# Quarterly Report Q2 December FY23



3 months to 31 December 2022 (unaudited)

St Barbara ("SBM" or the "Company") (ASX:SBM) is pleased to provide the Q2 December FY23 quarterly report.

#### **Highlights**

- Group gold production for Q2 was 60,976 ounces
  - Increased ore mined at Gwalia offset by delays accessing high grade stopes to next quarter, resulting in lower grade development ore being processed
  - Atlantic and Simberi production stable, in line with expectations
- Group AISC¹ for Q2 of \$2,666 per ounce
  - Lower production from Gwalia did not sufficiently offset fixed costs
  - Atlantic and Simberi costs in line with expectations
- Merger announced with Genesis to form Hoover House, and demerger of St Barbara's non-Leonora assets to form Phoenician Metals
- · Reset of St Barbara's strategic direction
  - Zoroastrian development suspended in expectation of nearby Genesis' ore supplies in FY24
  - Strategic review completed at Simberi, with oxide mine life now extended through FY25 and Final Investment Decision on the Sulphide Project deferred while resource extension drilling is completed in FY24
  - Atlantic development focus shifted to Fifteen Mile Stream, as permitting of Beaver Dam paused to allow further discussions with First Nation groups and other stakeholders
- On track to reach bottom end of Group production and therefore top end of cost guidance.

Managing Director and CEO Dan Lougher said "It has been a disappointing quarter at Leonora as we reset the operations with a new General Manager, who is setting the site up for improved performance over the next six months. Simberi had a strong quarter, with its first positive cashflow in five quarters, while Atlantic recovered from Hurricane Fiona which pushed some production into the third quarter."

"St Barbara faces an exciting future, following the announcement of the merger of our Leonora operations with Genesis to form the new Hoover House, together with the demerger of Atlantic and Simberi to create Phoenician Metals. I believe that this will deliver the best pathway forward for our shareholders by helping to unlock the market value of Atlantic and Simberi, while driving the consolidation of the Leonora region."

St Barbara produced 60,976 ounces of gold in Q2 FY23 at an increased AISC of \$2,666 due to lower production compared to the prior quarter. While Simberi and Atlantic performed in line with expectations, the group production result was lower than anticipated due to delays in accessing high grade stopes at Gwalia, resulting in lower grade development ore being processed there. With access to high grade stopes since achieved after the end of the quarter, St Barbara remains on track to deliver towards the lower end of production guidance and the higher end of AISC guidance for FY23.

<sup>1</sup> This report uses certain Non-IFRS measures as set out on the last page of this report.



#### 1. Group production and costs

Production Summary Consolidated		Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23	Half Year FY23	Guidance FY23
St Barbara's financial y 1 July to 30 June	ear is	Qtr to 31 Dec 2021	Qtr to 31 Mar 2022	Qtr to 30 Jun 2022	Qtr to 30 Sep 2022	Qtr to 31 Dec 2022	6 months to 31 Dec 2022	Year to 30 June 2023
Production								_
Atlantic	oz	16,887	11,006	18,015	11,492	10,054	21,546	40-50 koz
Leonora	oz	48,637	40,559	50,506	34,078	32,175	66,253	145-160 koz
Simberi	oz	-	10,254	17,882	18,130	18,747	36,877	70-80 koz
Consolidated	oz	65,524	61,819	86,403	63,700	60,976	124,676	260-290 koz
Group Gold Sold	oz	76,367	56,293	85,650	62,726	65,061	127,787	
Realised Gold Price	\$/oz	2,423	2,475	2,521	2,486	2,591	2,540	
Mined Grade								
Atlantic	g/t	0.76	0.52	0.70	0.49	0.55	0.52	n/a
Leonora	g/t	6.8	6.1	7.8	5.3	4.8	5.0	n/a
Simberi	g/t	1.29	1.21	1.07	0.99	1.09	1.04	n/a
Total Cash Op. Costs								
Atlantic	\$/oz	1,234	1,799	1,751	1,714	2,268	1,963	n/a
Leonora	\$/oz	1,164	1,341	1,323	1,850	2,065	1,954	n/a
Simberi	\$/oz	-	3,829	2,276	2,708	2,183	2,360	n/a
Consolidated	\$/oz	1,184	1,861	1,632	2,085	2,140	2,084	n/a
All-In Sustaining Cost	t							
Atlantic	\$/oz	1,396	2,013	2,027	2,085	2,867	2,450	2,075-2,315 <sup>2</sup>
Leonora	\$/oz	1,653	1,916	1,854	2,487	2,796	2,637	2,250-2,450
Simberi	\$/oz	-	4,064	2,416	2,754	2,335	2,540	2,300-2,540 <sup>3</sup>
Consolidated	\$/oz	1,587	2,290	2,007	2,490	2,666	2,576	2,250-2,500
Group TRIFR <sup>4</sup>	mhrs	2.7	2.8	3.4	4.6	4.7	4.7	

#### 2. Finance (unaudited)

St Barbara sold 65,061 ounces of gold in the December quarter, at an average realised gold price of \$2,591 per ounce. This compares favourably to the 62,726 ounces at \$2,486 per ounce sold in the prior quarter. Of the ounces sold, 9,624 ounces were delivered to call options that matured in the quarter at a strike price of C\$2,050 per ounce (average of \$2,290 per ounce).

Operational cash flow was \$11 million in the quarter up from \$3 million in the prior quarter. Simberi delivered \$12 million operating cash flow following five consecutive quarters of negative operating cash flow. After ramping up production over the last two quarters Simberi was able to draw down on gold in circuit to sell more gold than it produced this quarter contributing to the improved cashflow. Leonora generated \$1 million operating cash flow due to its low margin production being offset by higher sustaining capital expenditure. Operating cashflow at Atlantic was negatively impacted by lower grades and cost to lift the tailings wall.

After growth capital, corporate costs and tax payments (net of tax refunds), net cash outflow was \$(25) million.

Total debt owing under the Company's syndicated facility at 31 December 2022 was C\$80 million and A\$50 million. Subsequent to 31 December 2022, a further A\$20 million was drawn down during January 2023 to manage the timing of gold shipments and operational payments. Total cash at bank at 31 December 2022 was \$38 million which was \$27 million lower than the prior quarter. Previously was \$47 million cash at bank and \$137 million debt as at 30 November 2022<sup>5</sup>.

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

<sup>3</sup> US\$1,450 to US\$1,600 per ounce at AUD/USD of 0.63

<sup>4</sup> Total Recordable Injury Frequency Rate rolling 12-month average, mhrs – injuries per million hours.

<sup>5</sup> Refer to announcement titled "Merger of St Barbara and Genesis to form Hoover House" released to ASX on 12 December 2022



#### Cash movements are summarised in the following table:

Cash movements & balance A\$M (unaudited)	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Year FY22	Q1 Sep FY23	Q2 Dec FY23
Operating cash flow <sup>6</sup> Atlantic	26	(3)	8	39	1	(2)
Leonora	54	25	51	177	11	1
Simberi	(31)	(20)	(5)	(95)	(9)	12
Operational cash contribution	49	2	54	121	3	11
Growth capital Atlantic	(3)	(2)	(4)	(11)	(2)	(3)
Leonora	(1)	(2)	(1)	(9)	(5)	(1)
Simberi	(21)	(6)	(8)	(39)	(2)	-
Project costs	-	(2)	(2)	(8)	(3)	(2)
Corporate costs	(7)	(7)	(7)	(37)	(7)	(7)
Corporate royalties	(3)	(2)	(2)	(10)	(1)	(2)
Exploration	(6)	(6)	(5)	(21)	(4)	(6)
Investments	-	(8)	(1)	(30)	-	-
Income tax payments	(8)	8	(13)	(28)	(3)	(4)
Working capital movement	3	7	6	(1)	(7)	(11)
Cash flows before finance costs	3	(18)	17	(73)	(31)	(25)
Net interest income/(expense)	-	-	(1)	(2)	(2)	(1)
Lease facility	-	4	5	8	-	(1)
Other financing	49	(1)	(1)	46	(1)	-
Syndicated facility repayments	-	-	-	-	-	-
Dividends paid	-	-	-	(13)	-	-
Net movement for period	52	(15)	20	(34)	(34)	(27)
Cash balance at start of quarter	42	94	79	133	99	65
Cash balance at end of quarter	94	79	99	99	65	38

