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22 February 2023

## Ore Reserves and Mineral Resources Statements as at 31 December 2022

As at 31 December 2022, Group Ore Reserves increased from 5.8Moz of contained gold to 6.5Moz, and Group Mineral Resources increased from 13.5Moz of contained gold to 16.4Moz.

### Company Summary

- Total Ore Reserves are estimated at: 106.7 Mt @ 1.9 g/t Au for 6.5 Moz of contained gold, comprising:
  - Leonora Operations 22.3 Mt @ 3.6 g/t Au for 2.6 Moz of contained gold
  - Bardoc Operations 3.6 Mt @ 3.6 g/t Au for 0.4 Moz of contained gold
  - Simberi Operations 34.8 Mt @ 1.8 g/t Au for 2.0 Moz of contained gold
  - Atlantic Operations 46.0 Mt @ 1.0 g/t Au for 1.5 Moz of contained gold
- Total Mineral Resources<sup>1</sup> are estimated at: 264 Mt @ 1.9 g/t Au for 16.4 Moz of contained gold, comprising:
  - Leonora Operations 71.0 Mt @ 3.2 g/t Au for 7.4 Moz of contained gold
  - Bardoc Operations 53.3Mt @ 1.8 g/t Au for 3.0Moz of contained gold
  - Simberi Operations 83.1 Mt @ 1.5 g/t Au for 4.0 Moz of contained gold
  - Atlantic Operations 57.0 Mt @ 1.1 g/t Au for 1.9 Moz of contained gold

The 31 December 2022 Ore Reserves and Mineral Resources Statements are attached.

### Authorised by

Board of Directors

### For more information

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<sup>1</sup> Mineral Resources are reported inclusive of Ore Reserves



## Overview

St Barbara's Mineral Resources and Ore Reserves position at 31 December 2022 is summarised and compared with the 31 December 2021 statement in Tables 1 and 2.

Project	31 December 2021 Ore Reserves			Production	31 December 2022 Ore Reserves		
	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)		Ounces ('000)	Tonnes ('000)	Grade (g/t Au)
Gwalia Deeps (WA)	12,862	5.1	2,121	157	12,647	5.0	2,041
Tower Hill (WA)	-	-	-		9,700	1.8	560
<b>Total Leonora Operations</b>	<b>12,862</b>	<b>5.1</b>	<b>2,121</b>		<b>22,347</b>	<b>3.6</b>	<b>2,601</b>
Aphrodite (WA)	-	-	-	-	2,782	3.6	322
Zoroastrian (WA)	-	-	-		795	3.8	97
<b>Total Bardoc Operations</b>	<b>-</b>	<b>-</b>	<b>-</b>		<b>3,577</b>	<b>3.6</b>	<b>419</b>
Simberi Oxide (PNG)	8,962	1.1	330	65	7,579	1.2	280
Simberi Sulphide (PNG)	27,338	2.0	1,726		26,557	2.0	1,680
Simberi Stockpile	403	1.9	25		710	1.3	31
<b>Total Simberi Operations</b>	<b>36,704</b>	<b>1.8</b>	<b>2,080</b>		<b>34,846</b>	<b>1.8</b>	<b>1,991</b>
Atlantic Operations (NS)	42,182	1.1	1,493	51	40,550	1.1	1,449
Atlantic Operations Stockpile (NS)	6,040	0.5	90		5,420	0.5	80
<b>Total Atlantic Operations</b>	<b>48,222</b>	<b>1.0</b>	<b>1,583</b>		<b>45,970</b>	<b>1.0</b>	<b>1,529</b>
<b>Grand Total</b>	<b>97,788</b>	<b>1.8</b>	<b>5,784</b>	<b>273</b>	<b>106,740</b>	<b>1.9</b>	<b>6,540</b>

Table 1: St Barbara December 31 2022 and December 31 2021 Ore Reserves Comparison



Project	31 December 2021 Mineral Resources			31 December 2022 Mineral Resources		
	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)	Tonnes ('000)	Grade (g/t Au)	Ounces ('000)
Gwalia Deeps (WA)	25,206	5.8	4,736	24,198	5.8	4,473
Gwalia Open Pit (WA)	8,439	2.8	764	9,014	2.2	634
Gwalia Shallows	-	-	-	3,391	3.5	386
Harbour Lights (WA)	12,884	1.5	602	13,726	1.7	747
Tower Hill (WA)	20,682	1.8	1,177	20,862	1.8	1,177
<b>Total Leonora Operations</b>	<b>67,211</b>	<b>3.4</b>	<b>7,279</b>	<b>71,011</b>	<b>3.2</b>	<b>7,417</b>
Aphrodite	-	-	-	25,506	2.0	1,663
Zoroastrian	-	-	-	7,049	2.3	524
Excelsior	-	-	-	11,330	1.0	354
Bardoc Satellite Open Pits	-	-	-	9,417	1.6	480
<b>Total Bardoc Operations</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>53,302</b>	<b>1.8</b>	<b>3,021</b>
Simberi Oxide (PNG)	18,600	1.1	650	15,575	1.1	541
Simberi Sulphide (PNG)	71,400	1.6	3,575	67,524	1.6	3,434
<b>Total Simberi Operations</b>	<b>90,000</b>	<b>1.5</b>	<b>4,225</b>	<b>83,099</b>	<b>1.5</b>	<b>3,975</b>
Atlantic Operations (NS)	58,636	1.1	1,990	57,024	1.1	1,942
<b>Total Atlantic Operations</b>	<b>58,636</b>	<b>1.1</b>	<b>1,990</b>	<b>57,024</b>	<b>1.1</b>	<b>1,942</b>
<b>Grand Total</b>	<b>215,847</b>	<b>1.9</b>	<b>13,494</b>	<b>264,436</b>	<b>1.9</b>	<b>16,355</b>

**Table 2: St Barbara December 31 2022 and December 31 2021 Mineral Resources Comparison**

The Company's Ore Reserves have increased above net mining depletion by 0.8 Moz since December 31 2021, primarily as a consequence of the revision of the Tower Hill Open Pit Reserves (*refer ASX Release 18 October, 2022 - 'Quarterly Report Q1 September FY23'*) and the acquisition of the Bardoc Operations (*refer ASX Release 28 April, 2022 - 'Quarterly Report Q3 FY22'*).

The Company's Mineral Resources have increased by 2.9 Moz since December 31 2021 above net mining depletion as a consequence of the acquisition of the Bardoc Operations (*refer ASX Release 28 April, 2022 - 'Quarterly Report Q3 FY22'*) and updated Mineral Resources for Harbour Lights and Gwalia Shallows.



