

19 February 2025

Mineral Resources and Ore Reserves Statement as at 31 December 2024

The Company's Ore Reserves were 4.0 Moz of contained gold (up from 3.3 Moz at 31 December 2023) and Mineral Resources were 6.9 Moz of contained gold (up from 6.7 Moz at 31 December 2023).

Company Summary

- Total Mineral Resources^{1 2} are estimated at: 168.5 Mt @ 1.3 g/t Au for 6.9 Moz of contained gold, comprising:
 - Simberi Operations 112.0 Mt @ 1.4 g/t Au for 4.9 Moz of contained gold
 - Atlantic Operations 56.5 Mt @ 1.1 g/t Au for 2.0 Moz of contained gold
- Total Ore Reserves are estimated at: 83.5 Mt @ 1.5 g/t Au for 4.0 Moz of contained gold, comprising:
 - Simberi Operations 45.2 Mt @ 1.8 g/t Au for 2.7 Moz of contained gold
 - Atlantic Operations 38.3 Mt @ 1.1 g/t Au for 1.4 Moz of contained gold

St Barbara Managing Director and CEO Andrew Strelein said: *"We are pleased to report a year-on-year increase of 3% for the Group Mineral Resources and an increase of 21% for the Group Ore Reserves. Our 40% increase in Ore Reserves at Simberi announced on 30 July 2024 was the main driver of the lift over the twelve months."*

"Otherwise this Mineral Resources and Ore Reserves Statement is adjusted for mining depletion. This statement does not include any results from the FY25 diamond drilling program currently underway at Simberi which is in part focused on expanding the Mineral Resources. The overall drilling program is ahead of schedule with approximately 70% (or 44 diamond drill holes) completed in H1 FY25."

The 31 December 2024 Ore Reserves and Mineral Resources Statements are attached.

Authorised by

Board of Directors

For more information

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¹ Mineral Resources are reported inclusive of Ore Reserves

² Mineral Resources and Ore Reserves are estimates and as such have been rounded to appropriate significant figures



Overview

St Barbara's Mineral Resources and Ore Reserves position at 31 December 2024 is summarised and compared with the 31 December 2023 statement in Tables 1 and 2.

Project	31 December 2023 Mineral Resources			31 December 2024 Mineral Resources		
	Tonnes (Mt)	Grade (g/t Au)	Ounces ('000)	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)
Simberi Oxide	23.3	1.1	790	33.2	1.1	1,160
Simberi Sulphide	75.1	1.6	3,970	77.1	1.5	3,730
Simberi Stockpile				1.7	1.2	60
Total Simberi Operations	98.3	1.5	4,760	112.0	1.4	4,950
Beaver Dam	11.1	1.3	450	11.1	1.3	450
15-Mile	24.5	1.1	840	24.5	1.1	840
Cochrane Hill	21.0	1.0	690	21.0	1.0	690
Total Atlantic Operations	56.5	1.1	1,980	56.5	1.1	1,980
Grand Total	154.9	1.4	6,740	168.5	1.3	6,930

Table 1: St Barbara December 31 2024 and December 31 2023 Mineral Resources Comparison

Project	31 December 2023 Ore Reserves			Production Ounces ('000)	31 December 2024 Ore Reserves		
	Tonnes (Mt)	Grade (g/t Au)	Ounces ('000)		Tonnes (Mt)	Grade (g/t Au)	Ounces ('000)
Simberi Oxide	7.8	1.2	300	54	16.7	1.3	690
Simberi Sulphide	23.8	2.2	1,640		26.8	2.2	1,920
Simberi Stockpile	0.9	1.2	40		1.7	1.2	60
Total Simberi Operations	32.5	1.9	1,980		45.2	1.8	2,670
Beaver Dam	4.5	1.5	220	54	4.5	1.5	220
15-Mile	18.5	1.0	620		18.5	1.0	620
Cochrane Hill	15.4	1.0	510		15.4	1.0	510
Total Atlantic Operations	38.3	1.1	1,350		38.3	1.1	1,350
Grand Total	70.8	1.5	3,330	54	83.5	1.5	4,020

Table 2: St Barbara December 31 2024 and December 31 2023 Ore Reserves Comparison



The Company's Mineral Resources have increased by 0.2Moz and Ore Reserves by 0.7 Moz since December 31 2023.

St Barbara updated Mineral Resources and Ore Reserves for the Simberi Operations as at 30 June 2024 and reported to the ASX on 30 July 2024 - '*Simberi Ore Reserves Increase by 40% to 2.8Moz Mineral Resource and Ore Reserve Statement as at 30 June 2024*'. Reserves increased by 0.8Moz primarily as a consequence of resource definition and exploration drilling and a revised geological model converting 1.9Moz of Inferred Mineral Resources to Measured and Indicated.

Subsequent to this mid-year update Resources and Reserves have been depleted due to mining at Simberi. Mineral Resources were reduced by 70koz and Ore Reserves by 90koz.

