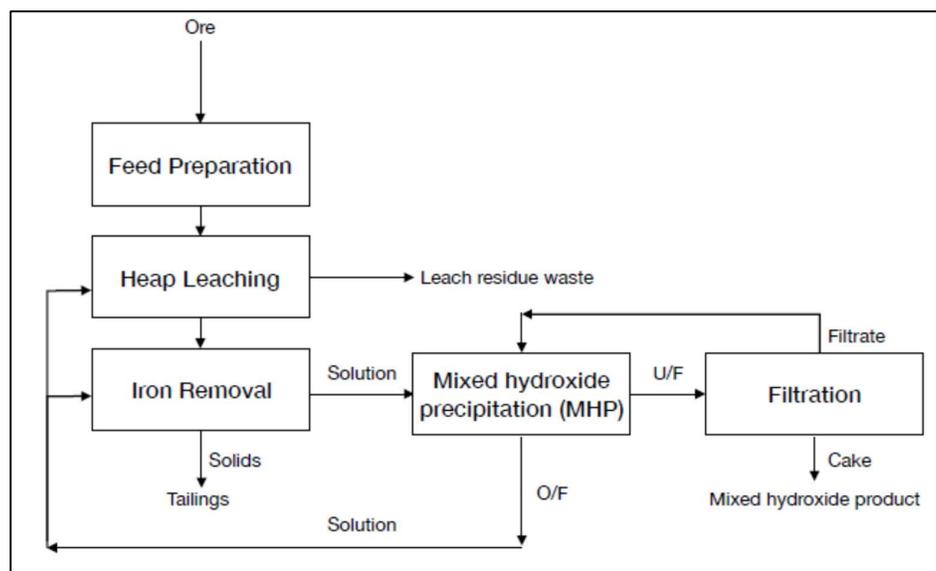
The most successful example of a Bioheapleach for nickel sulphide is the Talvivaara Nickel Mine in Finland. The resource grade at Talvivaara is 0.26% Ni with 0.14% Cu, 0.02% Co (and 0.54% Zn). The process flow at Talvivaara consists of three main steps: crushing, bioheap-leaching and metals recovery. Talvivaara reports recovery rates of up to 98% of metal from ore to solution, recovered as a Mixed Sulphide Product (MSP) (see <https://www.mining-technology.com/projects/talvivaara>, 2008).

In mid-2006 Australasian Resources Ltd (previously SBNC) engaged Aker Kvaerner to complete an engineering study for a trial heap which was to be sized at 5000 t of ore grading 0.53% Ni, 0.13% Cu and 0.03% Co. The demonstration heap was designed but the trial did not go ahead.

A review of previous studies by consultants Vintage94 (the coordinators of the current Scoping Study) in 2018 indicated that previous capital and operating input costs were insufficiently robust, and a new target model was developed incorporating updated conceptual inputs. This model showed that the project was not economic at the prevailing nickel prices of around US\$6/lb and further work was suspended until 2021 when, encouraged by the strong growth in demand and prices for nickel, copper and cobalt, Sabre initiated the Scoping Study in April 2021.

The project design and cost estimates were developed for a processing facility treating 2Mtpa of ore assaying 0.4% Ni and 0.02% Co. The ore grades were aligned with the 2018 JORC 2012 resource estimates<sup>1</sup> and the 2018 updated AMC mining study<sup>2</sup>.

All studies completed for the project to date have been based on using the BioHeap-Leach technology to extract metals into solution from ore that is crushed then stacked into heaps and irrigated by acidic solution containing bacteria, enhancing sulphide oxidation and metal extraction. In 2021, the process design basis for heap leach was developed using data from AKER 2007 study and is summarised in the diagram below:



The heap leach solution is processed downstream to recover Ni, Co and Cu into a saleable product. Mixed hydroxide product (MHP) was used as a basis for the 2005 study and for this Scoping Study. MHP is precipitated using lime or magnesia into a product that contains about 40% Ni on dry basis and about 30-35% moisture so the bulk transportable grade for MHP is about 25% Ni. Historically, MHP traded 10-15% below the alternative Mixed Sulphide Product (**MSP**) due to its lower grade and higher impurities. However, over the past 12 to 18 months, the price for MHP has been increasing steadily to match that of MSP, at about 85% to 90% Ni LME payability.

The design of solution purification and MHP precipitation/handling circuits for the 2021 study was taken from the existing and historical commercial plants (Cawse, Raventhorpe etc) using industry knowledge and benchmarking data. No testwork was done to specifically investigate MHP production from the Sherlock Bay process solutions.

In the current Scoping Study consultants, Strategic Metallurgy has incorporated updated project design criteria based on the AKER (2007) design data, with some modifications to the metal recovery circuit based on commercial plant design information, to generate a new flow-sheet design. They then generated a metallurgical mass and energy model (METSIM) to support the updated design criteria and mechanical equipment sizing to generate process flow diagrams and a mechanical equipment list.

Based on the updated flow-sheet design and mechanical equipment lists and sizings, Lycopodium have then generated engineering cost inputs for the plant and associated equipment. In addition, Lycopodium carried out a complete infrastructure review for the project, including power supply, water supply, tailings and residue disposal and roads.

