

# Quarterly Report

## Q1 September FY23



3 months to 30 September 2022

### Highlights Q1 September FY23<sup>1</sup>

- Group gold production for Q1 was 63,700 ounces
  - Gwalia production impacted by lower than expected mining equipment availability and utilisation
  - Atlantic production in line with expectations with lower mined grade and increased stockpile processing
  - Simberi production was stable, in line with expectations
- Group AISC for Q1 of \$2,490 per ounce
  - Lower production from Gwalia did not sufficiently offset fixed costs
  - Atlantic and Simberi costs in line with expectations
- Simberi Strategic Review: Additional oxide material identified with the potential to extend oxide mining through FY25 (formerly FY24). No decision on Sulphide project required for at least 12 months
- Leonora Ore Reserves increased by 560koz to 3.1Moz with the inaugural Tower Hill Open Pit Ore Reserve
- Zoroastrian high grade underground mine on track to fill Leonora Processing Plant from Q1 FY24
- St Barbara has decided to defer the following capital expenditure for at least 12 months
  - Leonora Processing Plant expansion to 2.1Mtpa
  - Refractory ore circuit upgrade at Leonora Processing Plant
  - Construction of Aphrodite mine
- Guidance updated to reflect changes in capital expenditure, slower rate of improvement in equipment availability and utilisation at Gwalia and for exchange rate assumptions.

### Q1 summary

		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23
Group TRIFR <sup>2</sup>	mhrs	3.6	2.7	2.8	3.4	3.4	4.6
Gold Production	koz	67	66	62	86	281	64
All-In Sustaining Cost	\$/oz	1,492	1,587	2,290	2,007	1,848	2,490
Gold Sold	koz	58	76	56	86	276	63
Realised Gold Price	\$/oz	2,408	2,423	2,475	2,521	2,462	2,486

### Overview

St Barbara produced 63,700 ounces of gold in Q1 FY23 at an AISC of \$2,490. While Simberi and Atlantic performed in line with expectations, the group production result was lower than anticipated due to slower than anticipated ramp-up in underground mine equipment availability and utilisation impacting production at Leonora.

<sup>1</sup> This report uses certain Non-IFRS measures as set out on the last page of this report. Unless otherwise noted, information in this report that relates to Mineral Resources or Ore Reserves is extracted from the report titled 'Quarterly Report Q3 March FY22' released to the Australian Securities Exchange (ASX) on 28 April 2022 (Original Report) and available to view at [stbarbara.com.au](http://stbarbara.com.au). The information in this report that relates to Old South Gwalia Mineral Resources is extracted from the report titled 'Quarterly Report Q4 June FY22' released to the Australian Securities Exchange (ASX) on 27 July 2022 and available to view at [stbarbara.com.au](http://stbarbara.com.au). This report has not been audited.

<sup>2</sup> Total Recordable Injury Frequency Rate rolling 12-month average, mhrs – injuries per million hours.



The Leonora Province Plan Feasibility Studies progressed during the quarter, enabling the announcement of the inaugural Ore Reserve for the Tower Hill Open Pit expanding St Barbara's Ore Reserve in the Leonora province to 3.1Moz.

Mining reviews supporting the strategic review of Simberi have identified additional oxide ore. This additional material has the potential to extend the mining of oxide ore through FY25. Formerly oxide ore mining was scheduled out to only FY24. No decision is therefore required on the Sulphide project for at least 12 months while maintaining business continuity. The strategic review process is ongoing with multiple interested parties.

With Zoroastrian, Gwalia and Linden Gold ore filling the existing mill capacity from Q1 FY24, the Company has decided to defer the commencement date for expansion of the Leonora Processing Plant, development of the Aphrodite mine and construction of refractory ore treatment capability at Leonora by at least 12 months. This decision has the effect of deferring the relevant project capital for at least 12 months.

The deferral of decisions on the Simberi Sulphide project and Leonora Processing Plant expansion is anticipated to reduce execution risk with availability of construction contractors and reliability of equipment lead times of significant concern in the current market conditions.

## Guidance update

	Gold production (koz)	AISC (A\$/oz)	Sustaining capex (A\$M)	Growth capex (A\$M)
Atlantic Operations	40 - 50	2,075 – 2,315 <sup>3</sup>	5 – 10	20 – 25
Leonora Operations	145 – 160	2,250 – 2,450	60 – 70	30 – 40
Simberi Operations	70 – 80	2,300 – 2,540 <sup>4</sup>	5 – 10	3 – 5
<b>Consolidated</b>	<b>260 - 290</b>	<b>2,250 – 2,500</b>	<b>70 – 90</b>	<b>53 - 70</b>

The FY23 gold production guidance for Leonora was underpinned by the delivery of 1.1Mt of Gwalia ore to the processing plant. Over the last year there has been a steady rate of improvement in equipment availability and utilisation but the rate of improvement required to achieve guidance has not been achieved. Across the industry there has been intense competition for highly skilled fitters and maintainers and St Barbara, together with Macmahon, has only been able to fill the majority of required positions by the end of September 2022. It has become evident the full year target of 1.1Mt of ore out of Gwalia cannot be achieved in FY23. Based on the most recent expected equipment availability and utilisation rate projections, a new target of ~950kt has been calculated. This is a 14 percent reduction in ore being delivered to the mill which in turn has driven the 14 percent reduction in production guidance.

Capital expenditure guidance has been updated to reflect the deferral of the Simberi Sulphide project, the Leonora Processing Plant expansion to 2.1Mtpa, development of the Aphrodite underground mine and refractory ore treatment capability at Leonora.

Underlying local currency guidance for Atlantic and Simberi is consistent with prior guidance, however the Australian Dollar guidance has been updated to reflect the depreciating exchange rate. AISC guidance for Leonora has been updated to reflect lower gold production.

<sup>3</sup> C\$1,800 to C\$2,014 per ounce at AUD/CAD of 0.87

<sup>4</sup> US\$1,450 to US\$1,600 per ounce at AUD/USD of 0.63



## Consolidated Gold Production and Guidance

Production Summary Consolidated		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23	Guidance FY23
St Barbara's financial year is 1 July to 30 June		Qtr to 30 Sep 2021	Qtr to 31 Dec 2021	Qtr to 31 Mar 2022	Qtr to 30 Jun 2022	Year to 30 Jun 2022	Qtr to 30 Sep 2022	Year to 30 June 2023
<b>Production</b>								
Atlantic	oz	15,243	16,887	11,006	18,015	61,151	11,492	40-50 koz
Leonora	oz	51,757	48,637	40,559	50,506	191,459	34,078	145-160 koz
Simberi	oz	-	-	10,254	17,882	28,136	18,130	70-80 koz
<b>Consolidated</b>	<b>oz</b>	<b>67,000</b>	<b>65,524</b>	<b>61,819</b>	<b>86,403</b>	<b>280,746</b>	<b>63,700</b>	<b>260-290 koz</b>
<b>Mined Grade</b>								
Atlantic	g/t	0.63	0.76	0.52	0.70	0.66	0.49	n/a
Leonora	g/t	8.6	6.8	6.1	7.8	7.3	5.3	n/a
Simberi	g/t	1.41	1.29	1.21	1.07	1.14	0.99	n/a
<b>Total Cash Op. Costs</b>								
Atlantic	\$/oz	1,188	1,234	1,799	1,751	1,476	1,714	n/a
Leonora	\$/oz	1,033	1,164	1,341	1,323	1,206	1,850	n/a
Simberi	\$/oz	-	-	3,829	2,276	2,841	2,708	n/a
<b>Consolidated</b>	<b>\$/oz</b>	<b>1,071</b>	<b>1,184</b>	<b>1,861</b>	<b>1,632</b>	<b>1,444</b>	<b>2,085</b>	<b>n/a</b>
<b>All-In Sustaining Cost</b>								
Atlantic	\$/oz	1,504	1,396	2,013	2,027	1,720	2,085	2,075-2,315 <sup>5</sup>
Leonora	\$/oz	1,488	1,653	1,916	1,854	1,717	2,487	2,250-2,450
Simberi	\$/oz	-	-	4,064	2,416	3,017	2,754	2,300-2,540 <sup>6</sup>
<b>Consolidated</b>	<b>\$/oz</b>	<b>1,492</b>	<b>1,587</b>	<b>2,290</b>	<b>2,007</b>	<b>1,848</b>	<b>2,490</b>	<b>2,250-2,500</b>

<sup>5</sup> C\$1,800 to C\$2,014 per ounce at AUD/CAD of 0.87

<sup>6</sup> US\$1,450 to US\$1,600 per ounce at AUD/USD of 0.63



## Leonora Operations, Western Australia

Production Summary		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23
Ore Mined	kt	179	193	194	160	727	168
Waste mined	kt	105	42	64	71	283	87
Mined grade	g/t	8.6	6.8	6.1	7.8	7.3	5.3
Ore milled <sup>7</sup>	kt	244	279	254	250	1,027	240
Milled grade <sup>7</sup>	g/t	6.8	5.6	5.2	6.5	6.0	4.6
Recovery	%	97	97	96	97	97	96
<b>Gold production</b>	<b>oz</b>	<b>51,757</b>	<b>48,637</b>	<b>40,559</b>	<b>50,506</b>	<b>191,459</b>	<b>34,078</b>
Gold sold	oz	45,472	55,600	37,566	53,832	192,470	35,346
Realised gold price	\$/oz	2,439	2,453	2,511	2,542	2,486	2,524
<b>All-In Sustaining Cost (AISC)</b>	<b>\$/oz produced</b>	<b>1,488</b>	<b>1,653</b>	<b>1,916</b>	<b>1,854</b>	<b>1,717</b>	<b>2,487</b>

### Operations

The September quarter was anticipated to be a softer quarter<sup>8</sup>, however Leonora achieved below expectations at 34,078 ounces of gold. Gold production was primarily impacted by lower than expected underground mining equipment availability and utilisation stemming from continued shortages in skilled maintenance staff, and grade underperformance in two stopes mined during the quarter.

Consistent with the experience of the industry in Western Australia, Leonora continues to feel the effects of specialised maintenance staff shortages. These shortages drove lower than expected availability in underground equipment, impacting stope drilling, stope production and underground development rates. Notwithstanding this, Macmahon together with St Barbara has been able to fill most of the vacant maintenance roles by the end of the quarter, with the team now expected to make inroads into the maintenance backlog over the coming quarters. With staff shortages not materially extending to equipment operators, an additional long hole drill and two additional trucks were brought to site to temporarily ameliorate low equipment availability.

Gold grade across individual stopes does vary despite overall reliable grade reconciliation but the underperformance of two stopes in late September was very disappointing and contributed to overall lower gold production.

Leonora's AISC was higher than expected at \$2,487 per ounce because of the lower than expected ounce production.

The Zoroastrian underground mine remains on track to commence construction in Q3 FY23 with first production expected in Q1 FY24. It is expected to produce 300kt of ore at approximately 3g/t in its first year of production, with ore volumes expected to increase to 400kt in its second year.

<sup>7</sup> Includes Gwalia mineralised waste, stockpile material and third party ore purchases.

<sup>8</sup> Refer to ASX Market Release "Full Year Results FY22" issued 31 August 2022



## Tower Hill Ore Reserve adds 560koz of gold

Progress in the Leonora Province Plan Feasibility Study this quarter included the finalisation of the inaugural Ore Reserve estimate for the Tower Hill Open Pit, adding 560koz to Leonora’s Ore Reserves. Further increases are anticipated once studies can incorporate the improved scale of operations that would arise from a larger free-milling process facility.

The Tower Hill Open Pit is located ~2km from the Leonora Processing Plant. A Memorandum of Understanding has been signed for the relocation of certain railway intermodal activities from adjacent to Tower Hill to a new facility to be built east of the mine. The Company continues to make steady progress on access to the required areas.



### Tower Hill open pit Ore Reserve as at 13 September 2022

Category	Tonnes (Mt)	Grade (g/t Au)	Contained Metal (koz Au)
Proved Ore Reserve	-	-	-
Probable Ore Reserve	9.7	1.8	560
<b>Total Ore Reserve</b>	<b>9.7</b>	<b>1.8</b>	<b>560</b>

Notes:

1. The Ore Reserve is based on a variable fully costed cut-off grade of 0.8g/t Au, with low grade to the marginal cut-off grade of 0.45g/t Au opportunistically fed to the processing plant when capacity allowed
2. Metallurgical recoveries were based on a formula and averaged 93.4%
3. The Ore Reserve was estimated using a projected gold price of A\$2,000/oz
4. Estimates are rounded to two significant figures
5. Totals may not equal the sum of the component parts due to rounding adjustments



## Simberi Operations, New Ireland Province, Papua New Guinea

Production Summary		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23
Ore Mined	kt	21	184	394	872	1,471	855
Waste mined	kt	447	1,531	1,646	1,698	5,322	1,947
Mined grade	g/t	1.41	1.29	1.21	1.07	1.14	0.99
Ore milled	kt			479	726	1,205	730
Milled grade	g/t			1.15	1.02	1.07	0.99
Recovery	%			59	77	70	78
<b>Gold production</b>	<b>oz</b>			<b>10,254</b>	<b>17,882</b>	<b>28,136</b>	<b>18,130</b>
Gold sold	oz	179		7,917	14,672	22,768	15,719
Realised gold price	\$/oz	2,380		2,627	2,628	2,625	2,525
<b>All-In Sustaining Cost (AISC)</b>	<b>\$/oz produced</b>			<b>4,064</b>	<b>2,416</b>	<b>3,017</b>	<b>2,754</b>

### Operations

Ore mined at Simberi remained consistent with the prior quarter at 855kt. Marginally lower gold grade, down three percent, was offset by higher recoveries, up one percent, due to a higher proportion of oxide material delivered to the mill. As a result, gold production remained steady at 18,130oz.