Group Sustaining Capex	Actual Q2 Dec FY22	Actual Q3 Mar FY22	Actual Q4 Jun FY22	Actual Q1 Sep FY23	Actual Q2 Dec FY23	Guidance FY23
	\$M	\$M	\$M	\$M	\$M	\$М
Atlantic	1	1	3	2	5	5-10
Leonora	12	13	13	14	16	60-70
Simberi	1	1	1	1	1	5-10
Consolidated	14	15	17	17	22	70-90

Group Growth Capex	Actual Q2 Dec FY22	Actual Q3 Mar FY22	Actual Q4 Jun FY22	Actual Q1 Sep FY23	Actual Q2 Dec FY23	Guidance FY23
	\$M	\$M	\$M	\$M	\$M	\$M
Atlantic	3	2	4	2	3	20-25
Leonora	1	2	1	5	1	10-15
Simberi	21	6	8	2	-	3-5
Consolidated	25	10	13	9	4	33-45

#### Hedging in place at the date of this report comprises:

Financial Year	Volume ounces	Price \$/oz	Туре	Delivery	Delivery schedule
Jul 22 to Jun 23	3,012	C\$2,060	Vanilla forwards	Feb 2023	Monthly



#### 3. Safety and sustainability

Group safety performance improved in Q2 FY23, with only one recordable injury reported in the quarter compared to 11 in the prior quarter. While the rolling TRIFR is above target at 4.7, the focus on safety at the sites and the reduction in injuries is a positive step. All sites have further embedded the Company's fatality elimination program, resulting in an increase in field level safety interactions across all sites. St Barbara continues to cascade its leadership and employee safety engagement program called Safety Always across all operations. The quarter also saw the ramp up and ramp down of the Zoroastrian operation with zero safety or environment incidents.

From a sustainability perspective, the operations have continued to deliver on sustainability plans including completing and sharing results from a respectful workplace audit at Leonora and improving environmental compliance tracking at Simberi and Atlantic. St Barbara's broader approach to sustainability is driven by its sustainability framework which will be reviewed in Q3 FY23.

#### 4. Operations

#### 4.1. Leonora Operations, Western Australia

<b>Production Summary</b>		Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23	Half Year FY22	Half Year FY23
Ore Mined	kt	193	194	160	168	176	372	344
Waste mined	kt	42	64	71	87	93	147	180
Mined grade	g/t	6.8	6.1	7.8	5.3	4.8	7.7	5.0
Ore milled <sup>7</sup>	kt	279	254	250	240	255	523	495
Milled grade <sup>7</sup>	g/t	5.6	5.2	6.5	4.6	4.1	6.2	4.4
Recovery	%	97	96	97	96	96	97	96
Gold production	oz	48,637	40,559	50,506	34,078	32,175	100,394	66,253
Gold sold	oz	55,600	37,566	53,832	35,346	32,634	101,072	67,980
Realised gold price	\$/oz	2,453	2,511	2,542	2,524	2,640	2,447	2,580
All-In Sustaining Cost (AISC)	\$/oz produced	1,653	1,916	1,854	2,487	2,796	1,568	2,637

Leonora's production performance was 32,175 ounces of gold for the quarter, resulting in 66,253 ounces of gold for the December half year. Previously was 56k ounces of gold financial year to date as at 30 November 20228.

Ore mined increased as a result of improved operating performance and equipment availability. COVID-19 absenteeism increased during the quarter which slowed development of stopes deferring access to two higher grade stopes out to January 2023 containing approximately 50kt of high grade ore. As a result, low grade development ore was used to supplement ore feed to the mill. With access to the high grade stopes being achieved early in the third quarter, Leonora remains on track to achieve the lower end of guidance.

AISC was higher than expected at \$2,796 per ounce primarily due to combination of higher processing costs due to increased mill throughput at a lower grade and increased mine development.

#### 4.1.1. Resetting Leonora

A new integrated planning and operating model, utilising the combined resources of St Barbara and Macmahon has been introduced to underpin improved operating performance and reset the Gwalia underground operations over the coming six months. Continuous improvement initiatives focused on equipment availability, equipment utilisation, improved drilling and blasting practices and mine scheduling effectiveness have been implemented.

Mine operations have been consolidated under a single contractor eliminating duplicated management systems and associated overhead. This step has reduced the total number of personnel and equipment resources deployed underground whilst maintaining productive capacity and is expected to reduce operating costs by ~\$1m per month.

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

<sup>8</sup> Refer to announcement titled "Merger of St Barbara and Genesis to form Hoover House" released to ASX on 12 December 2022



Equipment availability has been challenging but trends are improving, with focus on accessing quality fitting skills, improving critical spares holdings and fleet standardisation initiatives. These initiatives have supported equipment rationalisation.

Trucking utilisation has increased through the implementation of in-cycle trucking, staggered shift starts and the use of Load Scan technology which has increased both truck movements and truck pay loads. The adoption of remote and auto drill technologies has also boosted production drill utilisation.

The introduction of independent firing at the apex of the ore body, an additional second service crew and the adoption of a dedicated boring jumbo operating philosophy is expected to accelerate lateral and vertical development rates and help to decouple the production and development fronts over time. The combined impact of these improvements resulted in a 5% increase to ore mined, 5% increase to development metres and a 6% increase to waste mined compared to the prior quarter.

The development of the Zoroastrian underground mine, which commenced during the December quarter, has been suspended owing to expectation of Genesis' Ulysses and other ore sources being brought into production in FY24. Guidance for growth capital for FY23 has been adjusted to reflect this change and has been reduced by ~\$20m to \$10-15m. The shallow underground Ulysses mine is just 30km from the Leonora mill and offers higher mining rates, longer life, a greater ability to share costs and similar grades compared to the Zoroastrian mine. The higher mining rates from Ulysses enables full utilisation of Leonora's processing capacity with free-milling ore.

St Barbara and Genesis are working together on an ore purchase agreement so that in the event the merger fails to complete, Ulysses or other Genesis ore sources can be processed at Leonora over a specified timeframe. Zoroastrian's decline was suspended at 25m and it is anticipated that it can easily be brought back online. Zoroastrian mine development team members are being seconded at cost to Genesis to assist accelerated development at Ulysses.

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

Production Summary		Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23	Half Year FY22	Half Year FY23
Ore Mined	kt	184	394	872	855	759	205	1,614
Waste mined	kt	1,531	1,646	1,698	1,947	1,978	1,978	3,924
Mined grade	g/t	1.29	1.21	1.07	0.99	1.09	1.3	1.04
Ore milled	kt		479	726	730	626		1,356
Milled grade	g/t		1.15	1.02	0.99	1.15		1.07
Recovery	%		59	77	78	81		79
Gold production	oz		10,254	17,882	18,130	18,747		36,877
Gold sold	oz		7,917	14,672	15,719	21,575	179	37,294
Realised gold price	\$/oz		2,627	2,628	2,525	2,641	2,380	2,592
All-In Sustaining Cost (AISC)	\$/oz produced		4,064	2,416	2,754	2,335	2,383	2,540

Gold production at Simberi improved compared to Q1, with 18,747 ounces produced over the quarter. The increase was driven by a 15% improvement in head grade to the mill as mining progressed into the higher grade zone in the Sorowar pit.

The increased grade combined with improved operating consistency in the carbon in leach circuit delivered a 4% increase in gold recovery compared to the prior quarter. An overrun to a planned shutdown and poor equipment reliability in the grinding circuit reduced mill throughput. High grade ore was selectively processed with relatively lower grade ore being stockpiled during the quarter.

The AISC at Simberi was lower than the prior quarter at \$2,335 per ounce primarily due to lower processing throughput at a higher grade. Simberi AUD AISC benefited from the strengthening AUD:USD exchange rate.



#### 4.2.1. Strategic review concluded

The strategic review at Simberi was concluded in December 2022, having improved the long-term outlook for Simberi. The review provided confidence that oxide life can be extended through FY25 and potentially into FY26 and confirmed the potential for the Sulphide project to extend the life of mine by at least 10 years. Discussions with parties interested in Simberi were discontinued in December after no compelling proposals were received.