Key infrastructure includes:

- **Power Supply:** Utilising independent Power Provider utilising gas pipeline and leased over the 10/13 years mine/processing life. Power is reticulated from a central 11kv plant. Lycopodium estimates maximum demand for the Sherlock Bay plant to be 8 – 10MW and has incorporated this into the operating cost estimates below.
- **Water Supply:** Utilising ground water supply sourced from bores located within the project area per a report by Aquaterra released in 2003. Mass balance indicated water take-up of 90.4m<sup>3</sup>, consistent with the previous 2004 study. A 1km overland water pipeline has been factored into the study with two, 22kw, horizontal centrifugal water supply pumps. In addition, potable water supply and sewage treatment plant has been factored in.
- **Bulk Earthworks and Access and Haul roads:** Derived from the 2004 PFS Bill-of-Quantities.
- **Other:** Process Plant office buildings, administration buildings and accommodation camp capital and operating costs were taken from a comparable project with regional and size similarities.

The new engineering cost estimates generated using the updated design package are categorised as Class 4, conceptual level (+/- 40%), for the processing plant and supporting infrastructure.

Capital cost inputs generated for processing and infrastructure are summarised in Table 3 below:

**Table 3: Processing and Infrastructure Capital Cost Estimate Summary (incl. owners costs):**

Main Area	Capex A\$M
Treatment Plant	\$88.07
Reagents and Plant Services	\$38.17
Infrastructure	\$25.43
Construction Distributables	\$22.25
<b>Sub-total</b>	<b>\$173.92</b>
Management costs	\$30.79
Owners Project costs	\$30.50
<b>Sub-total</b>	<b>\$61.29</b>
Contingency	\$44.42
<b>Total Processing + Infrastructure Capex</b>	<b>\$279.63</b>

Lycopodium generated operating cost estimates for the project summarised in Table 4 below:

**Table 4: Processing Operating Cost Estimate Summary:**

Cost Centre	A\$M/yr	A\$/t	% of Costs
Power	\$12.80	\$6.40	16.0%
Residue Handling	\$11.38	\$5.69	14.3%
Operating Consumables	\$24.76	\$12.38	31.0%
Maintenance	\$5.06	\$2.53	6.3%
Laboratory	\$2.82	\$1.41	3.5%
Process and Maintenance Labour	\$13.96	\$6.98	17.5%
Administration Labour	\$3.85	\$1.93	4.8%
General and Admin.	\$5.17	\$2.59	6.5%
<b>Total Processing Opex</b>	<b>\$79.81</b>	<b>\$39.90</b>	<b>100.0%</b>

Additional plant and infrastructure sustaining costs generated by Lycopodium total **\$30M**

**Environmental considerations:**

Environmental Approvals will be required to mitigate the following environmental issues:

- Acid Mine Drainage and Acid Generation Potential: Management of heap leach facility, waste rock and tailings during operation and closure, to prevent acidic or heavy metals surface runoff or leaks potentially contaminating the environment.
- Surface Water: Management of flood risk, and management/disposal of surface water runoff within flood protection bund to reduce the risk of contamination of surface water.
- Groundwater: Impact of dewatering and groundwater supply abstraction upon the aquifer and other aquifer users, disposal of excess dewatering discharge if not utilised by mineral processing activities and the risk of contamination of groundwater.
- Mine closure and rehabilitation.
- Aboriginal heritage: A Section 18 clearance is required under the Aboriginal Heritage Act 1972 for the disturbance of Aboriginal Heritage sites if identified and required.
- Potential impacts to stygofauna.

The Company will address these environmental and social issues during the environmental assessment of the Project should the Company complete a Bankable Feasibility Study (**BFS**) and commit to a Project Development Plan following approval of a Notice of Intent (**NOI**).

### **Scoping Study Outcomes:**

The updated new cost information generated by Lycopodium, combined with the updated mining studies by AMC<sup>2</sup>, were used to generate Scoping Study level production targets and financial outputs by Vintage94 consultant Peter Lester. Various scenarios were generated to demonstrate the effect of modifying the mine plan progressively and within reasonable limits (within the JORC 2012 Mineral Resource model<sup>1</sup>), to optimise the project value based on a 2Mtpa operation.

This mining rate was chosen from the 2018 AMC Report<sup>2</sup> that envisaged mining the two resource zones (Discovery and Symonds) via two open pits and at the same time developing two declines to mine the underground resources by retreat Sub Level Cave (**SLC**), thus achieving 1Mtpa production from each. The near vertical nature of both deposits with sound hangingwall and footwall rock conditions suggest amenability to the SLC method, with its inherent low operating costs and high production rates. Initial production would come from open pits at 1.5Mtpa for about 4 years with underground SLC preparation occurring as the open pits wind down.

The 2021 Lycopodium processing capital and operating costs were applied to the 2018 AMC mining case, upgraded to 2Mtpa from year 2 of the open pits to maximise production early with low grade material from the open pits stockpiled for processing during the final stage of the processing plan.

A further review by AMC in December 2021 noted the potential for at least 800kt at ~0.5% Ni at the bottom of the Symonds Inferred Resource. This additional higher-grade material has been scheduled at the end of the mining production plan and is open at depth where upside potential has been identified.