## Ore Reserves Revisions

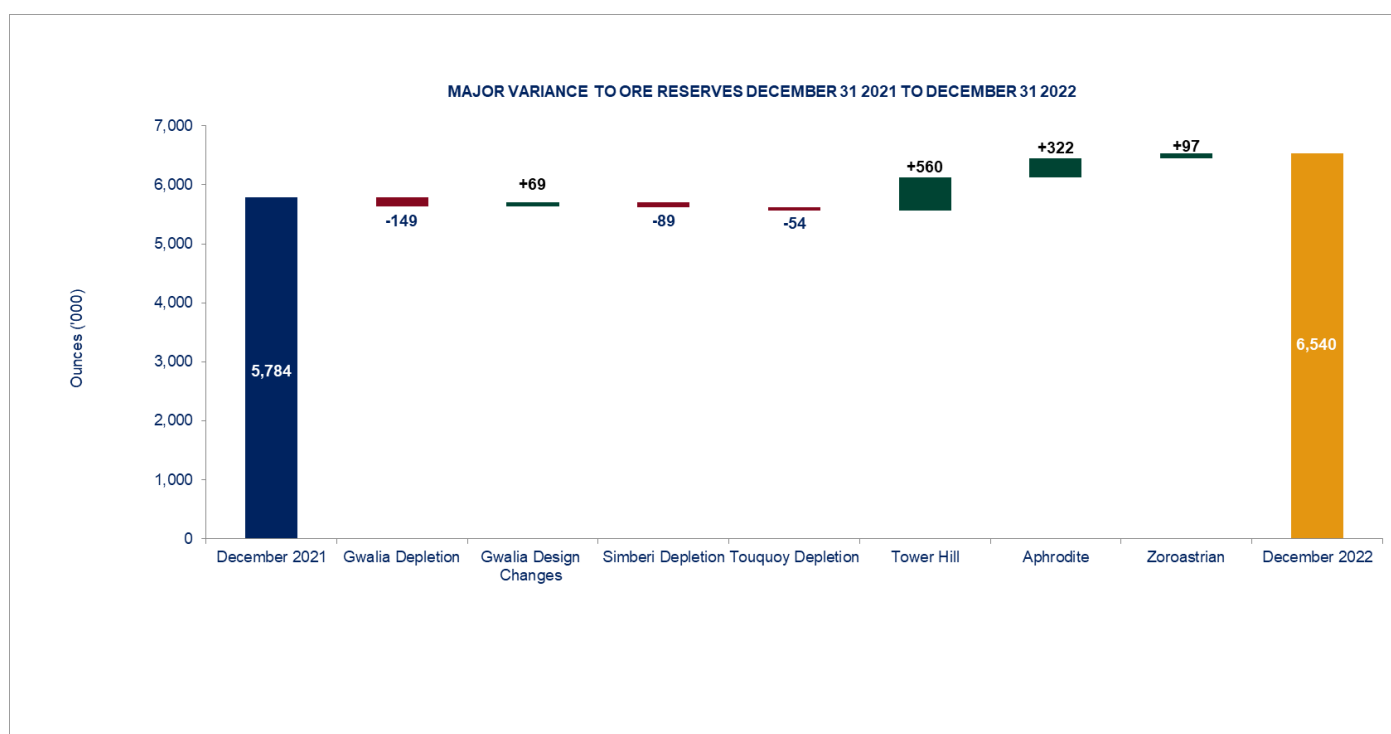


Figure 1: Waterfall chart illustrating variations in Ore Reserves 31 December 2021 to 31 December 2022

### Gwalia Deeps

The Ore Reserves at Gwalia Deeps have been adjusted to account for mining depletion resulting in a reduction of 149,000 ounces. This reduction has been partially offset by an increase of 61,000 ounces added through design changes, consisting of new mining areas as well as technical reviews of current mining areas. A further 8,000 ounces has come from changes in incremental cut off grades and minor changes to modifying factors, resulting in a net reduction of 80,000 ounces compared to the December 31 2021 position.

### Tower Hill

The inaugural Open Pit Ore Reserves for Tower Hill were announced in the company's Q1 FY23 quarterly report adding 560,000 ounces to the company's Ore Reserves.

### Aphrodite and Zoroastrian

The Aphrodite and Zoroastrian Ore Reserves were revised following the acquisition of the Bardoc assets and announced in the company's Q3 FY22 quarterly report adding an additional 322,000 ounces and 97,000 ounces respectively to the company's Ore Reserves.

### Simberi Operations

The Ore Reserves at Simberi have been adjusted to account for mining depletion, resulting in a reduction of 89,000 ounces compared to the December 31 2021 position.

### Atlantic Operations

The Ore Reserves at Touquoy have been adjusted to account for mining depletion resulting in a reduction of 54,000 ounces compared to the December 31 2021 position.



## Mineral Resources Revisions

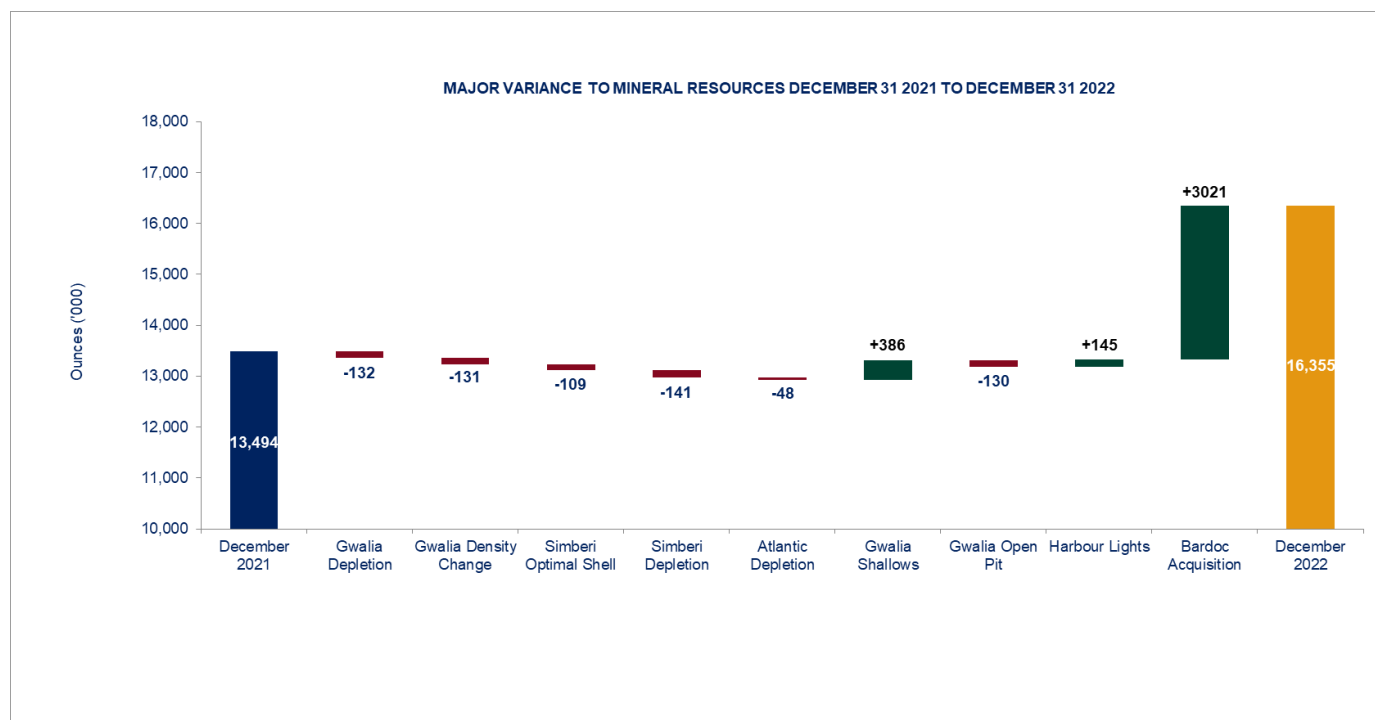


Figure 2: Waterfall chart illustrating variations in Mineral Resources 31 December 2021 to 31 December 2022

### Gwalia Deeps

The Gwalia Deeps Mineral Resource has been updated with a revised bulk density model and depleted for mining resulting in a reduction of 263,000 ounces compared to the December 31 2021 position.

### Gwalia Shallows

Gwalia Shallows is the name given to the remnant portion of the historic Sons of Gwalia orebody potentially amenable to underground mining extending from surface to approximately 600 metres below surface (mbs) and then joining with Gwalia Deeps at 980mbs along the down plunge extension of the South Gwalia Series, (Figure 3). Underground and surface resource definition drilling targeting resource extensions immediately to the south and north of the historic mine between 500 to 980 metres below surface (mbs) commenced in 2021 and was completed in 2022. The Gwalia Shallows Mineral Resource was initially reported as the 'Old SGS' Mineral Resource in Q4 FY22 (refer ASX Release 27 July, 2022 - 'Quarterly Report Q4 June FY22') and contained 218,000 ounces. This model has been further revised defining an additional 168,000 ounces resulting in a net increase of 386,000 ounces since 31 December 2021.

### Gwalia Open Pit

The Gwalia Open Pit Mineral Resource is the portion of the historic Sons of Gwalia orebody that is potentially amenable to open pit mining. Following the update of the Gwalia Shallows resource a revised pit optimisation was completed which has resulted in a decrease of 130,000 ounces compared to the 31 December 2021 position. This is primarily as a consequence of revised historical void models.

