ASX Release

30 April 2025

Pre-Feasibility Work confirms improved 200+kozpa Simberi Expansion Project Life Of Mine Plan

Highlights

- Total gold production of **2.2 Moz** (FY26 – FY38)
- Annual production rising to approximately 90 kozpa in FY27 and above **220 kozpa from FY28**
- All-in Sustaining Cost (AISC) decreasing to **US$1,200 – US$1,300/oz from FY29 to FY36**
  - Now incorporating cost of proposed enhanced royalty package to landowners and communities[1]
- Initial Project Capital estimated at **US$235 million (±20% Class 4 Estimate) across FY26 to FY28**
  - Based on a maximum rate of 3.5Mtpa for production of saleable gold concentrates
- Pre-Expansion Growth Capital of **US$40 million – US$60 million across FY26 to FY27**
  - Studies and Designs, Camp upgrade, New Haul Road, RO Plant and miscellaneous improvements
- Simberi Expansion Project Life Of Mine Plan (LOMP) now extends to **13 years**
  - 100% of LOMP gold production based on Ore Reserve (42% Proved and 58% Probable)
  - **No Exploration Targets** included
- First Mineral Resource and Ore Reserve Estimate for Silver
  - Ore Reserve of 4.7 Moz Ag
- Final Investment Decision target of late Q2 FY26 or early Q3 FY26 due to implications for funding preparations timing pending resolution of PNG tax assessment[2]

St Barbara Limited ("**St Barbara**" or the "**Company**") (ASX: SBM) is pleased to advise the outcomes of its Simberi Process Plant Layout and Design AACE Class 4 Study ("**Plant Study**") and inclusion of an updated Mineral Resource and Ore Reserve estimates to support the latest Life of Mine Plan ("**LOMP**") and estimated project economic assessment for Simberi.

Managing Director and CEO Andrew Strelein said *"Our ongoing work continues to show that the Simberi Expansion Project is a robust opportunity to deliver value for St Barbara shareholders."*

"Our current work shows a project with significantly higher production averaging 220 kozpa over eight years, a lower operating cost and a mine life extending to 13 years without including any exploration targets. At an assumed gold price of only US$2500/oz that delivers a Post-Tax NPV (8%) of US$717 million and a Post-Tax IRR of 62%.

"Our focus now is on the completion of the Feasibility Study to support a Financial Investment Decision, which we are targeting for H1 FY 2026. In the meantime we continue to advance early works to allow a seamless transition into full-scale development."

[1] Refer to ASX announcement dated 9 December 2024 titled *"Simberi ML early renewal progress and Kumul MOU"*

[2] Refer to ASX announcement dated 18 February 2025 titled *"Tax Assessment Objection Lodged with IRC"*

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OVERVIEW

The Plant Study for the Simberi Expansion Project has been completed on schedule and, along with the results from the recently completed Metallurgical Testwork Program, has been used to generate an updated Simberi Expansion Project LOMP. The Plant Study estimate meets AACE Class 4 requirements[3] (Pre-Feasibility Study equivalent) and is at an accuracy of ± 20%. The LOMP is based solely on Proved and Probable Ore Reserves referred to in the Mineral Resource and Ore Reserve estimate updated in this announcement and presented along with the results of the Plant Study.

The Plant Study was undertaken by **Pitch Black Group (Pitch Black)**. Mine planning work supporting the LOMP and the preparation of the Ore Reserves was undertaken by **AMC Consultants Pty Ltd** (**AMC**). Interpretation of the recently completed metallurgical test work program results was undertaken to generate updated metallurgical recovery equations and was undertaken by **Paradocs Metallurgy Pty Ltd (Paradocs)**. The work is more fully discussed later in this release.

The Simberi Expansion Project involves an expansion of the existing Simberi mining and processing operation to allow the treatment of fresh sulphide ore. Mining is scheduled to increase to approximately 20Mtpa of material from the current rates of 10-12Mtpa. Mining will transition from delivery of oxidised ore which is free-milling, and currently recovered as gold doré through the conventional Carbon-In-Leach (CIL) and electrowinning circuit, to fresh ore which requires an upgrade to the comminution circuit (to manage the more competent ore) and installation of a flotation circuit to generate a gold-bearing concentrate. The flotation tailings (non-sulphides) will continue to be leached through the existing CIL circuit to recover a small proportion of gold not captured in the gold concentrate.

Figure 1 shows the latest infrastructure design from the Plant Study. Aside from the modifications to the process plant described above, the expansion also includes the installation of additional power generation and the construction of a new wharf to accommodate larger ships to transport the gold bearing concentrates to third parties.

Figure 1: Simberi Expansion Project Process Plant Layout Design

[3] Refer to AACE International's recommended practices relating to cost estimate classification and estimate accuracy as applied in Engineering, Procurement, and Construction for the Process Industries

Sulphide Expansion Project LOMP Economics

A summary of the Sulphide Expansion Project LOMP estimated economics commencing from 1 July 2025 is listed in Tables 1-1 to 1-4 and shown graphically in the figures below.

The combination of Pre-Expansion Growth Capital and Project Initial Capital are estimated to achieve the modifications required to convert to the production of a saleable gold concentrate from processing of sulphides (while retaining oxide CIL treatment capability), the installation of additional power generation and the construction of the new wharf. The cost estimate is largely based on revised quotations with the exception of the new wharf for which the estimate is based on escalation of quotations received in 2022.

For capital cost and operating cost purposes the power generation is assumed to be owned and operated by Simberi Gold Company Limited, rather than developed by a third party for provision of power on a contract basis. This is the current arrangement for power generation at Simberi, however the arrangements going forward may be reviewed before FID. For capital and operating cost purposes the mine fleet was assumed by AMC to be procured under operating leases with lease payments included in mine operating expenditures rather than being included in Sustaining Capital or other capital lines. The current mine fleet is a mix of contract fleet, owned fleet and leased fleet. Further consideration of leasing or contracting trade-off for mine fleet options will take place during the Feasibility Study.

Table 1-1: LOMP Project Economics (from 1 July 2025)

Project Economics	Unit	Life of Mine (LOM) Total or Average
Gold Price	US$/oz	$2,500
Cash Costs[4]	US$/oz Au	$1,222
All-In Sustaining Cost[5]	US$/oz Au	$1,281
Post-Tax NPV (8%)	US$M	$717
Post-Tax IRR	%	62%
Post-Tax Payback	years	3.6
Post-Tax NPV/Capex Ratio	-	2.5

Table 1-2: LOMP Production Summary (from 1 July 2025)

Production Summary	Unit	Life of Mine Total or Average
Processing Life	years	13
Total Waste Mined	Mt	115
Total Ore Mined	Mt	41.8
Average Strip Ratio	w:o	2.8
Total Mill Feed Tonnes	Kt	43.3
Average Oxide Mill Gold Feed Grade	g/t	1.2
Average Sulphide Mill Gold Feed Grade	g/t	2.2
Average Mill Feed Gold Grade	g/t	1.9
Total Contained Gold	koz	2,580
Produced Gold (Doré & Gold in Concentrate)	koz	2,209
Gold Payable	koz	2,047
Average Gold Concentrate Grade	g/t	19.3

[4] Cash costs consist of mining costs, processing costs, general and administrative costs and refining/transport charges and royalties.

[5] All-In Sustaining Costs include cash costs plus sustaining capital.

Table 1-3: LOMP Capital Costs (from 1 July 2025)

Capital Costs	Life of Mine Total US$M
Pre-expansion Growth Capital	$48
Project Initial Capital	$235
LOM Growth Capital	$43
Sustaining Capital	$131
Closure Costs	$75

Table 1-4: LOMP Operating Costs (from 1 July 2025)

Operating Costs	Unit	Life of Mine (LOM) Average
Mining Cost	US$/t mined	$4.0
Mining Cost	US$/t milled	$15.9
Processing Cost (Inc TC/RC)	US$/t milled	$33.5
G&A Cost	US$/t milled	$8.2
Corporate G&A Cost	US$/t milled	$1.0
Total Operating Cost	**US$/t milled**	**$58.6**

The mid-points of the gold production ranges for the Simberi Expansion Project LOMP are shown in Figure 2 below. Also included is the AISC projection (using the mid-point of the ranges for each year).

The proposed enhanced Net Profits Royalty of 10% (or 3% Net Smelter Return if higher) announced in December 2024 is now incorporated into the AISC projections (previously included in economic projections as 2% Net Smelter Return basis). As per Table 1, a flat royalty rate was used in the cost assumptions for mine planning. In the economic modelling however the operating costs reflect the 10% Net Profits Royalty basis for payments, where it is greater, to match the basis of the proposal for the enhanced community benefits arrangements.

Figure 2: Simberi Expansion Project LOMP Production by source and AISC

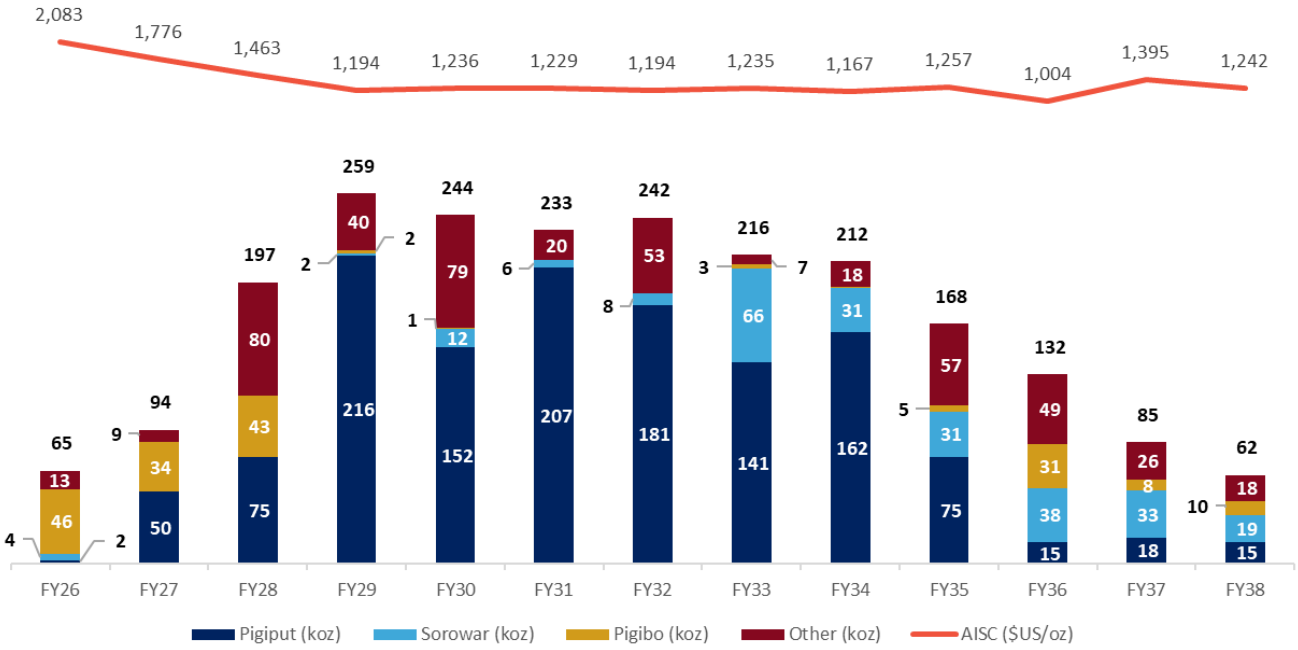


Table 2 below outlines ranges and approximate mid-points for each financial year of the Simberi Expansion Project LOMP covering gold production, C1 Cash Cost, AISC and Growth Capital.

Table 2: Simberi Expansion Project LOMP production, C1 Cash Cost per Ounce, AISC per Ounce and Growth Capital

	Unit	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38	Total/Average
Production Range	koz	60-70	90-100	190-210	250-270	235-255	220-240	230-250	205-225	200-220	160-180	120-140	80-90	60-70	160-180
Production [6] Midpoint	koz	65	94	197	259	244	233	242	216	212	168	132	85	62	2,209
Gold Payable Midpoint	koz	65	94	180	237	221	211	219	195	191	154	132	85	62	2,047
Cash/oz Range	US$/oz	1,920-2,120	1,670-1,870	1,290-1,490	1,010-1,210	1,070-1,270	1,080-1,280	1,050-1,250	1,090-1,290	1,020-1,220	1,090-1,290	830-1,030	1,170-1,370	1,140-1,340	1,120-1,130
Cash/oz Midpoint	US$/oz	2,023	1,773	1,388	1,112	1,168	1,183	1,150	1,185	1,117	1,194	925	1,271	1,242	1,222
AISC/oz Range	US$/oz	1,980-2,180	1,680-1,880	1,360-1,560	1,090-1,290	1,140-1,340	1,130-1,330	1,090-1,290	1,140-1,340	1,070-1,270	1,160-1,360	900-1,100	1,290-1,490	1,140-1,300	1,180-1,380
AISC/oz Midpoint	US$M	2,083	1,776	1,463	1,194	1,236	1,229	1,194	1,235	1,167	1,257	1,004	1,395	1,242	1,281
Pre-Expansion Growth Capital Range	US$M	25-35	15-25												40-60
Pre-Expansion Growth Capital Midpoint	US$M	30	18												48
Project Initial Capital Range	US$M	95-140	85-120	10-20											190-280
Project Initial Capital Midpoint	US$M	116	103	16											235
LOMP Growth Capital Range	US$M				30-40	5-10									35-50
LOMP Growth Capital Midpoint	US$M				35	9									43

[6] All-in Sustaining Cost (AISC) is based on per ounce produced.

Sensitivity Analysis

A sensitivity analysis was conducted on the base case after-tax Net Present Value (NPV) and Internal Rate of Return (IRR) of the Simberi Expansion Project LOMP. Tables 3 and 4 below provide a summary using the following variables: gold price, project capital expenditure, total operating cost.

