St Barbara LIMITED

Quarterly Report /Q3 March FY19

- **Q3 March FY19 production of 88,358 ounces at AISC[1] of A$1,098 per ounce**
- **GMX optimised trucking solution extends Gwalia mine life to FY31**
- **FY19 Simberi production guidance increased**
- **A$382 million cash at bank with no debt[2] after paying $0.04 per share interim dividend**

Executive Summary

Operations

- **Consolidated gold production** for the quarter ended 31 March 2019 (Q3 Mar FY19) was 88,358 ounces (Q2 Dec FY19: 89,244 ounces).
- **Consolidated All-In Sustaining Cost**[1] (AISC) for Q3 March FY19 was A$1,098 per ounce (Q2 Dec FY19: A$1,108 per ounce). The average realised gold price for Q3 March FY19 was A$1,810 per ounce (Q2 Dec FY19: A$1,722 per ounce).
- **Gwalia** (Western Australia) gold production for Q3 March FY19 was 54,261 ounces (Q2 Dec FY19: 53,257 ounces) at AISC of A$1,016 per ounce (Q2 Dec FY19: A$1,081 per ounce). Mined grade for Q3 March FY19 was 11.7 g/t Au (Q2 Dec FY19: 10.4 g/t Au) with 150 kt ore milled (Q2 Dec FY19: 172 kt).
- **Simberi** (PNG) gold production for Q3 March FY19 was 34,097 ounces (Q2 Dec FY19: 35,987 ounces) at AISC of A$1,229 per ounce (Q2 Dec FY19: A$1,146 per ounce).

Health & Safety

- The Total Recordable Injury Frequency Rate (TRIFR, 12-month moving average) increased from 2.9 at the end of Q2 December FY19 to 4.1 at the end of Q3 March FY19, due to six low severity recordable injuries.

Gwalia Extension Project

- The Gwalia Extension Project (GEP) remains on schedule. The overall project budget has increased to $112 million (details page 6).
- The high voltage power cable hole for the Paste Aggregate Fill (PAF) component (crushing of waste underground and mixing with paste for stope filling) was completed during March 2019. This enables the lowering of the electrical cable to 1,440 metres below surface (mbs) planned for Q4 June FY19. Sections of the PAF circuit will be dry commissioned with existing underground power from Q4 June FY19, with wet commissioning and operations continuing into FY20. Three of the four 5-metre diameter ventilation shafts underpinning the GEP have been completed, with the final shaft to commence in early FY20, enabling the shafts and surface ventilation infrastructure to be commissioned from Q2 December FY20.

Gwalia Mass Extraction

- The Gwalia Mass Extraction (GMX) Pre-Feasibility Study (PFS) announced on 21 February 2018 proposed a change in mining method and material handling below 1,800 mbs (from approximately FY22 onwards).
- The GMX Feasibility Study (FS) results were announced on 22 March 2019 and are provided in more detail on page 7.
- In brief, the GMX FS results indicate that an optimised trucking case is the preferred option compared to either hydraulic hoisting options considered in the FS based on risk and return-on-capital assessments.
- Optimisation studies, including a focus on continuous development rates, are underway on the current base case GMX trucking plan seeking to enhance the life of mine (LoM) plan for Gwalia.

Exploration

- **Gwalia Deeps Extension:** The Gwalia Deeps drilling program continued testing southern extensions to the Gwalia lode system at 2,000 mbs with three daughter holes (GWDD16I, GWDD16J and GWDD16K) completed and parent GWDD23 started. The Gwalia Shear Zone was intersected in all three daughter holes, with significant results returned from GWDD16J, including:
  - 6.0 m @ 11.7 g/t Au from 1,945 mbs (GWDD16J)
  - 0.5 m @ 11.0 g/t Au from 1,948 mbs (GWDD16J)

  Results from GWDD16K are pending with GWDD23 nearing completion.

1 Non IFRS measure, refer appendix.

2 Financial information unaudited. Balance comprises $247 M cash, $135 M term deposits (maturing between July 2019 and January 2020) and excludes $2 M restricted cash.