### Harbour Lights

Following on from additional resource definition drilling and re-logging of historical core a revised geological model of Harbour Lights has resulted in the improved definition of internal waste domains compared to previous models. This has resulted in a higher average grade, with a subsequent pit optimisation returning a larger pit shell than previously. As a consequence of this work the Mineral Resource has increased by 145,000 ounces compared to the 31 December 2021 position.

### Bardoc

The acquisition of the Bardoc assets was announced in the company's Q3 FY22 quarterly report adding 3,021,000 ounces to the company's Mineral Resources.



### Simberi Operations

The Simberi Mineral Resources as at 31 December 2022 are reported, constrained by an optimal shell that is smaller than the shell constraining the 31 December 2021 resource. During the compilation of the 31 December 2022 resource estimate it was noted that there was no supporting documentation for the larger pit shell and so the smaller shell, for which there is supporting documentation, has been used. This has resulted in a reduction in Mineral Resources of 109,000 ounces. The Simberi Mineral Resources have also been depleted for mining resulting in a further reduction of 141,000 ounces.

### Atlantic Operations

The Atlantic Mineral Resources are unchanged and have been depleted for mining resulting in a reduction of 48,000 ounces.

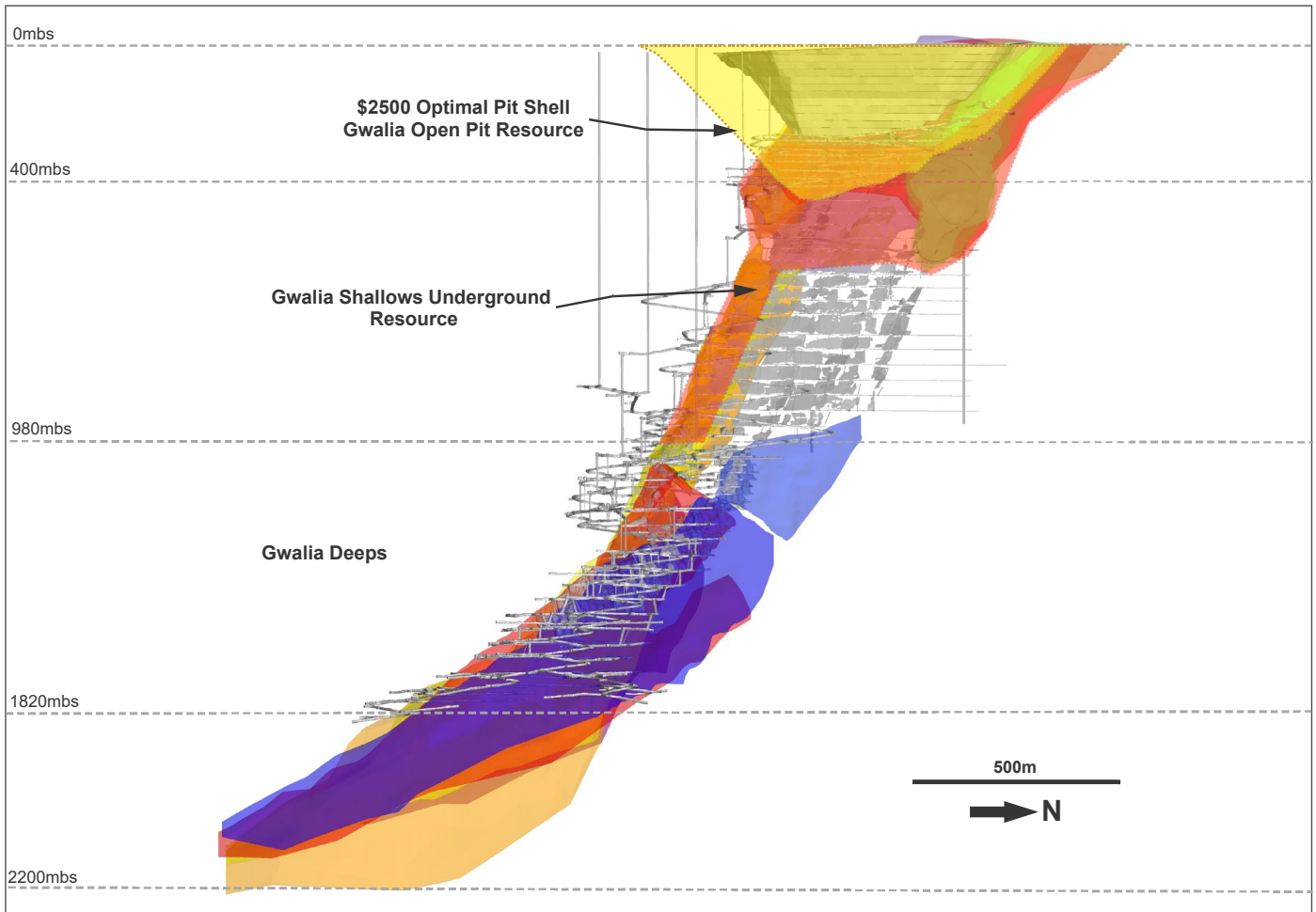


Figure 3: Long section illustrating Gwalia resource model extents

### 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.



## Ore Reserves 31 December 2022

Region	Project	Proved			Probable			Total		
		Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)	Tonnes ('000)	Gold (g/t)	Ounces ('000)
Australia	Gwalia	2,121	5.1	345	10,525	5.0	1,696	12,647	5.0	2,041
	Tower Hill	-	-	-	9,700	1.8	560	9,700	1.8	560
	Aphrodite	-	-	-	2,782	3.6	322	2,782	3.6	322
	Zoroastrian	-	-	-	795	3.8	97	795	3.8	97
PNG	Simberi Oxide	2,091	1.3	86	5,488	1.1	194	7,579	1.2	280
	Simberi Sulphide	2,161	1.8	122	24,396	2.0	1,558	26,557	2.0	1,680
	Simberi Stockpile	-	-	-	710	1.3	31	710	1.3	31
Canada	Atlantic Operations	20,420	1.1	753	20,120	1.1	696	40,550	1.1	1,449
	Atlantic Operations Stockpile	5,420	0.5	80	-	-	-	5,420	0.5	80
<b>Total All Projects</b>		<b>32,213</b>	<b>1.3</b>	<b>1,386</b>	<b>74,516</b>	<b>2.2</b>	<b>5,154</b>	<b>106,740</b>	<b>1.9</b>	<b>6,540</b>

### Notes

- Ore Reserves are based on a gold price of: Gwalia (A\$2,000/oz), Simberi (US\$1,500/oz) and Atlantic Gold (C\$1,875/oz for Touquoy, C\$1,948/oz for Beaver Dam and C\$1,688/oz for Fifteen Mile Stream & Cochrane Hill)
- Cut-off Grades Gwalia (4.0 g/t Au), Simberi Oxide (0.4 g/t Au), Atlantic Mining (0.3 g/t Au – 0.4 g/t Au).
- Mineral Resources are reported inclusive of Ore Reserves.
- Rounding may result in apparent summation differences between tonnes, grade and contained metal.