The strategy reset for Simberi under St Barbara or the demerged entity, Phoenician Metals, will comprise:

- Further extending oxide mine life into FY26
- · Conducting extension drilling in FY24 to expand sulphide Mineral Resource and Ore Reserves
- Preparing for Sulphide project investment decision ahead of renewal of mining lease by FY28

As a result of the decision to defer the Sulphide project the carrying value of Simberi is likely to be impaired at the FY23 Half Year Results.

#### 4.3. Atlantic Operations, Nova Scotia, Canada

Production Summary		Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23	Half Year FY22	Half Year FY23
Ore Mined	kt	470	417	883	371	431	917	802
Waste mined	kt	1,511	2,276	1,919	1,557	1,186	3,264	2,743
Mined grade	g/t	0.76	0.52	0.70	0.49	0.55	0.70	0.52
Ore milled	kt	726	551	741	640	708	1,463	1,348
Milled grade	g/t	0.80	0.69	0.82	0.60	0.49	0.75	0.54
Recovery	%	91	91	93	92	90	91	91
Gold production	OZ	16,887	11,006	18,015	11,492	10,054	32,130	21,546
Gold sold	OZ	20,767	10,820	17,146	11,661	10,852	33,213	22,513
Realised gold price	\$/oz	2,363	2,239	2,360	2,320	2,344	2,326	2,332
All-In Sustaining Cost (AISC)	\$/oz produced	1,396	2,013	2,027	2,085	2,867	1,447	2,450

Atlantic produced 10,054 ounces of gold in Q2 FY23, 13% lower than the prior quarter. The primary driver for the lower production was lower head grade as increased proportions of mill feed came from long-term stockpiles. Mill throughput increased in the second quarter, following recovery from the significant impact of Hurricane Fiona and the associated power outages in the first quarter. Nova Scotia has also fortunately experienced a milder than normal start to winter leading to fewer weather interruptions.

As previously disclosed<sup>9</sup> rainfall associated with Hurricane Fiona had caused a small geotechnical failure of the North Wall which required 21 days of rehabilitation in the second quarter which delayed completion of the open pit and required greater utilisation of the long term stockpiles. This has extended mining of the Touquoy open pit into the third quarter, with open pit mining planned to cease by the end of January 2023. Waste to ore ratios decreased as the open pit neared completion. The lift to the tailings management facility was completed during the quarter, with a corresponding impact on AISC.

In line with mine closure planning, the ramp down of mining operations at Touquoy will lead to a significant reduction in operating personnel at site to align staffing levels with the requirements of the next phase of the site operations.

A final round of responses to questions on the Environmental Assessment for in-pit tailings deposition into the Touquoy Pit were lodged with Nova Scotia Environment and Climate Change (NSECC) on 9 January 2023. It is anticipated that Ministerial approval will be issued by 10 March 2023 and the Industrial Approval by 23 May 2023. Once granted, the Touquoy plant is expected to have sufficient tailings capacity to process all remaining stockpiles.



The current tailings management facility is expected to be at capacity early in FY24 and so any delays in approvals to in-pit tailings would trigger cessation of production at that time.

The AISC at Atlantic was \$2,867 per ounce for the quarter, 37% higher than the prior quarter. This was driven by the lower production in the quarter, together with non-cash stockpile drawdown charges and the expected increase in sustaining capital arising from works to complete the lift of the tailings management facility.

#### 4.3.1. Atlantic growth projects

St Barbara previously announced<sup>10</sup> that it had elected to pause the permitting process under CEAA 2012 for Beaver Dam to provide additional time for further discussions with First Nation groups, Department of Fisheries and Ocean, and other affected community groups to determine the appropriate pathway forward for the project. First ore from Beaver Dam will not be possible before Touquoy is anticipated to have finished processing stockpile material in December 2024 because of the prolonged stakeholder discussions. It is anticipated that the Touquoy plant will be placed on care and maintenance at that time.

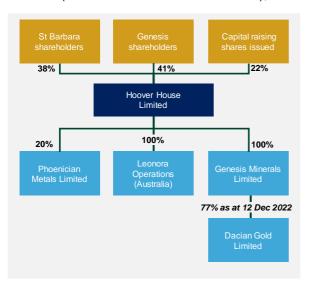
Fifteen Mile Stream is the larger Mineral Resource and Ore Reserve with 781koz in Mineral Resource and 577koz in Ore Reserves and permitting is well advanced for the development of mining operations and process plant construction. The business continuity offered by development of Beaver Dam ahead of Fifteen Mile Stream was an important consideration. However, the primary focus of the teams will now be Fifteen Mile Stream and the opportunity to repurpose elements of the Touquoy processing plant for Fifteen Mile Stream when stockpile processing concludes at Touquoy. Fifteen Mile Stream is the largest and expected to be the most value accretive of Atlantic's ore sources. St Barbara is now targeting commencement of construction at Fifteen Mile Stream in FY26.

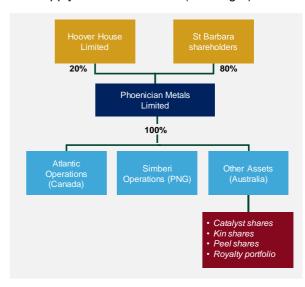
As previously foreshadowed<sup>10</sup>, the further delays with Beaver Dam permitting and the consequent break in business continuity is expected to result in an impairment in the carrying value of the Atlantic assets in the December half-year results due for release in February 2023.

## 5. Merger to form Hoover House and demerger to form Phoenician Metals

On 12 December 2022, St Barbara and Genesis Minerals Limited (Genesis) announced a merger under which St Barbara will acquire 100% of the shares in Genesis via a scheme of arrangement (Scheme) and will be re-named Hoover House Limited (Hoover House).

St Barbara is also proposing to undertake a demerger of the Atlantic and Simberi operations, together with other assets (including St Barbara's shares in various ASX-listed entities) to its shareholders in conjunction with the Scheme, with the demerged assets to be held by St Barbara's subsidiary Allied Gold (to be renamed Phoenician Metals Limited (Phoenician or Phoenician Metals), which intends to apply to list on the ASX (Demerger).







Inter-conditional on the Scheme and Demerger becoming effective, Genesis will raise A\$275 million via a placement to fund and strengthen the balance sheets of Hoover House and Phoenician, and facilitate the transaction (Capital Raising). On 14 December 2022, Genesis announced it successfully completed the bookbuild for the conditional Capital Raising.

The transaction is conditional on several conditions, including St Barbara shareholder approval (of the Demerger and the issue of St Barbara securities under the Scheme), Genesis shareholder approval (of the \$275 million capital raising and the Scheme) and court approval of the Scheme. Subject to the satisfaction or waiver (where permitted) of all conditions precedent, it is anticipated that the transaction will be implemented in May 2023.

Hoover House will be one of Australia's leading gold houses, with a production target of +300kozpa, a long-life, high quality asset base and substantial potential for organic growth. It is intended that Hoover House be headquartered in Perth, Western Australia with a new strategic plan and five-year outlook to be announced to the market in September quarter 2023, post completion of the merger.

The merger is expected to unlock substantial, near-term synergies for both sets of shareholders. Apart from significant operational synergies, the resetting of the combined entity's corporate support model, a write up of Genesis' depreciable tax cost base, and the deferral of capital in relation to the Gwalia mill are collectively expected to result in synergies with a net present value of approximately A\$200 million. Overall, the merger is expected to either defer or eliminate ~A\$400 million<sup>11</sup> of capital expenditure, reducing near-term execution risk and funding requirements.

Phoenician Metals will be a dedicated vehicle for realising the value from Simberi, Atlantic and other non-Leonora assets for St Barbara shareholders. It will be 80% owned by St Barbara shareholders (with Hoover House retaining a 20% interest) and established with:

- 1. 6.2Moz in Mineral Resources and 3.7Moz in Ore Reserves;
- 2. FY23E production of 110-130koz at A\$2,200-2,450/oz<sup>12</sup>;
- 3. Listed investments with a current market value of ~A\$34 million<sup>13</sup>;
- 4. Select exploration tenements outside Western Australia (including Back Creek);
- 5. Strong balance sheet A\$85 million pro-forma cash<sup>14</sup> and no debt;
- 6. Supportive 20% shareholder in Hoover House; and
- 7. Strategy to actively manage the portfolio to enhance value.