Investor Relations	Mr David Cotterell	Manager Investor Relations	+61 3 8660 1959	ASX: SBM
Media Relations	Mr Tim Duncan	GRA Cosway with Hintons	+61 408 441 122	ADR: STBMY

St Barbara Limited Level 10, 432 St Kilda Road, Melbourne VIC 3004 **T** +61 3 8660 1900 **F** +61 3 8660 1999
ACN 009 165 066 Locked Bag 9, Collins Street East, Melbourne VIC 8003 **W** www.stbarbara.com.au

- **Jessie Alma (Leonora, WA)**: An RC drilling program consisting of 17 holes was started late in Q3 March FY19, with holes directed at testing potential mineralisation contained between the Gwalia and Tower Hill deposits. Five holes were completed with results pending. The program is scheduled to be completed in early Q4 June FY19.
- **Regional Geophysical Program (Leonora, WA)**: A new Sub-Audio Magnetics (SAM) program was completed during the quarter in several areas including a block immediately to the north of Gwalia mine (Gwalia North). Field data is currently been reviewed and a follow up Induced Polarisation (IP) program is planned for Q4 June FY19.
- **Lake Wells Gold Project (WA):** A 500 hole Aircore drill program for 23,500 metres testing 13 targets is expected to commence early in Q4 June FY19.
- **Simberi Island (PNG):** Sulphide drilling results beneath the Sorowar pit seeking to improve the potential for a sulphide gold processing project continue to be positive, indicating significant additional sulphide and oxide mineralisation is present. Significant results relating to seven additional holes are reported in the exploration section and ancillary tables, including (all intercepts down-hole):
  - 20 m @ 3.26 g/t Au from 95 m and
    7 m @ 25.5 g/t Au from 153 m (135SORDGC003)
  - 26 m @ 2.19 g/t Au from 72 m (185SORDGC011)
  - 10 m @ 8.84 g/t Au from 190 m (185SORDG020)
- **Option and Farm-in with Newcrest:** The first diamond drill hole (BND08) was completed and the second hole (BND09) commenced testing the Banesa copper-gold porphyry target on Big Tabar Island (Figure 6.6). The two hole diamond drill program is expected to be completed early in Q4 June FY19.

Finance (unaudited)

- Total cash at bank and term deposits at 31 March 2019 was A$382[1] million (31 Dec 2018: A$357 million), after income tax payments of $4 million, growth capex of $19 million and an interim dividend payment of $14 million.
- The Company generated an operational cash contribution[2] in Q3 March FY19 of A$71 million (Q2 Dec FY19: A$76 million).

Outlook

- Guidance for FY19 was revised on 22 March 2019 and is summarised as follows:
  - Forecast Gwalia gold production of between 235,000 and 240,000 ounces (previously 245,000 and 255,000 ounces) at an AISC of between A$980 and A$1,000 per ounce (previously A$930 to A$970 per ounce), with sustaining capex of between A$45 and A$50 million, plus growth capex of between A$60 to A$65 million. Gwalia sustaining capex includes capital to establish dual declines and increase the number of mining fronts. This capex is reflected in the AISC guidance.
  - Forecast Simberi gold production of between 130,000 and 135,000 ounces (previously 120,000 and 130,000 ounces) at an AISC of A$1,245 to A$1,300 per ounce[3] (previously A$1,275 to A$1,375 per ounce), with sustaining capex of between A$9 and A$10 million.
  - Forecast exploration expenditure is unchanged at A$25 to A$30 million, comprising:
    - A$12 to A$15 million for the Leonora region (which includes Gwalia deep drilling, Gwalia seismic and Gwalia regional)
    - A$4 to A$5 million elsewhere in Australia, mainly at Pinjin in WA, and
    - A$9 to A$10 million on the Tabar Island group (inc. Simberi) in PNG.