Table 3: Post-Tax NPV (8%) Sensitivity, US$M

Gold Price (US$/oz)	Base Case	Project Capex (-10%)	Project Capex (+10%)	Opex (-10%)	Opex (+10%)
$2,000	310	331	290	417	200
$2,250	518	537	499	618	414
$2,500	717	736	699	816	618
$2,750	915	934	897	1,013	817
$3,000	1,112	1,131	1,094	1,210	1,014

Table 4: Post-Tax IRR Sensitivity

Gold Price (US$/oz)	Base Case	Project Capex (-10%)	Project Capex (+10%)	Opex (-10%)	Opex (+10%)
$2,000	30%	33%	27%	39%	22%
$2,250	45%	51%	41%	55%	37%
$2,500	62%	69%	56%	72%	52%
$2,750	80%	91%	72%	92%	69%
$3,000	101%	116%	90%	116%	88%

Next Steps

The key near term steps for St Barbara to progress the Simberi Expansion Project to enable first sulphide processing and to switch over to the production and sale of gold concentrate include:

- Continue with the execution of abovementioned the Early Works Packages and Pre-Expansion Growth capital projects;
- Complete the Feasibility Study update, including incorporation of results from the extensive geotechnical drilling and test pitting at the Process Plant site and planned Waste Rock Dump locations; and
- Continue with completion of work specified by Conservation and Environmental Protection Authority (CEPA) under permit approvals (including detailed waste rock dump designs, detailed surface water management plans and mine closure and reclamation plans).

St Barbara has lodged an early renewal application for the Mining Lease. The Expansion Project LOMP extends to 2038 while the Mining Lease is currently due to expire in 2028. As recently announced,[1] the Warden's hearing for the renewal application was held at Simberi Island on 8 April 2025 and was well attended and supported. The Warden is due to submit a report to the Mining Advisory Council within two weeks of that hearing. The Mining Advisory Council is expected to consider the application during April or May, before making a recommendation to the Mining Minister.

FID has previously been anticipated to be in Q2 Dec FY26 but was being targeted for October 2025 in the Plant Study. However, with the resolution of the amended income tax and withholding tax assessments extending into May and June, the FID date is anticipated to be more realistically in late Q2 Dec FY26 or early Q3 Mar FY26.

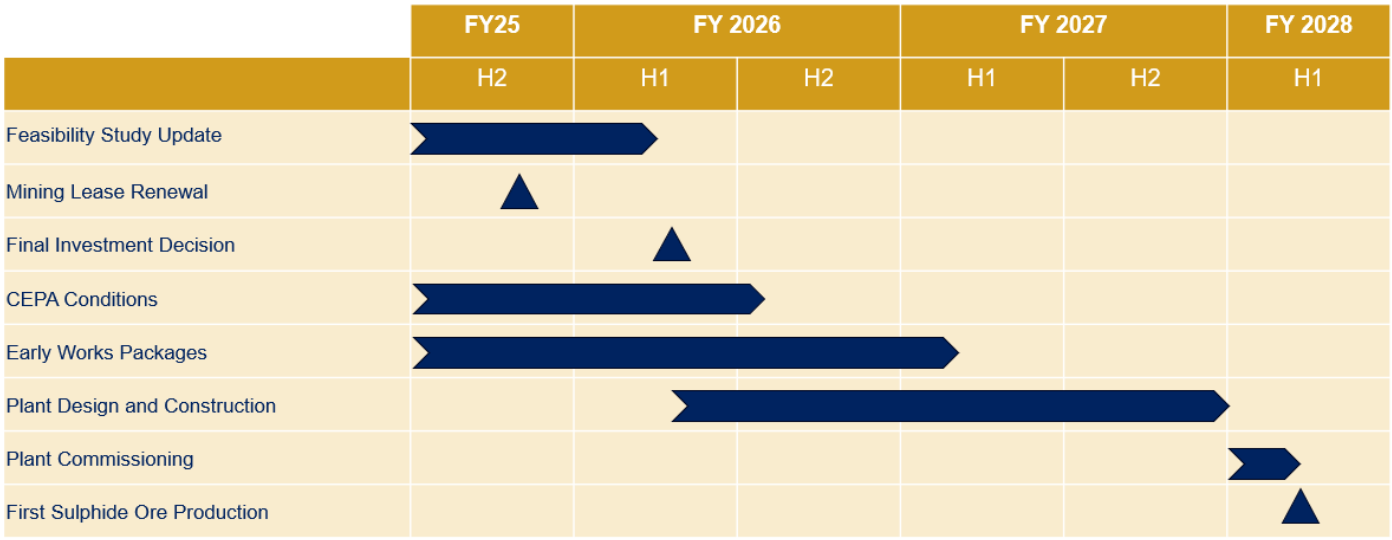
The Feasibility Study work will continue, however the development of funding proposals for the Simberi Expansion Project will remain difficult while the amended tax assessments matter has not been resolved. The Company will continue with the Feasibility Study and with the long lead time ball mill procurement, the associated detailed design of the new ball mill circuit, the work to finalise conditions on the CEPA environmental permit and the completion of

[1] Refer to ASX announcement dated 11 April 2025 titled *"Strong Community Support at ML Renewal Warden Hearing"*

construction of the camp expansion according to the schedule. The timeline for other early works will be reviewed as appropriate.

Figure 3 below shows the indicative timeline anticipated for the Simberi Expansion Project, subject to the delay related to resolution of the amended tax assessments. Early works activities are expected to continue through to the end of Q1 FY27 at which point the new ball mill will be commissioned allowing higher processing rates to be achieved whilst the operation continues to process oxide material in FY27. After the FID the remainder of the Simberi Expansion Project construction will commence with commissioning of the Sulphide plant and first concentrate production anticipated to be in Q1 FY28.

Figure 3: Indicative Timeline of Major Milestones for the Simberi Expansion Project



Early Works Progress

Grinding Circuit

CITIC HIC Australia has been awarded the contract to supply the new 5.8MW ball mill. The last component of the ball mill is anticipated to be available from CITIC HIC for shipment in January 2026.

The Pitch Black Group have been awarded the detailed design contract for the Sulphide Expansion Project grinding circuit of which the ball mill is the major component.

Commissioning of the new grinding circuit is scheduled to commence in August 2026.

New Wharf

Tenders for construction of the new wharf, required to accommodate larger ships to load the gold concentrates, closed on 11 April 2025. The award of the contract for the wharf construction is anticipated to be issued as early as May 2025.

ROM Pad and Sizer Crusher Installation

This early work on the ROM Pad and Sizer crusher installation involves the construction of a new run-of-mine (ROM) pad to accommodate sulphide ore feed and the construction of a permanent facility to locate the sizer (recently installed and operating on the existing ROM) for crushing of the ore and the transfer conveyor onto the existing conveyor system which feeds the radial stacker onto an apron feeder and into the semi autogenous grinding (SAG) mill (refer to Figure 1).

The Pitch Black Group will design the new haul road (Pre-Expansion Growth project) to align with this proposed ROM pad and the crushing station. The detailed design for the ROM pad and crushing station will commence in Q1 FY26.

Pre-Expansion Growth

Camp Expansion

The Company secured an as new accommodation facility plus other supporting camp and office facilities that was still packed in containers and already imported into Papua New Guinea in Q2 FY25[1]. This has allowed an accelerated construction schedule to ensure that sufficient accommodation is in place for construction activities.

The first phase of the Simberi camp expansion commenced on-site in February 2025. On 2 April, 20 of 100 self-contained suite rooms were handed over to camp operations, with 20 self-contained suite rooms to be handed over to operations every three weeks. Construction of the 240 remaining rooms will commence in early May, with completion planned for September 2025.

Work will also commence on a new meals hall and cafeteria in September 2025, with completion planned to be achieved in November 2025. Office facilities are also being centralised.

Figure 4: The first of 20 new self-contained rooms in the camp expansion

Additional New Mining Fleet

Two additional low hour second hand Volvo A60H (55 tonne payload) trucks have recently been purchased and will arrive at site in April 2025. This follows the successful trial of the two low hour Volvo A60H units purchased last year. In addition, six new units have been ordered and are scheduled to arrive in H1 FY26. This will see the number of Volvo trucks in the mining fleet increase to 10 units.

Haul Road

Ore delivery from the mine to the processing plant is currently by an Aerial Rope Conveyor (ARC). The ARC transects the planned future open pit mining area and will be decommissioned in advance of development of the main orebody at Pigiput. The removal of the ARC pylons will also expose additional remnant oxide ore for current operations through FY27 as well as expose deeper Sulphide ore on the north-eastern side of the pit.

In preparation for the decommissioning of the ARC a new dedicated haul road will be established which will connect the Pigiput pit directly to the new ROM pad (refer to Figure 5).

The conceptual design for the new road was completed in H1 FY25 and the detailed design in now underway. The design is being undertaken by Pitch Black's civil engineering group with geotechnical site investigation support from **Klohn Crippen Berger** ("**KCB**") and **Engeny** are assisting with hydrology modelling and management of surface water flows.

Reverse Osmosis ("RO") Plant

An RO plant is being installed at the Process Plant to improve water quality for the gland water system and the elution circuit. Improved gland water will substantially improve slurry pump reliability and hence overall plant availability. Improved water quality will also increase the efficiency of gold stripping in the elution circuit, and the performance of the electrowinning circuit. The RO plant will benefit both the current oxide and future sulphide ore processing.

Simberi Sulphide LOMP Overview

Mining

Mining has been determined to be a continuation of current operations utilising conventional drill and blast and load haul using 120 tonne excavators (Hitachi EX1200s) and phasing in larger 55 tonne payload Volvo A60H articulated dump trucks. The current fleet is primarily a mix of 35-40 tonne payload articulated trucks (predominantly CAT 740/745s and Rokbak RA40s). There are seven main open pit deposits planned to be mined (refer to Figure 4) – Pigiput, Sorowar, Pigibo, Botlu, Samat, Bekou and Pigicow. Pigiput is the dominant ore source over the LOMP contributing 59% of gold production, followed by Sorowar at 11% and Pigibo at 9%, with the remaining pits making up the balance of 21%.

Mining under the LOMP is expected to extend for 10 years to 2035, peaking at 20.5Mtpa of ore and waste in FY28. Three years of rehandling ore are then anticipated to continue to feed the process plant through to 2038.

Figure 5: LOMP Pit Designs, Waste Rock Landforms and New Haul Road

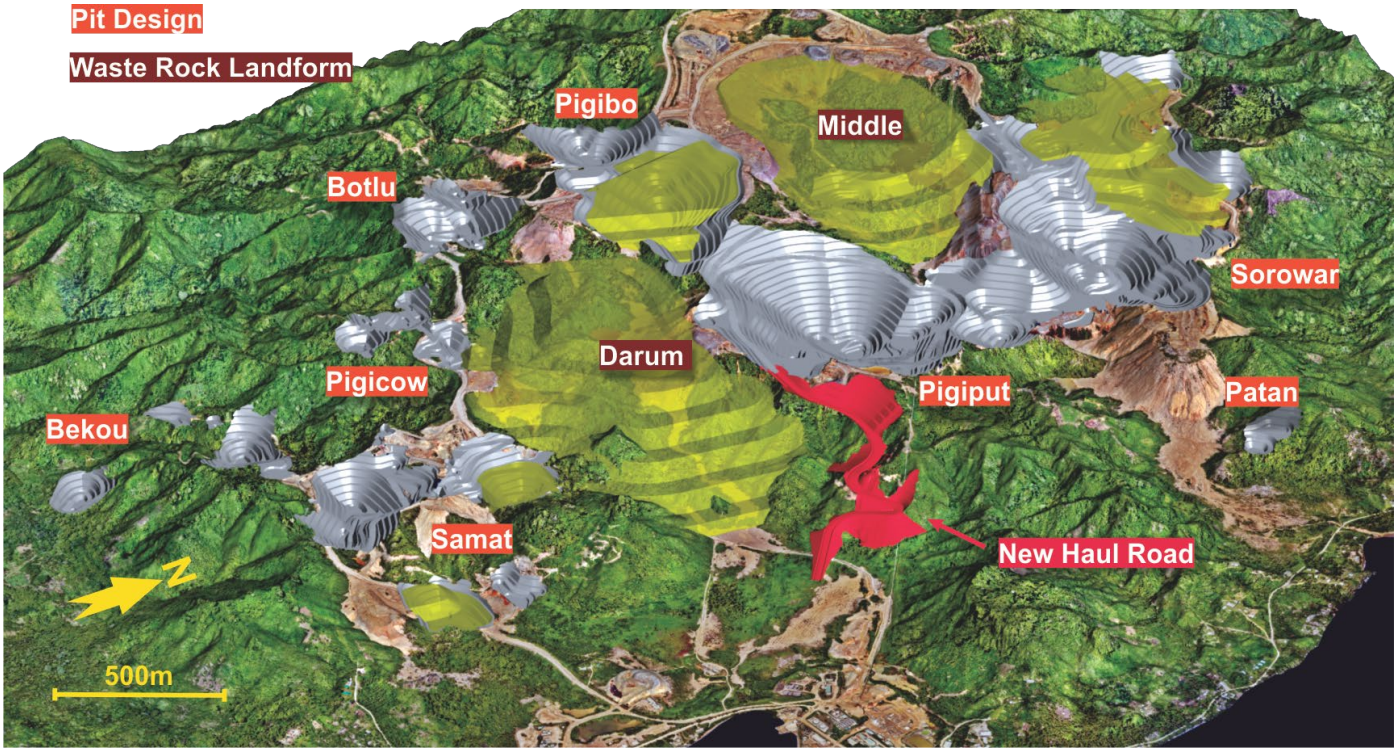
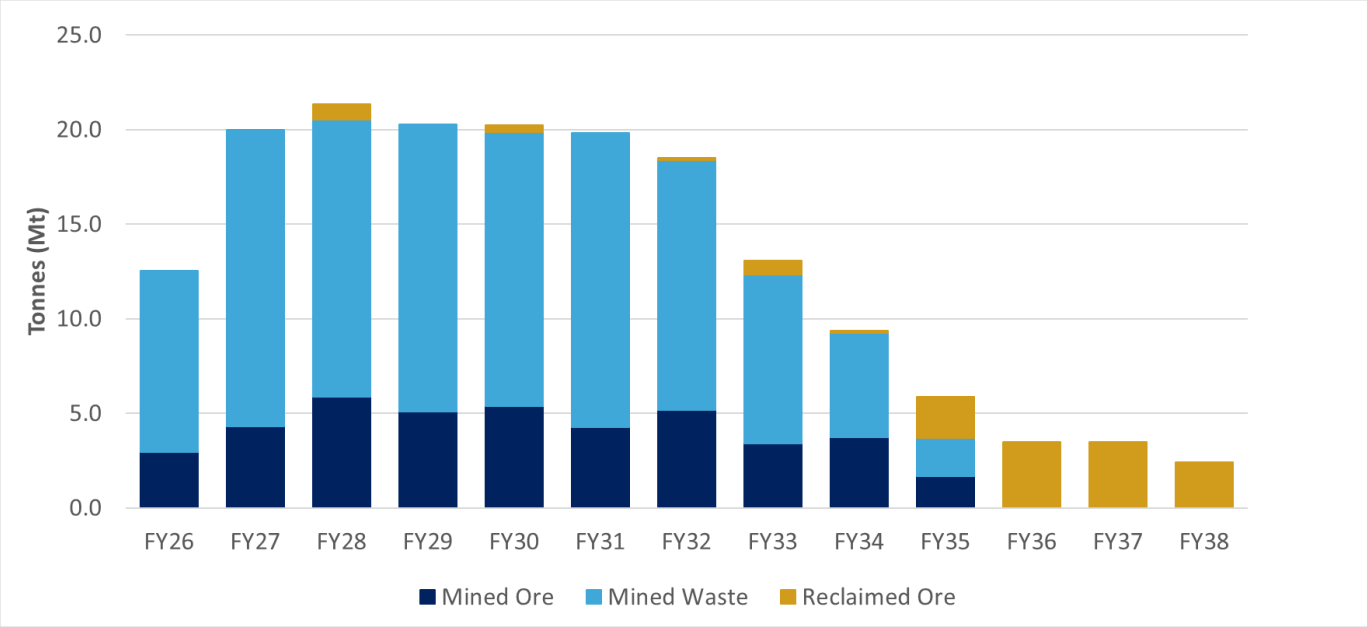