The St Barbara board intends to unanimously recommend the Demerger, and each Director intends to vote all the St Barbara shares they hold in favour of the Demerger, in both cases subject to the Demerger Independent Expert opining (and continuing to opine) that the Demerger is in the best interests of St Barbara shareholders and to there being no change in circumstances which renders the maintenance of the recommendation inconsistent with the fiduciary and statutory duties of the St Barbara board (including as a result of a superior proposal for St Barbara).

The Scheme and the Demerger (as well as the \$275 million Genesis capital raising) all remain subject to St Barbara and Genesis shareholder approvals as well as satisfaction of various conditions as set out in the market release titled "Merger of St Barbara and Genesis to form Hoover House, and demerger of St Barbara's non-Leonora assets to form Phoenician Metals" lodged with the ASX on 12 December 2022, together with the accompanying presentation released to ASX on the same date (Transaction Releases). There can be no certainty, nor can St Barbara provide any assurance, that the conditions to the Scheme or the Demerger will be satisfied or waived (where applicable), or if satisfied or waived (where applicable), when that will occur. Shareholders should refer to the Transaction Releases for an explanation of the risks associated with the Scheme, Demerger and Capital Raising.

<sup>11</sup> Refer to the investor presentation titled "Creating a Leading Australian Gold House" released to the ASX on 12 December 2022.

<sup>12</sup> Refer to announcement titled "Quarterly Report Q1 FY23" released to ASX on 18 October 2022. Combined average AISC range comprises A\$2,300 – A\$2,540 (at US\$1,450 to US\$1,600 per ounce at AUD/USD of 0.63 for the Simberi Operations) and A\$2,075 – A\$2,315 (at C\$1,800 to C\$2,014 per ounce at AUD/CAD of 0.87 for the Atlantic Operations).

<sup>13</sup> As at 24 January 2023

<sup>14</sup> Based on pro forma Phoenician Metals cash of approximately A\$20m as at 9 December 2022 (with "ring-fencing" arrangements following execution of the Scheme Implementation Deed through to completion), with another A\$65m to be injected into Phoenician Metals at completion.



#### 6. Exploration activities

#### 6.1. Australia

#### 6.1.1. Gwalia mine exploration, Western Australia

No exploration activities occurred in the mine during the quarter, with drilling limited to infill resource definition drilling at various levels throughout the mine.

#### 6.1.2. Leonora near mine exploration, Western Australia

A combined geotechnical and resource definition drill program, comprising 5 holes for 1,125.0 m was completed at Harbour Lights during September 2022. The program is the final round of drilling to support the Harbour Lights resource estimation and feasibility study. Assay results were returned in Q2 FY23.

		Notable Down-ho	le Mineralised Inters	ections
Hole Id	From	То	Interval	Gold grade
	М	m	m	g/t Au
HLDD0009	207.00	221.00	14.00	3.1
including	212.00	215.76	3.76	6.8
HLDD0009	219.00	221.00	2.00	5.8
HLDD0010	180.08	186.08	6.00	2.6

Regional exploration activities included the collection of 192 soil samples and 31 rock chip samples.

#### 6.1.3. Zoroastrian, Western Australia

A resource definition diamond drill program of 9 holes for 3,565.7 m was completed at the Zoroastrian deposit during October and November. The program was designed to advance the geological model of the SZS footwall lode and to test for strike extensions. All assay results were returned in Q2 FY23.

	Notable Down-hole Mineralised Intersections						
Hole Id	From	То	Interval	Gold grade			
	M	m	m	g/t Au			
22ZRDD0002	229.00	243.26	14.26	3.1			
including	229.00	237.00	8.00	3.6			
22ZRDD0005	312.79	320.22	7.43	3.9			
including	312.79	317.66	4.87	5.1			
22ZRDD0009	161.82	170.00	8.18	4.3			
including	161.82	165.00	3.18	6.7			

The results from the diamond drill program confirm the three lodes have a stacked, steeply west dipping and moderately northerly plunging geometry.

A two-dimensional regional bedrock geology and structural interpretation covering the entire Bardoc project is anticipated to be completed in Q3 FY23. The work will assist with exploration target ranking and future drill program design.

#### 6.1.4. Pinjin Project, Western Australia

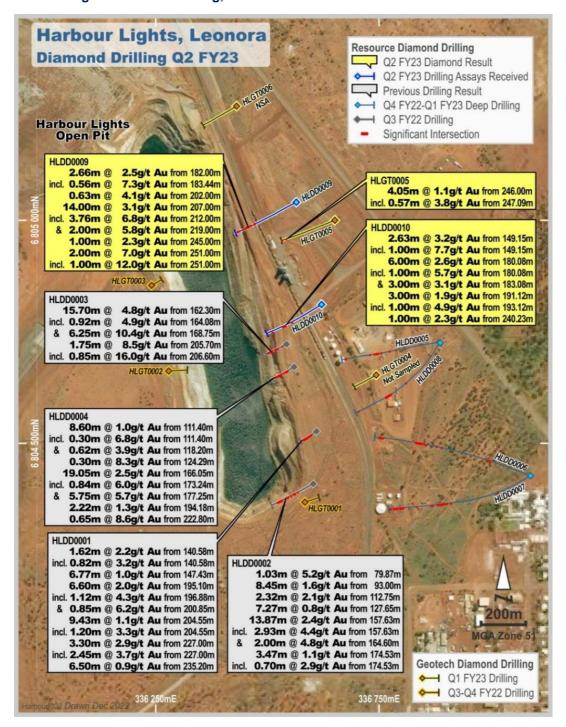
Earn-In and Joint Venture partner Plowden Resources Pty Ltd completed a second RC drill program of 10 holes for 2,442 m testing 6 targets. Assay results are pending. Further RC drilling is planned in Q3 FY23. In addition, 67 one metre deep auger holes were drilled.



#### 6.1.5. Back Creek, New South Wales

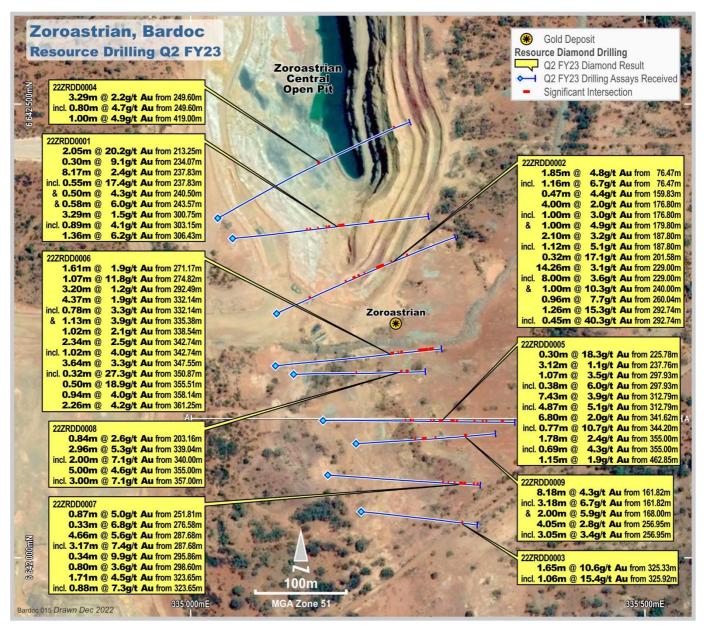
No field activities were conducted by St Barbara during the quarter.

#### Harbour Lights Diamond Drilling, Q2 FY23 Results





#### **Zoroastrian Diamond Drilling, Q2 FY23 Results**



#### 6.2. Canada

Drill planning across the Nova Scotia exploration camps continues to progress with the receipt of Crown permits for three proposed programs and continued consultation with First Nation communities.

#### 6.2.1. Moose River Corridor

The first phase of re-logging and re-sampling of 35 historical diamond drill holes for 7,180 m from the Mooseland Gold project was completed in December 2022. The Mooseland drill database is being validated to determine what historical data can be used to direct future exploration drilling.

#### 6.2.2. Touquoy Camp

No field activities occurred during the quarter.

#### 6.2.3. Southwest Regional

Assay results were returned for 1,401 till and 49 rock chip samples collected during a regional surface sampling program covering the Pleasantfield trend, Thunderbolt, Hurricane, Mustang and Mill Village targets. The results have highlighted areas that require extension and infill till sampling as well as defining targets for potential follow up drilling.