Bob Vassie
Managing Director and CEO
18 April 2019

Quarterly presentation and audio webcast

Bob Vassie, Managing Director & CEO, will brief analysts and investors on the Q3 March FY19 Quarterly Report at 11:00 am Australian Eastern Standard Time (UTC + 10 hours) on Thursday 18 April 2019. Participation on the conference call is by personal invitation only.

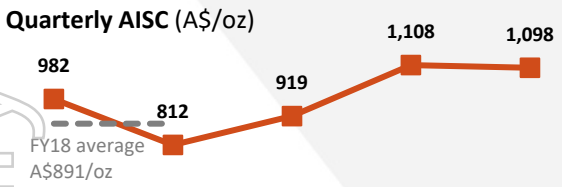
A live audio webcast will be available on the website at www.stbarbara.com.au/investors/webcast/ or by clicking here. The audio webcast is 'listen only' and does not enable questions. The audio webcast will subsequently be made available on the website.

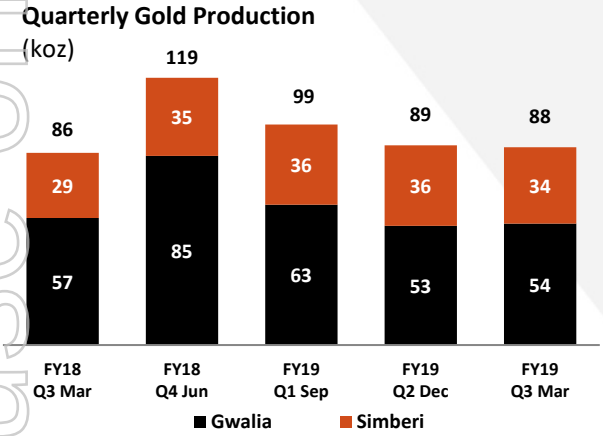
1 Financial information unaudited. Balance comprises $247 M cash, $135 M term deposits (maturing between July 2019 and January 2020) and excludes $2 M restricted cash.

2 Non-IFRS measure, see cash movements table later in this quarterly report. Corresponds to Operational Cash Flow less sustaining capital, excludes growth capital of A$19 M (Q2 Dec: $13 M).

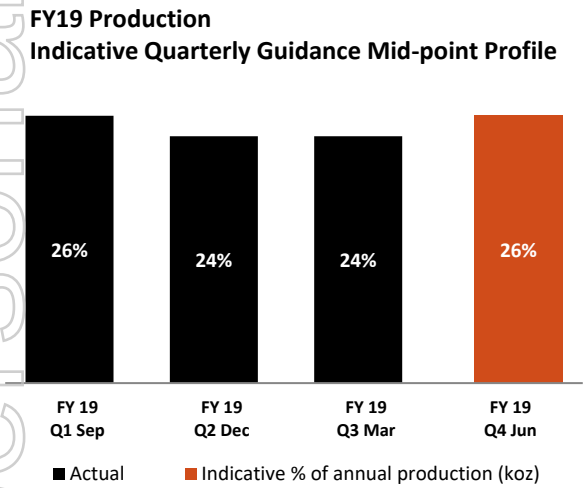
3 Derived from US$895 to US$935 per ounce @ AUD 0.72 (previously US$920 to US$990 per ounce @ AUD 0.72)

Consolidated results





Figures displayed to nearest thousand ounces. Reported ounces in associated table.