The Target (cashflow) Model selected as the Base Case generates a Production Target of:

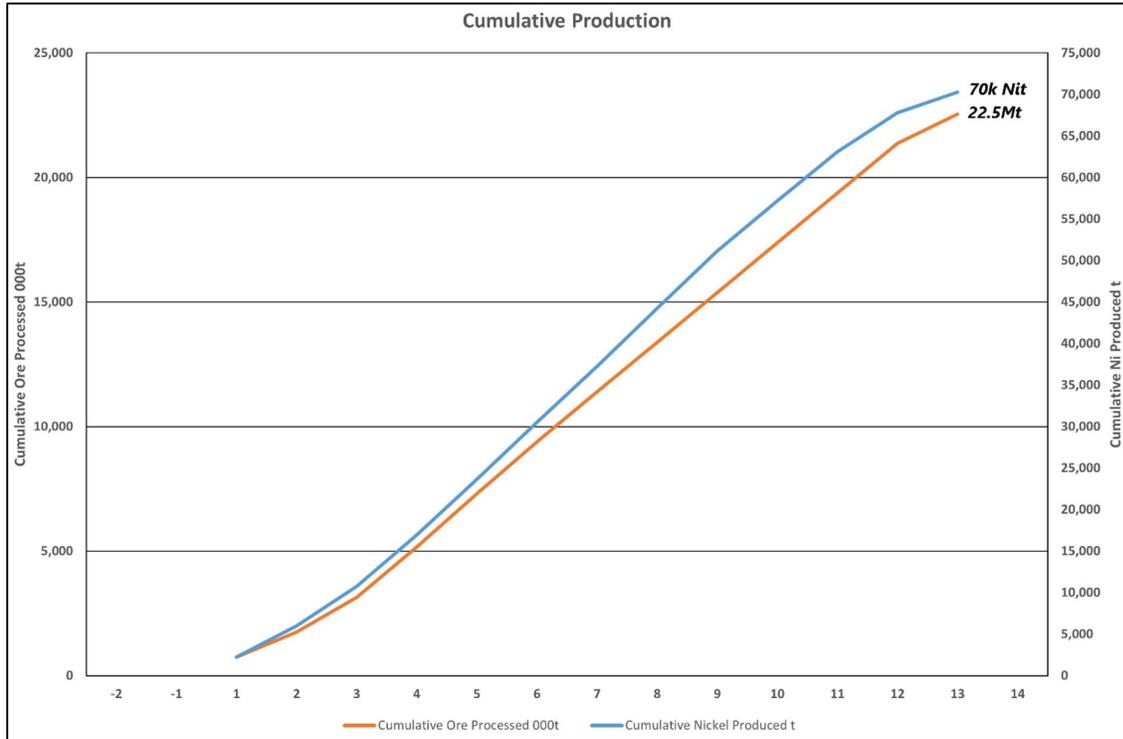
**22.55 million tonnes @ 0.356% Ni, 0.074% Cu, 0.016%Co (0.41% Ni Equ.\*)**  
*(\*see nickel equivalent (Ni Equ.) calculation, Appendix 1)*

The Production Target is mined over 10 years and processed over 13 years **to produce 70,300t of Ni, 12,500t Cu and 2,400t Co in MHP** (see production schedule on Graph 1 below), on a 100% project basis.

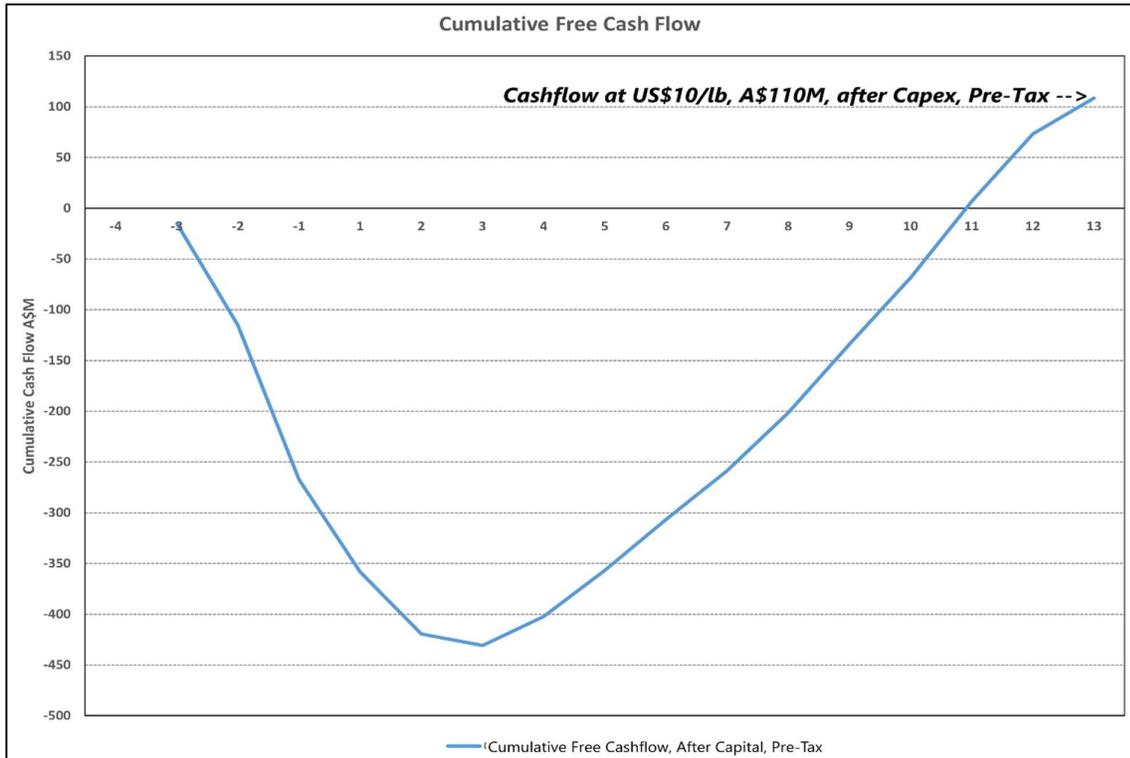
The Production Target includes 63% Measured Resources (28% open pit, 35% underground) and 27% Indicated Resources, for a total of 90% Measured and Indicated Resources mined over the first 9 years of the 10-year mining/13-year processing plan. The remaining 10% of the Production Target comes from Inferred Resources, mined from underground in the last 12 months of the 10-year mining plan.