Figure 6: LOMP Annual Mining Material Movement



Waste rock from the mining operations is planned to be placed predominantly in two large waste dumps (Middle and Darum), with waste also intended to be placed into Sorowar, Pigibo and Samat pits.

Waste rock has been characterised into potentially acid-forming (PAF) and non-acid forming (NAF) on the basis of the degree of sulphide mineralisation and carbonate material present. The resource model has classified 68% of the waste as PAF. To reduce acid formation the waste dumps are planned to be covered with a low oxygen ingress layer and revegetated. In pit waste deposition will be maximised to reduce surface disturbance and surface water management requirements.

Ore will be trucked directly to the new ROM pad via a newly established haul road as discussed above.

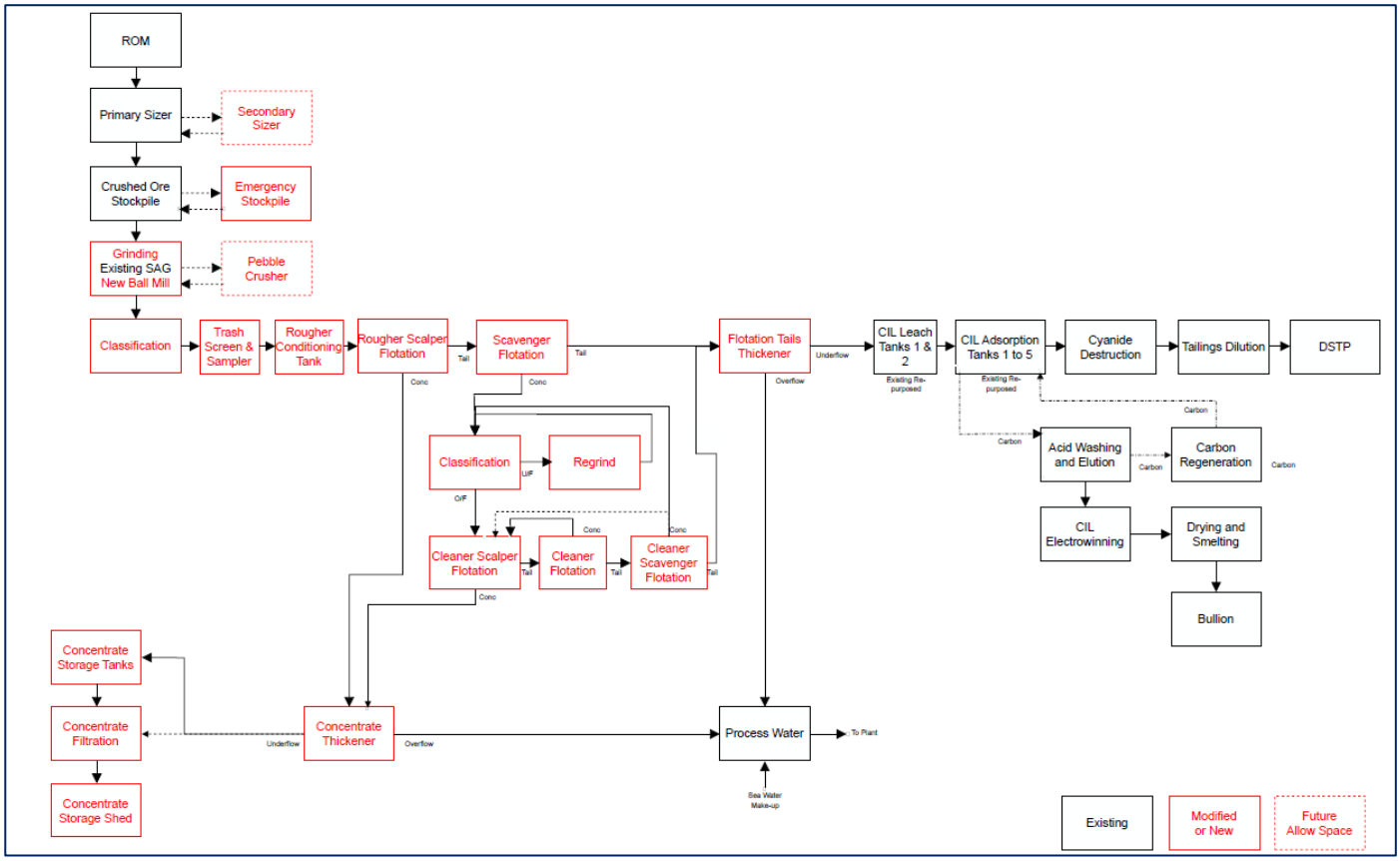
Process Plant

The updated process flowsheet from the Plant Study is shown in Figure 7. The block flow diagram shows how the new or modified parts of the circuit are to be incorporated into the existing processing plant facility. The recently purchased sizer (currently installed in front of the ARC) will be relocated to the new ROM pad to crush the ore. Ore will be conveyed and placed on the Crushed Ore Stockpile (COS) via the existing radial stacker. Ore from the COS is then fed to the existing 2.6MW SAG mill via an apron feeder and conveyor and will be coupled with a new 5.8MW ball mill with a target grind size of 150 µm.

Cyclone overflow will pass through a conditioning tank for reagent addition, before being pumped to a Jameson cell operating as a rougher scalper.

Concentrate from the rougher scalper will constitute final concentrate with rougher scalper tails reporting to a rougher scavenger circuit comprising five tank cells in series. Rougher scavenger tailings would be thickened before being pumped to the existing leach / CIL circuit.

Figure 7: Saleable Concentrate Flowsheet – Block Flow Diagram



Rougher scavenger concentrate will be reground to a P_{80} grind size target of 30 µm before reporting to a Jameson cleaner scalper cell. Tails from the cleaner scalper circuit will constitute feed to the cleaner flotation circuit and tails from the cleaner flotation circuit will gravitate towards the cleaner scavenger flotation circuit. The cleaner circuit will consist of a single bank of two cells, whilst the cleaner scavenger float circuit will comprise of a single bank of four cells. Tails from the cleaner scavenger circuit will be combined with the rougher scavenger tails and report to the existing leach /CIL circuit.

Tailings disposal is via the existing deep sea tailings placement (DSTP) pipeline.

Compared to the May 2024 Concept study which was based on the previous FEED study metallurgical test work results, the new test work and circuit design changes have resulted in the average sulphide gold recovery increasing by 6.4% from 82.4% to 88.8% consistent with the early results described in the initial test work findings released in August 2024[1]. The lift in overall gold recovery comes from more gold being captured in the concentrate and results in a higher concentrate mass production and overall lower gold concentrate grade but adds significant improvement in revenue.

As shown in Figure 7 the requirement for a secondary sizer and pebble crusher are still under evaluation as part of Feasibility Study phase. The cost for purchase and installation of these units has been included in LOMP Growth Capital allowances. Also allowed for in the LOMP Growth Capital is the installation of a new CIL circuit. The existing CIL circuit is satisfactory for initial flotation tail CIL leaching however it will need replacement in order to perform optimally for the full LOMP production. Full scale leaching of the flotation tail also allows time to generate an understanding of the performance of the float tails circuit before final design of the new CIL circuit given only 5% (approximate) of the recovered gold will be recovered as doré during sulphide processing.

The gold concentrate is thickened and dewatered and will be placed into a new concentrate storage shed with a capacity of 25kt. Concentrate will be reclaimed to the cargo ship, via front end loader and ship load out conveyor with concentrate quality monitored by a crosscut belt sampler and mass measurement completed by concentrate loadout weightometer.

The new wharf being constructed as part of the early works packages will be located adjacent to the existing wharf to accommodate larger ships required for the concentrate shipping. These ships will manage concentrate shipments ranging from 11kt to 16kt.

[1] Refer to ASX announcement dated 21 August 2024 titled *"Simberi Sulphides Expansion Flowsheet Selected"*

To manage the increase in power requirements additional gensets will be added to the existing power plant taking the total installed power to 24MW with an average demand of 21.2MW

The process plant throughput rate from the new comminution circuit configuration (new sizer, existing SAG mill and new ball mill) is anticipated to increase to a maximum of 3.5Mtpa (once the new ball mill is commissioned in Q1 FY27 with first sulphide ore commissioning the following year in Q1 FY28). From Q1 FY28 the process plant is anticipated to be predominantly generating a gold concentrate given higher average grades and recoveries from the sulphide ores. Once all sulphide ore has been processed the LOMP anticipates then treating the remaining oxide ore which will be reclaimed from stockpiles.

Figure 8: LOMP Process Plant Ore Feed Profile

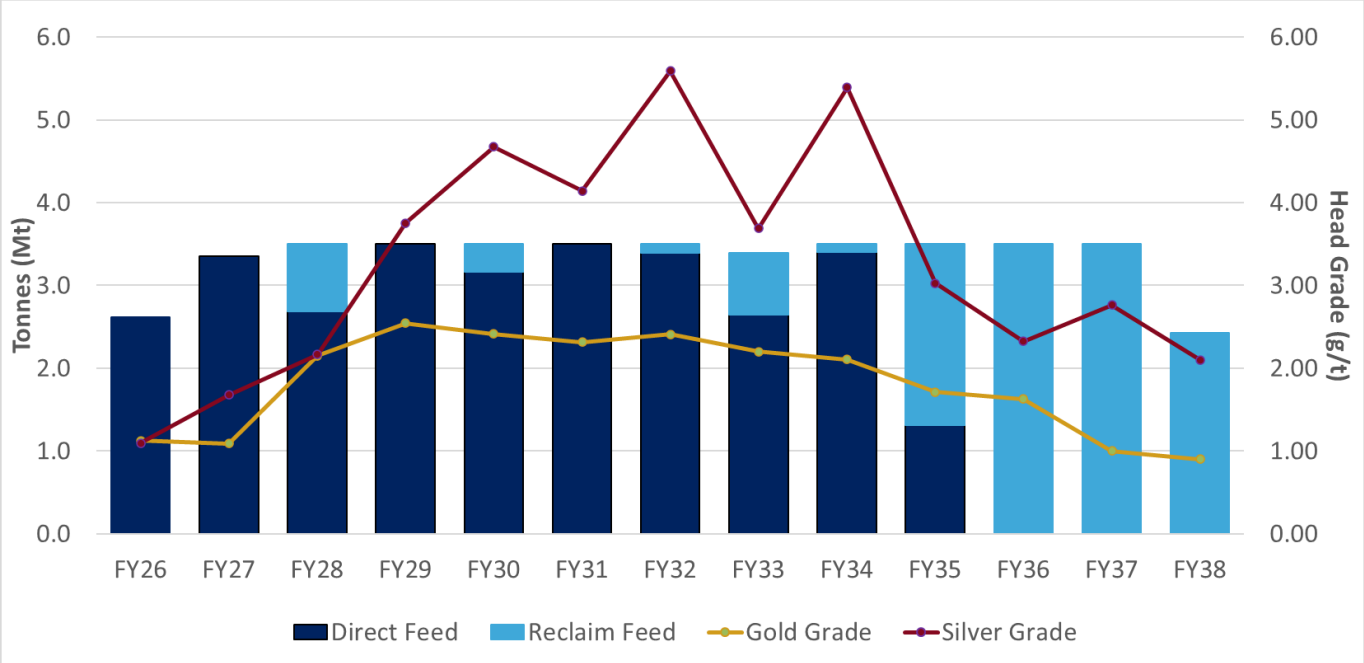
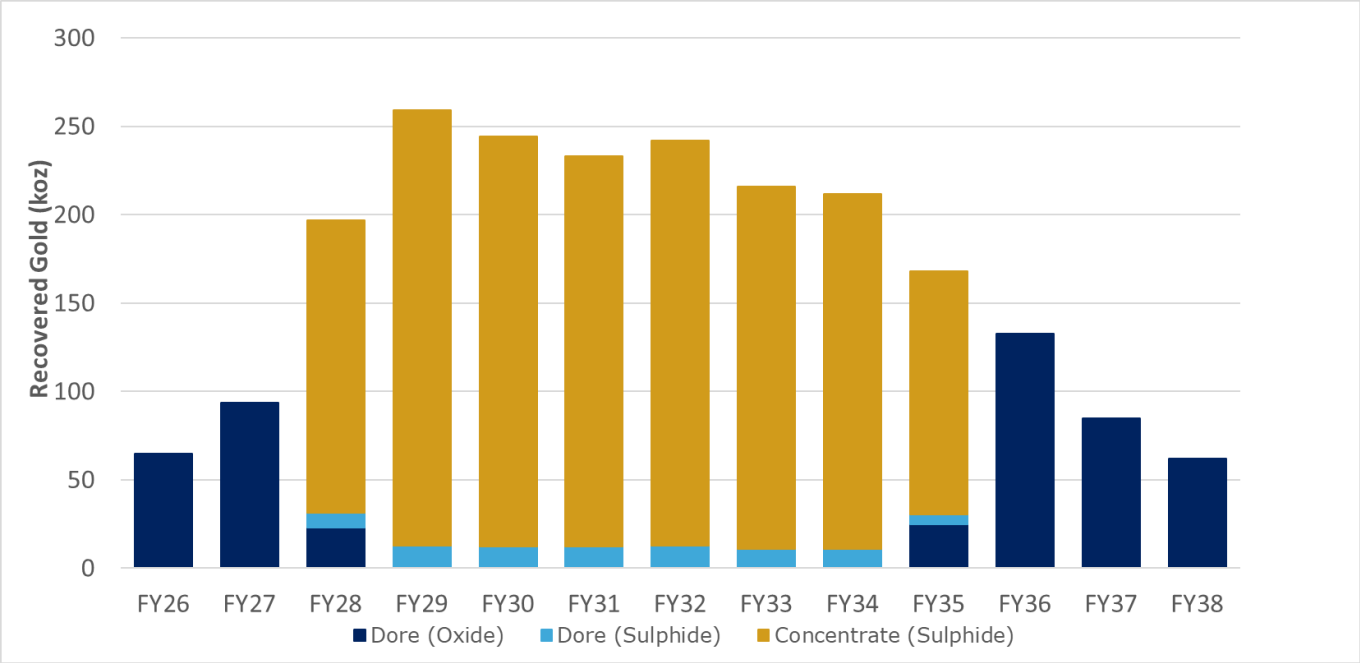