The AISC at Simberi was higher than expectation at \$2,754 per ounce primarily due to higher diesel prices, the Australian dollar depreciating against the US dollar and increased maintenance costs as the site worked through the backlog of work generated during COVID-19 restrictions.

### Strategic review

Mining reviews and oxide exploration work supporting the strategic review of Simberi has identified additional oxide ore. This has the potential to extend the processing of oxide ore through FY25<sup>9</sup>.

No decision is required on the Sulphide project for at least 12 months while maintaining business continuity and as a result, St Barbara will not be investing capital on the project in FY23.

The strategic review continues to progress with a number of interested parties currently conducting due diligence.

<sup>9</sup> Subject to market and operating conditions



## Atlantic Operations, Nova Scotia, Canada

Production Summary		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23
Ore Mined	kt	447	470	417	883	2,217	371
Waste mined	kt	1,753	1,511	2,276	1,919	7,459	1,557
Mined grade	g/t	0.63	0.76	0.52	0.70	0.66	0.49
Ore milled	kt	737	726	551	741	2,755	640
Milled grade	g/t	0.70	0.80	0.69	0.82	0.75	0.6
Recovery	%	92	91	91	93	92	92
<b>Gold production</b>	<b>oz</b>	<b>15,243</b>	<b>16,887</b>	<b>11,006</b>	<b>18,015</b>	<b>61,151</b>	<b>11,492</b>
Gold sold	oz	12,446	20,767	10,820	17,146	61,179	11,661
Realised gold price	\$/oz	2,264	2,363	2,239	2,360	2,320	2,320
<b>All-In Sustaining Cost (AISC)</b>	<b>\$/oz produced</b>	<b>1,504</b>	<b>1,396</b>	<b>2,013</b>	<b>2,027</b>	<b>1,720</b>	<b>2,085</b>

### Operations

Atlantic production of 11,492 ounces of gold was in line with expectations as the mine lowers grade and increased processing of stockpiles.

The strongest storm recorded in Canadian history, Post-Tropical Storm Fiona, made landfall on the eastern shore of Nova Scotia in the early hours of 24 September. Operations were impacted from the loss of grid power supply from 24 September until 5 October 2022. St Barbara provided support to local communities in the immediate aftermath of the storm, donating drinking water and fuel.

Gold production was also impacted by the storm with province-wide power outages leaving the Touquoy site without power for seven days in the first quarter, and a further five days in the second quarter. The power outage reduced mill availability driving a reduction in ore milled compared to the previous quarter. As a result of advanced site storm preparations, pleasingly there was no major damage to infrastructure nor any environmental breaches resulting from the storm.

However, the Touquoy pit experienced a wall failure above a production area during the storm which will require three weeks of rehabilitation work in the second quarter. During this time, mining rates will be impacted, with low grade stockpiles used to supplement ore to the plant. This will not impact production for the year, as these stockpiles were planned to be used in the second half of the year after mining ceases in the open pit.

The AISC at Atlantic was in line with expectation at \$2,085 per ounce.

### Atlantic growth projects

Permits to store waste rock in the Clay Borrow area, to operate an Ammonia Treatment plant and the approval for the 2.5m lift to the Tailings Management Facility at Touquoy were approved during the quarter.

Answers to the final round of questions on the Environmental Assessment for in-pit tailings deposition into the Touquoy Pit are progressing well, with submission to Nova Scotia Environment and Climate Change (NSECC) planned in the second quarter.

Beaver Dam and Fifteen Mile Stream Gold Projects were approved to continue under the Federal Canadian Environmental Assessment Act 2012 (CEAA2012) permitting process during the quarter. Progress on Information Requests Round 3 for Beaver Dam are on track and a revised permitting timeline for Fifteen Mile Stream, which will include timing for the responses to Information Requests Round 1, is in preparation and will be completed next quarter.

The Atlantic Province Plan continues to look at optimising the development of multiple mines and facilities along the Moose River corridor to maximise value.



St Barbara made the decision not to pursue an extension under CEAA2012 for the Cochrane Hill Gold Project given it is in the early stage of its permitting process.

## Finance (unaudited)

- 62,726 ounces of gold were sold in Q1 September FY23, at an average realised gold price of \$2,486 per ounce (Q4 June FY22: 85,650 ounces at \$2,521 per ounce), with 10,417 ounces delivered to call options that matured in the quarter at a strike price of C\$2,050 per ounce (average of \$2,299 per ounce).
- Operational cash flow was \$3 million in Q1 September FY23. After growth capital, corporate costs and tax payments (net of tax refunds), net cash outflow was \$(31) million.
- Total debt owing under the Company's syndicated facility at 30 September 2022 was C\$80 million and A\$50 million.
- Total cash at bank at 30 September 2022 was \$65 million which was \$34 million lower than the prior quarter.
- Cash movements are summarised in the following table:

Cash movements & balance A\$M (unaudited)		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23
Operating cash flow <sup>10</sup>	Atlantic	8	26	(3)	8	39	1
	Leonora	47	54	25	51	177	11
	Simberi	(39)	(31)	(20)	(5)	(95)	(9)
Operational cash contribution		16	49	2	54	121	3
Growth capital	Atlantic	(2)	(3)	(2)	(4)	(11)	(2)
	Leonora	(5)	(1)	(2)	(1)	(9)	(5)
	Simberi	(4)	(21)	(6)	(8)	(39)	(2)
Project costs		(4)	-	(2)	(2)	(8)	(3)
Corporate costs <sup>11</sup>		(16)	(7)	(7)	(7)	(37)	(7)
Corporate royalties		(3)	(3)	(2)	(2)	(10)	(1)
Exploration		(4)	(6)	(6)	(5)	(21)	(4)
Investments		(21)	-	(8)	(1)	(30)	-
Income tax payments		(15)	(8)	8	(13)	(28)	(3)
Working capital movement		(17)	3	7	6	(1)	(7)
Cash flows before finance costs		(75)	3	(18)	17	(73)	(31)
Net interest income/(expense)		(1)	-	-	(1)	(2)	(2)
Lease facility		(1)	-	4	5	8	-
Other financing		(1)	49	(1)	(1)	46	(1)
Syndicated facility repayments		-	-	-	-	-	-
Dividends paid		(13)	-	-	-	(13)	-
Net movement for period		(91)	52	(15)	20	(34)	(34)
Cash balance at start of quarter		133	42	94	79	133	99
<b>Cash balance at end of quarter</b>		<b>42</b>	<b>94</b>	<b>79</b>	<b>99</b>	<b>99</b>	<b>65</b>

<sup>10</sup> Net of sustaining capex

<sup>11</sup> Cash corporate costs in Q1 Sep FY22 include payment of short term incentives for employees (inc. key management personnel) accrued at 30 June 2021



Group Sustaining Capex	Actual Q1 Sep FY22	Actual Q2 Dec FY22	Actual Q3 Mar FY22	Actual Q4 Jun FY22	Actual Year FY22	Actual Q1 Sep FY23	Guidance FY23
	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Atlantic	2	1	1	3	7	2	5-10
Leonora	12	12	13	13	50	14	60-70
Simberi	1	1	1	1	4	1	5-10
<b>Consolidated</b>	<b>15</b>	<b>14</b>	<b>15</b>	<b>17</b>	<b>61</b>	<b>17</b>	<b>70-90</b>

Group Growth Capex	Actual Q1 Sep FY22	Actual Q2 Dec FY22	Actual Q3 Mar FY22	Actual Q4 Jun FY22	Actual Year FY22	Actual Q1 Sep FY23	Guidance FY23
	\$M	\$M	\$M	\$M	\$M	\$M	\$M
Atlantic	2	3	2	4	11	2	20-25
Leonora	5	1	2	1	9	5	30-40
Simberi	4	21	6	8	39	2	3-5
<b>Consolidated</b>	<b>11</b>	<b>25</b>	<b>10</b>	<b>13</b>	<b>59</b>	<b>9</b>	<b>53-70</b>

Hedging in place at the date of this report comprises:

Financial Year	Volume ounces	Price \$/oz	Type	Delivery	Delivery schedule
Jul 22 to Jun 23	14,593	C\$2,050	European call options	Oct 2022 to Dec 2022	Monthly

## Exploration activities

### Australia

#### Gwalia mine exploration, Western Australia

An initial drill programme consisting of eleven holes targeting the Old South Gwalia mineralisation up dip (above 600mbs) was conducted during the quarter. Results were encouraging, with drilling intersecting several zones of narrow high grade mineralisation consisting of sheared quartz veining within a wider zone of alteration and shearing. Updating the geological model for further evaluation is to be conducted in Q2 FY23. Results received include:

UGD2948: 2.9 m @ 263 g/t Au (incl 0.85 m @ 867 g/t Au) from 38.85 m,

UGD2939: 6.5 m @ 9.2 g/t Au (incl 1.0 m @ 53.1 g/t Au) from 80.65 m,

UGD2946: 8.45 m @ 4.1 g/t Au (incl 1.0 m @ 19.4 g/t Au) from 77.45 m.

#### Leonora near mine exploration, Western Australia

A fourth and final diamond drill hole was extended from 438.2 m to a final depth of 656.7 m as part of the Harbour Light Deeps drilling program in July. The overall program comprised four holes for 2,825 m. Results were returned for the final hole with no further work planned at the present time.

A combined geotechnical and resource definition drill program, comprising five holes for 1,125.5 m was completed at Harbour Lights during September 2022. Assay results will be returned in Q2 FY23.

#### Aphrodite, Western Australia

A metallurgical and infill resource definition diamond drilling program at Aphrodite comprising eleven holes for 4,542 m was completed between June and August 2022. Seven and a half holes were completed during the quarter for 2,248.2 m. The aim of the program was to provide approximately 450 kg of suitable Aphrodite ore to enable Glencore Albion Process™ test work to be completed. All assay results were returned. The best results included:

22APD0006: 27.5 m @ 4.7 g/t Au from 324.6 m and 9.9 m @ 4.4 g/t Au from 365.7 m; and



22APD0011: 13.0 m @ 4.2 g/t Au from 328.0 m, 16.0 m @ 7.1 g/t Au from 346.0 m including 11.0 m @ 9.6 g/t Au from 347.0 m.

The encouraging result from hole 22APD0011 which intersected the Alpha Lode confirms continuity of previously indicated higher grade zones and will require follow-up drilling to test for a potential northern strike or plunge extension.

**Zoroastrian, Western Australia**

A resource definition diamond drill program of up to nine holes for 3,420 m is planned at the Zoroastrian deposit during Q2 FY23. The program is designed to advance the geological model of the SZS footwall lode and to test for strike extensions.

**Lake Wells Gold Project, Western Australia**

St Barbara Limited withdrew from the Lake Wells Joint Venture on 12 August 2022, as the Company focuses on Leonora Province Plan exploration.

**Pinjin Project, Western Australia**

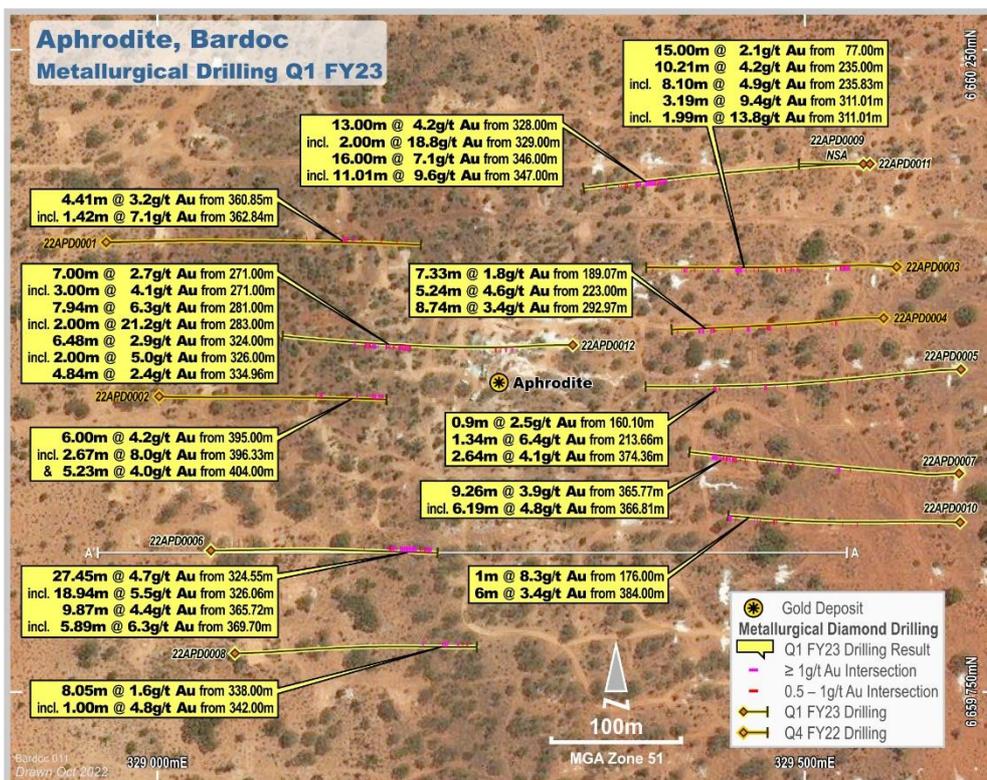
Earn-In and Joint Venture partner Plowden Resources Pty Ltd completed an initial RC drill program of four holes for 816 m testing four targets. Assay results are pending. Further RC drilling is planned in Q2 FY23.