#### 6.2.4. Northeast Regional

69 rock chip samples were collected during surface sampling programs at Lower Seal Harbour, Goldboro East and Isaacs Harbour targets

#### 6.3. Papua New Guinea

#### 6.3.1. Simberi, Tatau & Tabar Islands

Final drilling assay results were returned for the Pigiput NE, Trotsky and Pigicow targets on ML136. The Pigiput NE results are located within the final Pigiput pit design and will be included in a revised resource model.

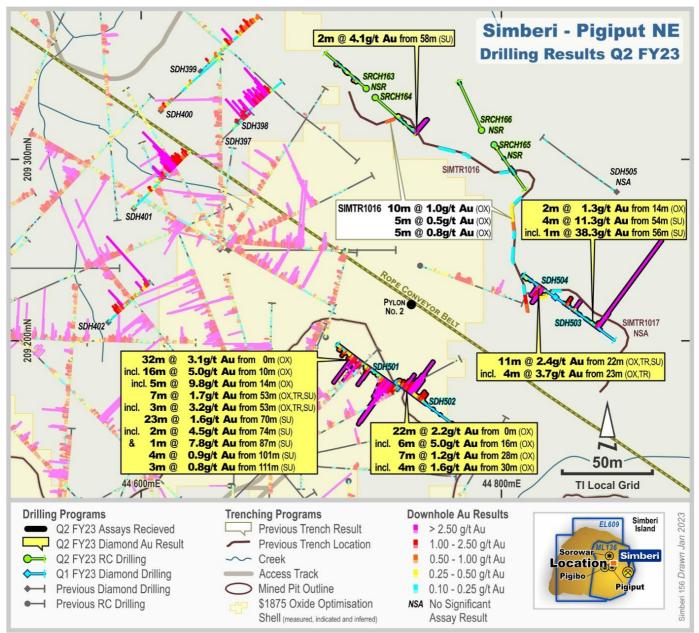
	Notable Down-hole Mineralised Intersections						
Hole Id	From	То	Interval	Gold grade			
	m	m	m	g/t Au			
SDH501 (Pigiput NE)	0	32	32	3.1			
including	10	26	16	5.0			
SDH502 (Pigiput NE)	0	22	22	2.2			
including	16	22	6	5.0			
SRCH131 (Trotsky)	35	51	16	5.4			
including	42	50	8	9.9			
SDH499 (Pigicow)	78	100	22	5.2			
including	79	87	8	11.8			
including	86	87	1	70.1			

A 10 hole 630 m RC drill program was completed at Trotsky and Pigiput NE targets on Simberi Island (ML136). The aim of the drilling was to further define potential additional Inferred Resources.

14 trenches for 2,065 m were completed at Sorowar North, Sorowar NW, Monun and Pigiput East on ML136 to assist in drill targeting. 67 hand auger samples were also collected from the Sorowar North target area.

Exploration work conducted on EL609 West Simberi during the quarter included mapping, the collection of 117 rock chips and 6 grid soil samples.

Pigiput NE Diamond Drilling, Q2 FY23 Results



#### 6.4. Group Exploration expenditure (unaudited)

Group Exploration	Actual Year FY22	Actual Q1 Sep FY23	Actual Q2 Dec FY23	Guidance FY23
	\$М	\$M	\$M	\$M
Australia*	10	2	4	7 -10
Tabar Island Group, Papua New Guinea*	6	1	1	2 - 5
Nova Scotia, Canada*	4	1	1	5 - 8
Consolidated	20	4	6	14 - 23

<sup>\*</sup> These items are expensed



#### 7. Quarterly briefing and audio webcast

Mr Dan Lougher, Managing Director & CEO, will brief analysts and investors on the Q2 December FY23 Quarterly Report at 11.00 am Australian Eastern Daylight Time (UTC + 11 hours) on Wednesday 25 January 2023.

Analysts and investors can register for the briefing at <a href="https://s1.c-conf.com/diamondpass/10028116-gah8z2.html">https://s1.c-conf.com/diamondpass/10028116-gah8z2.html</a>.

An audio webcast will be available live and after the event on St Barbara's website at <a href="mailto:stbarbara.com.au/investors/webcast/">stbarbara.com.au/investors/webcast/</a> or by <a href="mailto:clicking here">clicking here</a>. The audio webcast is listen only and does not enable questions.

#### Authorised by

Dan Lougher

Managing Director & CEO 25 January 2023

#### For more information

#### **Investor Relations**

Chris Maitland Kasun Liyanaarachchi
Head of Investor Relations Manager Investor Relations

chris.maitland@stbarbara.com.au kasun.liyanaarachchi@stbarbara.com.au



#### **Share capital**

Issued shares	ASX:SBM
Opening Balance 30 September 2022	816,041,645
Issued	500,000
Closing balance 31 December 2022	816,541,645

Unlisted employee rights	ASX:SBMAK
Opening balance 30 September 2022	4,357,430
Issued	5,567,771
Exercised as shares	Nil
Lapsed <sup>15</sup>	(130,868)
Closing balance 31 December 2022	9,794,333
Comprises rights expiring:	
30 June 2023	1,131,221
30 June 2024	3,071,178
30 June 2025	5,567,771
Unlisted rights issued under the NED Equity Plan	24,163
Closing balance 31 December 2022	9,794,333



#### **Corporate directory**

St Barbara Limited ABN 36 009 165 066

#### **Board of Directors**

Tim Netscher, Non-Executive Chairman

Dan Lougher, 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**

Dan Lougher, Managing Director & CEO

Lucas Welsh, Chief Financial Officer

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

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

#### **Shareholder Enquiries**

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#### **Substantial Shareholders**

% of Holdings <sup>16</sup>	
L1 Capital	10.83%
IPConcept (Luxembourg) S.A.	8.32%

#### **Scheduled future reporting**

Date	Report
22 February 2023	FY23 Half Year Financial Report

Dates are tentative and subject to change

# **\**

## **Production and All-In Sustaining Cost**

Production summary			Atlan	tic Operati	ons			Leono	ora Operati	ions				Simberi		
		Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23	Q2 Dec FY22	Q3 Mar FY22	Q4 Jun FY22	Q1 Sep FY23	Q2 Dec FY23
Ore Mined	kt	470	417	883	371	431	193	194	160	168	176	184	394	872	855	759
Waste mined	kt	1,511	2,276	1,919	1,557	1,186	42	64	71	87	93	1,531	1,646	1,698	1,947	1,978
Mined grade	g/t	0.76	0.52	0.70	0.49	0.55	6.8	6.1	7.8	5.3	4.8	1.29	1.21	1.07	0.99	1.09
Ore milled <sup>17</sup>	kt	726	551	741	640	708	279	254	250	240	255		479	726	730	626
Milled grade <sup>17</sup>	g/t	0.80	0.69	0.82	0.6	0.49	5.6	5.2	6.5	4.6	4.1		1.15	1.02	0.99	1.15
Recovery	%	91	91	93	92	90	97	96	97	96	96		59	77	78	81
Gold production	oz	16,887	11,006	18,015	11,492	10,054	48,637	40,559	50,506	34,078	32,175		10,254	17,882	18,130	18,747
Gold sold	OZ	20,767	10,820	17,146	11,661	10,852	55,600	37,556	53,832	35,346	32,634		7,917	14,672	15,719	21,575
Realised gold price	A\$/oz	2,363	2,239	2,360	2,320	2,344	2,453	2,511	2,542	2,524	2,640		2,627	2,628	2,525	2,641
All-In Sustaining Cost <sup>18</sup> A\$/oz prod	luced															
Mining		442	869	953	826	847	756	930	913	1,270	1,437		1,270	1,231	1,171	1,098
Processing		493	729	515	758	874	176	238	179	322	356		1,096	717	820	750
Site Services		245	412	298	381	460	104	127	116	193	200		1,130	589	517	446
Stripping and ore inventory adj		(7)	(256)	(60)	(319)	33	44	(8)	38	2	10		284	(307)	(15)	(171)
		1,173	1,754	1,706	1,646	2,214	1,080	1,287	1,246	1,787	2,003		3,780	2,230	2,493	2,123
By-product credits		(1)	(2)	(2)	(1)	(1)	(3)	(3)	(3)	(4)	(6)		(14)	(14)	(7)	(6)
Third party refining & transport		4	3	2	3	4	1	1	1	1	1		-	4	4	8
Royalties		58	44	45	47	51	86	56	79	66	67		63	56	55	58
Total cash operating costs		1,234	1,799	1,751	1,695	2,268	1,164	1,341	1,323	1,850	2,065		3,829	2,276	2,545	2,183
Corporate and administration		75	134	71	107	94	94	130	77	95	113		61	76	105	98
Corporate royalty <sup>19</sup>		-	-	-	-	-	48	61	54	44	59		-	-	-	-
Rehabilitation		28	43	26	43	49	7	8	7	10	11		54	31	34	33
Capitalised mine development <sup>19</sup>		-	-	-	-	-	203	273	252	431	548		-	-	-	_
Sustaining capital expenditure		59	37	179	240	456	50	48	41	49	32		120	33	70	21
All-In Sustaining Cost (AISC) (Gwa	ılia) <sup>19</sup>						1,566	1,861	1,754	2,479	2,828					
Ore purchased <sup>19</sup>							87	55	100	8	(32)					
All-In Sustaining Cost (AISC)		1,396	2,013	2,027	2,085	2,867	1,653	1,916	1,854	2,487	2,796		4,064	2,416	2,754	2,335