St Barbara Gold Production & Guidance

Production Summary Consolidated		Year FY18	Q1 Sep FY19	Q2 Dec FY19	Q3 Mar FY19	Q3 YTD FY18	Guidance FY19[1]
St Barbara's financial year is 1 July to 30 June		*Year to 30 June 2018*	*Qtr to 30 Sep 2018*	*Qtr to 31 Dec 2018*	*Qtr to 31 Mar 2019*	*9 mths to 31 Mar 2019*	*Year to 30 June 2019*
Production							
Gwalia	oz	268,428	62,685	53,257	54,261	170,203	235 to 240 koz *(prev. 245 to 255)*
Simberi	oz	134,661	35,862	35,987	34,097	105,946	130 to 135 koz *(prev. 120 to 130)*
Consolidated	oz	**403,089**	**98,547**	**89,244**	**88,358**	**276,149**	**365 to 375 koz** *(prev. 365 to 385)*
Mined Grade							Reserve grade[2]
Gwalia	g/t	12.5	12.4	10.4	11.7	11.5	7.5
Simberi	g/t	1.25	1.29	1.55	1.46	1.43	1.3
Total Cash Operating Costs[3]							
Gwalia	A$/oz	613	665	806	713	724	n/a
Simberi	A$/oz	969	952	1,027	1,066	1,014	n/a
Consolidated	A$/oz	**732**	**769**	**895**	**849**	**835**	n/a
All-In Sustaining Cost[3]							
Gwalia	A$/oz	802	833	1,081	1,016	969	980 to 1,000 *(prev. 930 to 970)*
Simberi	A$/oz	1,068	1,068	1,146	1,229	1,146	1,245 to 1,300[4] *(prev. 1,275 to 1,375)*
Consolidated	A$/oz	**891**	**919**	**1,108**	**1,098**	**1,037**	**1,075 to 1,100** *(prev. 1,045 to 1,100)*

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.

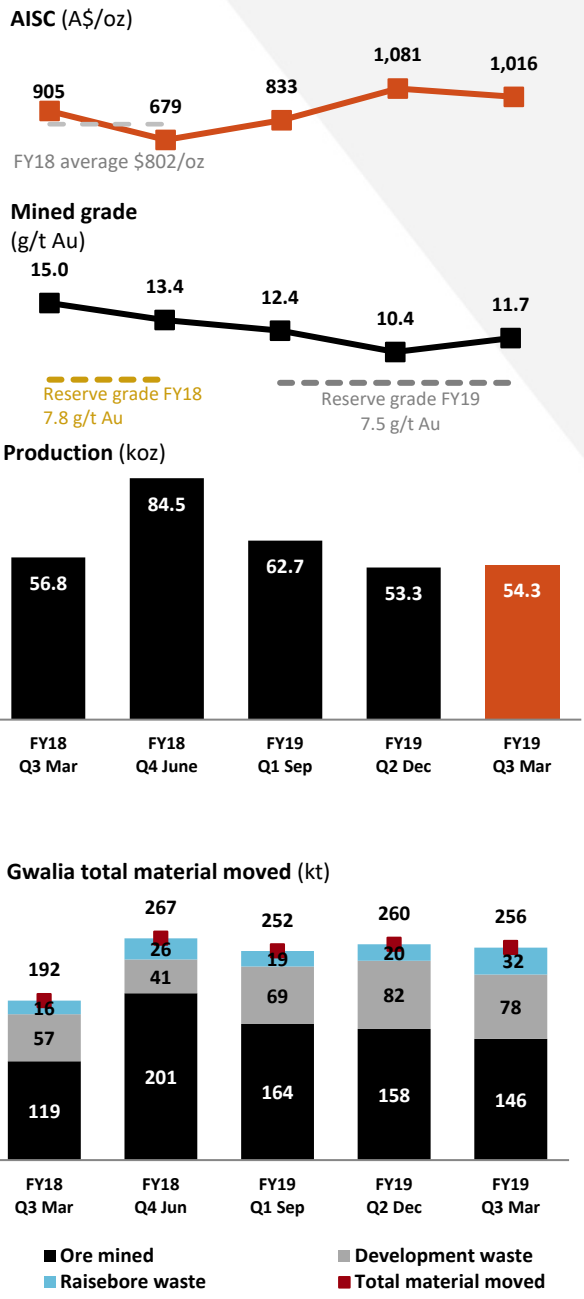
This report contains forward-looking statements that are subject to risk factors associated with exploring for, developing, mining, processing and the sale of gold. Forward-looking statements include those containing such words as anticipate, estimates, forecasts, indicative, should, will, would, expects, 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.