St Barbara withdrew from the Pinjin North Joint Venture with E79 Gold Mines Limited on 19 September 2022, as the Company focuses on Leonora Province Plan exploration.

**Back Creek, New South Wales**

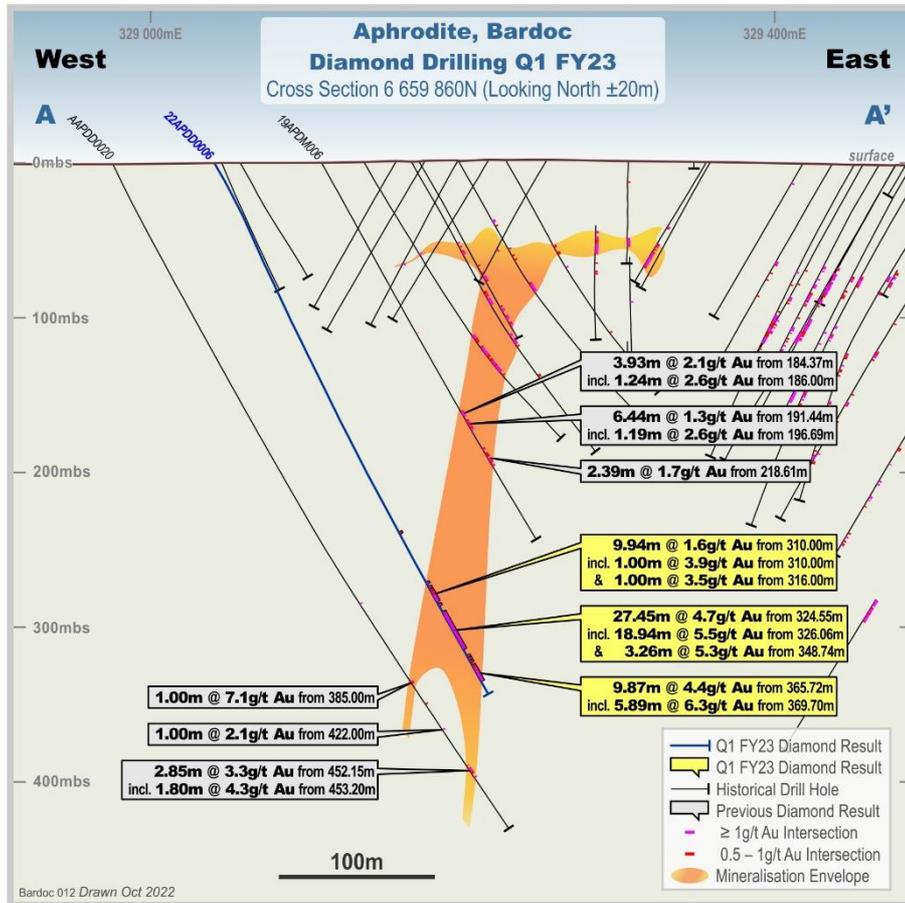
No field activities were conducted by St Barbara during the quarter.

**Aphrodite Diamond Drilling, Q1 FY23 Results**





## Aphrodite Diamond Drilling, Cross Section, Q1 FY23 Results



## Canada

Drill planning across the Nova Scotia exploration camps continues to progress with the expected receipt of Crown permits shortly and continued consultation with First Nation communities.

### Moose River Corridor

Re-logging and re-sampling of historical diamond drill core from the Mooseland Gold project commenced in April 2022 and is ongoing. To date, 4,816 m of 6,330 m for 26 of 31 priority historical diamond drill holes have been re-logged and re-sampled.

### Touquoy Camp

No field activities occurred during the quarter.

### Southwest Regional

834 till and 17 rock chip samples were collected during a regional surface sampling program covering the Pleasantfield trend, Thunderbolt, Hurricane, Mustang and Mill Village targets. The results will assist with the definition of targets for potential follow up drilling.

### Northeast Regional

No field activities occurred during the quarter.

## Papua New Guinea

### Simberi, Tatau & Tabar Islands

Diamond and RC drilling of oxide, transitional and sulphide targets on Simberi Island (ML136) to define potential additional Inferred to Indicated Resources continued through Q1 September FY23. Seven diamond drill holes for



683.3 m were completed at Pigiput NE and Pigicow during the quarter. An additional fourteen RC drill holes for 888 m were completed at Bekou West, Botlu South and Botlu West.

The Pigiput NE drilling returned encouraging oxide intersections. The best preliminary results returned from Pigiput NE include:

SDH501: 38 m @ 2.6 g/t Au (Ox)<sup>12</sup> from 0 m including 11 m @ 5.9 g/t Au (Ox) from 14 m,

SDH502: 36 m @ 1.8 g/t Au (Ox) from 0 m including 21 m @ 2.4 g/t Au (Ox) from 1 m, and

SDH504: 11 m @ 2.5 g/t Au (Ox,Tr,Su)<sup>13</sup> from 22 m including 6 m @ 3.3 g/t Au (Ox,Tr) from 23 m.

The Pigiput NE results are located within the final Pigiput pit design and will be included in a revised resource model.

Best preliminary results returned from Trotsky include:

SRCH131: 16 m @ 4.4 g/t Au (Ox,Tr,Su) from 35 m, including 8 m @ 7.8 g/t Au (Tr,Su) from 42 m.

Best preliminary results returned from Pigicow include:

SDH499: 22 m @ 2.1 g/t Au (Tr,Su) from 78 m including 8 m @ 3.6 g/t Au (Tr) from 79 m.

21 trenches for 2,455 m were completed at Pigiput NE, NW Sorowar, Trotsky, Botlu West and Botlu South on ML136 to assist in drill targeting.

Exploration work conducted on EL609 West Simberi during the quarter included ten RC holes for 100 m, four trenches for 285 m and the collection of thirty-one surface rock chip samples.

## Group Exploration expenditure (unaudited)

Group Exploration	Actual Year FY22 \$M	Actual Q1 Sep FY23 \$M	Guidance FY23 \$M
Australia*	10	2	7 - 10
Tabar Island Group, Papua New Guinea*	6	1	2 - 5
Nova Scotia, Canada*	4	1	5 - 8
<b>Consolidated</b>	<b>20</b>	<b>4</b>	<b>14 - 23</b>

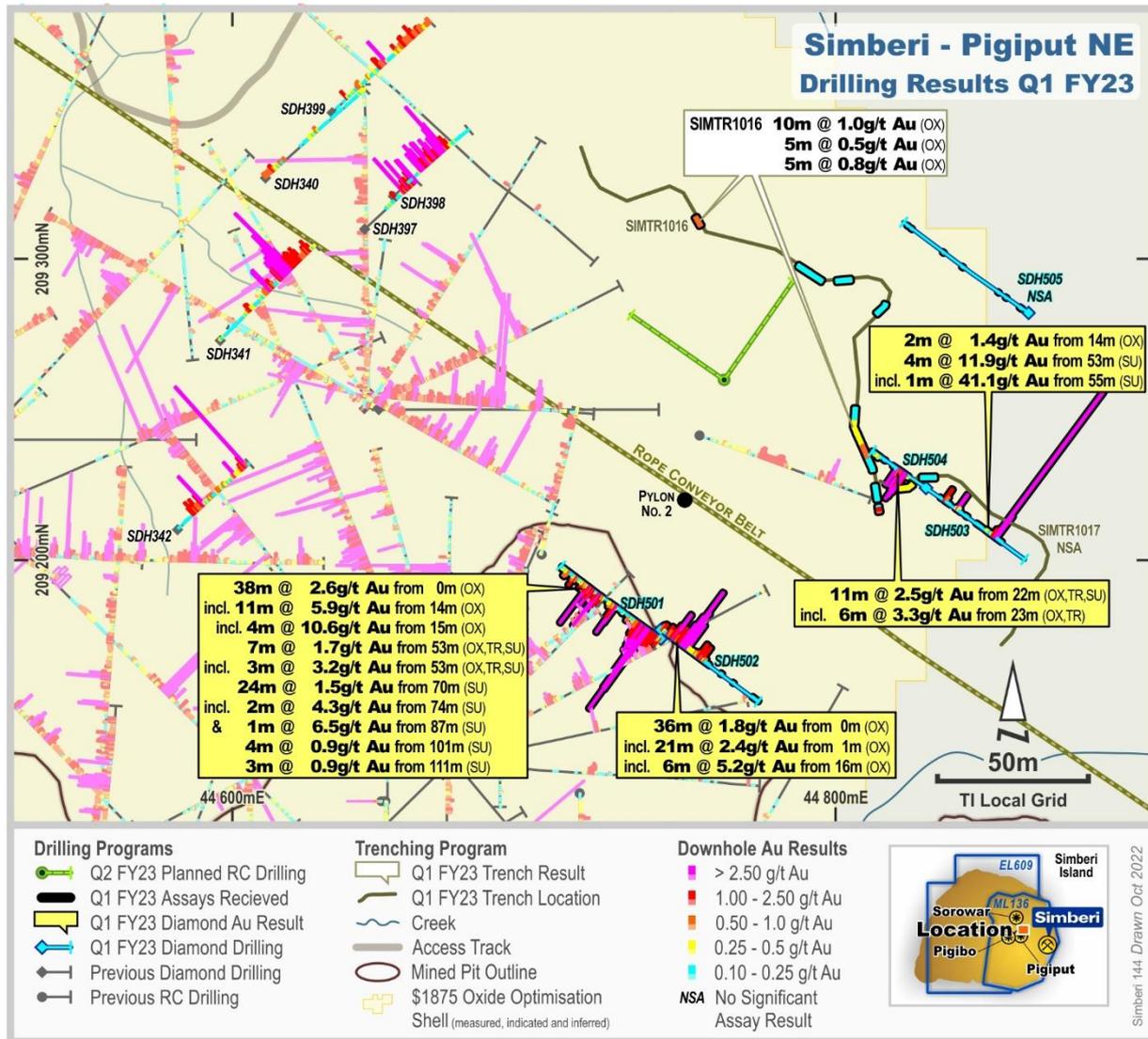
\* These items are expensed

<sup>12</sup> Ox = Oxide

<sup>13</sup> Tr = Transition, Su = Sulphide



### Pigput NE Diamond Drilling, Q1 FY23 Results





## Quarterly briefing and audio webcast

Mr Craig Jetson, Managing Director & CEO, will brief analysts and investors on the Q1 September FY23 Quarterly Report at 11.00 am Australian Eastern Daylight Time (UTC + 11 hours) on Tuesday 18 October 2022.

Analysts and investors can register for the briefing at <https://s1.c-conf.com/diamondpass/10025723-ki88re.html>.

An audio webcast will be available live and after the event on St Barbara's website at [stbarbara.com.au/investors/webcast/](http://stbarbara.com.au/investors/webcast/) or by [clicking here](#). The audio webcast is listen only and does not enable questions.