The Base Case cashflow model at current Ni (US\$10/lb), Cu (US\$4.50/lb) and Co (US\$32/lb) pricing produces operating cashflow ranging from ranging from **A\$310M to A\$730M (mid-point A\$520M)** and cash-flow after capital expenditure, pre-tax, of **(A\$160M) to A\$380M (mid-point A\$110M)** (Graph 2).

**Graph 1: Sherlock Bay Nickel Project, Cumulative Production Target Mined and Processed and Ni Recovered:**



**Graph 2: Sherlock Bay Nickel Project, Cumulative Cash-flow (Pre-Tax) Schedule:**

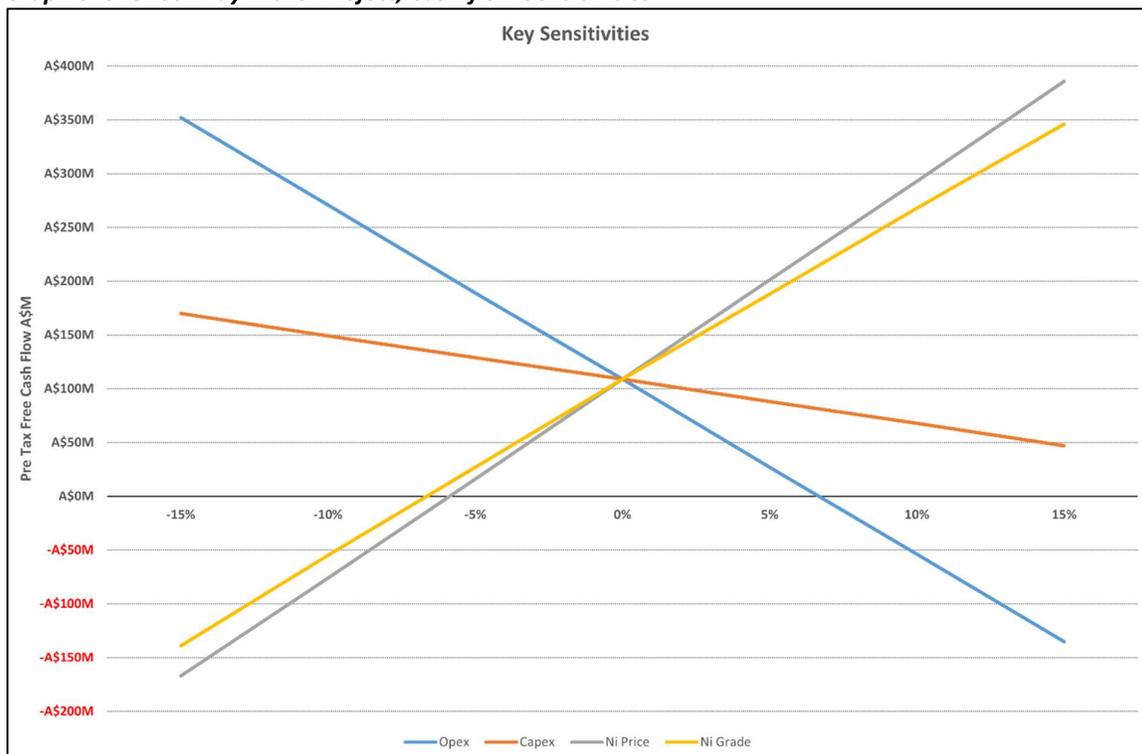


### Scoping Study Sensitivity Analysis:

Cashflow sensitivity analysis produced the results shown below and summarised on Graph 3.

- **Nickel Price:** the Scoping Study cash-flow is highly sensitive to nickel price. A 15% increase in Ni price generates a 410% multiple of pre-tax cashflow vs -210% following a 15% decrease in Ni price.
- **Ni Grade:** the Scoping Study cash-flow is highly sensitive to nickel grade. A 15% higher Ni grade generates a 314% multiple of pre-tax cashflow vs -114% for a 15% lower Ni grade.
- **Operating Cost:** the Scoping Study cash-flow is highly sensitive to operating cost (“Opex”). A 15% lower Opex generates a 338% multiple of pre-tax cashflow vs -138% for a 15% higher Opex.
- **Capital Cost:** the Scoping Study cash-flow is moderately sensitive to capital cost (“Capex”). A 15% lower Capex generates a 157% multiple of pre-tax cashflow vs 43% for a 15% higher Capex.