## Mineral Resources 31 December 2022

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)
Leonora, WA	Gwalia Deeps	3,573	5.5	633	18,208	5.7	3,326	2,417	6.6	515	24,198	5.8	4,473
	Gwalia Shallows	1,129	3.5	128	1,492	3.7	178	771	3.3	81	3,391	3.5	386
	Gwalia Open Pit	5,864	2.3	434	3,150	2.0	200	-	-	-	9,014	2.2	634
	Harbour Lights	-	-	-	12,569	1.7	674	1,158	2.0	73	13,726	1.7	747
	Tower Hill	-	-	-	20,682	1.8	1,177	-	-	-	20,682	1.8	1,177
	<b>Total Leonora</b>	<b>10,566</b>	<b>3.5</b>	<b>1,195</b>	<b>56,101</b>	<b>3.1</b>	<b>5,555</b>	<b>4,346</b>	<b>4.8</b>	<b>669</b>	<b>71,011</b>	<b>3.2</b>	<b>7,417</b>
Bardoc, WA	Aphrodite Open Pit	-	-	-	13,458	1.5	666	5,321	1.3	229	18,780	1.5	895
	Aphrodite Underground	-	-	-	4,156	3.7	497	2,571	3.3	271	6,726	3.6	768
	Zoroastrian Open Pit	-	-	-	3,702	1.9	228	1,730	1.6	87	5,432	1.8	315
	Zoroastrian Underground	-	-	-	800	4.7	120	817	3.4	90	1,617	4.0	209
	Excelsior	-	-	-	9,645	1.0	313	1,685	0.8	41	11,330	1.0	354
	Bardoc Satellite Open Pits	152	2.3	11	4,314	1.6	217	4,950	1.6	251	9,417	1.6	480
	<b>Total Bardoc</b>	<b>152</b>	<b>2.3</b>	<b>11</b>	<b>36,075</b>	<b>1.8</b>	<b>2,041</b>	<b>17,074</b>	<b>1.8</b>	<b>969</b>	<b>53,302</b>	<b>1.8</b>	<b>3,021</b>
PNG	Simberi Oxide	2,501	1.3	106	8,207	1.0	275	4,866	1.0	160	15,575	1.1	541
	Simberi Sulphide	2,704	1.5	133	46,116	1.6	2,417	18,705	1.5	884	67,524	1.6	3,434
	<b>Total Simberi</b>	<b>5,205</b>	<b>1.4</b>	<b>239</b>	<b>54,323</b>	<b>1.5</b>	<b>2,692</b>	<b>23,571</b>	<b>1.4</b>	<b>1,044</b>	<b>83,099</b>	<b>1.5</b>	<b>3,975</b>
Canada	Atlantic Operations	22,135	1.1	800	28,461	1.0	922	6,428	1.1	221	57,024	1.1	1,942
	<b>Total Atlantic Operations</b>	<b>22,135</b>	<b>1.1</b>	<b>800</b>	<b>28,461</b>	<b>1.0</b>	<b>922</b>	<b>6,428</b>	<b>1.1</b>	<b>221</b>	<b>57,024</b>	<b>1.1</b>	<b>1,942</b>
<b>Total All Projects</b>		<b>38,058</b>	<b>1.8</b>	<b>2,244</b>	<b>174,960</b>	<b>2.0</b>	<b>11,209</b>	<b>51,419</b>	<b>1.8</b>	<b>2,903</b>	<b>264,436</b>	<b>1.9</b>	<b>16,355</b>

### Notes

1. Mineral Resources are reported inclusive of Ore Reserves.
2. Cut-off Grades Gwalia (2.5 g/t Au), Gwalia Open Pit (0.4 g/t Au), Harbour Lights (0.4 g/t Au Oxide and 0.8 g/t Au Sulphide), Tower Hill (0.4 g/t Au), Simberi Oxide (0.4 g/t Au), Simberi Sulphide (0.6 g/t Au), Atlantic Operations (0.3 g/t Au), Aphrodite Open Cut (variable), Aphrodite Underground (1.7g/t Au), Zoroastrian Open Cut (0.5 g/t Au), Zoroastrian Underground (1.6g/t Au), Excelsior (0.3 g/t Au), Bardoc Satellite Open Pits (0.4 – 0.6 g/t Au)
3. Gwalia Open Pit ,Harbour Lights and Tower Hill Mineral Resources are reported constrained by a A\$2,500/oz pit shell. Simberi Mineral Resources are reported constrained by a US\$1,875/oz pit shell. Atlantic Mineral Resources are reported constrained by a C\$2,388/oz pit shell.
4. 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 Gwalia is based on information compiled by Mr. Juan Giraldo who is a Member of the Australasian Institute of Mining and Metallurgy. Juan Giraldo 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”. Juan Giraldo 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 Simberi Operations is based on information compiled by Mr. Michael Montgomery who is a Member of the Australasian Institute of Mining and Metallurgy. Michael Montgomery 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”. Michael Montgomery 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 Mr. 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 Ore Reserves at Aphrodite is based on information compiled by Mr. Andrew Francis who is a Member of the Australasian Institute of Mining and Metallurgy. Andrew Francis is a full-time employee of Genesis Minerals 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”. Andrew Francis 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 Zoroastrian is based on information compiled by Mr. Brett Ascott who is a Fellow of the Australasian Institute of Mining and Metallurgy. Brett Ascott 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”. Brett Ascott 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 Tower Hill is based on information compiled by Mr. Martin Liu and Mr. Glen Williamson who are Members of the Australasian Institute of Mining and Metallurgy. Martin Liu and Glen Williamson are full-time employees of AMC Consultants and have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Martin Liu and Glen Williamson consent to the inclusion in the statement of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Tower Hill, Bardoc, Simberi, and Touquoy 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 Mineral Resources at Gwalia and Harbour Lights is based on information compiled by Mr. David Reid who is a Fellow of the Australasian Institute of Mining and Metallurgy. David Reid 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”. David Reid 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 Atlantic Operations for the Beaver Dam, Fifteen Mile Stream and Cochrane Hill Deposits is based on information compiled by Mr. Neil Schofield who is a Member of the Australasian Institute of Geoscientists. Neil Schofield is a full-time employee of FSSI Consultants (Australia) 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”. Neil Schofield consents to the inclusion in the statement of the matters based on his information in the form and context in which it appears.



**JORC Table 1 Checklist of Assessment and Reporting Criteria  
Section 1 Sampling Techniques and Data – Gwalia Deeps**

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>Sampling boundaries are geologically defined and one metre in length unless a significant geological feature warrants a change from this standard unit. The upper or right-hand side of the core is routinely submitted for sample analysis, with each one metre of half core providing between 2.5 – 3 kg of material as an assay sample. Minimum sample length is 0.30 m.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>Surface and underground diamond drill holes used NQ2 (50.6mm) sized core (standard tubes). SBM surface drill holes have been down hole surveyed by north seeking gyro and underground drill holes have been surveyed by single shot electronic camera. Surface holes are orientated using a Reflex ACT II RD orientation tool.</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against driller's blocks to ensure that any core loss is accounted for. Sample recovery for all holes was rarely less than 100%. Minor occurrences of core loss can in most instances be attributed to drilling conditions and not ground conditions.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to an accredited lab (SGS laboratory in Kalgoorlie) where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 µm).</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS). QC included insertion of 3 commercial standards (1 per 25 samples), use of barren flush material between designated high grade samples during the pulverising stage, re-numbered sample pulp residues re-submitted to original laboratory, and sample pulp residues submitted to accredited umpire laboratory, submission of residual (duplicate) half core from ore intervals.</li> </ul>
<b>Verification of sampling and assay</b>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically in spreadsheets which ensure only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server and validated.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Collars for surface holes are recorded by DGPS</li> <li>Upon completion of underground drill holes, an authorised surveyor will pick up the collar by placing a survey rod into the hole to measure azimuth and dip. This process may also occur while the hole is in progress by surveying the drill rods in the hole.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for underground resource definition is approximately 20m x 25m and surface drilling is approximately 60m x 80m. Drilling data is sufficient to establish continuity for all lodes.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>All drill core is marked for orientation, and sampling is perpendicular to lode orientations and based on past production and underground mapping.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Only SBM personnel or approved contractors are allowed on drill sites; drill samples are only removed from drill site by approved contractors to SBM's secure core logging/processing facility; cut core is consigned to accredited laboratories for sample preparation and analysis.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Regular reviews of core logging and sampling have been completed through SBM mentoring and auditing. Laboratory inspections have been conducted throughout the review period by SBM personnel. Inspections are documented electronically and stored on secure company server. No significant issues were identified.</li> </ul>