<sup>17</sup> Includes Gwalia mineralised waste, stockpile ore and third party purchased ore

<sup>18</sup> Non-IFRS measure, refer Appendix

<sup>19</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 <a href="style="style-type: center;">style="style-type: center

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 <a href="stbarbara.com.au">stbarbara.com.au</a>.



### **Exploration tables**

Table 1: Harbour Lights Deeps Diamond Drilling Significant Intercepts - Leonora, WA

	North	East	RL	Dip/ Azimuth	Total Depth			own-hole sed Intersec	tion
Hole Id				dograce		From	То	Interval	Gold grade
	m	m	m	degrees	m	m	m	m	g/t Au
HLDD0009	6,805,042	336,567	375	-54 / 242	255	182.00	184.66	2.66	2.5
including						183.44	184.00	0.56	7.3
						202.00	202.63	0.63	4.1
						207.00	221.00	14.00	3.1
including						212.00	215.76	3.76	6.8
and						219.00	221.00	2.00	5.8
						245.00	246.00	1.00	2.3
						251.00	253.00	2.00	7.0
including						251.00	252.00	1.00	12.0
HLDD0010	6,804,810	336,622	373	-60 / 239	264	149.15	151.78	2.63	3.2
including						149.15	150.15	1.00	7.7
						180.08	186.08	6.00	2.6
including						180.08	181.08	1.00	5.7
and						183.08	186.08	3.00	3.1
						191.12	194.12	3.00	1.9
including						193.12	194.12	1.00	4.9
		_				240.23	241.23	1.00	2.3
HLGT0005	6,805,000	336,651	375	-60 / 249	250	246.00	250.05	4.05	1.1
including						247.09	247.66	0.57	3.8
HLGT0006	6,805,255	336,431	375	-52 / 241	146		No Sign	ificant Resu	lts

Table 2: Zoroastrian Diamond Drilling Significant Intercepts - Bardoc, WA

	North	East	RL	Dip/ Azimuth	Total Depth		Down-hole Mineralised Intersection			
Hole Id				4		From	То	Interval	Gold grade	
	m	m	m	degrees	m	m	m	m	g/t Au	
22ZRDD0001	6,642,352	335,046	437	-60 / 084	420	213.25	215.30	2.05	20.2	
						234.07	234.37	0.30	9.1	
						237.83	246.00	8.17	2.4	
including						237.83	238.38	0.55	17.4	
and						240.50	241.00	0.50	4.3	
and						243.57	244.15	0.58	6.0	
						300.75	304.04	3.29	1.5	
including						303.15	304.04	0.89	4.1	
						306.43	307.79	1.36	6.2	
22ZRDD0002	6,642,269	335,095	438	-58 / 064	390	76.47	78.32	1.85	4.8	
including	-					76.47	77.63	1.16	6.7	



#### Table 2 Continued: Zoroastrian Diamond Drilling Significant Intercepts - Bardoc, WA

	North	East	RL	Dip/ Azimuth	Total Depth			own-hole sed Intersec	tion
Hole Id				doguese		From	То	Interval	Gold grade
	m	m	m	degrees	m	m	m	m	g/t Au
						159.83	160.30	0.47	4.4
						176.80	180.80	4.00	2.0
including						176.80	177.80	1.00	3.0
and						179.80	180.80	1.00	4.9
						187.80	189.90	2.10	3.2
including						187.80	188.92	1.12	5.1
						201.58	201.90	0.32	17.1
						229.00	243.26	14.26	3.1
including						229.00	237.00	8.00	3.6
and						240.00	241.00	1.00	10.3
						260.04	261.00	0.96	7.7
						292.74	294.00	1.26	15.3
including						292.74	293.19	0.45	40.3
22ZRDD0003	6,642,051	335,188	429	-71 / 094	371	325.33	326.98	1.65	10.6
including						325.92	326.98	1.06	15.4
22ZRDD0004	6,642,374	335,030	436	-62 / 062	450	249.60	252.89	3.29	2.2
including						249.60	250.40	0.80	4.7
						419.00	420.00	1.00	4.9
22ZRDD0005	6,642,151	335,146	431	-67 / 088	490	225.78	226.08	0.30	18.3
						237.76	240.88	3.12	1.1
						297.93	299.00	1.07	3.5
including						297.93	298.31	0.38	6.0
						312.79	320.22	7.43	3.9
including						312.79	317.66	4.87	5.1
						341.62	348.42	6.80	2.0
including						344.20	344.97	0.77	10.7
						355.00	356.78	1.78	2.4
including						355.00	355.69	0.69	4.3
						462.85	464.00	1.15	1.9
22ZRDD0006	6,642,211	335,093	437	-62 / 083	382	271.17	272.78	1.61	1.9
						274.82	275.89	1.07	11.8
						292.49	295.69	3.20	1.2
						332.14	336.51	4.37	1.9
including						332.14	332.92	0.78	3.3
and						335.38	336.51	1.13	3.9
						338.54	339.56	1.02	2.1
						342.74	345.08	2.34	2.5
including						342.74	343.76	1.02	4.0



#### Table 2 Continued: Zoroastrian Diamond Drilling Significant Intercepts - Bardoc, WA

	North	East	RL	Dip/ Azimuth	Total Depth			own-hole sed Intersec	tion
Hole Id				4		From	То	Interval	Gold grade
	m	m	m	degrees	m	m	m	m	g/t Au
22ZRDD0006						347.55	351.19	3.64	3.3
including						350.87	351.19	0.32	27.3
						355.51	356.01	0.50	18.9
						358.14	359.08	0.94	4.0
						361.25	363.51	2.26	4.2
22ZRDD0007	6,642,091	335,151	430	-61 / 093	330	251.81	252.68	0.87	5.0
						276.58	276.91	0.33	6.8
						287.68	292.34	4.66	5.6
including						287.68	290.85	3.17	7.4
						295.86	296.20	0.34	9.9
						298.60	299.40	0.80	3.6
						323.65	325.36	1.71	4.5
including						323.65	324.53	0.88	7.3
22ZRDD0008	6,642,202	335,113	437	-70 / 087	408	203.16	204.00	0.84	2.6
						339.04	342.00	2.96	5.3
including						340.00	342.00	2.00	7.1
						355.00	360.00	5.00	4.6
including						357.00	360.00	3.00	7.1
22ZRDD0009	6,642,126	335,182	430	-64 / 085	324	161.82	170.00	8.18	4.3
including						161.82	165.00	3.18	6.7
and						168.00	170.00	2.00	5.9
						256.95	261.00	4.05	2.8
including						256.95	260.00	3.05	3.4

Table 3: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth		Down-hole Mineralised Intersection					
	m	m m m		degrees	m	Lode	From	То	Interval	Gold grade		
							m	m	m	g/t Au		
SDH494 (Pigicow)	208,000	43,874	169.1	-61 / 221	100.0	SU	6.0	18.0	12.0	0.6		
SDH495 (Pigicow)	207,906	43,860	187.8	-59 / 225	128.5	OX,TR	0.0	13.0	13.0	1.8		
including						ОХ	5.0	7.0	2.0	5.7		
						TR	20.0	38.0	18.0	1.9		
including						TR	35.0	37.0	2.0	5.5		

NOTES:

\*Site Lab Aqua Regia Au results.