**Graph 3: Sherlock Bay Nickel Project, Cash-flow Sensitivities:**



### Opportunities for Higher-Grade Resource Discovery:

The Scoping Study outcomes indicate that the Project is highly sensitive to Ni grade and that additions to the higher-grade component of the resource base will have a positive impact on the Project economics.

In parallel with the Scoping Study, a review of previous reports and re-interpretation of the deposits was carried out to examine potential for higher-grade extensions and/or higher-grade nickel sulphide bodies in the near mine environment.

The average grade of the SBNP resource is ~0.4% nickel with copper and cobalt credits. **However, there is evidence that the two deposits increase in nickel sulphide grade at depth**, as shown in longitudinal projection view, Figure 3 and cross sections Figure 4 (Symonds) and Figure 6 (Discovery) below.

The nickel sulphide deposits are hosted by a mineralised horizon comprising banded quartz-magnetite-amphibole schist (also referred to as a siliceous banded iron formation or amphibole-bearing chert), occurring in felsic to intermediate volcanics in the stratigraphic footwall to the Sherlock Intrusive (ultramafic/gabbro). Previous work has indicated that the nickel-copper-cobalt mineralisation is associated with the Sherlock mafic-ultramafic Intrusion, that has been demonstrated to be sulphur saturated. Anomalous base metal and PGE values with associated sulphides were reported by Outokumpu based on 1990s drilling and previous EM anomalies along strike of the Sherlock Bay deposit have only receiving limited testing.

The likely presence of higher-grade disseminated to massive sulphides at Sherlock Bay is also supported by analogy by the Andover discovery of Azure Minerals Ltd (ASX:AZR), located 40km to the west of Sherlock Bay (Figure 1). Andover has produced nickel intersections, with massive sulphide mineralisation, including **4.5m @ 3.95% Ni, 0.8% Cu, 0.16% Co from 486.6m in ANDD0045**, and **16.8m @ 1.04% Ni, 0.46% Cu, 0.05% Co from 460m in ANDD00432<sup>3</sup>**. The mineralogy of these intersections and association with gabbro intrusions is similar to the Sherlock Bay nickel deposit association with the Sherlock Intrusive (Figure 1).

Deeper intersections at Sherlock Bay, on both the Symonds and Discovery deposits, include:

- **Symonds: SBD065: 43m @ 0.54% Ni from 508m incl. 17m @ 0.71% Ni and incl. 3m @ 1.10% Ni, and,**
- **Discovery: SBD077: 50m @ 0.42% Ni from 227m incl. 22m @ 0.57% Ni and incl. 4m @ 1.02% Ni**

**The higher-grade intersections at both Discovery and Symonds indicate improving nickel grade with depth within steep westerly plunging zones that remain open down plunge** (see longitudinal projection, Figure 3). The Symonds deposit also changes dip from steep northerly to a southerly dip with depth (see cross section 20,760mE, Figure 3) – projecting towards the contact with the Sherlock Intrusive. Previous work by Outokumpu in the 1990s indicated that the Sherlock Intrusive is sulphur saturated and may be linked with the Sherlock Bay deposit. If this is the case, the projected intersection of the deposit with the Sherlock intrusive may represent the “neck” (feeder) of the intrusive, a likely location of massive sulphide accumulations.

Further drilling is planned to test the higher-grade, down-plunge, projections of both the Discovery and Symonds deposits and, coupled with down hole electromagnetic (EM) geophysics (as applied very successfully at the Andover deposit<sup>3</sup>), will target high-grade stringer/blebby to massive sulphide deposits.

**The objective of the drilling, ultimately, will be to increase high-grade resources and enhance the potential economic viability of the Sherlock Bay Nickel Project.**