### Authorised by

Craig Jetson

*Managing Director & CEO*  
18 October 2022

## For more information

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## Share capital

Issued shares	ASX:SBM
Opening Balance 30 June 2022	815,734,768
Issued	306,877
<b>Closing balance 30 September 2022</b>	<b>816,041,645</b>

Unlisted employee rights	ASX:SBMAK
Opening balance 30 June 2022	<b>5,602,286</b>
Issued	Nil
Exercised as shares	(104,577)
Lapsed <sup>14</sup>	(1,140,279)
<b>Closing balance 30 September 2022</b>	<b>4,357,430</b>
Comprises rights expiring:	
30 June 2023	1,156,956
30 June 2024	3,176,311
Unlisted rights issued under the NED Equity Plan	24,163
<b>Closing balance 30 September 2022</b>	<b>4,357,430</b>

14 Rights lapsed due to conditions not being met



## Corporate directory

**St Barbara Limited** ABN 36 009 165 066

### Board of Directors

Tim Netscher, *Non-Executive Chairman*

Craig Jetson, *Managing Director & CEO*

Kerry Gleeson, *Non-Executive Director*

Stef Loader, *Non-Executive Director*

David Moroney, *Non-Executive Director*

### Company Secretary

Sarah Standish, *General Counsel & Company Secretary*

### Executives

Craig Jetson, *Managing Director & CEO*

Lucas Welsh, *Chief Financial Officer*

Val Madsen, *Executive General Manager People*

Peter Cowley, *Chief Operating Officer (Australasia)*

Meryl Jones, *President Americas*

Andrew Strelein, *Chief Development Officer*

### Registered Office

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Australian Securities Exchange (ASX) Listing code "SBM"

American Depositary Receipts (ADR OTC code "STBMY") through BNY Mellon, [www.adrbnymellon.com/dr\\_profile.jsp?cusip=852278100](http://www.adrbnymellon.com/dr_profile.jsp?cusip=852278100)

Financial figures are in Australian dollars (unless otherwise noted)

Financial year commences 1 July and ends 30 June

Q1 Sep FY23 = quarter to 30 Sep 2022

Q2 Dec FY23 = quarter to 31 Dec 2022

Q3 Mar FY23 = quarter to 31 Mar 2023

Q4 Jun FY23 = quarter to 30 Jun 2023

15 As notified by the substantial shareholder up to 17 October 2022

## Shareholder Enquiries

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## Substantial Shareholders

% of Holdings <sup>15</sup>	
Van Eck Associates Corporation	9.90%
L1 Capital	9.62%
State Street Corporation	6.13%
IPConcept (Luxembourg) S.A.	5.27%

## Scheduled future reporting

Date	Report
26 October 2022	Annual General Meeting

Dates are tentative and subject to change



## Production and All-In Sustaining Cost

Production summary	Atlantic Operations					Leonora Operations					Simberi					
		Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q1 Sep FY22	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23
Ore Mined	kt	447	470	417	883	371	179	193	194	160	168	21	184	394	872	855
Waste mined	kt	1,753	1,511	2,276	1,919	1,557	105	42	64	71	87	447	1,531	1,646	1,698	1,947
Mined grade	g/t	0.63	0.76	0.52	0.70	0.49	8.6	6.8	6.1	7.8	5.3	1.41	1.29	1.21	1.07	0.99
Ore milled <sup>16</sup>	kt	737	726	551	741	640	244	279	254	250	240			479	726	730
Milled grade <sup>16</sup>	g/t	0.70	0.80	0.69	0.82	0.6	6.8	5.6	5.2	6.5	4.6			1.15	1.02	0.99
Recovery	%	92	91	91	93	92	97	97	96	97	96			59	77	78
<b>Gold production</b>	<b>oz</b>	<b>15,243</b>	<b>16,887</b>	<b>11,006</b>	<b>18,015</b>	<b>11,492</b>	<b>51,757</b>	<b>48,637</b>	<b>40,559</b>	<b>50,506</b>	<b>34,078</b>			<b>10,254</b>	<b>17,882</b>	<b>18,130</b>
Gold sold	oz	12,446	20,767	10,820	17,146	11,661	45,472	55,600	37,556	53,832	35,346	179		7,917	14,672	15,719
Realised gold price	A\$/oz	2,264	2,363	2,239	2,360	2,320	2,439	2,453	2,511	2,542	2,524	2,380		2,627	2,628	2,525
<b>All-In Sustaining Cost<sup>17</sup> A\$/oz produced</b>																
Mining		508	442	869	953	826	658	756	930	913	1,270			1,270	1,231	1,171
Processing		488	493	729	515	758	177	176	238	179	322			1,096	717	820
Site Services		232	245	412	298	381	114	104	127	116	193			1,130	589	517
Stripping and ore inventory adj		(78)	(7)	(256)	(60)	(319)	32	44	(8)	38	2			284	(307)	(15)
		<b>1,150</b>	<b>1,173</b>	<b>1,754</b>	<b>1,706</b>	<b>1,646</b>	<b>981</b>	<b>1,080</b>	<b>1,287</b>	<b>1,246</b>	<b>1,787</b>			<b>3,780</b>	<b>2,230</b>	<b>2,493</b>
By-product credits		(2)	(1)	(2)	(2)	(1)	(3)	(3)	(3)	(3)	(4)			(14)	(14)	(7)
Third party refining & transport		3	4	3	2	3	1	1	1	1	1			-	4	4
Royalties		37	58	44	45	47	54	86	56	79	66			63	56	55
<b>Total cash operating costs</b>		<b>1,188</b>	<b>1,234</b>	<b>1,799</b>	<b>1,751</b>	<b>1,695</b>	<b>1,033</b>	<b>1,164</b>	<b>1,341</b>	<b>1,323</b>	<b>1,850</b>			<b>3,829</b>	<b>2,276</b>	<b>2,545</b>
Corporate and administration		123	75	134	71	107	88	94	130	77	95			61	76	105
Corporate royalty <sup>18</sup>		-	-	-	-	-	46	48	61	54	44			-	-	-
Rehabilitation		31	28	43	26	43	6	7	8	7	10			54	31	34
Capitalised mine development <sup>1818</sup>		-	-	-	-	-	208	203	273	252	431			-	-	-
Sustaining capital expenditure		162	59	37	179	240	28	50	48	41	49			120	33	70
<b>All-In Sustaining Cost (AISC) (Gwalia)<sup>1818</sup></b>							<b>1,409</b>	<b>1,566</b>	<b>1,861</b>	<b>1,754</b>	<b>2,479</b>					
Ore purchased <sup>1818</sup>							79	87	55	100	8					
<b>All-In Sustaining Cost (AISC)</b>		<b>1,504</b>	<b>1,396</b>	<b>2,013</b>	<b>2,027</b>	<b>2,085</b>	<b>1,488</b>	<b>1,653</b>	<b>1,916</b>	<b>1,854</b>	<b>2,487</b>			<b>4,064</b>	<b>2,416</b>	<b>2,754</b>

<sup>16</sup> Includes Gwalia mineralised waste, stockpile ore and third party purchased ore

<sup>17</sup> Non-IFRS measure, refer Appendix

<sup>18</sup> These items only relevant to Gwalia



## Disclaimer

This report has been prepared by St Barbara Limited (“Company”). The material contained in this report is for information purposes only. This release is not an offer or invitation for subscription or purchase of, or a recommendation in relation to, securities in the Company and neither this release nor anything contained in it shall form the basis of any contract or commitment.

This report contains forward-looking statements that are subject to risk factors associated with exploring for, developing, mining, processing and the sale of gold. Forward-looking statements include those containing such words as anticipate, estimates, forecasts, indicative, should, will, would, expects, plans or similar expressions. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, and which could cause actual results or trends to differ materially from those expressed in this report. Actual results may vary from the information in this report. The Company does not make, and this report should not be relied upon as, any representation or warranty as to the accuracy, or reasonableness, of such statements or assumptions. Investors are cautioned not to place undue reliance on such statements.

This report has been prepared by the Company based on information available to it, including information from third parties, and has not been independently verified. No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information or opinions contained in this report. To the maximum extent permitted by law, neither the Company, their directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this presentation or its contents or otherwise arising in connection with it.

## 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 Contribution** is cash flow from operations before finance costs, refer reconciliation of cash movement earlier in this quarterly report.

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

## Competent Persons Statement

### Exploration Results

The information in this report that relates to Exploration Results is based on information compiled by Dr Roger Mustard, who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mustard is a full-time employee of St Barbara 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’. Dr Mustard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Mineral Resources and Ore Reserves Estimates

The information in this report that relates to the mine planning underlying the Ore Reserves is based upon information reviewed and compiled by Mr Martin Liu, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Liu is a full-time employee of AMC Consultants Pty Ltd and has sufficient experience relevant to the style of mineralization and type of deposit under consideration 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 (JORC Code)”.

The information in this report that relates to the modifying factors underlying the Ore Reserves and the site inspection is based upon information reviewed and compiled by Mr Glen Williamson, who is a Chartered Professional (Mining) and Fellow of the Australasian Institute of Mining and Metallurgy. Mr Williamson is a full-time employee of AMC Consultants Pty Ltd and has sufficient experience relevant to the style of mineralization and type of deposit under consideration 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 (JORC Code)”.

Mr Liu and Mr Williamson have consented to the inclusion in the report of the matters based on this information in the form and context in which it appears. Mr Liu and Mr Williamson have no potential for conflict of interest in relation to this report to St Barbara Limited.

The information in this report that relates to Mineral Resources for Old South Gwalia is extracted from the report titled ‘Quarterly Report Q4 June FY22’ released to the Australian Securities Exchange (ASX) on 27 July 2022 and available to view at [stbarbara.com.au](http://stbarbara.com.au) and for which Competent Persons’ consents were obtained.

The information in this report that relates to all other Mineral Resources or Ore Reserves is extracted from the report titled ‘Quarterly Report Q3 March FY22’ released to the ASX on 28 April 2022 (Original Report) and available to view at [stbarbara.com.au](http://stbarbara.com.au) and for which Competent Persons’ consents were obtained. Each Competent Person’s consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the Original Report and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the Original Report continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the Original Report.

Full details are contained in Original Report available at [stbarbara.com.au](http://stbarbara.com.au).



## Exploration Tables

**Table 1: Old South Gwalia Drilling Significant Intercepts – Gwalia, WA**

Hole Id	Mine North	Mine East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
	m	m	m	degrees	m	From	To	Interval	Gold grade
						m	m	m	g/t Au
UGD2939	7765.33	6323.99	4902.99	18 / 102	125	80.65	87.3	6.65	9.2
<i>including</i>						86.0	87.0	1.0	53.1
UGD2946	7765.24	6323.73	4902.04	-2.2 / 071	164.3	69.0	77.45	8.45	4.1
<i>including</i>						74.0	75	1.0	19.4
						81.0	83.21	11.3	11.0
UGD2948	7813.17	6287.248	4885.61	18 / 097	100	38.85	41.75	2.9	263.7
<i>including</i>						39.2	40.05	0.85	867.0

**Table 2: Harbour Lights Deeps Diamond Drilling Significant Intercepts – Leonora, WA**

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
	m	m	m	degrees	m	From	To	Interval	Gold grade
						m	m	m	g/t Au
HLDD0008	6,804,725	336,887	373.0	-72 / 217	657.0	466.00	471.20	5.20	2.6
<i>including</i>						466.00	468.00	2.00	3.9
<i>and</i>						469.70	470.25	0.55	3.7
						482.00	483.00	1.00	10.4
						486.00	490.00	4.00	1.1

**Table 3: Aphrodite Diamond Drilling Significant Intercepts – Bardoc, WA**

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
	m	m	m	degrees	m	From	To	Interval	Gold grade
						m	m	m	g/t Au
22APD0001	6,660,100	328,960	389.3	-61 / 088	461.7	360.85	365.26	4.41	3.2
<i>including</i>						362.84	364.26	1.42	7.1
22APD0002	6,659,980	329,001	388.3	-61 / 092	417.3	305.27	311.00	5.73	2.0
<i>including</i>						306.42	308.60	2.18	3.0
						368.00	371.29	3.29	3.9
<i>including</i>						369.00	371.29	2.29	5.2
						395.00	401.00	6.00	4.2
<i>including</i>						396.33	399.00	2.67	8.0
						404.00	409.23	5.23	4.0
<i>including</i>						405.00	408.17	3.17	5.2
						411.61	412.95	1.34	1.9
22APD0003	6,660,081	329,571	386.3	-61 / 273	363.0	77.00	92.00	15.00	2.1



Table 3 Continued: Aphrodite Diamond Drilling Significant Intercepts – Bardoc, WA

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
	m	m	m	degrees	m	From	To	Interval	Gold grade
						m	m	m	g/t Au
<i>including</i>						78.00	79.00	1.00	2.5
<i>and</i>						82.00	83.00	1.00	8.1
<i>and</i>						89.00	90.00	1.00	4.2
						97.00	98.86	1.86	2.7
<i>including</i>						97.00	97.55	0.55	6.6
						153.00	156.00	3.00	1.0
						162.00	165.00	3.00	2.1
<i>including</i>						162.00	163.00	1.00	4.6
						179.00	180.00	1.00	5.8
						229.36	230.39	1.03	2.0
						235.00	245.21	10.21	4.2
<i>including</i>						235.83	243.93	8.10	4.9
						266.37	269.72	3.35	5.0
<i>including</i>						266.37	268.72	2.35	6.6
						311.01	314.20	3.19	9.4
<i>including</i>						311.01	313.00	1.99	13.8
22APD0004	6,660,041	329,561	385.9	-61 / 270	340.0	77.60	79.36	1.76	1.6
						189.07	196.40	7.33	1.8
<i>including</i>						189.07	191.51	2.44	3.3
						223.00	228.24	5.24	4.6
						281.00	284.00	3.00	1.2
						292.97	301.71	8.74	3.4
<i>including</i>						292.97	295.00	2.03	4.7
<i>and</i>						298.24	301.71	3.47	5.1
22APD0005	6,660,001	329,621	386.5	-60 / 270	467.6	160.10	161.00	0.90	2.5
						213.66	215.00	1.34	6.4
						291.75	292.85	1.10	2.5
						305.00	308.00	3.00	2.2
						332.00	333.00	1.00	3.6
						374.36	377.00	2.64	4.1
22APD0006	6,659,860	329,041	387.3	-60 / 089	385.0	310.00	319.94	9.94	1.6
<i>including</i>						310.00	311.00	1.00	3.9
<i>and</i>						316.00	317.00	1.00	3.5
						324.55	352.00	27.45	4.7
<i>including</i>						326.06	345.00	18.94	5.5
<i>and</i>						348.74	352.00	3.26	5.3
						365.72	375.59	9.87	4.4
<i>including</i>						369.70	375.59	5.89	6.3