Table 3 Continued: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea

	North	East	RL	Dip/ Azimuth	Total Depth				own-hole sed Intersect	ion
Hole Id	m	m	m	degrees	m	Lode	From	То	Interval	Gold grade
							m	m	m	g/t Au
SDH496 (Pigicow)	207,994	43,684	175.0	-60 / 041	139.2	SU	53.0	72.0	19.0	0.5
including						SU	61.0	64.0	3.0	1.2
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	1.2
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	5.2
including						TR	79.0	87.0	8.0	11.8
including						TR	86.0	87.0	1.0	70.1
SDH500 (Pigicow)	208,097	44,160	136.1	-60 / 221	187.0	TR	15.0	22.0	7.0	1.6
						TR	44.0	48.0	4.0	1.5
SDH501 (Pigiput NE)	209,174	44,742	198.1	-70 / 306	121.0	ОХ	0.0	32.0	32.0	3.1
including						ОХ	10.0	26.0	16.0	5.0
including						ОХ	14.0	19.0	5.0	9.8
						OX,TR,SU	53.0	60.0	7.0	1.7
including						OX,TR,SU	53.0	56.0	3.0	3.2
						SU	70.0	93.0	23.0	1.6
including						SU	74.0	76.0	2.0	4.5
and						SU	87.0	88.0	1.0	7.8
						SU	101.0	105.0	4.0	0.9
						SU	111.0	114.0	3.0	0.8
SDH502 (Pigiput NE)	209,177	44,742	199.4	-60 / 126	80.0	ОХ	0.0	22.0	22.0	2.2
including						ОХ	16.0	22.0	6.0	5.0
						OX	28.0	35.0	7.0	1.2
including						OX	30.0	34.0	4.0	1.6
SDH503 (Pigiput NE)	209,224	44,830	190.0	-59 / 125	80.0	OX	14.0	16.0	2.0	1.3
						SU	54.0	58.0	4.0	11.3
including						SU	56.0	57.0	1.0	38.3
SDH504 (Pigiput NE)	209,224	44,830	190.0	-69 / 304	60.0	OX,TR,SU	22.0	33.0	11.0	2.4
including	<u> </u>	•		*		OX,TR	23.0	27.0	4.0	3.7
SDH506 (Pigicow)	207,963	43,908	172.3	-60 / 223	182.8	OX,TR	1.0	7.0	6.0	0.5
, 0 ,	,,	,				SU	42.0	66.0	24.0	1.0
including						SU	54.0	56.0	2.0	1.5
and						SU	61.0	65.0	4.0	2.3
	1					SU	72.0	78.0	6.0	0.8
including						SU	74.0	77.0	3.0	1.1
NOTES:					<u> </u>	30	, 4.0	77.0	5.0	1.1

NOTES:

\*Site Lab Aqua Regia Au results.



Table 4: Simberi RC Significant Intercepts – ML136 Simberi Island, Papua New Guinea

	North	East	RL	Dip/ Azimuth	Total Depth				wn-hole ed Intersecti	on
Hole Id	m	m	m	degrees	m	Lode	From	То	Interval	Gold grade
							m	m	m	g/t Au
SRCH124 (Trotsky)	208,932	43,303	169.6	-60 / 270	60.0	OX	0	11	11	2.7
including						OX	5	10	5	4.8
including						OX	9	10	1	14.2
						OX,TR	19	27	8	1.0
including						OX,TR	23	25	2	1.8
						TR,SU	37	60	23	1.6
including						SU	38	39	1	11.8
and						TR	44	45	1	5.9
SRCH125 (Trotsky)	208,929	43,307	171.1	-60 / 270	60.0	OX,TR,SU	6	30	24	3.1
including						ОХ	6	7	1	12.4
and						SU	17	29	12	4.2
						OX,TR,SU	36	57	21	0.8
including						TR,SU	49	52	3	3.2
SRCH127 (Trotsky)	208,957	43,316	184.2	-60 / 270	60.0			No Signi	ficant Result	S
SRCH128 (Trotsky)	208,953	43,318	184.3	-60 / 180	57.0	OX,TR,SU	26	46	20	0.8
including						OX,TR,SU	35	40	5	1.2
SRCH129 (Trotsky)	208,926	43,334	190.7	-60 / 180	60.0	ОХ	0	5	5	0.7
						OX,SU	31	37	6	0.9
SRCH130 (Trotsky)	208,891	43,297	196.9	-60 / 270	60.0	ОХ	53	58	5	0.5
SRCH131 (Trotsky)	208,843	43,303	228.3	-60 / 270	70.0	OX,TR,SU	35	51	16	5.4
including						OX,TR,SU	42	50	8	9.9
including						TR,SU	44	46	2	19.7
and						SU	49	50	1	12.1
SRCH132 (Trotsky)	208,843	43,303	228.3	-60 / 305	70.0	OX,TR,SU	38	52	14	1.1
including		·		-		SU	50	52	2	3.0
SRCH145 (Bekou West)	207,130	43,895	52.4	-60 / 220	60.0	SU	27	31	4	1.9
, ,	,	,		,		SU	53	60	7	0.6
SRCH146 (Botlu South)	207,961	43,170	146.2	-60 / 170	60.0	OX,TR	0	9	9	0.5
SRCH147 (Botlu South)	207,970	43,104	127.4	-60 / 180	60.0	SU	47	57	10	1.6
including	,	.,		,, ===		SU	54	57	3	3.2
SRCH149 (Botlu South)	207,953	43,107	128.0	-60 / 180	60.0	TR,SU	3	6	3	9.9
including		,		11, 200	- 3.0	TR	4	5	1	24.0
SRCH151 (Botlu West)	208,424	42,684	117.5	-60 / 225	80.0	OX,TR	28	35	7	0.6
SRCH152 (Botlu West)	208,366	42,710	106.0	-60 / 225	73.0	OX	0	14	14	0.6
NOTES	200,300	72,710	100.0	00 / 223	, 5.0	- OA				0.0

NOTES:

\*Site Lab Aqua Regia Au results.



#### Table 4 Continued: Simberi RC Significant Intercepts – ML136 Simberi Island, Papua New Guinea

	North	East	RL	Dip/ Azimuth	Total Depth				wn-hole ed Intersecti	on
Hole Id	m	m	m	degrees	m	Lode	From	То	Interval	Gold grade
							m	m	m	g/t Au
SRCH153 (Botlu West)	208,418	42,726	120.6	-60 / 220	80.0	OX,TR,SU	28	58	30	0.5
including						SU	39	43	4	1.1
SRCH154 (Botlu West)	208,419	43,000	95.4	-60 / 360	59.0	SU	33	36	3	1.5
						SU	49	59	10	0.6
SRCH157 (Trotsky)	208,589	43,196	167.3	-60 / 200	70.0		No Significant Results			
SRCH158 (Trotsky)	208,601	43,211	162.8	-60 / 200	80.0	TR	34	52	18	0.8
including						TR	44	48	4	1.6
SRCH159 (Trotsky)	208,638	43,229	161.4	-60 / 200	60.0	TR	57	60	3	2.0
SRCH160 (Trotsky)*	208,735	43,262	187.6	-60 / 270	60.0		No Significant Results			
SRCH161 (Trotsky)*	208,781	43,285	196.6	-60 / 270	60.0			No Signi	ficant Result	S
SRCH162 (Trotsky)*	208,784	43,305	199.2	-60 / 270	60.0			No Signi	ficant Result	S
SRCH163 (Pigiput NE)*	209,339	44,725	163.2	-60 / 311	60.0		No Significant Results			
SRCH164 (Pigiput NE)	209,334	44,730	160.3	-60 / 131	60.0	SU	58	60	2	4.1
SRCH165 (Pigiput NE)*	209,308	44,796	174.1	-60 / 145	60.0		No Significant Results			
SRCH166 (Pigiput NE)*	209,316	44,789	169.5	-60 / 335	60.0		No Significant Results			

NOTES:

<sup>\*</sup>Site Lab Aqua Regia Au results.