The Company estimates its reserves and resources in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves 2012 Edition ("JORC Code"), which governs such disclosures by companies listed on the Australian Securities Exchange.

1 FY19 guidance released 26 July 2018 '*Quarterly Report Q4 June FY18*', and revised 23 January 2019 'Quarterly *Report Q2 December FY19*' and 22 March 2019 '*Gwalia Mass Extraction Feasibility Study Results*'.
2 Ore Reserve grade at 30 June 2018, refer Ore Reserve and Mineral Resources Statement (released 27 August 2018).
3 Non-IFRS measure, refer Appendix.
4 Derived from US$895 to US$935 per ounce @ AUD 0.72 (previously US$920 to US$990 per ounce @ AUD 0.72)

Gwalia, Leonora, WA



Operations

- Gwalia gold production for Q3 March FY19 was 54,261 ounces (Q2 Dec FY19: 53,257 ounces). Average mined grade for the quarter was 11.7 g/t Au (Q2 Dec FY19: 10.4 g/t Au)
- Q3 March FY19 mined volume was 146 kt (Q2 Dec FY19: 158 kt) as Gwalia Extension Project (GEP) development and raise boring activities continued to compete for ventilation and trucking capacity to remove the waste from two concurrent raise bores. The figure below shows total tonnes moved including ore, development waste and raisebore waste. The PAF civil work on the 1,420 and 1,460 mbs levels continued, whilst raise boring of two ventilation shafts was completed at the end of the quarter.
- Milled volume was lower at 150 kt ore milled (Q2 Dec FY19: 172 kt), with recovery maintained at 98% (Q2 Dec FY19: 98%).
- AISC decreased to A$1,016 per ounce for Q3 March FY19 (Q2 Dec FY19: A$1,081 per ounce), reflecting the higher mined grade. Processing costs were higher compared to previous quarters due to increased plant maintenance.

Outlook

- FY19 guidance was updated on 22 March 2019 as follows:
  - Production between 235,000 and 240,000 ounces (previously 245,000 to 255,000 ounces)
  - AISC between A$980 and A$1,000 per ounce (previously A$930 to A$970 per ounce)
  - Capital expenditure comprising:
    - Sustaining capex: A$45 to A$50 million, and
    - Growth capex: A$60 to A$65 million, which includes A$5 to A$6 million related to GMX studies and preparation works.

Production Summary Gwalia		Q1 Sep FY19	Q2 Dec FY19	Q3 Mar FY19
Underground ore mined	kt	164	158	146
Grade	g/t	12.4	10.4	11.7
Ore milled [1]	kt	168	172	150
Grade [1]	g/t	11.8	9.9	11.5
Recovery	%	98	98	98
Gold production	**oz**	**62,685**	**53,257**	**54,261**
All-In Sustaining Cost [2]		**A$ per ounce**		
Mining		432	511	416
Processing		135	133	141
Site services		75	88	94
Stripping and ore inventory adjustments		(12)	25	15
		630	**757**	**666**
By-product credits		(1)	(2)	(2)
Third party refining & transport		2	2	2
Royalties		34	49	47
Total cash operating costs		**665**	**806**	**713**
less operating development		(73)	(110)	(86)
Adjusted cash operating cost		592	696	627
Corporate and administration		51	52	58
Corporate royalty		22	30	28
Rehabilitation		3	4	4
Operating development		64	102	78
Capitalised mine development		82	158	169
Sustaining capital expenditure		19	39	52
All-In Sustaining Cost (AISC)		**833**	**1,081**	**1,016**

Gwalia Extension Project Expenditure

- Project expenditure to date (all capitalised):
  - FY17 $8 million
  - FY18 $32 million
  - FY19
    - Q1 $10 million
    - Q2 $12 million
    - Q3 $18 million
    - Q3 YTD $40 million
  - Project to date $80 million
- As previously announced, in addition to the GEP scope, ventilation fans and bulk air cooling will be upgraded in FY20 at a cost of $15 million to support the GMX mine plan.