**Section 2 Reporting of Exploration Results - Gwalia Deeps**

Criteria	Comments
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>The reported resource is completely located within M37/25 which is 100% owned by St Barbara Limited. The tenement is in good standing at the time of reporting.</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>Initial exploratory drilling of Gwalia Deeps (below 1075 metres below surface (mbs)) was undertaken between March 1986 and May 1989 as a jointly funded project between Western Mining Corporation and Sons of Gwalia (SGW). Four diamond holes and two wedge holes were drilled targeting mineralisation between 1,200 – 1,400mbs.</li> <li>In 1998, SGW began phase I of the Gwalia Deeps drilling program. This consisted of two parent holes (GWDD5 and GWDD6) and 5 daughter holes (GWDD6A – E), targeting mineralisation between 1,200m – 1,300m vertical depth. GWDD5 was abandoned before reaching target because of excessive deviation.</li> <li>SGW commenced a phase II program in 2000, completing a further four parent holes GWDD7 – GWDD10 and a further 5 daughter holes</li> </ul>



<b>Geology</b>	<ul style="list-style-type: none"> <li>Gold mineralisation occurs as a number of en-echelon, moderately east dipping foliation parallel lodes within strongly potassic altered mafic rocks and extends over a strike length of approximately 500m and to a vertical depth of at least 2,300 m. Four primary lodes (Main Lode, South West Branch, South Gwalia Series and West Lode) have been identified with the geometries summarised above.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>No further resource definition drilling is planned at this stage</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources – Gwalia Deeps

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Data is captured through spread sheets and validated prior to loading into the SBM corporate database which ensures only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in an SQL database on secure company server. Validation of data included visual checks of hole traces, analytical and geological data and ad hoc validation of holes to original core photos and hard copy geological logs.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person has visited site on 16<sup>th</sup> September 2022 and inspected accessible underground development faces and grade control diamond core</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Mineralisation domains are defined by abundance of quartz and quartz/carbonate veining, the presence of distinctive laminated veining (quartz/sericite/sulphides +/- au), strong potassic alteration, abundance of sulphides (commonly &gt;3% pyrite) and elevated gold grade (&gt;0.5g/t Au).</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>Mineralisation strikes at approximately 170 degrees over a distance of 160m and dip to the east 40 degrees. Mineralisation is conformable with the foliation of the Mine Sequence mafic schists. Individual lodes have an average horizontal width of 15m</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>All domains were estimated using ordinary kriging except for South West Branch below the dyke (~1240mbs) where indicator kriging was used for grade estimation.</li> <li>Four parent block sizes have been estimated; 4mE x 8mN x 4mRL for areas covered by underground grade control drilling, 8mE x 16mN x 4mRL for the area covered by resource development drilling, 16mE x 32mN x 4mRL for areas covered by surface drilling below approximately 1,800 metres vertical depth and 32mE x 32mN x 32mRL for the Mafic Hanging wall.</li> <li>Estimation was completed using Datamine Studio RM. Search parameters for the gold estimation reflect a high-grade plunge orientation east-north-east for WL, south-east to east for SGS and south-east for SWB and ML consistent with geological observation of high grade mineralisation geometry:</li> <li>Main Lode 1 – Rotation Azimuth = 350 degrees, Dip = 40 degrees, Pitch = 140 degrees. Max search distances = 355m. Major/Semi-Major anisotropy = 4.2; Major/Minor = 14.2 Min samples = 8, max samples = 20</li> <li>Main Lode 2 – Rotation Azimuth = 350 degrees, Dip = 40 degrees, Pitch = 120 degrees. Max search distances = 130m. Major/Semi-Major anisotropy = 2.6; Major/Minor = 13 Min samples = 8, max samples = 20</li> <li>South West Branch 1– Rotation Azimuth = 355 degrees, Dip = 40 degrees, Pitch = 110 to 140 degrees (pitch varies slightly between indicator groups and Au groups). Max search distances = 250m. Major/Semi-Major anisotropy = 3.1; Major/Minor = 8.3. Min samples = 8, max samples =20</li> <li>South West Branch 2– Rotation Azimuth = 355 degrees, Dip = 40 degrees, Pitch = 130 degrees. Max search distances = 250m. Major/Semi-Major anisotropy = 3.1; Major/Minor = 8.3. Min samples = 8, max samples =20</li> <li>South Gwalia Series 1 – Rotation Azimuth = 348 degrees, Dip = 45 degrees, Pitch = 110 degrees. Max search distances = 145m. Major/Semi-Major anisotropy = 1.5; Major/Minor = 4.1. Min samples = 8, max samples =20</li> <li>South Gwalia Series 2 – Rotation Azimuth = 348 degrees, Dip = 45 degrees, Pitch = 120 degrees. Max search distances = 170m. Major/Semi-Major anisotropy = 1.4; Major/Minor = 6.8. Min samples = 8, max samples =20</li> <li>West Lode – Rotation Azimuth = 350 degrees, Dip = 45 degrees, Pitch = 90 degrees. Max search distances = 180m. Major/Semi-Major anisotropy = 1.3; Major/Minor = 7.2. Min samples = 8, max samples =20</li> <li>Isolated high grade composites were top cut prior to estimation for each domain (ML=120g/t, SWB1=180/220g/t, SWB2=135g/t, SGS1=90g/t, SGS2=90g/t, WL=90g/t).</li> <li>Main Lode Group – Omnidirectional. Max search distances = 330m. Min samples = 12, max samples = 25</li> <li>South West Branch Group – Omnidirectional. Max search distances = 600m. Min samples = 12, max samples =</li> </ul>



Criteria	Comments
	<p>25</p> <ul style="list-style-type: none"> <li>• South Gwalia Series 1 – Omnidirectional. Max search distances = 230m. Min samples = 12, max samples = 25</li> <li>• South Gwalia Series 2 – Omnidirectional. Max search distances = 100m. Min samples = 12, max samples = 25</li> <li>• West Lode – Omnidirectional. Max search distances = 550m. Min samples = 12, max samples = 25</li> <li>• Mine Schist – Omnidirectional. Max search distances = 750m. Min samples = 12, max samples = 25               <ul style="list-style-type: none"> <li>• Dyke – Omnidirectional. Max search distances = 120m. Min samples = 12, max samples = 25</li> <li>• Mafic Hanging wall – Omnidirectional. Max search distances = 600m. Min samples = 12, max samples = 25</li> </ul> </li> <li>• Density measurements below the 0.5 percentile and above 99.5 percentile were removed from the dataset prior to estimation as they were suspected to contain erroneous values.</li> <li>• The model was validated by plotting composite and block model average values against RL for both gold and density</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• Tonnages are estimated on a dry basis</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• The model is reported at a cut-off of 2.5g/t Au on 20mRL by 20mN panels for each lode to account for non-selective mining internally within each lode.</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• The mining method is underground, open stoping with paste fill.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Metallurgical recovery has been proven to be consistently &gt;95%</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>• The project covers an area that has been previously impacted by mining. The tenement area includes existing ethnographic heritage sites. SBM have undertaken extensive Aboriginal Heritage Surveys within the tenements and management measures are in place.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• Bulk density is assigned by lode and ranges from 2.71 to 2.79.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• The resource is classified as a function of drill spacing, geological continuity and mining. Areas where grade control drilling has been completed to 20m x 30m and geological continuity has been established through mining are classified as Measured. Areas where drill density is 30m x 40m, 60m x 80m or less with high geological continuity are classified as Indicated and elsewhere where drill density is sparse classified as Inferred.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The resource model was reviewed internally. 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. External reviews are completed approximately every 3 years.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• The resource estimate is a global estimate.</li> </ul>