Figure 9: LOMP Gold Production Profile



Mineral Resources

The Mineral Resource Estimate used to compile the Simberi Expansion Project LOMP has been updated since last reported (*refer ASX release 19 February 2025 'Mineral Resources and Ore Reserves Statement as at 31 December 2024 and 30 July 2024 - 'Simberi Ore Reserves Increase by 40% to 2.8Moz Mineral Resource and Ore Reserve Statement as at 30 June 2024'*).

No changes have been made to the underlying estimate of gold and silver, however the material type model has been updated inclusive of grade control drilling completed between January 2024 and January 2025.

Following the completion of geometallurgical variability test work a set of recovery equations for processing of fresh sulphide mineralisation have been developed. For these equations to be effective it was essential that the local estimation of the iron (Fe) and sulphur (S) grades are reliable and correlate with the assigned material type. Models of the distribution of Fe and S in the orebody have been revised using co-kriging methodology.

Overall the gold Mineral Resource estimate has reduced by 30koz from 4,950koz to 4,920koz since the December 2024 estimate. 20koz is due to changes to the material classification and 10koz as a result of mining depletion.

Table 5 : Simberi Mineral Resources as at 31 January 2025

Project	Classification	Tonnes	Grade		Contained Metal	
		(Mt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Oxide	Measured	14.2	1.0	2.1	480	980
	Indicated	13.5	1.2	4.0	520	1,740
	Total Measured and Indicated	**27.7**	**1.1**	**3.1**	**1,000**	**2,720**
	Inferred	2.2	1.0	2.8	70	190
	Total Oxide	**29.9**	**1.1**	**3.0**	**1,070**	**2,910**
Sulphide	Measured	25.3	1.5	2.9	1,190	2,360
	Indicated	52	1.5	4.3	2,510	7,140
	Total Measured and Indicated	**77.3**	**1.5**	**3.8**	**3,700**	**9,500**
	Inferred	1.9	1.4	2.3	90	140
	Total Sulphide	**79.2**	**1.5**	**3.8**	**3,790**	**9,640**
Stockpile	**Measured**	**1.6**	**1.2**		**60**	
	Total Simberi	**110.7**	**1.4**	**3.5**	**4,920**	**12,550**

Notes:

1. Mineral Resources are reported inclusive of Ore Reserves.

2. Cut-off grades – Simberi Oxide (0.4g/t Au), Simberi Sulphide (0.6g/t Au).

3. Mineral Resources are reported constrained by a US$2,000/oz pit shell

4. Rounding may result in apparent summation differences between tonnes, grade and contained metal.

Ore Reserves

The Ore Reserves Estimate used to compile the Simberi Life of Mine study has been updated since last reported (*refer ASX release 19 February 2025 'Mineral Resources and Ore Reserves Statement as at 31 December 2024 and 30 July 2024 - 'Simberi Ore Reserves Increase by 40% to 2.8Moz Mineral Resource and Ore Reserve Statement as at 30 June 2024'*).

Overall the gold Ore Reserve estimate has reduced by 60koz from 2,670koz to 2,610koz since the December 2024 estimate. 50koz is due to an increase in operating costs which was partially offset by improved metallurgical recoveries and 10koz as a result of mining depletion.

Table 6 : Simberi Ore Reserves as at 31 January 2025

Project	Classification	Tonnes	Grade		Contained Metal	
		(Mt)	Au (g/t)	Ag (g/t)	Au (koz)	Ag (koz)
Oxide	Proved	10.3	1.2	2.0	410	670
	Probable	6.8	1.2	2.2	260	480
	Total	**17.1**	**1.2**	**2.1**	**670**	**1,150**
Sulphide	Proved	8.4	2.3	3.3	630	900
	Probable	17.2	2.3	4.8	1,260	2,630
	Total	**25.6**	**2.3**	**4.3**	**1,880**	**3,530**
Stockpile	**Proved**	**1.6**	**1.2**		**60**	
	Total Simberi	**44.3**	**1.8**	**3.3**	**2,610**	**4,680**

Notes:

1. Metal price: FY25-27: US$1,800/oz Au and US$20/oz Ag, +FY28 : US$1,700/oz Au and $20/oz Ag

2. Cut-off to define ore based on a US$0/t net revenue, including gold and silver revenue

3. Mine plan assumes oxide processing FY25-27, sulphide processing from FY28, and remnant oxide processing on sulphide depletion.

4. Rounding may result in apparent summation differences between tonnes, grade and contained metal.

Capital Costs

Table 7 provides a more detailed break-down of all capital costs for the LOMP broken into the following categories:

Pre- Expansion Growth – This is primarily activity associated with improvement/repairs to the existing process plant, the camp expansion, new haul road and completion of study and design work associated with the Sulphide Expansion Project. This capital estimate is based on a proportion quotes, studies and estimates taken from the site capital forecast.

Project Initial Capital – The Sulphide Expansion Project activity including early works. The cost estimate has been prepared in accordance with AACE guidelines and meets Class 4 requirements.

LOMP Growth Capital – Installation of a new CIL circuit and allowance for a Pebble Crusher and Secondary sizer are included here as discussed above. The cost estimate has been prepared in accordance with AACE guidelines and meets Class 4 requirements.

LOMP Sustaining Capital – An allowance for ongoing capital to maintain plant and infrastructure reliability and performance. The bulk of the estimate is applied on a percentage of 3%pa spend on new process plant and infrastructure installed cost and 7%pa spend on the existing plant and infrastructure installed cost (reflecting the older age of that equipment and infrastructure). The mine-related component relates to the sequence of construction activity for the sulphide waste dumps.

An amount of US$75M has been included in the LOMP for closure costs at the end of processing life, noting that the current closure estimate for the Simberi oxide operation was US$49.4M as at 30 June 2024. Much of the disturbance footprint for the Sulphide Expansion Project overlaps with the existing disturbance footprint.

Table 7: LOMP Average Capital Costs

Area	Pre-Expansion Capital (US$M)	Project Initial Capital (US$M)	LOMP Growth (US$M)	LOMP Sustaining Capital (US$M)	Total Capital (US$M)
Mine	5	5		24	34
Process Plant	19	66	19	69	174
Infrastructure	15	57		38	110
EPCM		21	3		24
Construction Indirects		42	13		55
Owner's Costs	5	19	3		28
Buildings/Camp	3	2			5
Contingency		23	5		28
Total	**48**	**235**	**43**	**131**	**458**

Operating Costs

Operating costs have been developed based on the following sources and assumptions:

- Mine operating costs for the oxide operation were derived from the existing Company budget and forecast figures, which is in turn based on historical performance updated for changes including installation of the Sizer crusher and known mine fleet changes. Mining operating costs for the sulphide project were developed by AMC from first principles (with mine fleet lease payments included in operating costs to match cash outlays timing rather than shown in Sustaining Capital) and where applicable current operating costs.
- Processing operating costs have been developed by Pitch Black based on material costs, unit costs supplied by suppliers and data from existing operations where applicable (with assumption that power station continues to be owned and operated by the Company rather than contracted out); and
- G&A costs are based on current site G&A costs and corporate recharges.

Table 8: LOMP Average Operating Costs

Cost Centre	US$/t milled
Processing	33.5
Mining	15.9
G&A	8.2
Corporate G&A	1.0
Total Operating Cost	**58.6**

Risk Considerations

General Risks including PNG Sovereign Risk

Exploration, development and operation of gold operations is subject to numerous risks as outlined in detail in St Barbara's 2024 Annual Report (refer here) which we recommend investors reread. Development of the Simberi Expansion Project and achievement of the projections outlined in the LOMP in particular faces risks related to the political and economic uncertainties in Papua New Guinea (PNG).

The formulation and implementation of government policies in PNG may be unpredictable. In PNG there is political focus on potential future policy changes that could include changes to the existing Mining Act, including in relation to the structure and level of local equity participation in projects, royalty and taxation regimes, proposition of in-country precious metals refining, changes to banking and foreign exchange controls and changes in controls pertaining to the holding of cash and remittance of profits and capital to the parent company.

Any changes to the Mining Act will require close assessment; and the inclusion and clarity of any grandfathering provisions will be important to promote stability for existing PNG projects.

Final Investment Decision Timing and Overall Project Schedule Risks

As noted above, the FID was targeted for October 2025 in the Simberi Expansion Project Prefeasibility Study works. However, with the resolution of the amended income tax and withholding tax assessments extending into May and June the FID date is now anticipated to be late Q2 Dec FY26 or early Q3 Mar FY26. While the Company remains confident that its subsidiary has no tax payable in relation to the flawed assessments, development of funding proposals for the Simberi Expansion Project will be difficult while the amended tax assessments matter is not resolved.

The Company's objection is currently being reviewed by a separate team within the IRC and the Commissioner has not made a formal determination. The timeliness of the IRC review and the Commissioner's response is not stipulated by legislation but will be an important consideration of the Company in progressing the Simberi Expansion Project, particularly with respect to the nearer term schedule dates.

The Feasibility Study, the long lead time ball mill procurement, the associated detailed design of the new ball mill circuit, the work to finalise conditions on the CEPA environmental permit and the completion of construction of the camp expansion are proposed to continue. Other early works may however be deferred under this scenario, with overall schedule implications to be determined once clarity on timing of the resolution is achieved.

The Company's Mining Lease early renewal application is currently subject to Mining Advisory Council consideration. The Council will make a recommendation to the Mining Minister, who will then determine the outcome. This process is currently underway but a confirmed grant of renewal is required for investment and project timelines to continue at their current pace.

Negotiations with Kumul Mineral Holdings Limited are well progressed on the joint venture initiative.[1] FID is not subject to the Kumul joint venture agreements.

Concentrate Marketing and Transport Risks

The Company has relied on experienced consulting expertise to provide assessments of likely metal payables, transport charges and refining treatment charges for as well as shipping rates for the saleable concentrate estimated to be produced across the Simberi Expansion Project LOMP. The Simberi gold concentrate is expected to be attractive with the metallurgical testwork program indicating that high gold recoveries can be achieved with a marketable gold content averaging 19.3g/t Au with low levels of impurities. Nonetheless market conditions across refining (charges and payables) and transport can vary over time and regulations in destination countries can change from time to time and presents a risk to the Simberi LOMP projections.

Capital and Operating Cost Estimate Basis and Estimate Accuracy Risks

The combination of Pre-Expansion Growth Capital and Project Initial Capital are estimated to achieve the modifications required to convert to the production of a saleable gold concentrate from processing of sulphides (while retaining oxide CIL treatment capability), the installation of additional power generation and the construction of the new wharf. The cost

[1] Refer to ASX announcement dated 9 December 2024 titled *"Simberi Mining Lease Early Renewal Progress, Proposed Enhanced Royalties and Kumul Equity MOU"*

estimate is largely based on revised quotations with the exception of the new wharf for which the estimate is based on escalation of quotations received in previous work in 2022.

Similar projects being constructed on island environments have encountered uncertainties with capital costs due to lack of timely geotechnical information upon which to base construction cost estimates. The Plant Study has had the benefit of the knowledge of the existing plant site conditions and past geotechnical work. Nonetheless with tightening up of the design for the layout and the advancement with waste dump designs a substantial program of geotechnical drilling, test pitting and geophysics has been undertaken to inform the Feasibility Study but these results are not available for these Pre-Feasibility Study design and cost estimates and provisional sums have been estimated based on the prior work. While the detailed geotechnical analysis of the results are being analysed there remains a risk that the provisional sums used in these current estimates will be found inadequate.

Operating conditions can and have been impacted by disruptions to fuel supplies, equipment parts and consumables because of difficulties with availability of foreign currency for St Barbara's suppliers in Papua New Guinea. These may continue to cause disruptions over the period of the Simberi Expansion Project LOMP. Conversely, St Barbara has assumed an exchange ratio for the Papua New Guinea Kina to the US Dollar of approximately 3.9, despite declining trends, which may or may not prove to be correct over the period.