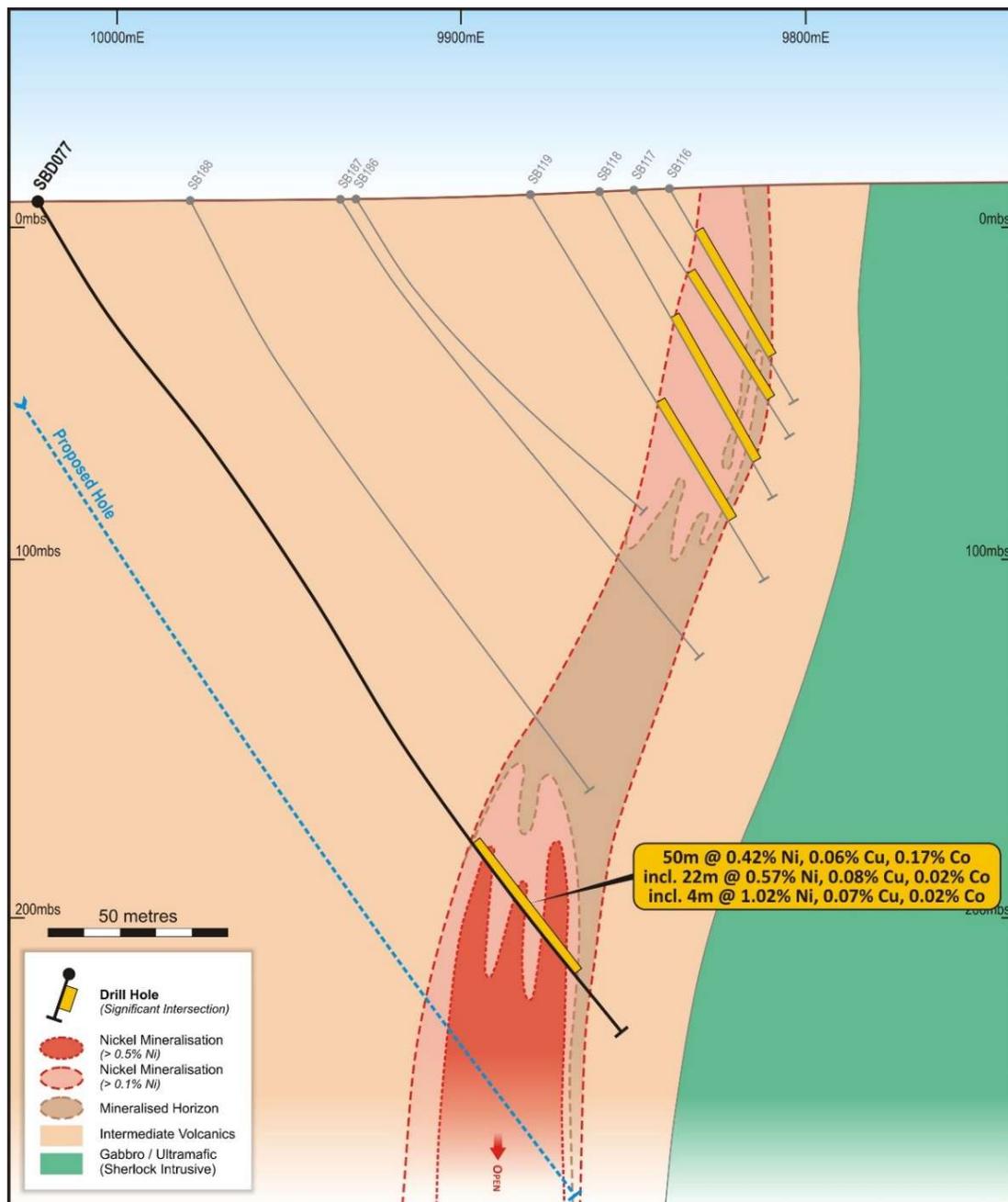


Figure 6 - Sherlock Bay Nickel Project, cross section 19,620mE, Discovery deposit with Ni Intersections

## References

- <sup>1</sup> Sabre Resources Ltd announcement, 12<sup>th</sup> June 2018. Resource Estimate Update for the Sherlock Bay Nickel-Copper-Cobalt Deposit.
- <sup>2</sup> Sabre Resources Ltd announcement, 14<sup>th</sup> August 2018. Positive Mining Study for the Sherlock Bay Nickel-Copper-Cobalt Deposit.
- <sup>3</sup> Azure Minerals Ltd announcement, 2nd August 2021. High-Grade Hits Continue at Andover.
- <sup>4</sup> Wood-McKenzie, Angela Durant – Principal Analyst Nickel, at Australian Nickel Conference, 5 October, 2021.

This announcement was authorised for release by the Board of Directors.

**\*\*\*ENDS\*\*\***

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**Cautionary Statement regarding Forward-Looking information**

*This document contains forward-looking statements concerning Sabre Resources Ltd. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.*

*Forward looking statements in this document are based on the company's beliefs, opinions and estimates of Sabre Resources Ltd as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.*

**Competent Person Statements**

*The information in this report that relates to exploration results, metallurgy and mining reports and Mineral Resource Estimates has been reviewed, compiled and fairly represented by Mr Jonathon Dugdale. Mr Dugdale is the Chief Executive Officer of Sabre Resources Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ('FAusIMM'). Mr Dugdale has sufficient experience, including over 34 years' experience in exploration, resource evaluation, mine geology, development studies and finance, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Dugdale consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*Regarding the Mineral Resource Estimate for the Sherlock Bay Nickel Deposit, released 12 June 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and replicated in JORC Table 1, Section 3 of this announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

## Appendix 1: Nickel Equivalent Parameters and Calculation Formula:

### Nickel Equivalent (Ni Equ.) Calculation:

The conversion to nickel equivalent (Ni Equ.) grade must take into account the plant recovery and sales price (net of sales costs) of each commodity.

Approximate recoveries are based on Bioheap-leaching testwork on representative bulk samples of the Sherlock Bay resource material, carried out from 2005 to 2007 and modelled by Aker Kvarner in 2007. Payabilities have been estimated by Vintage 94 in their *Mining and Processing Analysis as Basis for the Scoping Study, January 2022*.

The prices used in the Ni Equ. calculation are based on current market pricing based on a 10 say spot price average to 21<sup>st</sup> January 2022, for Ni and Cu sourced from the website [www.kitco.com](http://www.kitco.com). The price for Co was obtained from the London Metal Exchange (LME) website, [www.lme.com](http://www.lme.com). The saleable product for the project is a Mixed Hydroxide Product (MHP) to which the average expected payabilities have been applied.

The table below shows the grades, process recoveries x payabilities used to generate factors used in the conversion of the poly-metallic assay information into a Nickel Equivalent grade percent (Ni Equ. %).