## Section 4 Estimation and Reporting of Ore Reserves – Gwalia Deeps

Criteria	Comments
<b>Mineral Resource Estimate for Conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>The underground Ore Reserve estimate is based on the Mineral Resource estimate carried out by St Barbara Limited. Gold grade was estimated using ordinary kriging for all lodes with the exception of the South West Branch at depths exceeding 1,240 metres below surface where indicator kriging was used.</li> <li>The Mineral Resources are reported inclusive of the Ore Reserve.</li> <li>The Mineral Resource model used to estimate this Reserve is described as gwc_20221018.bmf</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li>The Competent Person has worked in a site-based role for the mine for four years.</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>A Definitive Feasibility Study was completed for the Gwalia mine in 2008. The mine has been in full production since. Any further studies undertaken are to extend the mine or optimise the current operating practices.</li> </ul>
<b>Cut-off Parameters</b>	<ul style="list-style-type: none"> <li>A break-even type analysis was used to determine the cut-off grades used in the Ore Reserve estimate.</li> <li>4.0 g/t Stope Evaluation Cut-Off Grade - used to define the extent of economic stoping areas on a level.</li> <li>1.6 g/t Stope Only Cut-Off Grade - used to define additional stopes that can be mined without extra development and without delaying the main mining sequence.</li> <li>0.6 g/t Process Only Cut-Off Grade - used to differentiate between development ore and development waste.</li> </ul>
<b>Mining Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>The Gwalia Ore Reserve has been estimated based on detailed mine development and stope designs. Modifying factors for dilution and mining recovery have been applied post geological interrogation to generate the final diluted and recovered Ore Reserve.</li> <li>The Gwalia Mine is in full production with an extensive production history. Mining methods referenced in this report are currently in practice on site or have been subject to trial mining. Reconciliation results and production history show this mining method to be well matched to the ore body.</li> <li>Stope size, development placement and ground support strategies have been designed in line with recommendations from experienced geotechnical personnel and external subject matter experts. Grade control drilling is completed in advance of production with the majority of stopes to be mined in the next two years already grade control drilled.</li> <li>For South West Branch (SWB) and South Gwalia Series (SGS), the dilution is estimated for each individual stope based on known influences. These include the mining direction, strike length, stope width, and depth below surface. The relationships between these factors and stope dilution have been modelled through back-analysis of actual reconciled stope performance. The average of the estimated dilution for all SWB stopes in the Ore Reserve is 13% and the average estimated dilution for SGS stopes is 17%.</li> <li>Mining dilution of 20% has been applied to all West Lode stopes. Mining dilution of 22% has been applied to Main Lode stopes.</li> <li>A 92% mining recovery factor has been applied to triple-lift and double-lift long-hole open stopes. A 90% mining recovery factor has been applied to single-lift long-hole open stopes. These factors are consistent with reconciled actual performance.</li> <li>The profiles of development excavations have been designed inclusive of 10% overbreak. No further dilution factors or mining recovery factors have been applied to development ore.</li> <li>A global minimum mining width of 3m is used. While the ore body width generally exceeds the minimum mining width, where the ore body is narrower stoping outlines are designed to honour the minimum width and include planned dilution.</li> <li>All ore in the Ore Reserve estimate is classified as a Proved or Probable Ore Reserve. No Inferred Mineral Resources are included in the Ore Reserve. The Inferred Mineral Resources in the Life-of-Mine plan have been removed from the Ore Reserve plan and estimate.</li> <li>The infrastructure requirements of the stoping methods used are either already in place or have been accounted for in the Life of Mine evaluation on which the project costings are based. The capital and operating costs of extending the ventilation infrastructure to support truck haulage down to the base of the Ore Reserve have been included in the economic evaluation which demonstrates the economic viability of the Ore Reserve.</li> </ul>
<b>Metallurgical Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>All Gwalia ore is trucked to the Gwalia processing plant. The processing plant is located at St Barbara's Leonora Operations and consists of a three-stage crushing circuit, single-stage milling circuit and hybrid carbon-in-leach (CIL) circuit with one designated leach tank and seven adsorption tanks. Gold is recovered from activated carbon into concentrated solution via a split AARL type elution circuit. Electrowinning and smelting are conducted in an adjacent secure gold room. The tailings from the process are thickened and pumped to a paddock type tailings storage facility with multi-spigot distribution.</li> <li>The technology associated with processing of Gwalia ore is currently in operation and is based on industry standard practices.</li> <li>Metallurgical recovery is modelled based on the observed relationship between head grade and recovery. The average of the modelled metallurgical recovery over the Ore Reserve mine plan is 95.8%.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>The Gwalia mine is currently compliant with all environmental regulatory instruments under the Environmental Protection Act 1986 and Mining Act 1978.</li> <li>All external reporting against the environmental licenses and tenements are recorded and reported in the Annual Environmental Report available on the St Barbara and the regulator website.</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>All equipment required for the mining and processing of the Ore Reserve is in place and operational. It is located on tenements held by St Barbara Limited. The infrastructure includes, but is not limited to:</li> </ul>





Criteria	Comments
	<ul style="list-style-type: none"> <li>• Dedicated gas and diesel power station</li> <li>• Water supply from three sources to provide redundancy</li> <li>• Processing plant</li> <li>• Mine development</li> <li>• Underground power and dewatering infrastructure</li> <li>• Workshop facilities on surface and underground</li> <li>• Ventilation fans and refrigeration plant</li> <li>• Paste fill plant</li> <li>• Camp facilities</li> <li>• Access to public roads and airstrips.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>• All costs used in the estimation of Ore Reserves are based on the Life-of-Mine plan.</li> <li>• Operating costs are estimated as part of the internal budgeting process and approved by the St Barbara Limited board.</li> <li>• A gold price of AU\$2000/oz has been used in all calculations.</li> <li>• Exchange rates are sourced from recommendations by the Group Treasury and accepted by the Executive Leadership Team (ELT).</li> <li>• Costs associated with treatment and transport have been included in the cost modelling completed for the project based on the Life of Mine plan.</li> <li>• Royalties have been included at the WA government royalty of 2.5% of gold produced. A Resource Capital Royalty (IRC) is also applied to the Gwalia tenements and is applied at 1.5% of gold produced.</li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>• A gold price of AU\$2000/oz has been used in all revenue calculations</li> </ul>
<b>Market Assessment</b>	<ul style="list-style-type: none"> <li>• All gold doré produced at the Gwalia processing plant is transported to the Perth Mint for refining.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• The mine is an operating asset and is not subject to project-type analysis.</li> <li>• Life-of Mine plans are developed or updated on an annual basis. These plans reflect current and projected performances for the Ore Reserve.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• St Barbara Limited's social licence to operate is underpinned by the excellent relationship that the Company has built, over many years, with the local community of Leonora. St Barbara Limited also recognises, and has a good relationship with the Aboriginal groups within the Leonora Region.</li> <li>• In 2022 the Darlot Native Title claim was successful in reaching determination and St Barbara will continue to work closely with the traditional owners in relation to land, heritage and culture.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>• A company risk register is maintained to address and mitigate against all foreseeable risks that could impact the Ore Reserve.</li> <li>• Contracts are in place for all critical goods and services required to operate the mine.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• The Ore Reserve includes only Proved and Probable classifications.</li> <li>• The economically minable component of the Measured Mineral Resource has been classified as a Proved Ore Reserve.</li> <li>• The economically minable component of the Indicated Mineral Resource has been classified as a Probable Ore Reserve.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>• SRK Consulting undertook a review of the Gwalia underground mine Ore Reserve process and estimate in July 2016. AMC Consultants have also reviewed the Ore Reserve estimation process and the basis of the inputs and modifying factors. This review was completed in 2018 and considered that the technical basis and process undertaken was of a suitable standard and supports reporting under the JORC Code (2012). AMC are currently completing another review on these current Ore Reserves with results due in early 2023.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>• The Ore Reserve estimate has been prepared in accordance with the guidelines of the JORC Code (2012). The relative confidence of the estimates contained fall with the criteria of Proved and Probable Ore Reserves. Significant operating history supports the modifying factors applied.</li> <li>• The Ore Reserve has been estimated in line with the St Barbara Ore Reserve process. The Ore Reserve process was externally audited in 2019 and found to be of good industry standard. The Ore Reserve has been peer reviewed internally and the Competent Person is confident that it is an accurate estimation of the current Gwalia reserve. AMC are currently conducting an external review on these current Ore Reserves with results due in early 2023.</li> </ul>