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Disclaimer

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Non-IFRS measures

The Company supplements its financial information reporting determined under International Financial Reporting Standards (IFRS) with certain non-IFRS financial measures, including Cash Operating Costs and All-In Sustaining Cost. We believe that these measures provide additional meaningful information to assist management, investors and analysts in understanding the financial results and assessing our prospects for future performance.

All-In Sustaining Cost (AISC) is based on Cash Operating Costs and adds items relevant to sustaining production. It includes some, but not all, of the components identified in World Gold Council's Guidance Note on Non-GAAP Metrics - All-In Sustaining Costs and All-In Costs (June 2013).

- AISC is calculated on gold production in the quarter.

For underground mines, amortisation of operating development is adjusted from "Total Cash Operating Costs" in order to avoid duplication with cash expended on operating development in the period contained within the "Mine & Operating Development" line item.

- Rehabilitation is calculated as the amortisation of the rehabilitation provision on a straight-line basis over the estimated life of mine.

Cash Operating Costs are calculated according to common mining industry practice using The Gold Institute (USA) Production Cost Standard (1999 revision).

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Ms. Jane Bateman who is a Fellow of the Australasian Institute of Mining and Metallurgy. Jane Bateman is a full-time employee of St Barbara Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Jane Bateman consents to the inclusion in the statement of the matters based on her information in the form and context in which it appears.

The information in this report that relates to Ore Reserves at Simberi Operations is based on information reviewed and compiled by Mr. Glen Williamson who is a Chartered Professional (Mining) and Fellow of the Australasian Institute of Mining and Metallurgy. Glen Williamson is a full-time employee of AMC Consultants Pty Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Glen Williamson consents to the inclusion in the statement of the matters based on his information in the form and context in which it appears.

Simberi Mineral Resource Estimate Summary

Geology and Geological Interpretation

Simberi Island represents an eroded, deeply dissected Pliocene strato-volcano. The island developed from multiple episodes of eruptive and effusive mafic to intermediate volcanism. Volcanic flows and intrusives range from basanite, alkali basalt, trachybasalt, trachyandesite, microsyenite, trachyte and feldspar porphyry. In places these units are overlain by a fining-up sequence of coarse grits, sandstone and mudstone. Bioclastic limestone platforms unconformably overlay the volcano-sedimentary sequence. A number of raised Pliocene to Pleistocene bioclastic limestone platforms flank the volcano and provide evidence of ongoing regional uplift.

Gold mineralisation at Simberi is associated with extension and basin formation (caldera collapse) after the cessation of volcanic activity. Mineralised normal faults are seen in all deposits, and an abundance of steep structures, steep fault lineations and normal fault offsets at Simberi are consistent with extensional tectonics.

The deposits comprise oxides and sulphides, reflecting the depth of weathering and degree of erosion. Significant oxides are predominantly present in the areas of highest topography, >150m RL. Oxides may persist to lower elevations on the larger faults, but in general, are absent in the lower ground. At Sorowar and Pigiput, the supergene oxides are well developed in the strongly argillic-altered breccia units, but the overlying agglomerate/tuffaceous sandstone is only weakly weathered. These upper units are only locally affected by the argillic-alteration, indicating deposition at a late stage in the extensional/mineralisation event. Weathering/supergene alteration is best developed in the strongly altered units.

Leapfrog software was used to generate a 0.25 g/t Au grade shell for resource estimation.

Drilling Techniques

Drilling has used primarily RC (3.75” to 4”) and diamond drilling, primarily PQ to approximately 200 to 250m down hole and thereafter HQ and NQ.

Sampling and sub-sampling techniques

The current sampling practices at Simberi are:

Diamond core is photographed before being sampled. Diamond drilling is sampled from PQ3 (85mm), HQ3 (61.1mm) and NQ3 (45mm) sized core using standard triple tubes. Half or quarter core is sampled on nominal 1 or 2 metre intervals with the lower or left-hand side of the core collected for sample preparation. For PQ diameter core a further cut is completed, whereby quarter core is submitted to provide a practical sample size. Diamond core sampling is carried out irrespective of geology, alteration or any other geological feature on the nearest metre at one and two metre intervals. Two metre intervals are used in zones of poor recovery to allow for adequate sample. All samples are cut using an Almonte automated core saw.

RC drilling is sampled at one metre intervals generated via the rigs cyclone splitter system by collection in calico bags. Regular inspections of the cyclone ensure it is level and free of loose material and blockages. The cyclone is cleaned at the addition of a new drill rod (every 6m). The drillhole spoil weighs approximately 20 kg and 2 kg samples are collected however sample recovery is not reported. When samples are wet, they are collected in a 20-litre bucket, the water decanted, and the sample transferred to calico bags. The one metre samples are then submitted for assay.

Sample Analysis Method

Current sample preparation and analytical processes are:

1. Oven drying in oven at >105° C with the fan on. After 8 hours the samples are checked to see if no dust adheres to a clean shiny tool e.g. a spatula, and a little dust is seen to rise when the material is agitated;

2. Samples >1 kg are crushed to <2 mm with a jaw crusher and then riffle split to achieve an 800 to 1200 gm split. If the samples are < 1kg, the samples are sent directly to the pulveriser;

3. Pulverise (Essa LM2 Pulveriser) for 5 minute and check coarseness with fingers. If gritty, pulverise for 1-2 minutes or until a suitable fine pulp is reached. In 2021, a test of grind quality was implemented to ensure 90% passing 75 microns; and

4. Transfer directly from pulverising bowl to pulp packet.

The sample is initially assayed for gold on site by Aqua Regia digest followed by an AAS instrument read. This process has a lower detection limit of 0.02 ppm Au. Pulps are subsequently sent to ALS in Townsville. The pulps weigh approximately 300g and are analysed using methods ME-ICP41 (Ag, As, Cu, Fe, Mo, Pb, S, Sb, Zn) and Fire Assay Fusion (FA-FUS03 & FA-FUS04). The gold detection limit is 0.01ppm. The detection limit for silver is 0.2ppm

Estimation Methodology

Ordinary Kriging with 2m composites was used to estimate Au. Inverse distance squared with 2m composites was used to estimate Ag.

Mineral Resource Classification

Model classification uses wireframes based on drill hole spacing. The following criteria are used to determine the limits of the wireframes:

- Measured up to approximately 20m spaced drilling
- Indicated up to approximately 60m
- Inferred > 60m

Cut-off Grades

The resource is reported at a gold cut-off of 0.4 g/t for oxide and 0.6 g/t for sulphide. The cut-off grade includes the following considerations:

- Gold price US$2000/oz;
- Oxide processing recovery – 73.7%;
- Sulphide processing recovery – 89.6%;
- Mining cost $4.05/t;
- Oxide Processing $22.6/t (inclusive of G&A and selling costs)
- Sulphide Processing $30.5/t (inclusive of G&A and selling costs)

The cut-off grade for silver is US$20/oz.

Metallurgy

Metallurgical performance through the oxide plant is variable based on the different weathering profile of the ore with gold recovery relationships developed for oxide and transitional ore. To better understand this relationship Simberi has worked with Stratum AI (A Canadian-based AI company) to develop an AI-based approach to better classify oxidised or partially oxidised material as either CIL treatable (suitable for the current oxide circuit) or Float circuit treatable (better suited to flotation to generate a gold concentrate for sale). This approach which looks at indicators of the degree of oxidation has been validated through it's active use in the site grade control process since December 2023 and has been used to classify material type for this Mineral Resource and Ore Reserve estimate.
Partially oxidised material classed as better suited to flotation is included along with fresh (unweathered) ore referred to as Sulphide ore. As indicated in the feasibility and FEED studies undertaken by St Barbara, this material would be treated following a plant expansion which would include the installation of a float circuit to generate a saleable gold concentrate.

Modifying Factors

No modifying factors have been applied to Mineral Resources.

Simberi Ore Reserve Estimate Summary

Studies

Simberi is an operating mine and has been in operation in its current form since 2013. All infrastructure required for oxide mining is in place.

The oxide Ore Reserve estimate is based on a combination of actual and budget forecast performance and cost data, laboratory test work and metallurgical assessment for recoveries.

The sulphide Ore Reserve estimate is based on expansion of the process plant to include the installation of a flotation circuit to generate a saleable gold concentrate for these Sulphide ores. The sulphide Ore Reserve estimate disclosed in this announcement is underpinned by the updated operating and capital cost estimates from the AACE Class 4 Plant Study prepared by Pitch Black. Metallurgical Recoveries have been updated by Paradocs Metallurgy using testwork results from the recent metallurgical testwork program undertaken over the past year at Base Met labs in Canada.

The recent work builds upon the previous Front End Engineering and Design (FEED) Study undertaken by St Barbara in 2022 which followed a Feasibility Study completed in 2021 both of which were based on the same approach of adding flotation to the process plant generate a gold concentrate from the Sulphide ores for sale.

Classification Criteria

The basis for the classification was the Mineral Resources classification and Net Value cut-off grade.

The ex-pit material classified as Measured and Indicated Mineral Resources, has a cut-off value calculated using a Net Value Script (NVS). If it is demonstrated to be economic to process and is classified as Proved and Probable Ore Reserves respectively.

Existing stockpile material is classified as Proved Ore Reserves.

The Ore Reserves do not include any Inferred Mineral Resources.

No portion of the Probable Ore Reserve has been derived from Inferred Mineral Resources.

Mining method and assumptions

For the estimation of Ore Reserves the following activities were undertaken : dilution modelling, pit optimization, detailed final and stage pit designs, waste dump and haul design, mine and process scheduling and economic evaluation on a LOM plan.

Simberi mine is an open pit operation that is currently mining and processing oxide gold ore. The operation uses a fleet of excavators and articulated dump trucks along with a fleet of ancillary equipment. This mining method is appropriate for the style and size of the mineralisation.

Geotechnical parameters were derived from a report by a specialist geotechnical consultant. Pit slopes used for pit optimization varied by deposit and depth from 33°at shallow depths in oxide to 41°at depth in fresh rock. Batter angles for pit designs varied from 45° to 60°, with 7-10 m berms and 15 m batter heights.

Pit designs used were based on those developed for the June 2024 Ore Reserve. Confirmatory pit optimization using a mining model derived from the 2024 resource model, and a revenue factor 1 pit shell verified that pit designs from the June 2024 Ore Reserve could be used as the basis of the mining inventory for the January 2025 Ore Reserve.

Mining dilution was modelled using a 1.0 m dilution skin and a marginal cut-off grade. Sulphide material took priority over oxide material on the basis that there are no recovery penalties for oxide material processed in the sulphide circuit. Average dilution was 13% of tonnes and 4% of metal and average ore loss was 7% of tonnes and 5% of metal on a global scale.

Final and staged pit designs incorporated a minimum mining width of 30 m, although in some areas of Sorowar this was reduced to 25 m.

Inferred Mineral Resource blocks were treated as waste in the dilution study, pit optimization, mine scheduling and economic assessment.

All infrastructure required for oxide mining is in place, however, additional investment in the processing plant (including larger ball mill, flotation cells and concentrate handling) will be required to enable processing of the sulphide ore.

Processing method and assumptions

Oxide ore is transported via the ARC or trucked for processing through the existing parallel comminution circuit to a conventional carbon-in-leach (CIL) circuit with an Anglo-American Research Laboratories (AARL) elution circuit, and gold recovery facilities. Tailings are stored via deep sea tailings placement (DSTP).

Sulphide ore will be trucked for processing through a new sulphide plant with conventional flotation cells producing a gold concentrate, with flotation tails leached in the CIL circuit to produce gold doré via the existing AARL circuit.

All processing components are well tested technology, and the Competent Person considers the process suited to the mineralisation.

Metallurgical recovery through the oxide plant is variable by deposit and amount of weathering. St Barbara have worked with Stratum AI to develop AI-based algorithms which are used to determine whether oxidised or partially oxidised ores are best suited to be fed through the current CIL plant or stockpiled for later treatment along with Sulphide ores. Average gold recovery for the oxide and transition ore across the Simberi deposits is 76%, estimated using an ordinary kriged sulphur grade.

Metallurgical recovery by deposit through the sulphide plant has been developed through a geometallurgical variability testwork programme.

The amount of test work is considered appropriate and domaining has been based on identifying weathered, transitional and fresh mineralisation from logging data. Average recovery for the sulphide ore across the Simberi deposits is 89%.

Iron and Sulphur values are included in the resource model and metallurgical recovery equations.

The existing oxide operation allows access to oxide, transition and fresh ore for testwork and analysis.

Simberi ore is not defined by a specification, although sulphide concentrate value will be determined by meeting a gold grade specification, which is accounted for in calculations.

Cut-off Grades

Breakeven cut-off grades (COG) were calculated at a short-term gold price for oxide and transitional plant feed of US$1,800/oz and and a longer-term gold price of US$1,700/oz for sulphide feed. COG estimates are based on a net value script calculation that includes recoveries, gold price, payability; royalty, selling costs, operating costs associated with current oxide and projected sulphide operations. Economically positive blocks are considered for inclusion in the Ore Reserve.

Estimation methodology

The 2024 Simberi Ore Reserves have been prepared for both the Oxide (CIL inventory) and Sulphide (Flotation) material types. The Oxide Ore Reserves are based on a combination of actual historical performance and cost data, laboratory test work and

metallurgical development and the Sulphide Ore Reserve is based on the Class 4 AACE Plant Study and updated Metallurgical recovery equations from the recently completed metallurgical testwork program undertaken at Base Met Labs in Canada.

Pit designs used were based on those developed for the June 2024 Ore Reserve. Confirmatory pit optimization using a mining model derived from the 2024 resource model, and a revenue factor 1 pit shell verified that pit designs from the June 2024 Ore Reserve could be used as the basis of the mining inventory for the January 2025 Ore Reserve. Life of mine scheduling and economic modelling were completed as part of the 2025 Simberi Ore Reserve estimation process using the updated costs and modifying factors. Pit optimisations were undertaken using Gemcom's Whittle Optimisation software and scheduling was completed using Minemax Scheduler™ software.