Metal	Average grade (%)	Metal Prices		Recovery x payability (%)	Factor	Factored Grade (%)
Ni	0.356	\$10.00	\$22,040.00	0.79	1.00	0.36
Cu	0.074	\$4.50	\$9,719.64	0.45	0.25	0.02
Co	0.017	\$32.00	\$70,000.00	0.55	2.21	0.04
					<b>CuEq</b>	<b>0.41</b>

Using the factors calculated above the equation for calculating the Ni Equ. % grade is:

$$\text{Ni Equ. \%} = (1 \times \text{Ni\%}) + (0.25 \times \text{Cu\%}) + (2.21 \times \text{Co\%})$$

In the example above:

$$(1 \times 0.356\%) + (0.25 \times 0.074\%) + (2.21 \times 0.017\%) = 0.41\% \text{ Ni Equ.}$$

**JORC Table 1 - Section 1 Sampling Techniques and Data**

Criteria	JORC Code Explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>RC drilling was conducted using a 5 ¼" face sampling bit on a nominal 20m by 60 m spacing.</li> <li>RC samples were collected in large plastic bags from riffle splitter and a 2-5 kg representative sample taken for analysis.</li> <li>Diamond drilling was sampled to geological contacts then at 1 m or 1.52 m intervals with quarter core samples taken for analysis.</li> <li>Collar surveys were carried using total station electronic equipment.</li> <li>Down hole surveys for each hole were completed using single shot cameras.</li> <li>Sampling was limited to the visually mineralised zones with additional sampling of several metres either side of the mineralisation.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>The majority of RC drilling was completed in 2004 and 2005 by Sherlock Bay Nickel Corporation (SBNC) using face sampling equipment.</li> <li>Core drilling included historic holes completed in the 1970's by Texas Gulf as well as a substantial number of holes completed in 2005 by SBNC.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drill core recovery was measured and was generally excellent.</li> <li>No record of RC sample quality was located, however drilling conditions were good and samples generally from fresh rock and no problems were anticipated.</li> <li>No obvious relationships between sample recovery and grade.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All holes were logged in the field at the time of drilling.</li> <li>No core photographs were located.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>1m RC samples were split by the riffle splitter on the drill rig and sampled dry.</li> <li>The sampling was conducted using industry standard techniques and were considered appropriate.</li> </ul>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No formal quality control measures were in place for the programs.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Historic drill samples were assayed using four acid digest and AAS analysis at accredited laboratories.</li> <li>Samples from the 2004 and 2005 programs were assayed using four acid digest and AAS analysis at the Aminya and ALS laboratories.</li> <li>QAQC data was limited to assay repeats and interlaboratory checks which showed acceptable results.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Field data was loaded into excel spreadsheets at site.</li> <li>Original laboratory assay records have been located and loaded into an electronic database.</li> <li>Hard copies of logs, survey and sampling data are stored in the SBR office.</li> <li>No adjustment to assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>SBNC drill hole collars were accurately surveyed using electronic total station equipment.</li> <li>A local grid system was used with data converted to WGS84.</li> <li>Topography is very flat with control from drill hole collars and field traverses.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling was on a nominal 20m by 60m spacing in the upper 200m of the deposit.</li> <li>Deeper mineralisation was tested at approximately 120m spacing.</li> <li>Drill data is at sufficient spacing to define Measured, Indicated and Inferred Mineral Resource.</li> <li>Samples were composited to 2 m intervals for estimation.</li> </ul>

<b>Criteria</b>	<b>JORC Code Explanation</b>	<b>Commentary</b>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Shallow holes were drilled at -60° into a vertical trending zone and orientated perpendicular to the known strike of the deposit.</li> <li>• Deeper diamond holes flattened to be approximately orthogonal to the dip of mineralisation.</li> <li>• No orientation based sampling bias has been identified in the data.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were organised by company staff then transported by courier to the laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Procedures were reviewed by independent consultants during the exploration programs in 2005 by SBNC.</li> </ul>

## JORC Table 1 - Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The deposit is located on granted mining lease M47/567 with an expiry date of 22/9/2025.</li> <li>SBR has a 70% beneficial interest in the project.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Discovery and initial exploration was completed by Texas Gulf in the 1970's.</li> <li>Majority of exploration was completed by SBNC in 2004 and 2005.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The project is hosted within the Archaean West Pilbara Granite-Greenstone Belt. It comprises two main lenticular lodes (termed Discovery and Symond's Well) hosted within a sub-vertical to steep north dipping chert horizon.</li> <li>Mineralisation is associated with strong foliation and/or banding of a silica-chlorite-carbonate-amphibole-magnetite chert. There is broad correlation of Ni, Cu and Co grade to sulphide content with the main species being pyrrhotite, pyrite and chalcopyrite.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>Results are reported in local grid coordinates.</li> <li>Drill hole intersections used in the resource have been historically reported.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting off high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Length weighted average grades have been reported.</li> <li>No high-grade cuts have been applied.</li> <li>Metal equivalent values are not being reported.</li> </ul>