Governance and Internal Controls

St Barbara's Mineral Resources and Ore Reserves have been compiled by suitably qualified personnel and with oversight from the Company's Mineral Resources and Ore Reserves Committee. The role of this Committee is to provide governance oversight to the Mineral Resources and Ore Reserves estimation systems, ensuring the quality and accuracy of the Company's Group Mineral Resources and Ore Reserves. The Committee provides assurance to the Board Audit & Risk Committee on compliance with the Mineral Resources and Ore Reserves governance framework and systems. The Committee also ensures that Mineral Resources and Ore Reserves comply with the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition'.

The Committee ensures proper corporate governance, allocation of suitably qualified resources and management of business risk in relation to the estimation of Mineral Resources and Ore Reserves. The Committee achieves this objective by exercising professional judgement, formal annual reviews of Mineral Resources and Ore Reserves estimates, and review of reconciliations when required.



Mineral Resources 31 December 2024

Region	Project	Measured			Indicated			Inferred			Total		
		Tonnes ('000)	Grade (g/t)	Ounces ('000)	Tonnes ('000)	Grade (g/t)	Ounces ('000)	Tonnes ('000)	Grade (g/t)	Ounces ('000)	Tonnes ('000)	Grade (g/t)	Ounces ('000)
PNG	Simberi Oxide	18.0	1.1	620	12.6	1.1	450	2.6	1.1	90	33.2	1.1	1,160
	Simberi Sulphide	22.7	1.5	1,080	52.9	1.5	2,580	1.5	1.5	70	77.1	1.5	3,730
	Stockpile	1.7	1.2	60							1.7	1.2	60
	Total Simberi	42.4	1.3	1,760	65.5	1.4	3,030	4.1	1.2	160	112.0	1.4	4,950
Canada	Beaver Dam	5.1	1.3	210	4.8	1.2	190	1.2	1.4	50	11.1	1.3	450
	Fifteen Mile Stream	4.4	1.0	150	17.7	1.0	590	2.4	1.3	100	24.5	1.1	840
	Cochrane Hill	10.7	1.1	370	7.7	1.0	240	2.6	1.0	80	21.0	1.0	690
	Total Atlantic	20.2	1.1	730	30.2	1.1	1,020	6.1	1.2	230.0	56.5	1.1	1,980
Total All Areas		62.6	1.2	2,490	95.7	1.3	4,050	10.2	1.2	390	168.5	1.3	6,930

Notes

1. Mineral Resources are reported inclusive of Ore Reserves.
2. Cut-off Grades Simberi Oxide (0.4 g/t Au), Simberi Sulphide (0.6 g/t Au), Atlantic Operations (0.3 g/t Au).
3. Simberi Mineral Resources are reported constrained by a US\$2,000/oz pit shell. 15-Mile Resources are constrained by a US\$2,000/oz pit shell. Beaver Dam and Cochrane Hill are constrained by a US\$1,800/oz pit shell.
4. Rounding may result in apparent summation differences between tonnes, grade and contained metal.



Ore Reserves 31 December 2024

Region	Project	Proved			Probable			Total		
		Tonnes (Mt)	Gold (g/t)	Ounces ('000)	Tonnes (Mt)	Gold (g/t)	Ounces ('000)	Tonnes (Mt)	Gold (g/t)	Ounces ('000)
PNG	Simberi Oxide	10.1	1.3	420	6.6	1.2	270	16.7	1.3	690
	Simberi Sulphide	9.8	2.1	670	17.0	2.2	1,250	26.8	2.2	1,920
	Simberi Stockpile	1.7	1.2	60				1.7	1.2	60
	Total Simberi	21.6	1.7	1,150	23.6	2.0	1,520	45.2	1.8	2,670
Canada	Beaver Dam	2.9	1.6	140	1.6	1.5	80	4.5	1.5	220
	Fifteen Mile Stream	4.2	1.0	140	14.3	1.0	480	18.5	1.0	620
	Cochrane Hill	10.2	1.1	350	5.1	1.0	160	15.4	1.0	510
	Total Atlantic	17.3	1.2	630	21.0	1.1	720	38.3	1.1	1,350
Total All Projects		38.9	1.4	1,780	44.6	1.6	2,240	83.5	1.5	4,020

Notes

- Ore Reserves are based on a gold price of: Simberi (US\$1,800/oz FY25-27, \$US1,700/oz +FY28) and Atlantic (C\$1,920/oz for Beaver Dam & 15-Mile and C\$1,688/oz Cochrane Hill).
- Cut-off grades: Simberi based on a \$0/t net revenue, including gold revenue. Atlantic Mining (0.3 g/t Au for 15-Mile & Cochrane Hill and 0.5 g/t Au for Beaver Dam).
- Mineral Resources are reported inclusive of Ore Reserves.
- Rounding may result in apparent summation differences between tonnes, grade and contained metal.



JORC Code Compliance Statements

The information in this report that relates to Ore Reserves at Simberi Operations is based on information compiled by Ryan Kare who is a Member of the Australasian Institute of Mining and Metallurgy. Ryan Kare 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 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”. Ryan Kare consents to the inclusion in the statement of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Ore Reserves at Atlantic Operations is based on information compiled by Marc Schulte who is a Member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta. Marc Schulte is an associate of Moose Mountain Technical Services 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”. Marc Schulte consents to the inclusion in the statement of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Simberi and Atlantic Operations is based on information compiled by 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.