#### LEONORA - JORC Code, 2012 Edition - Table 1

#### **Contents**

Harbour Lights Drilling: Section 1 Sampling Techniques and Data

Section 2 Reporting of Exploration Results

Zoroastrian Drilling 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
Sampling techniques	<ul> <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 sample material.</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>
Drilling techniques	<ul> <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>
Drill sample recovery	<ul> <li>Core is metre marked, 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>
Logging	<ul> <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>
Sub-sampling techniques and sample preparation	<ul> <li>SBM half core is cut using a core saw and then broken on the sampling boundaries with a hammer 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>
Quality of assay data and laboratory tests	<ul> <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>
Verification of sampling and assaying	<ul> <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>
Location of data points	<ul> <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>
Data spacing and distribution	Drilling targeted gaps within the resource model or interpreted down plunge extensions to mineralisation and was not designed on a regular pattern.
Orientation of data in relation to geological structure	<ul> <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>
Sample security	<ul> <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>
Audits or reviews	Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.



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

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

Criteria	Commentary
Mineral tenement and land tenure status	SBM has 100 % ownership of tenements M37/0251 and M37/1150 in which the drilling was completed.
Exploration done by other parties	<ul> <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>
Geology	<ul> <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 with within potassic altered ultramafic schist with high quantities of contorted quartz carbonate veining and is strongly related to arsenopyrite content.</li> </ul>
Drill hole Information	<ul> <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>
Data aggregation methods	<ul> <li>Above 300 metres below surface: 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>Beneath 300 metres below surface: 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>
Relationship between mineralisation widths and intercept lengths	The orientation of mineralisation is well known and therefore drilling has been designed to intersect at angles perpendicular to mineralisation.
Diagrams	Appropriate diagrams are included within the body of the report.
Balanced reporting	Details of all holes material to Exploration Results have been reported in the intercept table.
Other substantive exploration data	Data is included in the body of the report.
Further Work	Further resource definition and exploration drill holes are planned.

#### Zoroastrian Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <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 sample material.</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>
Drilling techniques	<ul> <li>Diamond drill holes were commenced using HQ (63.5 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>
Drill sample recovery	<ul> <li>Core is metre marked, 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>
Logging	<ul> <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>
Sub-sampling techniques and sample preparation	<ul> <li>SBM half core is cut using a core saw and then broken on the sampling boundaries with a hammer 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>



Criteria	Commentary
Quality of assay data and laboratory tests	<ul> <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>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>
Verification of sampling and assaying	<ul> <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>
Location of data points	<ul> <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>
Data spacing and distribution	Drilling targeted gaps within the resource model or interpreted down plunge extensions to mineralisation and was not designed on a regular pattern.
Orientation of data in relation to geological structure	<ul> <li>The stratigraphy strikes NNW-SSE and dips approximately 70 degrees to the WSW.</li> <li>Planned drill hole dips ranged from -58 to -72 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>
Sample security	<ul> <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>
Audits or reviews	Logging and sampling data was peer reviewed in-house by SBM Senior Geologists.

#### Zoroastrian Drilling - Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	SBM has 100 % ownership of tenements M24/043, M24/135, M24/469, M24/871 in which the drilling was completed.
Exploration done by other parties	<ul> <li>Previous explorers include AMAX, Hill Minerals, Aberfoyle, Halycon Group, GPM resources and Bardoc Gold. Previous parties have completed both open pit and underground mining, geophysical data collection and interpretation, soil sampling and drilling.</li> </ul>
Geology	<ul> <li>The deposit occurs on the eastern limb of a narrow NNW trending structure, the Bardoc-Broad Arrow syncline within the Bardoc Tectonic Zone. In this zone the sequence comprises highly deformed fault slice lenses of intercalated Archaean mafic and ultramafic volcanics and metasediments.</li> <li>The mineralisation in the Zoroastrian area is predominately associated with a complex array of multiple dimensional and variable orientated quartz veins and stock works within the differentiated Zoroastrian Dolerite. In places a surficial 1-2m thick calcrete/lateritic gold bearing horizon and small near surface supergene pods exist.</li> <li>The Zoroastrian dolerite is thought to be the stratigraphic equivalent of the Paddington dolerite which hosted the 1m+oz mine at Paddington itself with both deposits bounded to the west by the Black Flag sediments and to the east by the Mount Corlac ultramafics. Shear zones up to 10m wide containing gold bearing laminated quartz veining (5cm to 1m wide) occur on both contacts.</li> </ul>
Drill hole Information	<ul> <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>
Data aggregation methods	<ul> <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>
Relationship between mineralisation widths and intercept lengths	<ul> <li>The intersection width is measured down the hole trace, it is not usually the true width.</li> <li>All drill results within this announcement are downhole intervals only and due to variable mineralisation and style true widths are not able to be calculated until modelling of the mineralisation has been completed.</li> </ul>
Diagrams	Appropriate diagrams are included within the body of the report.
Balanced reporting	Details of all holes material to Exploration Results have been reported in the intercept table.
Other substantive exploration data	Data is included in the body of the report.
Further Work	Further resource definition and exploration drill holes are planned.



#### SIMBERI - JORC Code, 2012 Edition - Table 1

#### Contents

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

Section 2 Reporting of Exploration Results

Trenching: 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
Sampling techniques	<ul> <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>
Drilling techniques	<ul> <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>
Drill sample recovery	<ul> <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>
Logging	<ul> <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>
Sub-sampling techniques and sample preparation	<ul> <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
Quality of assay data and laboratory tests	<ul> <li>All diamond and RC drill hole pulp samples associated with the St Barbara exploration are first assayed at the onsite 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</li></ul>
Verification of sampling and assaying	
Location of data points	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.
Data spacing and distribution	<ul> <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>
Orientation of data in relation to geological structure	<ul> <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>
Sample security	<ul> <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>
Audits or reviews	No audits or reviews of sampling protocols have been completed.

<u>Drilling - Section 2 Reporting of Exploration Results</u> (Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	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.
Exploration done by other parties	<ul> <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>
Geology	<ul> <li>The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcaniclastics 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>
Drill hole Information	<ul> <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
Data aggregation methods	<ul> <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 ≥5.0 g/t Au and ≥1 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>
Relationship between mineralisation widths and intercept lengths	<ul> <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>
Diagrams	Diagrams when included, show all drill holes material and immaterial to Exploration Results.
Balanced reporting	Details of all holes material to Exploration Results will be reported in intercept tables.
Other substantive exploration data	Included in the body of the report.
Further work	Included in the body of the report.

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

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

Criteria	Commentary
Sampling techniques	<ul> <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>
Trenching	<ul> <li>Mechanised trenches were dug by an excavator or dozer exposing up to 5 meters of trench wall.</li> </ul>
techniques	<ul> <li>Hand dug trenches are cut using shovels and picks approximately along contours exposing up to 1.5 m of trench wall.</li> </ul>
Sample recovery	• N/A
Logging / Mapping	All trenches were qualitatively geologically mapped for lithology, structure and alteration.
Sub-sampling techniques and sample preparation	<ul> <li>Samples are routinely submitted for total pulverisation (85 % passing &lt;75 µm) 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>
Quality of assay data and laboratory tests	<ul> <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>
Verification of sampling and assaying	<ul> <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>
Location of data points	<ul> <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>
Data spacing and distribution	Trench data spacing is irregular and broad spaced.
Orientation of data in relation to geological structure	<ul> <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>
Sample security	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.
Audits or reviews	No audits or reviews of sampling protocols have been completed.



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

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

Criteria	Commentary			
Mineral tenement and land tenure status	<ul> <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>			
Exploration done by other parties	<ul> <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>			
Geology	• The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcaniclastics 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.			
Trench Information	Included in the report text and annotated on diagrams.			
Data aggregation methods	<ul> <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 ≥1.0 g/t and ≥5 m trench length is intercepted. Grades are reported to 1 decimal figure &amp; no high grade cut is applied.</li> </ul>			
Relationship between mineralisation widths and intercept lengths	<ul> <li>Trench intercepts are sampled along the length of the trench and are reported for all trenches; true width is not reported.</li> </ul>			
Diagrams	Figures when included show all sample sites material and immaterial to Exploration Results.			
Balanced reporting	Details of all trenches material to Exploration Results have been reported in the text.			
Other substantive exploration data	Included in the body of the report.			
Further work	Included in the body of the report.			