## JORC Table 1 Checklist of Assessment and Reporting Criteria

### Section 1 Sampling Techniques and Data – Gwalia Shallows and Gwalia Open Pit

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>Sampling boundaries are geologically defined and one metre in length unless a significant geological feature warrants a change from this standard unit. The upper or right-hand side of the core is routinely submitted for sample analysis, with each one metre of half core providing between 2.5 – 3 kg of material as an assay sample. Minimum sample length is 0.30 m.</li> <li>Upper parts of the deposit are covered by drilling completed by Sons of Gwalia (SGW) between 1997 and 2002.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>Surface and underground diamond drill holes used NQ2 (50.6mm) sized core (standard tubes). SBM surface drill holes have been down hole surveyed by north seeking gyro and underground drill holes have been surveyed by single shot electronic camera. Surface holes are orientated using a Reflex ACT II RD orientation tool.</li> <li>SGW drilling consisted of both RC grade control drilling (4.5 or 5.5 inch diameter) and underground diamond drill holes of NQ2 core size.</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against driller's blocks to ensure that any core loss is accounted for. Sample recovery for all 5 holes was 100%. Minor occurrences of core loss can in most instances be attributed to drilling conditions and not ground conditions.</li> <li>SGW drill hole recovery is reported to be 100% for majority of drilling.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> <li>SGW holes was logged for lithology, alteration and vein intensity.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to an accredited lab (SGS laboratory in Kalgoorlie) where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 µm).</li> <li>SGW report that both half and whole core sampling was conducted on one metre intervals. RC samples were riffle split to 3-4kg for one metre intervals.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>SBM and SGW samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS).</li> <li>SBM QC included insertion of 3 commercial standards (1 per 25 samples), use of barren flush material between designated high grade samples during the pulverising stage, re-numbered sample pulp residues re-submitted to original laboratory, and sample pulp residues submitted to accredited umpire laboratory, submission of residual (duplicate) half core from ore intervals.</li> <li>SGW QC is reported to consist of 3 replicates, 3 duplicates, 2 standards and one blank per 50 samples.</li> </ul>
<b>Verification of sampling and assay</b>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically in spreadsheets which ensure only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server and validated.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Upon completion of underground drill holes an authorised surveyor will pick up the collar by placing a survey rod into the hole to measure azimuth and dip. This process may also occur while the hole is in progress by surveying the drill rods in the hole.</li> <li>SGW drill holes were surveyed using single shot electronic camera and collar position located by a surveyor.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for underground resource definition is approximately 20m x 25m and surface drilling is approximately 60m x 80m. Drilling data is sufficient to establish continuity for all lodes.</li> <li>Open pit grade control was completed to a spacing of 10mN by 10mE.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>All drill core is marked for orientation, and sampling is perpendicular to lode orientations and based on past production and underground mapping.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Only SBM personnel or approved contractors are allowed on drill sites; drill samples are only removed from drill site by approved contractors to SBM's secure core logging/processing facility; cut core is consigned to accredited laboratories for sample preparation and analysis.</li> <li>SGW sample security is not documented but expected to be of typical industry standard</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Regular reviews of core logging and sampling have been completed through SBM mentoring and auditing. Laboratory inspections have been conducted throughout the review period by SBM personnel. Inspections are documented electronically and stored on secure company server. No significant issues were identified.</li> <li>Review of data migration of SGW data into SMB database was conducted and some data issues identified and corrected</li> </ul>



## Section 2 Reporting of Exploration Results - Gwalia Shallows and Gwalia Open Pit

Criteria	Comments
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>The reported resource is completely located within M37/25, M37/33 and M37/849 which are 100% owned by St Barbara Limited. The tenement is in good standing at the time of reporting.</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>The majority of the drilling was completed by SGW</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Gold mineralisation occurs as a number of en echelon, moderately east dipping foliation parallel lodes within strongly potassic altered mafic rocks and extends over a strike length of approximately 500m and to a vertical depth of at least 2,300 m..</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>There is a significant area of older workings in the north of the deposit where there is no drill hole information. Drill testing in this area has the potential to identify a Mineral Resource in lodes that were not stoped as part of the historical mining activity</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources – Gwalia Shallows and Gwalia Open Pit

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Data is captured through spread sheets and validated prior to loading into the SBM corporate database which ensures only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in an SQL database on secure company server. Validation of data included visual checks of hole traces, analytical and geological data and ad hoc validation of holes to original core photos and hard copy geological logs.</li> <li>SGW data was migrated to the SBM database. Validation and correction of the transferred data was completed by SBM</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person has visited site in September 2022 and completed inspection of drill core processing and visited available UG development faces</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Mineralisation domains are defined by abundance of quartz and quartz/carbonate veining, the presence of distinctive laminated veining (quartz/sericite/sulphides +/- au), strong potassic alteration, abundance of sulphides (commonly &gt;3% pyrite) and elevated gold grade (&gt;0.5g/t Au).</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>Mineralisation strikes at approximately 170 degrees over a distance of 160m and dip to the east 40 degrees. Mineralisation is conformable with the foliation of the Mine Sequence mafic schists. Individual lodes have an average horizontal width of 15m</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Below the 4708RL gold grade was estimated in Datamine Studio RM using the following parameters: <ul style="list-style-type: none"> <li>Estimation cell size of 4mE x 8mN x 4mRL, 8mE x 16mN x 4mRL or 16mE x 32mN x 4mRL</li> <li>Three pass estimation with expanded search ellipse was applied ensure estimation of the majority of blocks</li> <li>A minimum number of composites of between 8 and 12 and maximum of between 20 and 24 was used for the first pass</li> <li>A minimum number of composites of 6 and maximum of 12 was used for the second pass</li> <li>A minimum number of composites of 4 and maximum of 10 was used for the third pass</li> <li>Isolated high grade composites were capped prior to estimation (range from 47 to 125 g/t Au depending on domain)</li> </ul> </li> <li>Above 4708RL the estimation of gold used Isatis Neo software using the following parameters: <ul style="list-style-type: none"> <li>Estimation block size of 5m by 5m by 5m for the Open Pit resource</li> </ul> </li> </ul>





Criteria	Comments
	<ul style="list-style-type: none"> <li>○ Estimation cell size of 4mE x 8mN x 4mRL, 8mE x 16mN x 4mRL or 16mE x 32mN x 4mRL for the underground resource</li> <li>○ A minimum of 1 composite and maximum of 32 composites was used for grade estimation. Maximum of 20 used for narrow domains. A limit of 6 composites from a drillhole</li> <li>○ Search radius of 60m by 30m by 15m was applied to the majority of domains</li> <li>○ Search restriction was applied to limit the influence of outlier values</li> <li>• The models were validated by plotting composite and block model average values against Northing and RL for gold.</li> <li>• The models were internally peer reviewed</li> </ul>
<b>Moisture</b>	<ul style="list-style-type: none"> <li>• Tonnages are estimated on a dry basis</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>• Underground Mineral Resource is reported at a cut-off of 2.5g/t Au</li> <li>• Open Pit Mineral Resource is reported at a cut-off of 0.4g/t Au</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Open pit mining is assumed within an optimised pit shell determined at a AUD\$ 2500 gold price</li> <li>• Outside the open pit shell the mining method is underground, open stoping with paste fill.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• Metallurgical recovery has been proven to be consistently &gt;95% during the processing of the deposit</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>• The project covers an area that has been previously impacted by mining. The tenement area includes existing ethnographic heritage sites. SBM have undertaken extensive Aboriginal Heritage Surveys within the tenements and management measures are in place.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>• Bulk density was assigned for the lodes as follows               <ul style="list-style-type: none"> <li>○ Main 2.73</li> <li>○ SGS 2.72</li> <li>○ SWB 2.78</li> <li>○ West 2.75</li> <li>○ Mine schist 2.79</li> </ul> </li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>• The resource is classified as a function of drill spacing, geological continuity and mining. Areas where grade control drilling has been completed to 20m x 30m and geological continuity has been established through mining are classified as Measured. Areas where drill density is 30m x 40m, 60m x 80m or less with high geological continuity are classified as Indicated and elsewhere where drill density is sparse classified as Inferred.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• The Mineral Resource Estimates has been reviewed internally. The review covered all aspects of the estimate including source data, geological model, resource estimate and classification. No material issues were identified.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>• The resource estimate is a global estimate.</li> </ul>