Approvals and Infrastructure

St Barbara holds two environmental permits. One for the extraction of water and one to carry out works and the discharge of waste, of which the latter was amended in June 2022 to include Sulphide Mining activities. Together these two permits form the environmental legislative basis in which SGCL can operate. Compliance with these conditions is continuously monitored and reported on in Quarterly Environment Performance Reports which are submitted to the National Government Department of Conservation Environment and Protection Authority (CEPA).

In addition, St Barbara maintains an Environment Permit for Exploration relating to Waste Discharge. This Permit is referred to as Environment Permit WDL-2A(65).

All equipment required for the mining and processing of the oxide Ore Reserve is in place and operational.

For the processing of Sulphide ores, the FS identified the following additional infrastructure, that will be located on St Barbara held tenements and leases. The infrastructure includes but is not limited to:

- Additional light fuel oil diesel generators
- Additional Water supply
- Sulphide Processing Plant
- Additional haulage network
- Expansion of accommodation and camp facilities
- New wharf to accommodate concentrate shipment to market.

JORC Table 1 Checklist of Assessment and Reporting Criteria
Section 1 Sampling Techniques and Data – Simberi

Criteria	Comments
Sampling Techniques	• Chips from reverse circulation (RC) drilling and half-core from diamond holes (DH) have been used to sample the Simberi deposits. • Drilling by Kennecott occurred between 1984 and 1989. Subsequent drilling by Nord was carried out between 1995 and 1998. Allied drilled from 2004 to 2012. From September 2012 St Barbara have owned and operated the Simberi project. • During the early part of the Kennecott percussive drilling program (up to approximately RC320, February-May 1989), each 1 m sample was collected from a cyclone in a calico bag. The sample was dried, and jaw crushed to less than 7 mm and a 1.5 kg riffle split sub-sample dispatched for assay. The Kennecott 1m diamond drill core samples were cut in half using a diamond saw, dried, jaw crushed, and hammer milled to -30 mesh. A 200-250 g sub-sample was pulverised to -80 µm mesh before submitting to the laboratory. • Nord sampled percussive and diamond holes every 1 m. RC samples were collected in polyweave bags direct from a cyclone. Approximately 100 g of every RC sample were washed, dried, and retained for reference. RC samples were hammer milled at a Nord sample preparation facility, located on Simberi Island, to approximately -30 mesh. The sample preparation facility was supervised by contract personnel from Astrolabe Pty Ltd, an analytical laboratory in Madang. A 1 kg sub-sample was riffle split for assay dispatch and the remainder stored. Nord diamond core was photographed, logged, and cut in half using a diamond saw. One half was dried, jaw-crushed, hammer milled and reduced to a 1 kg sub-sample using a riffle splitter. The sub-samples were dispatched to Astrolabe (Madang, PNG) for final preparation and assay up until September 1996. • Allied RC samples were collected at 1 m intervals then dried. Each sample was jaw-crushed, hammer milled to -80 mesh and reduced to two approximate 1 kg sub-samples using a riffle splitter. One 1 kg sample was hammer milled to -30 mesh and the other 'reject' split was archived on site for a minimum of 3 months after assays were returned. The 1 kg crushed samples were dispatched to ALS. In mid-2008, a new core shed, and sample preparation facility was constructed with upgraded security and new sample processing equipment. This allowed a change to the RC sampling and preparation procedures. Samples from the cyclone were collected in large polyweave bags and weighed. Sub-samples were placed in calico bags. For dry/damp samples a riffle splitter was used to produce approximately 500 g for processing and approximately 500 g for 'reject' or archive. Spear sampling was conducted on wet samples to obtain two 800 g sub-samples, one for archive and one for processing. Sub-samples were sent to sample preparation for drying in electric ovens. Before mid-2008, Allied diamond core samples were processed in a similar way to the RC samples. Core was sampled on 1 m intervals, cut in half using diamond saws and dried. One half of each sample was stored on site in the secured core shed, the other half was crushed with a jaw crusher and split to two approximately 1 kg samples. One was hammer milled to -30 mesh and the 'reject' sample archived for a minimum of 3 months after assays were returned. The 1 kg samples were dispatched to ALS Townsville for fire assay. • St Barbara Diamond Drilling comprised HQ3, PQ3 or NQ3 sized core collected using standard triple tubes. Half core was sampled on nominal 1 metre intervals with the lower or left - hand side of the core for assay and is cut by an Almonte automated coresaw for sample preparation. • Half core samples were fully prepared at the company's on-site sample preparation facility on Simberi Island with 200 g pulps sent to ALS Laboratory in Townsville for further analysis. Pulp residues are stored in Townsville for six months following assay before disposal. • St Barbara RC drilling comprised 3 ½ inch diameter drill string with 114 mm hammer drill bit size. Sample is collected via a linatex lined, variable height fixed cone splitter with three outlets. One metre samples are collected in both plastic green bags and a split sample for assay to a calico bag. Duplicate samples are collected from the third outlet of the cyclone splitter.
Drilling Techniques	• From 1984 to 1990 drilling was carried out by Kennecott, comprising 447 (43,727 m) RC drill holes (3.75 - 4 inch), 73 (15,970 m) diamond drill holes and 11 (153 m) diamond holes drilled for metallurgical purposes. Most diamond holes were drilled PQ to depths of up to 200-250 m and HQ thereafter. • From 1994 to 1998 Nord completed a further 432 (26,241 m) RC holes and 35 (6,415 m) diamond holes. Many of these diamond holes were triple-tubed for metallurgical sampling and test-work. • Allied drilled 816 RC (62,003 m) holes and 219 (42,098 m) diamond holes after 2003. All diamond drill hole core has been photographed. • Downhole surveys were restricted to only some of the early Kennecott and Nord diamond drill holes and the bulk of the later Allied diamond drilling. Most of the RC drilling was shallow, averaging less than 100m, and errors due to hole deviation will be minimal. • St Barbara Limited (SBM, 2014-2018) completed diamond holes using a track mounted Cortech CSD1300G drill rig. RC drilling was completed using a track mounted Gemrok 1000H MP, along with a track mounted Schramm 650 rig. Both RC machines used sample splitting systems to deliver a representative sample of a size which made sample preparation and assaying productive. • In March 2018, SBM commenced a major RC drilling program to test the down dip extensions of the Sorowar orebodies. Holes were generally drilled on an azimuth of 30 degrees to the mine grid, with a dip of -60 degrees and a total depth of 250 m. The campaign used three drills supplied by Quest Exploration Drilling (QED) running a mixture of 4.5 inch and 5.25-inch RC hammers, a Schramm 685WS (500 psi/1350 cfm onboard compressor), a DML 45 (350 psi/500 cfm onboard compressor) and a UDR 1200 (no onboard compressor). All drills required additional air at high pressure to achieve the required depths. This was provided by a number of independent compressor and booster units, including a Sullair 900 20/12 (500 psi/1150 cfm), an Atlas Copco 487 (350 psi/900 cfm), an Atlas Copco XVRS (450 psi/1000 cfm), Hydro Booster AV92 (350 psi/720 cfm) and a Hurricane Booster Copco (350psi/500cfm). Drilling has proved challenging, with broken ground and high-water inflows occurring in certain areas of the Sorowar pit. This led to the loss of one rod

	string, and considerable time spent retrieving at least three others during the program. • Post 2018 St Barbara Diamond drilling comprised HQ3 (61.1 mm) core recovered using 1.5 m barrel. Drilling was completed by Quest Exploration Drilling (QED). When ground conditions permit, an ACT Digital Core Orientation Instrument was used by the contractor to orientate the core. • Post 2018 St Barbara RC drilling was completed by a KL150 RC drill rig using 3 ½ inch diameter drill string and 114 mm hammer drill bit size. Drilling was completed by Quest Exploration Drilling (QED).
Drill Sample Recovery	• Diamond drilling recovery percentages are measured by comparing actual metres recovered per drill run versus metres recorded on the core blocks. Recoveries average >90 % with increased core loss present in fault zones and zones of strong weathering/alteration. • RC samples are generated via the rigs cyclone splitter system and collected in calico bags. Regular inspections of the cyclone ensure it is level and free from loose material and blockages. The cyclone is cleaned at the addition of a new rod (every 6 m). When samples are wet they are collected in a 20 litre bucket, the water is decanted and the sample transferred to the calico bag.
Logging	• Diamond and RC holes are qualitatively geologically logged for lithology, structure and alteration and qualitatively and quantitatively logged for veining and sulphide mineralogy. Diamond holes are geotechnically logged with the following attributes qualitatively recorded - strength, infill material, weathering, and shape. Whole core and half core photography is completed on wet core. • All holes are logged in their entirety and data recorded in templated excel workbook for installation in the companies secure SQL database.
Sub-sampling techniques and sample preparation	• During the Kennecott percussive drilling program (up to approximately RC320, February-May 1989), the jaw-crushed sample was split to 250 g, disc pulverised to -80 µm mesh, further split to a 50 g aliquot and finely pulverised for assay. Lack of correlation between duplicate and original sample assays led Kennecott to revise the sample preparation procedure. Subsequently (up to RC447, 1992) a 250 g split (-80 mesh) was sent to the laboratory. At the laboratory a 50g aliquot was taken for pulverising and assay. A similar sized aliquot from the 200-250 g sub-samples (-80 mesh) from the Kennecott diamond core samples was fire assayed. • Every Nord 1m RC sample was hammer milled to approximately -30 mesh and a 5 g aliquot finely pulverised and fire assayed. Nord diamond core sub-samples were dispatched to Astrolabe (Madang, PNG) for final preparation and assay up until September 1996. At the laboratory the 1 kg sub-samples were dried, pulverised and a 50 g sub-sample was fire assayed for gold using an atomic absorption spectrometer (AAS) finish. After September 1996, the samples were dispatched to Australian Laboratory Services (ALS) in Townsville, Queensland, for preparation and assay using the same method. • The 1 kg (-30 mesh) sub-samples from the Allied RC drilling were dispatched to ALS and finely pulverised. A 50 g sub-sample was fire assayed and the remainder stored at their facility in Garbutt, Queensland. The Simberi processing equipment was flushed with glass before each hole was processed. After the new core shed and sample preparation facility was constructed (2008) spear sampling was conducted on wet samples to obtain two 800 g sub-samples, one for archive and one for processing. Dried RC samples of up to 600 g were milled in an LM2 to obtain a 90 % pass through 75 microns for dispatch to the laboratory. The laboratory procedures on Simberi Island were reviewed by ALS Chemex in October 2004 and found to be satisfactory. • Before mid-2008, Allied drill core samples were processed in a similar way to the RC samples. 1 kg from the half-core sample was hammer milled to -30 mesh and the 'reject' sample archived for a minimum of 3 months after assays were returned. The processing equipment was flushed with glass before each hole was processed. The 1 kg samples were dispatched to ALS Townsville for pulverising and a 50 g sub-sample was fire assayed. • All diamond drill core associated with St Barbara work program was half cut with the lower or left-hand side submitted for assay. • RC samples are generated via the rigs cyclone splitter system and collected in calico bags. Regular inspections of the cyclone ensure it is level and free from loose material and blockages. The cyclone is cleaned at the addition of a new rod (every 6 m). When samples are wet they are collected in a 20 litre bucket, the water is decanted and the sample transferred to the calico bag. • All exploration drill samples are prepared at the company's on-site sample preparation facility. Preparation involves drying, jaw crush to 70 % passing -6 mm and pulverise in LM2 to a minimum 85 % passing -75 um. • Quality control of sub-sampling consisted of insertion of (non-certified) blank control samples at a ratio of 1:35 and coarse reject duplicates at a ratio of 1:20. • Selected 200 g pulp samples are then sent to ALS Laboratory in Townsville for assay. Pulp residues are stored in Townsville for six months following assay. • No studies exist to determine if the sample sizes are appropriate for the grainsize being sampled. Sample sizes are however similar to other gold deposits.
Quality of assay data and laboratory tests	• Kennecott evaluated the results of a re-assay program in 1992 dividing the data into oxide, transitional and sulphide as well as grade classes. As a result, the following corrections were made to the Au assay data: oxide -6.1%, transition -10.3% and sulphide -9.2%. These corrections were not used for SBM estimates. • Duplicate sampling by Nord concluded that the majority of the duplicate pairs agreed well. Nord's internal standard samples were reported as having acceptable agreement. • Allied's sample preparation and analytical control procedures included the use of blanks to monitor contamination, duplicates to test splitting and milling efficiency and standards to monitor analytical accuracy and precision. Gold assays for 288 standards showed precision well within two standard deviations. Gold assays for 574 duplicates, representing 4.2% of the (Allied) samples assayed show good agreement with a correlation coefficient of 0.994. In addition, Au assays for 570 samples submitted to a second laboratory also showed good agreement, with a correlation coefficient of 0.996. Between drill holes, sample preparation equipment was cleaned with crushed glass and compressed air. Between samples the same equipment was cleaned with compressed air and a brush. Due to the poor initial selection of blank material, the blanks analysis data could not be used to accurately determine the degree of contamination. Allied conducted Round