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• The majority of holes have been drilled at angles to intersect the mineralisation approximately perpendicular to the orientation of the mineralised trend.</li> <li>• Some steeper holes will have intersection length greater than the true thickness.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• A relevant plan showing the historical drilling is included within this release as Figure 2.</li> <li>• Representative cross sections and longitudinal projections, Figures 3, 4 and 6.</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant results available have been previously reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Geological mapping, geophysical surveys and rock chip sampling has been conducted over the project area.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Continued economic analysis of the project is planned.</li> <li>• Further exploration to extend high-grade resources is planned.</li> <li>• Representative cross sections and longitudinal projections, Figures 3, 4 and 6 show targeted projections and further drilling planned.</li> </ul>

## JORC Table 1 - Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>SBR located original assay records which have now been captured electronically to prevent transcription errors.</li> <li>Validation included visual review of results.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>A site visit by the CP of the 12 June 2018 release was undertaken in May 2018 to confirm geological interpretations and drill core, locate drill hole collars and review general site layout.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The geology is straightforward with visually recognisable mineralisation which has been used to control the Mineral Resource boundaries.</li> <li>Information between different drilling programs is consistent and the interpretations are considered to have a high degree of confidence.</li> <li>There is no real possibility of alternative interpretations.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Sherlock Bay deposit has a drilled strike extent of 1.7 km EW and a maximum vertical depth of 600m. The true thickness of the mineralisation ranges from 10 m to 30 m.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological</li> </ul>	<ul style="list-style-type: none"> <li>Ordinary kriging grade interpolation was used to estimate block grades within the resource.</li> <li>Surpac software was used for the estimation.</li> <li>Samples were composited to 2m intervals. Due to the extremely low CV of the data no high grade cuts were applied to the estimate.</li> <li>The parent block dimensions were 30 m EW by 5 m NS by 5 m vertical with sub-cells of 15 m by 2.5 m by 2.5 m. Cell size was based on 50% of the average drill hole spacing in the well drilled part of the deposit.</li> <li>The previous resource estimate for Sherlock Bay was reported in 2005.</li> <li>No assumptions have been made regarding recovery of by-products.</li> <li>An orientated ellipsoid search was used to select data and was based on drill hole spacing and the geometry of the mineralisation.</li> <li>A search of 100 m was used with a minimum of 10 samples and a maximum of 24 samples which resulted in 73% of blocks being estimated. The remaining blocks were estimated with search radii of 200 m and 300 m.</li> <li>Selective mining units were not modelled in the Mineral Resource model. The block size used in the model was based on drill sample spacing and deposit geometry.</li> </ul>

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	<p><i>interpretation was used to control the resource estimates.</i></p> <ul style="list-style-type: none"> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Mineralisation was constrained by wireframes prepared using a 0.2% Ni grade envelope. In addition, high grade domains were wireframed within the Symonds lode using a 0.4% Ni cut-off grade.</li> <li>• For validation, quantitative spatial comparison of block grades to assay grades was carried out using swath plots.</li> <li>• Global comparisons of drill hole and block model grades were also carried out.</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The shallow, sub-cropping nature of both lodes suggests good potential for open pit mining and low cost underground mining if sufficient resources can be delineated to consider a mining operation. As such, the Mineral Resource has been reported at a 0.15% Ni lower cut-off grade to reflect assumed exploitation by low cost mining methods and good metallurgical characteristics determined in previous studies.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Based on comparison with other similar deposits, the Mineral Resource is considered to have sufficient grade and metallurgical characteristics for economic treatment if an operation is established at the site.</li> <li>• No mining parameters or modifying factors have been applied to the Mineral Resource.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Metallurgical test work has been conducted by previous operators and confirmed that good recoveries can be achieved via bacterial leaching.</li> <li>• Additional metallurgical test work is planned to allow upgrade of studies to PFS level.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>• <i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>• The area is not known to be environmentally sensitive and there is no reason to think that proposals for development including the dumping of waste would not be approved if planning and permitting guidelines are followed.</li> </ul>

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	<i>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.</i>	
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Bulk density determinations (pycnometer or Archimedes) were carried out on 465 samples. Bulk density values applied to the estimates were 2.7 t/m<sup>3</sup> for transitional lithologies, 3.05 t/m<sup>3</sup> for unoxidised mineralisation above 500m depth and 2.94 t/m<sup>3</sup> below 500 m depth.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>• 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).</li> <li>• Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource was classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012).</li> <li>• The upper 200 m of the deposit defined by 20 m by 60 m and displaying excellent continuity of mineralisation has been reported as Measured Mineral Resource.</li> <li>• The portion of the deposit defined by 80 m to 120 m spaced holes and tested over the full strike extent has been reported as Indicated Mineral Resource.</li> <li>• The Inferred portion of the resource has been extended to 600 m depth (4,400 mRL) and is projected to a maximum of 120 m past the limit of effective drilling.</li> <li>• The results reflect the view of the Competent Person.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of Mineral Resource estimates.</li> </ul>	<ul style="list-style-type: none"> <li>• The Mineral Resource estimate has been checked by an internal audit procedure.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• The estimate utilised good estimation practices, high quality drilling, sampling and assay data. The extent and dimensions of the mineralisation are sufficiently defined by the detailed drilling. The deposit is considered to have been estimated with a high level of accuracy.</li> <li>• The Mineral Resource statement relates to global estimates of tonnes and grade.</li> <li>• There is no historic production data to compare with the Mineral Resource.</li> </ul>



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	<p><i>assumptions made and the procedures used.</i></p> <ul style="list-style-type: none"><li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li></ul>	