**Table 3 Continued: Aphrodite Diamond Drilling Significant Intercepts – Bardoc, WA**

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
	m	m	m	degrees	m	From	To	Interval	Gold grade
						m	m	m	g/t Au
22APD0007	6,659,920	329,619	385.7	-60 / 270	408.2	185.00	191.18	6.18	2.8
<i>including</i>						186.00	189.00	3.00	4.7
						254.00	256.00	2.00	2.4
<i>including</i>						255.00	256.00	1.00	2.7
						273.00	274.00	1.00	2.5
						284.49	286.06	1.57	3.2
<i>including</i>						284.49	285.35	0.86	4.2
						340.00	354.00	14.00	1.1
						358.00	363.00	5.00	1.6
<i>including</i>						358.00	359.00	1.00	2.9
<i>and</i>						362.00	363.00	1.00	3.1
						365.77	375.03	9.26	3.9
<i>including</i>						366.81	373.00	6.19	4.8
22APD0008	6,659,780	329,060	386.9	-61 / 089	390.2	305.45	308.00	2.55	1.9
						338.00	346.05	8.05	1.6
<i>including</i>						342.00	343.00	1.00	4.8
						359.60	363.00	3.40	1.6
22APD0010	6,659,882	329,620	385.2	-61 / 271	390.1	176.00	177.00	1.00	8.3
						384.00	390.00	6.00	3.4
<i>including</i>						385.00	390.00	5.00	3.9
22APD0011	6,660,160	329,550	388.1	-61 / 269	450.1	311.30	312.00	0.70	15.6
						328.00	341.00	13.00	4.2
<i>including</i>						329.00	331.00	2.00	18.8
<i>and</i>						334.50	335.26	0.76	4.9
						346.00	362.00	16.00	7.1
<i>including</i>						347.00	358.01	11.01	9.6
						367.00	376.00	9.00	1.8
<i>including</i>						369.00	371.00	2.00	3.9
						399.00	400.00	1.00	2.3
						417.00	419.00	2.00	3.6
<i>including</i>						417.00	418.00	1.00	4.9
						486.00	490.00	4.00	1.1
22APD0012	6,660,020	329,321	389.7	-60 / 269	470.1	99.00	101.45	2.45	3.9
<i>including</i>						100.00	101.45	1.45	5.3
						109.00	111.00	2.00	2.2
<i>including</i>						110.00	111.00	1.00	2.6
						119.68	122.00	2.32	2.3
<i>including</i>						119.68	120.00	0.32	10.8



Table 3 Continued: Aphrodite Diamond Drilling Significant Intercepts – Bardoc, WA

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection			
	m	m	m	degrees	m	From	To	Interval	Gold grade
						m	m	m	g/t Au
						129.00	129.94	0.94	5.2
						271.00	278.00	7.00	2.7
<i>including</i>						271.00	274.00	3.00	4.1
						281.00	288.94	7.94	6.3
<i>including</i>						283.00	285.00	2.00	21.2
						302.00	304.00	2.00	4.2
						306.00	308.00	2.00	1.9
						320.00	321.00	1.00	3.8
						324.00	330.48	6.48	2.9
<i>including</i>						326.00	328.00	2.00	5.0
						334.96	339.80	4.84	2.4
<i>including</i>						336.00	339.00	3.00	3.0
						356.00	359.00	3.00	2.6
<i>including</i>						356.00	358.00	2.00	3.2



**Table 4: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea**

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Lode	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SDH483 (Trotky)	208,731	43,194	232.4	-58 / 212	83.0	TR,SU	66.0	77.0	11.0	0.6
SDH484 (Trotsky)	208,895	43,357	221.3	-60 / 212	60.0	OX,TR	25.0	35.0	10.0	0.7
SDH485 (Trotsky)	208,879	43,305	202.4	-59 / 119	80.3	OX	25.0	32.0	7.0	0.6
						OX,SU	41.0	47.0	6.0	0.8
<i>including</i>						OX	42.0	45.0	3.0	1.2
SDH486 (Trotsky)	208,891	43,300	197.0	-59 / 212	60.2	SU	28.0	34.0	6.0	12.0
<i>including</i>						SU	31.0	34.0	3.0	22.9
<i>including</i>						SU	32.0	33.0	1.0	61.1
SDH489 (Andora)	207,858	45,105	40.0	-60 / 090	50.0	OX,TR,SU	0.0	19.0	19.0	0.6
SDH491 (Andora)	207,948	45,047	90.0	-60 / 229	50.0	OX,TR,SU	5.0	13.0	8.0	1.5
						SU	27.0	31.0	4.0	0.7
SDH493 (Andora)						SU	23.0	45.1	22.1	0.8
<i>including</i>						SU	28.0	30.0	2.0	1.1
<i>and</i>						SU	36.0	40.0	4.0	1.2
SDH497 (Pigicow)*	208,017	43,817	172.3	-60 / 225	150.0		No Significant Results			
SDH498 (Pigicow)*	207,752	43,735	166.1	-60 / 222	106.0	OX,TR	8.0	15.0	7.0	0.5
						SU	36.0	44.0	8.0	1.1
SDH499 (Pigicow)*	208,032	43,920	182.1	-60 / 220	100.0	TR,SU	62.0	71.0	9.0	0.8
						TR,SU	78.0	100.0	22.0	2.1
<i>including</i>						TR	79.0	87.0	8.0	3.6
<i>and</i>						TR	96.0	98.0	2.0	4.2
SDH500 (Pigicow)*	208,097	44,160	136.1	-60 / 221	187.0	TR	7.0	24.0	17.0	1.0
<i>including</i>						TR	16.0	22.0	6.0	2.0
						TR,SU	31.0	36.0	5.0	1.5
						TR	44.0	47.0	3.0	1.8
						TR,SU	63.0	73.0	10.0	0.6
SDH501 (Pigiput NE)*	209,174	44,742	198.1	-70 / 306	121.0	OX	0.0	38.0	38.0	2.6
<i>including</i>						OX	14.0	25.0	11.0	5.9
<i>including</i>						OX	15.0	19.0	4.0	10.6
						OX,TR,SU	53.0	60.0	7.0	1.7
<i>including</i>						OX,TR,SU	53.0	56.0	3.0	3.2
						SU	70.0	94.0	24.0	1.5
<i>including</i>						SU	74.0	76.0	2.0	4.3
<i>and</i>						SU	87.0	88.0	1.0	6.5
						SU	101.0	105.0	4.0	0.9
						SU	111.0	114.0	3.0	0.9

NOTES:

\*Site Lab Aqua Regia Au results.

OX: oxide, SU: sulphide, TR: transitional material

**Table 4 Cont: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea**

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Lode	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SDH502 (Pigiput NE)*	209,177	44,742	199.4	-60 / 126	80.0	OX	0.0	36.0	36.0	1.8
<i>including</i>						OX	1.0	22.0	21.0	2.4
<i>including</i>						OX	16.0	22.0	6.0	5.2
SDH503 (Pigiput NE)*	209,224	44,830	190.0	-59 / 125	80.0	OX	14.0	16.0	2.0	1.4
						SU	53.0	57.0	4.0	11.9
<i>including</i>						SU	55.0	56.0	1.0	41.1
SDH504 (Pigiput NE)*	209,224	44,830	190.0	-69 / 304	60.0	OX,TR,SU	22.0	33.0	11.0	2.5
<i>including</i>						OX,TR	23.0	29.0	6.0	3.3
SDH505 (Pigiput NE)*	209,282	44,864	158.8	-60 / 305	98.0		No Significant Results			
SDH506 (Pigicow)*	207,963	43,908	172.3	-60 / 223	182.8	OX,TR	1.0	7.0	6.0	0.6
						SU	42.0	78.0	36.0	0.8
<i>including</i>						SU	54.0	56.0	2.0	1.4
<i>and</i>						SU	61.0	65.0	4.0	2.0
<i>and</i>						SU	74.0	77.0	3.0	1.1
						SU	142.0	145.0	3.0	0.9

NOTES:

\*Site Lab Aqua Regia Au results.

OX: oxide, SU: sulphide, TR: transitional material.

**Table 5: Simberi RC Significant Intercepts – ML136 Simberi Island, Papua New Guinea**

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Lode	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SRCH127 (Trotsky)*	208,957	43,316	184.2	-60 / 270	60	SU	27	31	4	0.7
SRCH128 (Trotsky)*	208,953	43,318	184.3	-60 / 180	57	OX,TR,SU	26	46	20	0.8
<i>including</i>						OX,TR,SU	36	40	4	1.3
SRCH129 (Trotsky)*	208,926	43,334	190.7	-60 / 180	60	OX	0	4	4	0.8
						OX,TR,SU	27	37	10	0.7
<i>including</i>						OX,TR,SU	31	36	5	1.0
SRCH130 (Trotsky)*	208,891	43,297	196.9	-60 / 270	60	OX	53	58	5	0.6

NOTES:

\*Site Lab Aqua Regia Au results.

OX: oxide, SU: sulphide, TR: transitional material.



Table 5 Continued: Simberi RC Significant Intercepts – ML136 Simberi Island, Papua New Guinea

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Lode	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SRCH131 (Trotsky)*	208,843	43,303	228.3	-60 / 270	70	OX,TR,SU	35	51	16	4.4
<i>including</i>						TR,SU	42	50	8	7.8
<i>including</i>						SU	45	46	1	16.3
<i>and</i>						SU	49	50	1	16.9
						SU	67	70	3	1.2
SRCH132 (Trotsky)*	208,843	43,303	228.3	-60 / 305	70	OX,TR,SU	38	52	14	1.1
<i>Including</i>						SU	50	52	2	2.8
SRCH143 (Bekou W)*	207,180	43,825	79.3	-60 / 220	58		No Significant Results			
SRCH144 (Bekou W)*	207,215	43,853	73.6	-60 / 220	58		No Significant Results			
SRCH145 (Bekou W)*	207,130	43,895	52.4	-60 / 220	60	SU	27	31	4	1.7
<i>and</i>						SU	55	60	5	0.7
SRCH146 (Botlu S)*	207,961	43,170	146.2	-60 / 170	60	OX,TR	0	10	10	0.5
SRCH147 (Botlu S)*	207,970	43,104	127.4	-60 / 180	60	SU	47	57	10	1.6
<i>Including</i>						SU	54	57	3	3.0
SRCH148 (Botlu S)*	207,918	43,159	136.2	-60 / 220	60		No Significant Results			
SRCH149 (Botlu S)*	207,953	43,107	128.0	-60 / 180	60	TR,SU	3	16	13	0.6
SRCH150 (Botlu S)*	207,966	43,048	121.9	-60 / 225	60		No Significant Results			
SRCH151 (Botlu W)*	208,424	42,684	117.5	-60 / 225	80	OX,TR	28	35	7	0.6
SRCH152 (Botlu W)*	208,366	42,710	106.0	-60 / 225	73	OX	0	14	14	0.5
SRCH153 (Botlu W)*	208,418	42,726	120.6	-60 / 220	80	OX,TR,SU	28	57	29	0.6
<i>Including</i>						SU	38	41	3	1.4
SRCH154 (Botlu W)*	208,419	43,000	95.4	-60 / 360	59	SU	33	35	2	1.9
						SU	49	59	10	0.6
SRCH155 (Botlu W)*	208,426	43,063	100.1	-60 / 210	60		No Significant Results			
SRCH156 (Botlu W)*	208,397	43,154	125.2	-60 / 210	60		No Significant Results			

## NOTES:

\*Site Lab Aqua Regia Au results.

OX: oxide, SU: sulphide, TR: transitional material.



Table 6: Simberi RC Significant Intercepts – EL609 Simberi Island, Papua New Guinea

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Lode	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
	m	m	m	degrees	m		m	m	m	g/t Au
SRCH133 (Moruru)*	209,890	42,316	247.3	-90 / 360	10		No Significant Results			
SRCH134 (Moruru)*	209,877	42,331	245.4	-90 / 360	10		No Significant Results			
SRCH135 (Moruru)*	209,873	42,349	242.0	-90 / 360	10		No Significant Results			
SRCH136 (Moruru)*	209,874	42,363	241.6	-90 / 360	10		No Significant Results			
SRCH137 (Moruru)*	209,872	42,374	242.3	-90 / 360	10		No Significant Results			
SRCH138 (Moruru)*	209,876	42,384	243.1	-90 / 360	10		No Significant Results			
SRCH139 (Moruru)*	209,884	42,434	254.9	-90 / 360	10		No Significant Results			
SRCH140 (Moruru)*	209,890	42,436	256.1	-90 / 360	10		No Significant Results			
SRCH141 (Moruru)*	209,910	42,464	263.1	-90 / 360	10		No Significant Results			
SRCH142 (Moruru)*	209,913	42,474	264.0	-90 / 360	10		No Significant Results			

## NOTES:

\*Site Lab Aqua Regia Au results.

OX: oxide, SU: sulphide, TR: transitional material.