**JORC Table 1 Checklist of Assessment and Reporting Criteria  
Section 1 Sampling Techniques and Data – Harbour Lights**

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>For recent drilling completed by SBM, sampling boundaries are geologically defined and one metre in length unless a significant geological feature warrants a change from this standard unit. The upper or right-hand side of the core is routinely submitted for sample analysis, with each one metre of half core providing between 2.5 – 3 kg of material as an assay sample. Minimum sample length is 0.30 m.</li> <li>The majority of the drilling was completed by Esso Exploration and Production Australia Inc. (Esso) between 1981 and 1985. Diamond and RC holes have generally been sampled on 1m intervals but no details on sampling protocols have been found.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>SBM diamond drill holes used NQ2 (50.6mm) sized core (standard tubes). SBM surface drill holes have been down hole surveyed by north seeking gyro. Holes are orientated using a Reflex ACT II RD orientation tool.</li> <li>Details of earlier RC and DDH drilling techniques have not been located. Diamond holes were surveyed by single shot camera.</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>SBM core is metre marked and orientated and checked against driller's blocks to ensure that any core loss is accounted for. Sample recovery for all holes was good.</li> <li>Details on earlier core recovery are unknown.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> <li>All holes were logged in fresh rock for lithology, alteration quartz-carbonate veining and sulphides</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>SBM half core is cut using a core saw before being sent to an accredited lab (SGS laboratory in Kalgoorlie) where the entire sample is crushed to achieve particle size &lt;4mm followed by complete pulverisation (90% passing 75 µm).</li> <li>Sub-sampling techniques and sample preparation for earlier holes are unknown but are assumed to conform to standard Eastern Goldfields practices of the time.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS). QC included insertion of 3 commercial standards (1 per 25 samples), use of barren flush material between designated high grade samples during the pulverising stage, re-numbered sample pulp residues re-submitted to original laboratory, and sample pulp residues submitted to accredited umpire laboratory, submission of residual (duplicate) half core from ore intervals.</li> <li>The analytical method for earlier holes is unknown. Quality control was limited to analysis of pulp duplicates and the drilling of twin holes. SBM resampled selected intervals of earlier drill core which demonstrated good correlation with original assay values. This resampling demonstrated that there was no bias in the original analysis</li> </ul>
<b>Verification of sampling and assay</b>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically in spreadsheets which ensure only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server and validated.</li> <li>Earlier drilling data has been cross-checked against historic hard copy plots and reports.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>SBM collar location of holes are recorded by DGPS. Hole orientation was measured using TN14 Gyro compass.</li> <li>Collar survey methods are unknown but are assumed to conform to standard Eastern Goldfields practices of the time.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Surface drilling has been completed on an approximate 25mN x 30mRL pattern decreasing to ~50mN x 100mRL below 170mbs. Mineralised areas have generally been sampled on 1 metre intervals..</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Drill holes are included to the west which interests the east dipping mineralisation perpendicular to lode orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Only SBM personnel or approved contractors are allowed on drill sites; drill samples are only removed from drill site by approved contractors to SBM's secure core logging/processing facility; cut core is consigned to accredited laboratories for sample preparation and analysis.</li> <li>For earlier drilling it is assumed that the procedures applied were aligned to the industry practices prevailing at the time of sample collection, dispatch, sample preparation and analysis at accredited laboratories.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The logging and analytical data has been cross-checked against hard copy reports</li> </ul>



## Section 2 Reporting of Exploration Results – Harbour Lights

Criteria	Comments
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>The reported resource is completely located within M37/251 and M37/1150 which are 100% owned by St Barbara Limited. The tenement is in good standing at the time of reporting.</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>The majority of the drilling was completed by Esso Exploration and Production Australia Inc. (Esso) between 1981 and 1985</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Gold mineralisation extends over 1km strike length and has been tested to vertical depth of 500m. It is hosted in a sheared ultramafic and overlying high Mg tholeiitic basalt which strike North-northwest and dip at 45 degrees to the east. Gold is associated with pyrite and arsenopyrite in isoclinally folded and boudinaged quartz veins and potassic alteration halos.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>No exploration results are presented.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>No exploration results are presented</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>No further resource definition drilling is planned at this stage</li> <li>Metallurgical test work and mine planning are in progress</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources – Harbour Lights

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Data is captured through spread sheets and validated prior to loading into the SBM corporate database which ensures only valid non-overlapping data can be recorded. Assay and down hole survey data are subsequently merged electronically. All drill data is stored in an SQL database on secure company server. Validation of data included visual checks of hole traces, analytical and geological data and ad hoc validation of holes to original core photos and hard copy geological logs.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person has visited site on 16<sup>th</sup> September during the SBM drilling program. Drilling of hole HLGT0005 was in progress.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Mineralised domains are modelled based on the logging of sulphides (pyrite and arsenopyrite), quartz veining and potassic alteration halos</li> <li>A central zone and several sub-parallel zones were modelled to constrain gold estimation.</li> <li>Weakly mineralised talc chlorite zones were modelled as internal dilution inside the central mineralised domain</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>Mineralisation extends over a one kilometre strike and remains open at depth below the deepest hole intercept of 500m below surface. Mineralisation is parallel to the 45 degree dip of foliation with higher grade zones plunging to the south often associated with isoclinal fold hinges.</li> <li>The central zone is up to 40m true width in places.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Gold grade was estimated using ordinary kriging with a parent cell size of 10mE x 10mN x 5mRL which is approximately half the drill spacing in the upper areas of the deposit.</li> <li>Estimation was completed using Isatis Neo and Vulcan software.</li> <li>Search parameters are as follows: <ul style="list-style-type: none"> <li>Search orientation plane strike 20° dip 45° Plunge 160° (south)</li> <li>150m by 150m by 30m in the hanging wall and central domains</li> <li>200m by 200m by 30m in the footwall domains</li> <li>Composites selected 4 minimum and 32 maximum</li> </ul> </li> <li>Restricted search of 10m by 10m by 5m for composites greater than 0.4g/t Au for estimation of blocks outside modelled domains.</li> <li>High grade cap of 40g/t Au was applied to composite grade prior to estimation</li> <li>The model was validated by plotting composite and block model average values against Northing and RL for gold.</li> </ul>



Criteria	Comments
<b>Moisture</b>	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The model is reported at a cut-off of 0.4 g/t Au for oxide and 0.8g/t Au for fresh (sulphide) mineralisation</li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The mining method is open pit.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Metallurgical recovery is expected to be 90% for oxide and 85.5% for sulphide based on initial test work.</li> </ul>
<b>Environmental factors or assumptions</b>	<ul style="list-style-type: none"> <li>The project covers an area that has been previously impacted by mining. The tenement area includes existing ethnographic heritage sites. SBM have undertaken extensive Aboriginal Heritage Surveys within the tenements and management measures are in place.</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>For the oxide material a bulk density of 2.4 was assumed</li> <li>Bulk density values for fresh material are based on 1315 measurements on drill core with the following mean values applied by lithology and mineralisation groups</li> <li>Mineralised domains range from 2.8 to 2.85</li> <li>Un-mineralised lithologies range from 2.7 to 2.85</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The resource is classified as a function of drill spacing, geological continuity and mining.</li> <li>Areas where drill hole spacing is up to 50m by 50m and the average distance to composites is less than 50m are classified as indicated</li> <li>At depth and at the edges of the deposit where the drill spacing is wider the mineralisation is classified as inferred.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>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. External reviews are completed approximately every 3 years.</li> <li>The model was peer reviewed internally and by AMC consultants with no material issues identified.</li> </ul>
<b>Discussion of relative accuracy/confidence</b>	<ul style="list-style-type: none"> <li>The resource estimate is a global estimate. Grade control drilling will be required to define local ore/waste boundaries during open pit mining.</li> </ul>