Gwalia Extension Project (GEP)

Project Description

- The Gwalia Extension Project was announced on 27 March 2017, has an overall budget of A$112 million (previously A$100 million, details below), and is expected to be completed in Q2 December FY20.
- The Project consists of two main components, a ventilation upgrade and paste aggregate fill (PAF). PAF involves mixing paste from surface with waste crushed underground to fill stope cavities.

Gwalia Extension Project Summary	
Announced	• 27 March 2017
Status	• Under construction
Capex	• A$112 M (previously A$100 M)
Construction period	• Commenced Q3 Mar FY17 • Anticipated completion Q2 Dec FY20 • PAF completion Q4 June FY19
Key components	
Ventilation upgrade	• 5 metre diameter ventilation shafts, power & cooling • Supports mining to at least 2,000 mbs in FY 2024 [3] • Approx. 80% of project budget
Paste Aggregate Fill (PAF)	• Underground waste crushing, paste and aggregate fill mixing and pumping • Increase trucking efficiency • Improve stope cycle times • Reduce impact of vent shaft construction on production • Approx. 20% of project budget

Project Update

- Work on the Gwalia Extension Project continued during the quarter. The overall project remains on schedule, although the overall project budget has increased to $112 million (previously $100 million). Project costs were within 3% of budget at the end of Q2 December FY19. In Q3 March FY19, a number of project related items were encountered with an aggregate cost of $9 million, driving the increase in budget. The primary contributor was contract negotiations with the PAF contractor to ensure timely completion of the project, together with some project infrastructure scope changes.
- During Q3 March FY19, construction of the underground crushing and mixing 'PAF' infrastructure continued. Mechanical and electrical work on the crushing circuit on the 1,420 level PAF chamber is complete.

1 Includes Gwalia mineralised waste
2 Non-IFRS measure, refer Appendix
3 Ore Reserves at 30 June 2018 extend down to 2,140 mbs, refer to Ore Reserves and Mineral Resources Statement as at 30 June 2018

- Development on the 1,460 level is complete, with civil work well advanced and mechanical installation also well progressed. The high voltage power cable hole for the PAF component was completed in March and the cable lowering for this infrastructure is scheduled for Q4 June FY19. Dry commissioning of sections of the PAF circuit will commence during Q4 June FY19.
- The second surface raisebore hole and the first underground raisebore were completed during Q3 March FY19. Development to enable the commencement of the second (and final) underground raisebore is nearing completion.

Gwalia Mass Extraction (GMX)