	Robin inter-laboratory checks in 2009 and 2010 with satisfactory results. • All diamond and RC drill hole pulp samples associated with the St Barbara exploration are first assayed at the on-site laboratory (EXLab). Preliminary gold analyses is complete using Aqua Regia digestion with a 25 g charge read by Atomic Absorption Spectrometry (AAS). • Selected pulp samples are then on-sent to ALS Townsville for final analyses. Pulps are analysed for Au via 50 g Fire Assay Atomic Absorption Spectroscopy (AAS) finish (Au-AA26 method) and multi-element (Ag, As, Ca, Cu, Mo, Pb, S, Sb, Zn) by Aqua Regia digest followed by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) instrument read (ME-ICP41S method). • Dependent on the stage of exploration and other material data, selected exploration samples are assayed for full low level multi-element analysis (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr) via 25 g four acid digest and Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) via (ME-MS61method). • QC included insertion of certified reference material at a ratio of 1 in 20; insertion of in-house blank control material (1 in 35); and the EXLab insertion of coarse reject residues (1 in 35). QAQC results were assessed as each laboratory batch was received and again on a quarterly basis. Results indicate that pulveriser bowls were adequately cleaned between samples. • ALS Townsville inserted certified standards, replicates, lab repeats and complete sizing checks (1:40). • QC included insertion of certified reference material (1:20); insertion of in-house blank control material (2 at the start of each job); and the insertion of field duplicates (1:20). QAQC results were assessed as each laboratory batch was received and again at resource estimation cycles. • Over the duration of the quarter St Barbara inserted OREAS standards 252b and 254b as matched to material type and grade approximation.
Verification of sampling and assay	• There are 12 diamond holes versus RC twin drill holes. Also present are 5,385 RC versus diamond sample pairs that are located within 10 m or less that may or may not have been intentionally drilled as twin holes. For example, holes that cross close to each other or grade control RC holes next to exploration diamond drill holes. • Based on a detailed analysis of the above information and the underlying geology it is possible that gold grades in some of the older RC drilling is biased high. This may be due to difficult drilling conditions (faults, high porosity etc), down hole moisture and insufficient air pressure during RC drilling resulting sample loss and/or contamination. Much higher pressures are now used in RC drilling and operators are more experienced with the ground conditions at Simberi. Reconciliation exists from 2017 onwards and there is no evidence of a bias in the current RC drilling.
Location of data points	• All drill collars were surveyed using traditional EDM instruments based on UTM WGS 84. An audit by McMullen Nolan and Partners Surveyors Ltd in 2005, using two dual frequency GPS units, determined that the Simberi survey had very high accuracy. Since 2007, an additional QC step was introduced to record all collars with a GPS to cross check the surveyed coordinates. • St Barbara mine survey team survey drill collars. No down hole surveys were completed on the RC holes. There are 246 RC holes of depths greater than or equal to 200m. Diamond holes were surveyed down hole every 15 metres using a single shot camera.
Data spacing and distribution	• The RC grade control data is nominally on a 10m x 10m grid with most hole depths being either vertical 30m or 60m drilled at -60 degrees. Resource drilling collar locations tends to be irregular with topography controlling access. • For resource estimation diamond, RC and RC grade control data are used. however, below the pit shells, drill spacing is highly variable and this is considered during resource classification.
Orientation of data in relation to geological structure	• Gold mineralisation does not appear to be closely associated with any particular lithology although the contacts between lithologies can at times be a favourable host to gold mineralisation. It is recognised that the gold mineralisation is controlled by NW–SE and NE–SW steeply dipping structures and the intersection of these also has the potential to host mineralisation. Gold mineralisation is generally associated with sulphides or iron oxides occurring within all variety of hydraulic fractures, and broad disseminations in the naturally porous volcaniclastic rocks. The mix of vertical and inclined drilling goes some way to optimally intersect these mineralisation styles.
Sample security	• Company personnel or approved contractors only were allowed on drill sites. Drill samples were removed from drill sites only to a secure sampling or core logging/processing facility. Logged and cut core was consigned and dispatched as secure cargo to accredited laboratories for processing.
Audits or reviews	• In 2004, Golder Associates prepared an Independent Qualified Person's Technical Report of the Simberi Oxide Gold Project and in June 2011 Golders produced the Competent Person's Report for the Simberi Gold Project, which found no compromising factors deleterious to the resource. • In 2015, QG completed a review of the Simberi grade control which highlighted a potential bias between RC and diamond drilling. The results of a follow up study are discussed in the section above on verification of sampling and assaying. • No recent audits or reviews of sampling protocols have been completed

Section 2 Reporting of Exploration Results – Simberi

Criteria	Comments
Mineral Tenement and Land Tenure Status	• The reported resource is completely located within ML 136 which is leased until 2 December 2028 by the Simberi Gold Company Limited (SGCL).
Exploration Done by Other Parties	• CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.
Geology	• Simberi Island represents an eroded, deeply dissected Pliocene strato-volcano. The island developed from multiple episodes of eruptive and effusive mafic to intermediate volcanism. Volcanic flows and intrusives range from basanite, alkali basalt, trachybasalt, trachyandesite, microsyenite, trachyte and feldspar porphyry. In places these units are overlain by a fining-up sequence of coarse grits, sandstone and mudstone. Bioclastic limestone platforms unconformably overlay the volcano-sedimentary sequence. A number of raised Pliocene to Pleistocene bioclastic limestone platforms flank the volcano and provide evidence of ongoing regional uplift. • Gold mineralisation at Simberi is associated with extension and basin formation (caldera collapse) after the cessation of volcanic activity. Mineralised normal faults are seen in all deposits, and an abundance of steep structures, steep fault lineations and normal fault offsets at Simberi are consistent with extensional tectonics. • The deposits comprise oxides and sulphides, reflecting the depth of weathering and degree of erosion. Significant oxides are predominantly present in the areas of highest topography, >150m RL. Oxides may persist to lower elevations on the larger faults, but in general, are absent in the lower ground. At Sorowar and Pigiput, the supergene oxides are well developed in the strongly argillic-altered breccia units, but the overlying agglomerate/tuffaceous sandstone is only weakly weathered. These upper units are only locally affected by the argillic-alteration, indicating deposition at a late stage in the extensional/mineralisation event. Weathering/supergene alteration is best developed in the strongly altered units.
Drill Hole Information	• No new exploration or resource definition drilling is included in this release that has not been reported in previous ASX releases • In excess of 3,200 RC grade control holes completed since the previous MRE have been used to update material type models for this release. The GC drilling does not extend outside of the extent of resource definition drilling and does not materially impact the global estimate of Mineral Resources. As these holes are not considered material, a listing of collar details is not provided
Data Aggregation Methods	• The approach used to summarise the reporting of exploration results is not relevant to this release as no new exploration drill hole results are presented
Relationship Between Mineralisation Widths and Intercept Lengths	• This release does not report exploration drill hole intercepts. • Simberi lodes display high variability in orientation and complex geometries due to the interplay of veining, brecciation intensity, host lithology and oxidation fronts. Resource definition drilling is planned to intersect mineralisation as close to perpendicular as possible based on the broad geometry of individual deposits
Diagrams	• This release does not report any new exploration drill hole intercepts or a significant new discovery • Representative maps and sections have been included in prior ASX releases
Balanced Reporting	• This release does not report any new exploration results • Previous ASX releases have reported details of all holes material to exploration results
Other Substantive Exploration Data	• Metallurgical test work that has been in progress testing sulphide ore since February 2024 at Base Metal Laboratories in Canada is complete. • The program results are consistent with previous ASX releases and show that the Saleable Concentrate Flowsheet is the preferred flowsheet for sulphide ore
Further Work	• Future work will focus on testing extensions of mineralisation at Sorowar, Botlu and Samat.

Section 3 Estimation and Reporting of Mineral Resources – Simberi

Criteria	Comments
Database integrity	• Drilling in 2004 and 2005 by Allied Gold was subject to significant external review. Golder Associates visited the site in April 2004 and reviewed data collection procedures. • In early 2009, the historic exploration data was transferred into a Maxwell's Datashed model and subjected to QAQC, which traps and reports errors on import. Exploration data is now entered directly into the Datashed SQL database. • Grade control data is entered into a Datamine Fusion database. This database was validated by the site Mine Geology team in 2023
Site visits	• The Competent Person most recently visited site in February 2025 and reviewed open pit mining and grade control practices and toured the sample preparation and laboratory.
Geological interpretation	• Gold does have lithological and structural controls, but these controls are complex and cannot be easily used to generate domains for resource estimation. Leapfrog software was used to generate a 0.25 g/t Au grade shell for resource estimation. A grade shell is needed to avoid smearing grades between mineralized and essentially unmineralized areas. This grade shell is sufficiently below the resource reporting cut-offs to not introduce any significant conditional bias during resource estimation. • Locally the orientation, degree of anisotropy and extrapolation of the 0.25 g/t Au grade shell tends to be somewhat subjective however, the current grade shell is considered appropriate by the Competent Person. Further improvements could be made by incorporating additional local geological controls into the interpretation • Oxidation domains are modelled using artificial intelligence techniques , developed by Stratum AI. This approach has been utilised and tested in Grade Control models and has shown to reconcile better when compared to other approaches
Dimensions	• The northernmost deposit is Sorowar, its bulk is aligned SE-NW (1,550 m) with minor (structurally controlled) orthogonal splays towards the southwest and northeast. These splays are less than 750 m long and 300 m wide. • Pigibo is oriented W-E for approximately 740 m with a central bulge about 300 m wide and tapering to about 100 m at the western and eastern extremities. It is located about 1,500 m to the southwest of the central part of Sorowar. • Pigiput is east of Pigibo and about 1000 m south of Sorowar. It is roughly equidimensional (640 m diameter) in plan. • Munun Creek is between Pigiput and Sorowar however, there is now enough drilling to define continuous mineralisation between Pigiput and Sorowar. • Botlu is about 800 m south of Pigibo. It strikes SE-NW for approximately 680 m with an average width of around 250 m. About 700 m to the SE of Botlu is the discontinuous Pigicow deposit which strikes SW-NE for nearly 600 m with a variable width (200-450 m). • Samat is located about 700 m to the southeast of Pigicow and is aligned north-south for approximately 720 m with an average width of 300 m. Like Pigicow, Bekou is discontinuous and oriented towards the east-northeast with a strike length of around 600 m. Located about 650 m to the southwest of Samat, its width varies from 40 m to 170 m.
Estimation and modelling techniques	• Gold was estimated within and without a 0.25 ppm Au shell. • For the generation of a 0.25 g/t Au grade shell and the oxide domains all available data is used i.e., diamond, RC, auger, and blast hole. The drillholes were composited downhole to 2m and numerous orientation ellipses when creating the wireframe. • For resource estimation diamond, RC and RC grade control data are used. The RC grade control data is nominally on a 10m x 10m grid however, below the pits drill spacing is variable • Ordinary Kriging with 2m composites was used to estimate Au using Isatis.Neo software with the following parameters: • Discretisation of 5 x 5 x 3; • Local search and variogram rotation defined by dip and dip direction interpolated for Leapfrog orientation disks; • Search ellipse dimensions of 350m x 350m x 150m (Bekou), 600m x 600m x 200m (Botlu), 450m x 450m x 250m (Pigibo), 600m x 600m x 100m (Pigicow), 800m x 800m x 200m (Pigiput and Samat) and 800m x 800m x 600m (Sorowar). • No sector search with a maximum of between 20 to 24 composites; • Select all composites within the block; • Minimum of 8 composites • Top cuts were assessed for each area within the 0.25 g/t Au grade shell as well as a single domain outside the 0.25 g/t Au grade shell. Top cuts were assessed by way of: • Univariate statistics; • Histograms; • Cumulative probability plots; • Mean Au versus cut-off; • Standard deviation versus cut-off; • Coefficient of variation versus cut-off; • Metal loss versus cut-off; and • Visual plots showing the location of the capped composites. • The top cuts ranged from 13 g/t Au to 70 g/t Au with metal loss less than 1.8%. • Orientation disks were placed throughout the Simberi deposit using geology, structure, and gold grade continuity to define each disks rotation. These disks were used to guide the local orientation of the 0.25

Criteria	Comments
	ppm Au grade shell discussed above. The orientations from these disks were also used during kriging. Firstly, the orientations were interpolated into every block in the mineralized domains using nearest neighbour interpolation. During estimation the search ellipse and variogram were rotated according to the orientation stored in each block being estimated. • The Au estimate was validated using an inverse distance squared check estimate as well as comparison against the raw and declustered composites. The model was also validated using swath plots and visual comparison between composited and the kriged grades. • Silver was estimated within and without a 0.25ppm Au shell using inverse distance weighting (squared) • Search ellipse dimensions for silver where 1000m x 1000m x 1000m with a maximum of 28 samples • Iron and sulphur were co-kriged using 2m composites constrained by material type • Search ellipse dimensions were 350m*350m*110m with a maximum of 20 samples
Moisture	• Tonnages are estimated on a dry basis.
Cut-off parameters	• The resource is reported at a gold cut-off of 0.4 g/t for oxide and 0.6 g/t for sulphide at a US$2,000/oz gold price. The cut-off grade includes the following considerations: • Gold price US$2000/oz; • Silver price US$20/oz • Oxide processing recovery – 73.7%; • Sulphide processing recovery – 89.6%; • Mining cost $4.05/t; • Oxide Processing $22.6.t (including G&A and selling costs) • Sulphide Processing $30.5/t (including G&A and selling costs)
Mining factors or assumptions	• The mining method for all deposits is open pit, using 5 m flitches and 20 m benches • Ore blocks are generated within the site's Datamine Ore Controller software with a base SMU of 5 m x 5 m x 5 m. The optimal blocks are modified by the mine geologists to achieve a practical ore mark out, which is then located on the ground via differential GPS. • Ore mark out widths vary from 5 m to 60 m, the average being in the 30 m to 40 m range. • All material within the ore marked-out blocks, regardless of oxidation state, is delivered to ROM stockpiles, either at the Sorowar Feeder, for the rope conveyor, or to the Mill. The 500 tph rope conveyor from the Sorowar Feeder to the Mill ROM pad is an integral part of the mining process flow at Simberi, as is the downhill trucking that deliver additional 700 kt to 1 Mt per annum to the Mill ROM.
Metallurgical factors or assumptions	• Metallurgical performance through the oxide plant is variable based on the different weathering profile of the ore with gold recovery relationships developed for oxide and transitional ore. To better understand this relationship Simberi has worked with Stratum AI to develop an AI-based approach to better classify oxidised or partially oxidised material as either CIL treatable (suitable for the current oxide circuit) or Float circuit treatable (better suited to flotation to generate a gold concentrate for sale). • Sulphide ore is refractory and cannot be treated economically through a standard CIL plant. Testing has indicated the flotation of the sulphides containing the gold can be successfully undertaken to produce a gold rich sulphide concentrate.
Environmental factors or assumptions	• SGCL holds two environmental permits. One for the extraction of water and one for the carry out works and the discharge of waste, of which the latter was amended in June 2022 to include Sulphide Mining activities. Together these two permits form the environmental legislative basis in which SGCL can operate. Compliance with these conditions is continuously monitored and reported on in Quarterly Environment Performance Reports which are submitted to the National Government Department of Conservation Environment and Protection Authority (CEPA). • In addition, SGCL maintains an Environment Permit for Exploration relating to Waste Discharge. This Permit is referred to as Environment Permit WDL-2A(65).
Bulk density	• The dry bulk densities were determined using the water immersion method. Only intact pieces of core can be measured by this approach and in extremely broken ground there is potential for a bias to be introduced. Core is wrapped in cling wrap before weighing in water. This approach can be unreliable due to either entrapped air bubbles or water leaking into the sample. • Average density was applied to blocks based on the proportion of oxide, transitional and sulphide material.
Classification	• Model classification uses wireframes based on drill hole spacing. The following criteria are used to determine the limits of the wireframes: • Measured up to approximately 20m spaced drilling • Indicated up to approximately 60m • Inferred > 60m
Audits or reviews	• In June 2011, Golders produced the Competent Person's Report for the Simberi Gold Project, which found no compromising factors deleterious to the resource. The Sorowar and Pigiput/Pigibo Mineral Resource Estimate were reviewed internally in 2014 by a panel of experienced company geologists. The review covered all aspects of the estimate including source data, geological model, resource estimate and classification. In addition, the reporting of the company Mineral Resources is guided by the company's Mineral Resource Estimation System and is overseen by the Executive Leadership team prior to being reviewed by the company's Audit Committee. • The Simberi 2021 Resource was reviewed by Cube Consultants in September 2021, who concluded that there were no major flaws. Reported risks were evaluated by St Barbara and deemed to be low. Recommendations include sensitivity analysis to variogram nugget and sills, sample precision analysis and fine tuning of the oxidation surfaces.