**OLD SOUTH GWALIA– JORC Code, 2012 Edition – Table 1**
**Old South Gwalia - Section 1 Sampling Techniques and Data**

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 (50.6 mm) 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 was greater than 95 % for all holes, typically &gt;99 %. 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;4 mm 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 50 g 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>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>Co-ordinates are in Mine Grid, with sea level having an RL equivalent of 5380</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for underground resource definition is approximately 20 m x 25 m and surface drilling is approximately 60 m x 80 m. 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>



### Old South Gwalia – Section 2 Reporting of Exploration Results

Criteria	Comments
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>The reported resource and results are located within M37/0137 or M37/25 which are 100 % owned by St Barbara Limited. The tenements are in good standing at the time of reporting.</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>Pre-existing data in the area covered by this drilling is limited to face samples on historic development (pre-1963).</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 500 m 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>Drill hole information for holes returning significant results have been reported in the intercept table outlining the collar co-ordinates and includes drilled depth, hole dip and azimuth and composited mineralised intercept lengths and depth.</li> </ul>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <li>Downhole intercepts are reported as length weighted averages using a lower cut off of 1 g/t and a minimum gram metre value of 25 gmpt.</li> <li>No high grade cut has been applied</li> </ul>
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	<ul style="list-style-type: none"> <li>Drilling from underground is conducted from locations which means there are variable dips and azimuths due to access limitations. The impacts of this are limited where possible</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate diagrams are included in the text</li> </ul>
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <li>Details of all holes material to Exploration results are reported in the intercept table.</li> </ul>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <li>No other meaningful data to report</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>Results from the latest phase of drilling are to be modelled and reviewed prior to further work being planned.</li> </ul>

### TOWER HILL– JORC Code, 2012 Edition – Table 1

### Tower Hill - Section 1 Sampling Techniques and Data

Criteria	Comments
<b>Sampling Techniques</b>	<ul style="list-style-type: none"> <li>Sampling boundaries are geologically defined and mostly one metre in length unless a significant geological feature warrants a change from this standard unit. Post 2007 St Barbara Limited (SBM) drilling used Reverse Circulation drilling to obtain 1m samples through the mineralised zone. Most samples were dry, but where wet samples were encountered they were allowed to dry before being split by company personnel. Half core was sampled on largely 1m intervals based on geological boundaries. Core was cut along a plane passing through the basal orientation mark using a diamond saw.</li> </ul>
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <li>SBM diamond holes typically used NQ (47.6mm) and HQ (63.5mm) sized core (standard double tubes). Core was oriented using Ace Core Orientation and Ezy Mark orientation tools. Drill holes were down hole surveyed by either north seeking gyro within the rods or by electronic multi-shot in open holes. Less than 10% of SBM holes were surveyed down hole using a Reflex Single Shot camera. RC holes used mainly 5½" reverse circulation face sampling hammers.</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Recovery of core from SBM drill holes was rarely less than 100%. Ore zone intersections are NQ and HQ (for geotechnical holes) sized diamond core using standard double tubes. Recovery information for historic holes is unavailable, although this data largely impacts the mined out portions of the project and is not material to the resource estimate</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>All SBM holes were qualitatively and quantitatively logged for a combination of geological and geotechnical attributes. Pre-2007 holes were commonly logged for major lithology, alteration, vein minerals, and vein and sulphide percentage. Historic logging data was reviewed and deemed acceptable.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>SBM RC samples were recovered through a cone splitter to obtain mostly 1m samples from which 3 kg was pulverised to produce a 40g charge for fire assay. Half core was sampled on largely 1m intervals based on geological boundaries. Core was cut along a plane passing through the basal orientation mark using a diamond saw and was submitted for total pulverisation (85% passing 75 µm).</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Only limited information is available for holes drilled prior to 2007. SBM samples were analysed for gold using fire assay with a 40g charge and analysis by flame atomic absorption spectrometry. QC included insertion of 4 commercial standards per submission batch (4 commercial standards every 50 samples for diamond core), insertion of field duplicates every 40m and 2 blank control samples for every 100 samples. Sample pulp residues were submitted to an alternate laboratory. Results indicate that pulveriser bowls were adequately cleaned between samples, that analysis of gold was sound and re-analysis of pulps showed acceptable repeatability with no bias.</li> </ul>



<b>Verification of sampling and assay</b>	<ul style="list-style-type: none"> <li>SBM sampling data is recorded electronically 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 a SQL database on a secure company server. Statistical comparison of SBM (2007-2008) and pre-2007 assay results indicate that all data are compatible.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>SBM holes were surveyed using a Real Time Kinetic (RTK) GPS system. Historical drilling was located using mine surveyors and standard survey equipment.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Average data spacing of between 40m N-S by 30m E-W (up to 80m by 60m) is available for the bulk of the Tower Hill Resource. Drilling data is sufficient to establish continuity of the mineralised lodes.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Sampling is perpendicular to lode orientation and is well understood from past production.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Company personnel or approved contractors only allowed on drill sites. Drill samples are only removed from drill site to secure sampling or core logging/processing facility; core logged and cut and consigned to accredited laboratories for processing.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Historical data was reviewed and extensively validated in 2003 including cross-checking data against original hard copy records where available. All data has been reviewed by a Competent Person who is satisfied that the data is sound and suitable for resource estimation.</li> </ul>

### Tower Hill - Section 2 Reporting of Exploration Results

Criteria	Comments
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <li>The reported resource is completely located within M37/0055 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>Drilling of the resource by other parties is discussed in the previous section.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Gold mineralisation at Tower Hill is hosted within a moderately (35 - 50°) east-dipping quartz vein package adjacent to the contact of granite and strongly foliated ultramafic rocks. Quartz-gold vein lodes strike north to north-northwest with strike lengths of up to 600 m and widths from less than a metre to a vein package with a horizontal width of up to 50 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>Results from drilling earlier in the year will be incorporated into the current Resource model</li> </ul>

### Tower Hill - Section 3 Estimation and Reporting of Mineral Resources

Criteria	Comments
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>Information initially captured through hard copy logs was subsequently entered into 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 a SQL database on a secure company server. Validation of data included visual check of drill hole traces and basic checks for overlapping sample and geological logging intervals.</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>The Competent Person visited site when geological and resource models were reviewed between 2011 and 2013. Since this time no site visits have been completed as there has been no further field work.</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>Mineralisation domain = MAIN was defined by quartz veining, the granite contact and structural controls as well as gold grade. Mineralisation domains = HW1, HW2 and HW3 were defined by quartz veining and gold grade.</li> </ul>
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>Quartz-gold vein lodes strike north to north-northwest and dip moderately (30-50°) east with strike lengths of up to 600 m and widths from less than 1m to a vein package with a horizontal width of up to 50m. Mineralisation has been defined over a 1.1km strike length and has been tested to a maximum depth of approximately 525m below surface.</li> </ul>
<b>Estimation and modelling techniques</b>	<ul style="list-style-type: none"> <li>Gold grade was estimated by ordinary kriging 1m composites constrained by lode boundaries for a parent block size of <math>x = 10m * y = 20m * z = 5m</math> using Surpac 6.3. Search parameters reflect the moderate NE plunge control</li> </ul>



Criteria	Comments
	<ul style="list-style-type: none"> <li>of mineralisation</li> <li>All Domains – Rotation z = 29 degrees, x = -26 degrees, y = -24 degrees. Max. search distance = 200m. Major/Semi-Major anisotropy = 1.2; Major/Minor = 3. Min. samples = 12, Max. samples = 32. A top-cut of 60g/t was applied to Domain = MAIN composite data prior to estimation. No top-cuts were applied to the HW domain composite data.</li> <li>Model was validated by plotting composite and block model average grades against northing and were reasonable.</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 0.4g/t Au cut-off which is close to the expected marginal cut-off grade based on a A\$2,500/ounce gold price. The cut-off grade includes the following considerations: <ul style="list-style-type: none"> <li>Mining Cost - \$3.67/t</li> <li>Processing Cost (inc G&amp;A and sustaining capital) - \$23.90/t</li> <li>Processing recovery – 91.7%</li> <li>Pit slope angles of 41° footwall, 43° hangingwall</li> </ul> </li> </ul>
<b>Mining factors or assumptions</b>	<ul style="list-style-type: none"> <li>The mining method is conventional open pit.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>Processing recovery is 91.7%</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 tenement and management measures are in place.</li> <li>Agreements will be required to relocate infrastructure related to the handling and transportation of nickel concentrate on the eastern wall of the pit</li> </ul>
<b>Bulk density</b>	<ul style="list-style-type: none"> <li>The dry bulk density is estimated to be between 2.0 - 2.8g/cm<sup>3</sup>. This is based on weighing whole core samples in air and water for 87 samples.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The variogram model shows that 90% of total sill is reached at approximately 100m down plunge and within 45m perpendicular (D2) to this. Based on this, the average data spacing of between 40m by 30m (up to 80m by 60m) for the bulk of the Tower Hill Resource below the pit is considered adequate to classify the majority of the resource as Indicated. The down dip extensions to the resource, which are based on limited data, are considered Inferred.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The Tower Hill Resource was reviewed by Entech Mining Consultants in July 2021, who concluded that the model was suitable for open pit mining studies and recommended a review investigating sub-domaining of higher grade domains.</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 is completed in advance of development to improve local estimates of grade.</li> </ul>

#### **Tower Hill - Section 4 Estimation and Reporting of Ore Reserves**

Criteria	Comments
<b>Mineral Resource Estimate for conversion to Ore Reserves</b>	<ul style="list-style-type: none"> <li>Tower Hill deposit was mined in the 1980s by open pit but is currently not operating. It comprises a pit void adjacent to the town of Leonora filled with surface run-off and groundwater. The Mineral Resource estimate is based on a resource model developed by St Barbara Limited (St Barbara) in 2012 using ordinary kriging of composites of 1 m from 558 drill holes into parent blocks of 10 m x 20 m x 4 m. The Competent Person for the Mineral Resource estimate is Jane Bateman. AMC has reviewed the resource model and considers it suitable to be used as the basis for an Ore Reserve estimate.</li> <li>The Mineral Resource is reported inclusive of the Ore Reserve.</li> </ul>
<b>Site Visits</b>	<ul style="list-style-type: none"> <li>One of the Competent Persons visited the site in early August 2022 to inspect site conditions, proximity to the town of Leonora and local infrastructure, pit wall conditions and discuss the technical programme with site personnel.</li> </ul>
<b>Study Status</b>	<ul style="list-style-type: none"> <li>A pre-feasibility study (PFS) was undertaken by St Barbara on the Tower Hill deposit, with AMC Consultants Pty Ltd (AMC) engaged to develop the mine plan and geotechnical recommendations to a PFS level and provide an Ore Reserve estimate. Ore from Tower Hill will be trucked 2 km to the nearby Gwalia processing plant for treatment. St Barbara announced the expansion of the Gwalia processing plant from its current capacity of 1.4 Mtpa to 2.1 Mtpa.</li> <li>The Tower Hill mine plan is technically achievable and economically viable.</li> </ul>
<b>Cut-off parameters</b>	<ul style="list-style-type: none"> <li>The cut-off grade of 0.4 g/t Au to define ore is the breakeven grade for variable costs and a share of fixed costs for general and administration (G&amp;A) and through the Gwalia processing plant.</li> </ul>
<b>Mining Factors or Assumptions</b>	<ul style="list-style-type: none"> <li>Final pit limits were determined from pit optimisation using Whittle Four-X software, the diluted resource model, geotechnical parameters and metal prices, recoveries and operating costs agreed with St Barbara followed by final pit and stage design and mine scheduling.</li> <li>Mining is proposed by contract truck and excavator mining, using drill and blast on 10 m benches and excavators operating on 5 m benches near surface for bulk waste mining and then transitioning to drill and blast on 5 m benches and excavators operating on 2.5 m benches. The Competent Persons consider the mining method to be</li> </ul>