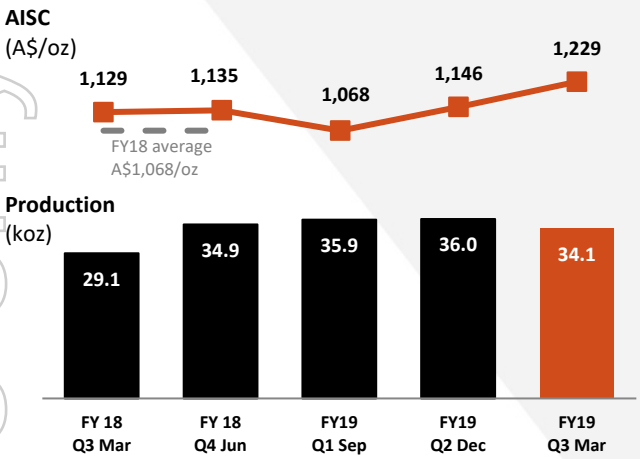
- The Gwalia Mass Extraction (GMX) Pre-Feasibility Study (PFS) announced in February 2018 proposed a change in mining method and material handling below 1,800 mbs (from approximately FY22 onwards) utilising one of two possible variations on 'hydraulic hoisting' as well as base cases involving ongoing trucking with enhanced ventilation.
- The GMX Feasibility Study (FS) results were announced on 22 March 2019 and indicated that the preferred option for ongoing detailed design and development was an optimised 1.1 Mtpa trucking solution, in preference to the hydraulic hoisting options. The Life of Mine plan (LoM) for the preferred trucking option extends to FY31.
- The key GMX FS outcomes were:
  - The combination of higher development requirements and orebody geometry at depth did not consistently support the 1.4 Mtpa ore rate on which the initial FS was based.
  - Hydraulic hoisting with positive displacement (PD) pumping was deemed a feasible option for Gwalia, but it was not financially compelling and had considerable project risk, compared to ongoing trucking, due to the much higher capex, extended interruptions to production during construction and anticipated mining rates.
  - Ongoing trucking options demonstrated higher net present value (NPV), comparable mine life, and upside opportunity should mining development rates improve beyond those modelled, and exploration successes provide further mineral inventory at depth.
- Hydraulic hoisting options contained significant project execution and operating risks:
  - The preferred PD pumping hydraulic hoisting option required a large underground semi-autogenous grinding (SAG) mill to operate in ground conditions where the requisite stability might be difficult to achieve.
  - The second hydraulic hoisting option, involving triple chamber pressurised pumping, though removing the requirement for underground milling, is unproven on this scale and in underground conditions.
- Trucking does not require the major capital investment that would be required for a hydraulic hoisting type haulage option. In addition, the continued use of trucking avoids the requirement to construct the large underground infrastructure facilities required for hydraulic hoisting. The well-progressed GEP PAF project, which has required the construction of much smaller cavities than those required for hydraulic hoisting, demonstrates that such large underground construction projects have a significant impact through disruption to production.
- The productivity of underground trucking has consistently improved at Gwalia, in part countering the effect of increasing depth. Automation and electric drive systems are two key areas that offer potential for material productivity improvement from underground trucking. Significantly, the GMX trucking options were assessed using the existing site trucking productivity metrics and hence improvements in underground trucking productivity offer potential future upside potential.
- The FS indicated that the trucking option involves approximately $100 million capital expenditure over the LoM (comprising ~$70 million for additional ventilation raise bore shafts, and ~$30 million for additional cooling infrastructure announced as part of GEP [1]). Optimisation studies are underway to confirm the preferred timing of new raise-bore shafts, however, at this time it is unlikely that construction would commence before FY23.
- Whilst the outcome of the FS and revised production profile was released at the earliest opportunity, work on the corresponding cost information is continuing, and is anticipated to be released in July 2019 with FY20 guidance in conjunction with the Q4 June FY19 quarterly report.
- Production for FY20 will remain ventilation constrained until the additional ventilation from the Gwalia Extension Project is available, as forecast, in H2 FY20. Production in H2 FY20 will compete with development associated with GMX, with the outlook for FY20 anticipated to be between 200,000 and 220,000 ounces.
- The production profile past FY20 is subject to optimisation of the continued trucking option which is underway, and for FY21 and FY22 the production rate is anticipated to be approximately 230,000 ounces per annum.
- Expenditure on GMX in FY19 to date (all capitalised):
  - Q1 $1 M
  - Q2 $1 M
  - Q3 $1 M

1 Refer ASX announcement "Gwalia Extension Project approved" released 27 March 2017.

GMX Outlook and Optimisation

- The outlook for Gwalia announced with the FS results on 22 March 2019, was estimated at 230,000 ounces per annum for FY21 and FY22.
- This production outlook is based on the ore mining rate building to a targeted 1.1 Mtpa, but only achieves that rate in FY22.
- The opportunity to improve this production profile centres largely on underground development rates, given the orebody geometry at depth requires higher development meters per ounce.
- A project team has been formed to work on transitioning from "just in time" development toward continuous rapid development with a focus on overall development rates. This is aimed at readiness for achieving higher rates as soon as possible after the ventilation provided by GEP is available in H2 FY20.
- The underground mining contractor Byrnecut is part of the St Barbara team, and will be implementing an automated *jumbo* (electro-hydraulic rock drilling machine) in May 2019.
- After GEP is completed the mine will be able to better gauge achievable development rates and apply these to the future mining schedule.
- The opportunity is both in achieving the target 1.1 Mtpa mining rate earlier and then potentially exceeding that rate in parts of the mining schedule.
- While the mine transitions from a ventilation and trucking constrained operation to a development dependent mine, it will remain important to continue focus on geotechnical considerations and constrains of the orebody, stope cycle times, available mining fronts, and trucking technology improvements to ensure the benefit of doubling mine ventilation (from GEP) and achieving higher development rates is maximised.