Criteria	Comments
	• The 2024 model has not been externally audited or reviewed. The resource estimation was completed by an independent expert.
Discussion of relative accuracy/confidence	• Uncertainty in the interpretation of the 0.25 g/t Au grade shell and the interpretation of oxidation domains are key areas of uncertainty. Gold grade uncertainty within the estimation domain is also high with about three quarters of the variability occurring in under 10m (as indicated by variography). • Recent reconciliation work has shown that although the Resource model has some short term variability, the oxide resource has reconciled well in the mid-longer term.

Section 4 Estimation and Reporting of Ore Reserves – Simberi

Criteria	Comments
Mineral Resource Estimate for Conversion to Ore Reserves	• The Simberi January 2025 Ore Reserve estimate is based on an updated June 2024 Mineral Resource estimate compiled by Jane Bateman, who is a full-time employee and Principal Geologist of St Barbara Limited. The gold grade was estimated using ordinary kriging, with oxide reported at a cut-off grade of 0.4 g/t au and sulphide at 0.6 g/t Au. • The Mineral Resource is reported using a metal price of $2,000/oz Au and is inclusive of the Ore Reserve.
Site Visits	• The Competent Person visited the site in August 2024 to examine open pit operations, pit wall exposures, mobile fleet condition, drill core samples of oxide and sulphide ore and waste, site conditions, local infrastructure and to discuss the mining and mine planning programmes with site personnel. The site visit confirmed the mine planning approach and Modifying Factors used in ore reserve estimation are appropriate.
Study Status	• Simberi is an operating mine and has been in operation in its current form since 2013. All infrastructure required for oxide mining in place. • The oxide and transitional Ore Reserve estimate is based on a combination of actual and budget forecast performance and cost data, laboratory test work and metallurgical assessment for recoveries. • The sulphide Ore Reserve estimate is based on the Process Plant Layout and Design Study (AACE Class 4) completed in March 2025 by Pitch Black Group along with updated metallurgical parameters from Paradocs Metallurgy developed from geometallurgical testwork completed at Base Metal Laboratories in Canada. This work builds upon a Front-End Engineering and Design (FEED) Study undertaken by St Barbara in 2022 following a feasibility study (FS). St Barbara are currently undertaking a Feasibility Study update. • The Competent Person considers that Modifying Factors are known to at least Pre-Feasibility Study level.
Cut-off Parameters	• Breakeven cut-off grades (COG) were calculated at a short-term gold price for oxide and transitional plant feed and a longer-term gold price for sulphide feed (see Revenue factors). COG estimates are based on a net value script calculation that includes recoveries (see Metallurgical factors), gold price, payability; royalty, selling costs (see Revenue factors), operating costs (see Costs) associated with current oxide and projected sulphide operations. Economically positive blocks are considered for inclusion in the Ore Reserve.
Mining Factors or Assumptions	• A life-of-mine (LOM) plan was developed from dilution modelling, pit optimization, detailed final and stage pit designs, waste dump and haul design, mine and process scheduling and economic evaluation. • The Competent Person considers the mining method using a fleet of excavators, articulated dump trucks and associated ancillary equipment and the mine design are appropriate for the deposit. • Geotechnical parameters were derived from a report by a specialist geotechnical consultant. Pit slopes used for pit optimization varied by deposit and depth from 33° at shallow depths in oxide to 41° at depth in fresh rock. Batter angles for pit designs varied from 45° to 60°, with 7-10 m berm sand 15 m batter heights. • Confirmatory pit optimization using a mining model derived from the 2024 resource model, and a revenue factor 1 pit shell verified that pit designs from the June 2024 Ore Reserve could be used as the basis of the mining inventory for the January 2025 Ore Reserve. • Mining dilution was modelled using a 1.0 m dilution skin and a marginal cut-off grade. Sulphide material took priority over oxide material on the basis that there are no recovery penalties for oxide material processed in the sulphide circuit. Average dilution was 13% of tonnes and 4% of metal and average ore loss was 7% of tonnes and 5% of metal on a global scale. • Final and staged pit designs incorporated a minimum mining width of 30 m, although in some areas of Sorowar this was reduced to 25 m. • Inferred Mineral Resource blocks were treated as waste in the dilution study, pit optimization, mine scheduling and economic evaluation. • All infrastructure required for oxide mining is in place, however, a sulphide ore processing plant will be required prior to processing sulphide ore.
Metallurgical Factors or Assumptions	• Oxide ore is transported via Ropecon conveyor or trucked for processing through the existing parallel comminution circuit to a conventional carbon-in-leach (CIL) circuit with an Anglo-American Research Laboratories (AARL) elution circuit, and gold recovery facilities. Tailings are stored via deep sea tailings placement (DSTP). • Sulphide ore will be trucked for processing through a new sulphide plant with conventional flotation cells producing a gold concentrate, with flotation tails leached in the CIL circuit to produce gold doré via the existing AARL circuit. • All processing components are well tested technology, and the Competent Person considers the process suited to the mineralisation. • Metallurgical recovery through the oxide plant is variable by deposit and amount of weathering. St Barbara have worked with Stratum AI to develop AI-based algorithms which are used to determine whether oxidised or partially oxidised ores are best suited to be fed through the current CIL plant or stockpiled for later treatment along with Sulphide ores. Average gold recovery for the oxide and transition ore across the Simberi deposits is 76%, estimated using an ordinary kriged sulphur grade. • Metallurgical recovery by deposit through the sulphide plant has been developed through a geometallurgical variability testwork programme. • The amount of test work is considered appropriate and domaining has been based on identifying weathered, transitional and fresh mineralisation from logging data. Average recovery for the sulphide ore across the Simberi deposits is 89%. • Iron and Sulphur values are included in the resource model and metallurgical recovery equations. • The existing oxide operation allows access to oxide, transition and fresh ore for testwork and analysis. • Simberi ore is not defined by a specification, although sulphide concentrate value will be determined by meeting a gold grade specification, which is accounted for in calculations.

Criteria	Comments
Environmental	• SGCL holds two environmental permits. One for the extraction of water and one for the carrying out of work and the discharge of waste material, of which the latter was amended in June 2022 to include sulphide mining activities. Together these two permits form the environmental legislative basis in which SGCL operates. • Compliance with these conditions is continuously monitored and reported on in Quarterly Environment Performance Reports, which are submitted to the National Government Department of Conservation Environment and Protection Authority. • In addition, SGCL maintains an Environment Permit for Exploration relating to Waste Discharge (Environment Permit WDL-2A(65)).

Infrastructure	• All of the infrastructure required for the existing oxide mining and processing operation is in place and consists of:
	  ○ the oxide processing plant and process plant buildings, administration offices, training rooms, assay laboratory, site security buildings, ablution and stores
	  ○ Plant maintenance workshop facilities, light fuel oil diesel generators, water supply, mobile communication tower,
	  ○ Surface roads and communications, core shed, accommodation and camp facilities, airstrip, and wharf.
	• Sulphide ore processing additional infrastructure to be built includes:
	  ○ Sulphide processing plant
	  ○ Additional light fuel oil diesel generators and water supply
	  ○ Additional haul roads and expanded accommodation and camp facilities
	  ○ New wharf to export concentrate shipments to market

Costs	• Capital cost estimates were derived from the Process Plant Layout and Design Study (AACE Class 4 Study). • Operating costs for the oxide operation were derived from the SGCL budget forecast process, which is based on historical performance and forecast changes. Mining operating costs for the sulphide project were developed by AMC from first principles and current operating costs. Processing operating costs were derived from the Process Plant Layout and Design Study (AACE Class 4 Study). • No financial penalty results from arsenic levels in the concentrate. • Exchange rates were provided by SGCL, although all costs and revenues are estimated in US dollars. • Gold doré bars are transported by a dedicated service provider from the gold room to final destination at the ABC Refinery in Sydney. Armoured vehicles are used from start to end of shipment process. Transportation and refining charges for doré are based on current contracts and for concentrate on estimates provided by SGCL. • Royalties have been included for the Memorandum of Agreement (MOA) benefit holders of 3% and the Mineral Resources Authority (MRA) levy of 0.5% of gold and silver produced. The mine planning work was undertaken using a combined MOA and MRA royalty of 3%. This was subsequently updated to a total of 3.5% in the economic evaluation.
Revenue Factors	• Gold is sold on an $A basis with a call option of $US sales. A short-term gold price of US$1800/oz for doré produced from oxide and transitional ore processed in FY25-FY27 and a longer-term gold price of US$1,700/oz for doré and gold in concentrate produced from the sulphide processing plant from FY28. A silver price of US$20/oz was used for doré produced from oxide, transitional and sulphide ore processed and silver in concentrate produced • Payability of 91% of gold in concentrate was used by AMC for dilution modelling and pit optimization guided from the previous Ore Reserve estimate. This was updated based on a sliding payability scale for gold grade in concentrate provided by SGCL in the economic evaluation based on the expected concentrate grade from strategic scheduling. Payability of 90% of silver in concentrate was used by AMC for strategic scheduling, and subsequently adjusted in the economic evaluation for periods where the expected concentrate grade fell below the minimum payability threshold of 30 g/t silver in concentrate.
Market Assessment	• Gold and silver in doré and gold and silver concentrate is readily traded on an open and transparent basis. Supply and demand is not expected to be significantly different in the timeframe in which the project operates. • Forecasts assume that supply will be readily taken up by the market, as it has over a long period. SGCL has completed numerous marketing studies to determine representative charges and payable rates.. Concentrate is expected to be sold in the Asian market.
Economic	• Costs are discussed in the costs section and metal prices in the revenue factors section. No escalation is assumed, except as discussed under revenue factors. Economic evaluation is on a discounted (8%) basis. • The financial model demonstrates the mine has a positive net present value with all operating and capital costs included and sensitivity analysis demonstrates a robust project.

Social	• There are two community agreements which set the guidelines for community relations at Simberi:
	  ○ The Memorandum of Agreement between SGCL, the national government, New Ireland Provincial Government, Simberi Landowners Association and the Tabar Community Government
	  ○ The Compensation Agreement.

Other	• Naturally occurring risks, such as seismic or tsunami activity are considered minimal. • SGCL is operating on St Barbara's granted mining lease with all required government and statutory permits and approvals in place until mining lease expiry in December 2028. • The projected mine life for the Simberi operation is 2038, which is beyond the expiration date of the current mine lease. An application for the early extension of the Mining Lease renewal that would extend the lease to 2038 was submitted in 2024 and the Warden's hearing for the renewal was held in April 2025. The outcome of the renewal application is pending but there are reasonable grounds to expect a mining lease extension would be granted to cover the sulphide mining operations
Classification	• Modifying Factors are considered by the Competent Person to be at a high level of accuracy and the classification of the Mineral Resource was used as a guide for classification of the Ore Reserve.

Criteria	Comments
	• Existing stockpile material is classified as Proved Ore Reserve. • The Competent Person believes the classification of the Ore Reserves appropriately reflects the Simberi deposit • No Probable Ore Reserves were derived from Inferred Mineral Resources.
Audits or reviews	• No audits or reviews have been conducted on the Ore Reserve. • AMC has undertaken peer reviews of various the aspects of Simberi mine planning for the FEED Study and various SGCL budget forecasts.
Discussion of relative accuracy/ confidence	• The confidence levels as expressed in the Mineral Resources estimates were accepted in the respective Ore Reserves classification categories. The estimates relate to global estimates in the conversion of Mineral Resources to Ore Reserves, due largely to spacing of the drill data on which the estimates are based relative to the intended local selectivity of mining operations. • The oxide Ore Reserve is part of an established mine which has been in operation in its current form since 2013, and as such the level of confidence is high. Operating practices of the grade control system have matured as the mining operation has advanced through the various alteration states. • Modifying Factors were developed from current mine performance data and PFS level Process Plant Layout Study and FS level FEED Study estimates. The Competent Person considers that Modifying Factors are reasonable and provide confidence in the Ore Reserve. Metal price assumptions are subject to market forces and present an area of uncertainty. • The Competent Person considers that there are reasonable grounds to anticipate all relevant legal, environmental, and social approvals to operate will continue to be granted within the LOM timeframe.