	<p>appropriate for Tower Hill. The Tower Hill mine schedule will be integrated with other ore sources for the Gwalia mill so that the pre-strip for Tower Hill does not impact the Gwalia mill ore supply.</p> <ul style="list-style-type: none"> <li>• Geotechnical parameters used for Tower Hill were developed by AMC during the PFS based on two weathering zones, with inter ramp angles ranging from 33° (50° batter angles, 7 m berms and 10 m batter heights) to 55° (70° batter angles, 7 m berms and 20 m batter heights), which represents an overall slope of approximately 42° after inclusion of ramps.</li> <li>• Mine planning used a diluted resource model with allowance for losses incurred during mining modelled by applying a 2 m dilution skin to ore lodes. This resulted in ore loss of 7% and dilution of 21%.</li> <li>• Haul road widths of 32 m for dual access roads and 18 m for single access roads were used. Minimum mining width of 20 m was used and 40 m for pushbacks.</li> <li>• Inferred Mineral Resources were included in dilution analysis but excluded from pit optimisation and treated as waste.</li> <li>• No specific infrastructure is required for mining Tower Hill, although as the pit void is currently filled with water, dewatering pumps and lines are required to transfer the water to other nearby pit voids.</li> </ul>
<b>Metallurgical factors or assumptions</b>	<ul style="list-style-type: none"> <li>• The free milling Tower Hill ore will be processed through the nearby upgraded 2.1 Mtpa Gwalia processing plant. The existing plant consists of a 1.4 Mtpa crushing and grinding circuit followed by a conventional gravity recovery and carbon-in-leach (CIL) circuit.</li> <li>• The existing plant utilises proven technology and the plant upgrade, has been defined through feasibility level studies and metallurgical testwork.</li> <li>• The metallurgical testwork undertaken for Tower Hill has been carried out on a large number of discrete variability samples from mostly ½ NQ diamond drill core samples across several test work programs carried out at reputable, industry leading metallurgical testing laboratories. Samples selected for testing were based on spatial and mineralogical distribution within the Tower Hill economic pit shell.</li> <li>• There are no known deleterious elements and no allowance is made in the Ore Reserve estimate for deleterious elements.</li> <li>• Tower Hill was previously mined in the 1980's and the metallurgical characteristics of the ore were well known. Formulae were applied to estimate gold recovery based on life-of-mine feed grades, with an average recovery of 93.4%. No bulk sampling was required.</li> <li>• Feed to the Gwalia processing plant will be a blend of multiple St Barbara ore sources of varying grade and mineralogy. No specification will be required for the Gwalia plant feed once the refractory components are installed as part of the upgrade.</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>• Tower Hill sits on a granted mining lease and the area has previously been significantly impacted by mining. Study work is currently in progress to complete a mining feasibility study including characterisation of waste rock and waste dump design. A PFS level study has recently been completed for a Life of Mine tailings storage which would accommodate all of Tower Hill's mine tailings. Approvals are currently in place for the 1.4 Mtpa process plant and associated infrastructure (TSF, power station) that processes the Gwalia ore. Current focus is on obtaining approvals for the 2.1 Mtpa process plant upgrade and progressing the environmental permitting study work (including noise, biological studies, hydrogeology, dewatering) for the Tower Hill open pit mining in parallel with the FS study</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>• Tower Hill is a brownfields development located adjacent to the town of Leonora and the operating Gwalia underground mine. Power, water, telecommunications are available at or near the site and accommodation is available in Leonora at St Barbara's accommodation village. An airstrip is located adjacent to the site to transport the expected fly-in fly-out workforce.</li> </ul>
<b>Costs</b>	<ul style="list-style-type: none"> <li>• Capital costs were derived from the Tower Hill PFS by Mintrex and other specialist service providers.</li> <li>• Sustaining capital cost of \$1.82/t for processing, tailings storage, and G&amp;A was estimated by St Barbara and specialist service providers.</li> <li>• Operating costs for mining averaged \$5.05/t and were developed by AMC from a first principles mining cost model calibrated from contract mining costs supplied by St Barbara. Fixed annual operating costs for ore processing of \$18.8M and G&amp;A of \$21.9M were developed by Mintrex and St Barbara respectively as part of the PFS and were used for pit optimisation, despite the shared nature of these costs with other Gwalia plant contributors. Variable ore processing costs of \$14.53/t feed were developed by Mintrex as part of the PFS.</li> <li>• No allowance was made for deleterious elements.</li> <li>• All costs and revenues were denominated in Australian dollars and no exchange rates were used.</li> <li>• Run-of-mine ore pad rehandle costs of \$0.65/t was estimated by St Barbara and transportation charges for ore from Tower Hill to Gwalia was estimated at \$2.87/t by St Barbara.</li> <li>• Treatment and refining charges of \$1.05/oz Au were provided by St Barbara based on costs for their existing operations.</li> <li>• West Australian Government of 2.5% and third-party royalties of 1.5% were included based on statutory or agreed rates as appropriate.</li> </ul>
<b>Revenue Factors</b>	<ul style="list-style-type: none"> <li>• The metal price of A\$2,000/oz Au was provided by St Barbara based on corporate forecasts and is similar to recent metal price forecasts used by other similar gold mining operations.</li> <li>• No other revenue factors were used.</li> </ul>
<b>Market Assessment</b>	<ul style="list-style-type: none"> <li>• The product from processing of Tower Hill ore is gold bullion, for which a ready market exists and is traded on an open and transparent market.</li> <li>• Gold bullion is marketed to precious metal refineries (Perth Mint). Customer and competitor analysis is not required.</li> <li>• Price forecasts were derived from St Barbara corporate forecasts and are similar to prices used for other similar and recent gold mining projects.</li> <li>• No specification is required for gold bullion.</li> </ul>
<b>Economic</b>	<ul style="list-style-type: none"> <li>• Economic analysis used metal prices, operating and capital costs, and metal recoveries described with a 6% discount rate to estimate net present values (NPVs).</li> </ul>



	<ul style="list-style-type: none"> <li>NPV were significantly positive and demonstrate that extraction of Tower Hill Ore Reserve can be reasonably justified.</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>St Barbara are in liaison with and have good relationships with all key stakeholders. Relevant agreements are expected to be in place prior to commencement of mining.</li> </ul>
<b>Other</b>	<ul style="list-style-type: none"> <li>There are no known naturally occurring risks other than those risks present at any other mine site in the region, such as storms and bushfires.</li> <li>St Barbara is working with the Darlot People who have recently received Native Title recognition over the Leonora area. It is anticipated that an agreement will be entered into within the timeframes anticipated. There are no material marketing agreements.</li> <li>St Barbara is currently working with Government and non-Government stakeholders on the relocation of rail loading facilities and the rail line. The Competent Persons consider that there are reasonable grounds to expect that all necessary approvals will be received within the timeframes anticipated in the PFS.</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>The classification of the underlying Mineral Resource estimate was accepted in the classification of Ore Reserve estimate.</li> <li>The classification reflects the Competent Persons view of Tower Hill.</li> <li>No Probable Ore Reserve was derived from Measured Mineral Resource.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No audits or reviews have been undertaken on the Tower Hill Ore Reserve.</li> </ul>
<b>Discussion of relative accuracy/ confidence</b>	<ul style="list-style-type: none"> <li>The level of confidence in operating costs, geotechnical parameters, metal recoveries, and other technical modifying factors is at least at a PFS level of assessment and in the opinion of the Competent Persons, modifying factors applied to estimate the Ore Reserve are appropriately estimated and reasonable.</li> <li>There is some uncertainty around the impact that blasting, noise, dust, and night-time noise levels in proximity to the town will have on operations, but competent management procedures should negate this uncertainty.</li> <li>The Ore Reserve estimate relates to global estimates in conversion of Mineral Resource to Ore Reserve, due largely to spacing of drill data, on which estimates are based, relative to intended local selectivity of mining operations. Diluting methodology applied by way of a dilution skin around a parent sized resource block support this.</li> <li>Metal prices are subject to market forces and therefore present an area of uncertainty.</li> <li>In the opinion of the Competent Persons, there are reasonable prospects to anticipate that relevant legal, environmental, and social approvals to operate will be granted within the project timeframe.</li> </ul>


**LEONORA – JORC Code, 2012 Edition – Table 1**
**Contents**

<b>Harbour Lights Drilling:</b>	Section 1 Sampling Techniques and Data
	Section 2 Reporting of Exploration Results
<b>Aphrodite Drilling</b>	Section 1 Sampling Techniques and Data
	Section 2 Reporting of Exploration Results

**Harbour Lights Drilling - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Sampling was completed using diamond drill core (DD).</li> <li>Diamond core was transferred to core trays for logging and sampling. Half core samples were nominated by the geologist from HQ or NQ diamond core, with a minimum sample width of 20 cm and a maximum width of 120 cm.</li> <li>Samples are mostly one metre in length unless a significant geological feature warrants a change from this standard unit. The lower or left-hand side of the core is submitted for sample analysis, with each one metre of half core providing between 2.5 – 3 kg of material as an assay sample.</li> <li>Samples were transported to SGS Kalgoorlie for preparation by drying, crushing to &lt;3 mm and pulverising the entire sample to &lt;75 µm.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Diamond drill holes were commenced using HQ (63.5 mm) or PQ (85 mm) diameter core.</li> <li>Once ground conditions allowed, holes reduced to NQ2 (50.6 mm) diameter core.</li> <li>Core was orientated using a Boart Longyear TruCore core orientation system.</li> <li>A Sandvik diamond drill rig was utilised by Topdrill to complete the drilling.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for.</li> <li>Significant core loss is only encountered in the upper weathered portions of holes. Sample recovery in fresh rock is rarely less than 100 %. Where minor core loss does occur in fresh rock, it is due 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> <li>All logging is quantitative where possible and qualitative elsewhere.</li> <li>A photograph is taken of every core tray (wet).</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 SGS laboratory in Kalgoorlie where the entire sample is crushed to achieve particle size &lt;4 mm followed by complete pulverisation (90 % passing 75 µm).</li> <li>SGS Kalgoorlie transferred pulps to SGS Perth for multi element testwork.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Samples were analysed for gold using fire assay with a 50 g charge and analysis by flame Atomic Absorption (FAA505) Spectrometry (AAS).</li> <li>Samples were analysed for arsenic, iron and sulphur using Aqua Regia digest with ICP-AES Finish.</li> <li>Certified reference material, blanks and duplicate samples were inserted into the sample stream at a ratio of 1:20.</li> <li>SGS Laboratories inserted certified standards, blanks and replicates and lab repeats.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>Primary geological and sampling data were recorded into made for purpose excel spreadsheets, peer reviewed and validated by SBM Geologists.</li> <li>Data was then transferred into the St Barbara corporate DataShed database where it was further validated by St Barbara's Geological Database Administrator. No adjustments to assay data were made.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Prior to drilling, all holes were marked out using a DGPS with decimetre accuracy.</li> <li>Upon completion of the program, all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions.</li> <li>All locations were captured in MGA94 zone 51 grid.</li> <li>Downhole surveys were taken by the drilling contractor at 10 m intervals utilising a north seeking Axis gyro system.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Drilling targeted gaps within the resource model or interpreted down plunge extensions to mineralisation and was not designed on a regular pattern.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>The stratigraphy strikes NNW-SSE and dips approximately 40 degrees to the east.</li> <li>Planned drill hole dips ranged from -60 to -83 degrees at collar.</li> <li>Drill holes are oriented as close as practical to perpendicular to the mineralised trends.</li> <li>No sampling bias is considered to have been introduced by the drilling orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Only Company personnel or approved contractors are allowed on drill sites; drill samples are only removed from drill site by company employees and transported to the company's secure processing facility. Processed samples are consigned to accredited laboratories for sample preparation and analysis.</li> </ul>



Criteria	Commentary
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.</li> </ul>

### **Harbour Lights Drilling - Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>SBM has 100 % ownership of tenement M37/0251 in which the drilling was completed.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Numerous shallow workings exist in the project area.</li> <li>Exploration activities including RAB drilling, RC Drilling, DD Drilling, soil sampling and geophysics by groups such as Esso, Carr-Boyd Minerals, Ashton Mining and Sons of Gwalia.</li> <li>Carr-Boyd Minerals commenced open pit mining of the deposit in 1985 with mining finishing in 1993.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The project area is located in the Leonora area of the Norseman-Wiluna Archean greenstone.</li> <li>The project lies between the Mt George Shear Zone to the east, and the Raeside Batholith/greenstone contact to the west.</li> <li>Project area hosts a sequence of basalts, talc-carbonate schists, gabbroic/doleritic sills and interflow sediments. The sequence is intruded by granitoids and E-W oriented dolerite dykes.</li> <li>Mineralisation is hosted within potassic altered ultramafic schist with high quantities of contorted quartz carbonate veining and is strongly related to arsenopyrite content.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>Drill hole information for holes returning significant results have been reported in the intercept table outlining the collar co-ordinates and includes drilled depth, hole dip and azimuth and composited mineralised intercept lengths and depth.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li><b>Above 300 metres below surface:</b> down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au and minimum gram metre value of 2 gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li><b>Beneath 300 metres below surface:</b> down hole intercepts are reported as length weighted averages using a cut-off of 1.0 g/t Au and minimum gram metre value of 2 gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li>No high grade cut is applied and grades are reported to one decimal figure.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>The orientation of mineralisation is well known and therefore drilling has been designed to intersect at angles perpendicular to mineralisation.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Appropriate diagrams are included within the body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results have been reported in the intercept table.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Data is included in the body of the report.</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>Further resource definition and exploration drill holes are planned.</li> </ul>



## **Aphrodite Drilling - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

<b>Criteria</b>	<b>Commentary</b>
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>• Sampling was completed using diamond drill core (DD).</li> <li>• Diamond core was transferred to core trays for logging and sampling. Whole core samples were nominated by the geologist from HQ diamond core, with a minimum sample width of 20 cm and a maximum width of 120 cm.</li> <li>• Samples are mostly one metre in length unless a significant geological feature warrants a change from this standard unit. The entire core sample was submitted for sample analysis, with each one metre of whole core providing between 7 – 8 kg of material as an assay sample.</li> <li>• Samples were transported to SGS Kalgoorlie for preparation by drying, crushing to &lt;3.35 mm, and pulverising a 3 kg split to 85 % passing &lt;75 µm.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>• Diamond drill holes were commenced using a rock roller bit which was used to advance holes through unconsolidated and highly weathered material.</li> <li>• Once competent ground was encountered a HQ3 (63.5 mm) diameter bit was used to complete the holes.</li> <li>• Core was orientated using a Boart Longyear TruCore core orientation system.</li> <li>• A Sandvik diamond drill rig was utilised by Topdrill to complete the drilling.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>• Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for.</li> <li>• Significant core loss is only encountered in the upper weathered portions of holes. Sample recovery in fresh rock is rarely less than 100 %. Where minor core loss does occur in fresh rock, it is due 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> <li>• All logging is quantitative where possible and qualitative elsewhere.</li> <li>• A wet and dry photograph is taken of every core tray.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• SBM whole core is cut at sample boundaries using a brick saw before being sent to SGS laboratory in Kalgoorlie where the entire sample is crushed to achieve particle size &lt;3.35 mm, a 3 kg split is then pulverisation to 85 % passing 75 µm.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• Samples were analysed for gold using fire assay with a 30 g charge and analysis by Microwave Plasma Atomic Emission Spectroscopy (FAP30V10).</li> <li>• Samples were analysed for arsenic, iron and sulphur using Aqua Regia digest with ICP-AES Finish.</li> <li>• Certified reference material and blanks were inserted into the sample stream at a ratio of 1:20.</li> <li>• SGS Laboratories inserted certified standards, blanks and replicates and lab repeats.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• Primary geological and sampling data were recorded into made for purpose excel spreadsheets, peer reviewed and validated by SBM Geologists.</li> <li>• Data was then transferred into the St Barbara corporate DataShed database where it was further validated by St Barbara's Geological Database Administrator. No adjustments to assay data were made.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• Prior to drilling, all holes were marked out using a DGPS with decimetre accuracy.</li> <li>• Upon completion of the program, all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions.</li> <li>• All locations were captured in MGA94 zone 51 grid.</li> <li>• Downhole surveys were taken by the drilling contractor at between 5 m and 15 m intervals utilising a north seeking Axis gyro system.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• Drilling targeted gaps within the resource model and was not designed on a regular pattern.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• The regional stratigraphy generally strikes NNW-SSE and dips vertically.</li> <li>• Planned drill hole dips were at -60 degrees.</li> <li>• Drill holes are oriented as close as practical to perpendicular to the mineralised trends -either at 090 or 270.</li> <li>• No sampling bias is considered to have been introduced by the drilling orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• Only Company personnel or approved contractors are allowed on drill sites; drill samples are only removed from drill site by company employees and transported to the company's secure processing facility. Processed samples are consigned to accredited laboratories for sample preparation and analysis.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.</li> </ul>



## **Aphrodite Drilling - Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

<b>Criteria</b>	<b>Commentary</b>
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• SBM has 100 % ownership of tenement M24/720 in which the drilling was completed.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>• Western Mining Corporation, BHP and Daltymple drilled RAB, Aircore and auger holes in the area in the late 80's and early 90's.</li> <li>• Mineralisation was discovered in 1994 by Goldfields when an auger drilling programme defined a coincident gold (up to 240 ppb) and arsenic (up to 163 ppm) pedogenic calcrete anomaly 3 km long. Goldfields completed follow-up AC, RAB and RC drilling.</li> <li>• Pancontinental, Centaur Mining, Delta Gold, Aurion Gold, Placer Dome, Barrick Gold, Apex Minerals, Aphrodite Gold, Spitfire Minerals and Bardoc Gold have all held the project since discovery and have completed various drilling campaigns.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• The project area is located in the Bardoc Tectonic Zones of the Kalgoorlie Terrane.</li> <li>• The tectonic zone is an intensely sheared corridor of Late Archaean supracrustal rocks, ~80 km-long and up to 12 km wide. These are bounded by pre- to syn-tectonic granites, the Goongarrie-Mt. Pleasant Dome in the west and the Scotia-Kanowna Dome in the east.</li> <li>• The local stratigraphy comprises of a package of mafics, epiclastic sediments of dominantly volcanic origin, intermediate to felsic intrusives, and ultramafics.</li> <li>• Mineralisation is hosted within the sedimentary, megacrystic dolerite and porphyry units.</li> <li>• Arsenopyrite is the sulphide species associated with the gold mineralisation, forming with quartz-carbonate as smaller arrays of stringers and gold related alteration is characterized by quartz-albite-sericite.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• Drill hole information for holes returning significant results have been reported in the intercept table outlining the collar co-ordinates and includes drilled depth, hole dip and azimuth and composited mineralised intercept lengths and depth.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• down hole intercepts are reported as length weighted averages using a cut-off of 1.0 g/t Au and minimum gram metre value of 2 gmpt. Higher grade intercepts are reported using a lower cut-off of 2.5 g/t Au and a minimum gram metre value of 2 gmpt.</li> <li>• No high grade cut is applied and grades are reported to one decimal figure.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• The orientation of mineralisation is well known and therefore drilling has been designed to intersect at angles perpendicular to mineralisation.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• Appropriate diagrams are included within the body of the report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• Details of all holes material to Exploration Results have been reported in the intercept table.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• Data is included in the body of the report.</li> </ul>
<b>Further Work</b>	<ul style="list-style-type: none"> <li>• Further resource definition and exploration drill holes are planned.</li> </ul>


**SIMBERI – JORC Code, 2012 Edition – Table 1**
**Contents**

<b>Drilling:</b>	Section 1 Sampling Techniques and Data
	Section 2 Reporting of Exploration Results
<b>Trenching:</b>	Section 1 Sampling Techniques and Data
	Section 2 Reporting of Exploration Results

**Drilling - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to the succeeding section.)

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Diamond Drilling comprised HQ3 (61.1 mm) 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 and is cut by an Almonte automated coresaw for sample preparation.</li> <li>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.</li> <li>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.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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).</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres recorded on the core blocks. Recoveries averaged &gt;90 % with increased core loss present in fault zones and zones of strong weathering/alteration.</li> <li>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.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>All holes are logged in their entirety and data recorded in templated excel workbook for installation in the companies secure SQL database.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>All diamond drill core associated with St Barbara work program was half cut with the lower or left-hand side submitted for assay.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>



Criteria	Commentary
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>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).</li> <li>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).</li> <li>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).</li> <li>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.</li> <li>ALS Townsville inserted certified standards, replicates, lab repeats and complete sizing checks (1:40).</li> <li>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.</li> <li>Over the duration of the quarter St Barbara inserted OREAS standards 252b and 254b as matched to material type and grade approximation.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and downhole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server. No twin holes have been completed.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>The majority of Simberi Island drill collars were surveyed by company appointed surveyors using DGPS in Tabar Island Grid (TIG) which is based on WGS84 ellipsoid and is GPS compatible. Those few collars not surveyed by DGPS were surveyed by handheld GPS and draped on detailed digital terrain models created from a Lidar Survey. All diamond drill holes were downhole surveyed using a Reflex EZ track single shot camera with the first reading at about 18 m and one at 30 m and then approximately every 30 m increments to the bottom-of-the hole.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Exploration diamond and RC drilling data is not yet sufficient to establish continuity of the lodes and therefore the drill spacing is irregular and broad spaced.</li> <li>Resource definition diamond and RC drilling data is sufficient to establish continuity of the lodes in some areas, with infill holes on a nominal 30 m x 30 m having been drilled. Elsewhere, the drilling density is nominally at a 60 m x 60 m spacing and can be insufficient to be able to reliably predict orebody continuity.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Where surface mapping and sampling has contributed to understanding of outcropping geological structures, drilling, and sampling has been undertaken orthogonal to the mapped structure.</li> <li>Previous structural studies by consulting geologist indicate that WNW-ESE is the preferential direction of mineralized structures. In instances of ambiguous local controls, holes are generally oriented orthogonal to this orientation in first pass.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Only company personnel or approved contractors are allowed on drill sites; drill core is only removed from drill site to secure core logging/processing facility within the gated exploration core yard; core is promptly logged, cut, and prepped on site. The samples sent to ALS are stored in locked and guarded storage facilities until receipted at the Laboratory.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>

### Drilling - Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>SBM has 100 % ownership of the three tenements over the Simberi Islands; ML136 on Simberi Island, EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island and 4 sub-block EL2462 which covers part of Tatau and Mapua Islands.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations.</li> <li>On Tatau and Big Tabar Islands, located immediately south of Simberi, porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation is present.</li> <li>On Simberi Island, Diamond and RC drilling is being conducted on the Simberi ML136 testing for both shallow oxide residuum and epithermal sulphide gold potential.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>Drill hole information is included in intercept table outlining collar position obtained by DGPS pickup, hole dip and azimuth acquired from a downhole surveying camera as discussed in section 1, composited mineralised intercepts lengths and depth as well as hole depth.</li> </ul>



Criteria	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>For gold only epithermal mineralisation, broad down hole intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au, minimum width of 2 m, and a minimum grade*length of 2.5 gmpt (gram metre per tonne). Such intercepts may include material below cut-off but no more than 5 sequential metres of such material and except where the average drops below the cut-off. Supplementary cut-offs, of 2.5 g/t Au, 5.0 g/t Au and 10 g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where <math>\geq 5.0</math> g/t Au and <math>\geq 1</math> m down hole.</li> <li>Core loss is assigned the same grade as the sample grade; no high-grade cut is applied; grades are reported to one decimal figure and no metal equivalent values are used for reporting exploration results.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>Down hole length was reported for all holes; true width was not known as the orientation of the orebody is understood to be erratic in geometry.</li> <li>Simberi lodes display high variability in orientation and complex geometries as a result of the interplay of veining, brecciation intensity, host lithology and oxidation fronts.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>Diagrams when included, show all drill holes material and immaterial to Exploration Results.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Details of all holes material to Exploration Results will be reported in intercept tables.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>

### **Trenching - Section 1 Sampling Techniques and Data**

(Criteria in this section apply to the succeeding section.)

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Sampling of trenches was done over measured intervals of between 1 and 5 metres dependent on geology. A geo-pick was used to collect a continuous channel sample from the trench faces across the designated interval with the samples collected in calico bags. Samples (3 to 5 kg) were prepped on-site (jaw crushed, disk mill pulverised and then split) to produce a 200 g pulp sample. A 25 g charge was then extracted from the pulp for Au analyses by Aqua Regia digestion followed by an Atomic Absorption Spectroscopy (AAS) instrument finish.</li> </ul>
<b>Trenching techniques</b>	<ul style="list-style-type: none"> <li>Mechanised trenches were dug by an excavator or dozer exposing up to 5 meters of trench wall.</li> <li>Hand dug trenches are cut using shovels and picks approximately along contours exposing up to 1.5 m of trench wall.</li> </ul>
<b>Sample recovery</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Logging / Mapping</b>	<ul style="list-style-type: none"> <li>All trenches were qualitatively geologically mapped for lithology, structure and alteration.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>Samples are routinely submitted for total pulverisation (85 % passing <math>&lt;75 \mu\text{m}</math>) at the company onsite sample preparation facility on Simberi Island.</li> <li>200 g pulps are sent to St Barbara's Simberi Laboratory where a 25 g sub-sample is taken.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Samples were analysed for gold at the Simberi Lab using Aqua Regia digestion with a 25 g charge and analysis by Atomic Absorption Spectrometry.</li> <li>QC included the insertion of two in house blanks at the start of each batch of trench samples, the insertion of certified gold standards (1:20) and crush duplicates collected during sample preparation (1:20).</li> <li>Over the duration of the quarter St Barbara inserted OREAS standards 252b and 254b as matched to material type and grade approximation.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and trench survey data are subsequently merged electronically. All data is stored in a SQL database on secure company server.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>All Simberi Island trenches were initially surveyed by a handheld GPS to capture the trench start point. The GPS used the Tabar Island Grid (TIG) which is based on WGS84 ellipsoid. The path of the trench from the initial start point to the end was surveyed by Tape &amp; Compass method. Trench interval coordinates were then generated using basic trigonometry.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Trench data spacing is irregular and broad spaced.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Where preceding surface mapping and sampling of trenches have contributed to the understanding of outcropping geological structures, trenching and sampling has been undertaken to extend the strike length of the mapped structure. However, in many of the areas the lode orientation is poorly understood.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Only trained company personnel were allowed to collect the samples. All samples were held within a secure company building before dispatch. The samples were prepared on site at the sample preparation facility.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>No audits or reviews of sampling protocols have been completed.</li> </ul>



## **Trenching - Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

<b>Criteria</b>	<b>Commentary</b>
<b><i>Mineral tenement and land tenure status</i></b>	<ul style="list-style-type: none"> <li>SBM has 100 % ownership of the three tenements over the Simberi Islands; ML136 on Simberi Island, EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island and 4 sub-block EL2462 which covers part of Tatau and Mapua Island.</li> </ul>
<b><i>Exploration done by other parties</i></b>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b><i>Geology</i></b>	<ul style="list-style-type: none"> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations. On Tatau and Big Tabar Islands, located immediately south of Simberi, potential also exists for porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation.</li> </ul>
<b><i>Trench Information</i></b>	<ul style="list-style-type: none"> <li>Included in the report text and annotated on diagrams.</li> </ul>
<b><i>Data aggregation methods</i></b>	<ul style="list-style-type: none"> <li>Broad trench intercepts are reported as length weighted averages using a cut-off of 0.5 g/t Au and a minimum grade*length of 2.5 gmpt. Such intercepts may include material below cut-off but no more than 5 sequential meters of such material and except where the average drops below the cut-off.</li> <li>Using the same criteria for included sub-grade, supplementary cut-offs, of 2.5 g/t Au, 5.0 g/t Au and 10 g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where <math>\geq 1.0</math> g/t and <math>\geq 5</math> m trench length is intercepted. Grades are reported to 1 decimal figure &amp; no high grade cut is applied.</li> </ul>
<b><i>Relationship between mineralisation widths and intercept lengths</i></b>	<ul style="list-style-type: none"> <li>Trench intercepts are sampled along the length of the trench and are reported for all trenches; true width is not reported.</li> </ul>
<b><i>Diagrams</i></b>	<ul style="list-style-type: none"> <li>Figures when included show all sample sites material and immaterial to Exploration Results.</li> </ul>
<b><i>Balanced reporting</i></b>	<ul style="list-style-type: none"> <li>Details of all trenches material to Exploration Results have been reported in the text.</li> </ul>
<b><i>Other substantive exploration data</i></b>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>
<b><i>Further work</i></b>	<ul style="list-style-type: none"> <li>Included in the body of the report.</li> </ul>