Simberi, Papua New Guinea



Production Summary Simberi		Q1 Sep FY19	Q2 Dec FY19	Q3 Mar FY19
Ore & waste mined	kt	3,042	3,334	3,176
Ore mined	kt	1,078	993	711
Grade	g/t	1.29	1.55	1.46
Ore milled	kt	875	778	639
Grade	g/t	1.48	1.64	1.83
Recovery	%	86	88	90
Gold production	**oz**	**35,862**	**35,987**	34,097
All-In Sustaining Cost [1]		A$ per ounce		
Mining		351	347	353
Processing		353	429	449
Site services		202	210	222
		906	**986**	**1,024**
By-product credits		(6)	(6)	(6)
Third party refining & transport		8	8	8
Royalties		44	39	40
Total cash operating costs		**952**	**1,027**	**1,066**
Corporate and administration		51	52	58
Rehabilitation		19	20	21
Sustaining capital expenditure		46	47	84
All-In Sustaining Cost (AISC)		**1,068**	**1,146**	**1,229**

Operations

- Simberi gold production for Q3 March FY19 was 34,097 ounces (Q2 Dec FY19: 35,987 ounces).
- Milled grade at 1.83 g/t Au was a fourth consecutive quarter record, driven by mining in higher-grade zones at the base of mining stages in Sorowar and Pigibo.
- Q3 March FY19 metallurgical recovery was a third consecutive record at 90.4%.
- All In Sustaining Cost (AISC) for Q3 March FY19 was A$1,229 per ounce (Q2 Dec FY19: A$1,146 per ounce), due to a weaker Australian dollar and increased costs arising from the previously planned and announced:
  - 6 week shut of the Aerial Rope Conveyor ('Ropecon') to replace guide ropes, which was completed under budget and ahead of time.
  - 100-hour processing plant maintenance shutdown, involving a SAG mill reline, deep sea tailings pipeline inspection and maintenance works, leach tank hopper replacement, apron feeder pulley replacement and ancillary maintenance works..
  - Higher sustaining capital mainly related to the refresh of the mining fleet, which will extend into Q4 June FY19.
- All scheduled works were successfully completed during the quarter and no additional major maintenance activities are planned for the remainder of the year.

Outlook

FY19 guidance was updated on 22 March 2019 as follows:

- Production of between 130,000 and 135,000 ounces (previously 120,000 to 130,000 ounces)
- AISC of between A$1,245 and A$1,300 per ounce [2] (previously A$1,275 to A$1,375 per ounce)
- Sustaining capex of A$9 to A$10 million (unchanged).

1 Non-IFRS measure, refer Appendix

2 Derived from US$895 to US$935 per ounce @ AUD 0.72 (previously US$920 to US$990 per ounce @ AUD 0.72)

Sulphide drilling at Sorowar

- Drilling beneath the Sorowar pit seeking to improve the financial case for a potential sulphide gold processing investment continued to generate positive results. The overall interpretation of the results to date indicate that significant additional sulphide and oxide mineralisation is present. Significant results relating to seven additional holes are reported in the exploration section and ancillary tables, including (all intercepts down-hole):
  - 20 m @ 3.26 g/t Au from 95 m and
    7 m @ 25.5 g/t Au from 153 m (135SORDGC003)
  - 26 m @ 2.19 g/t Au from 72 m (185SORDGC011)
  - 10 m @ 8.84 g/t Au from 190 m (185SORDG020)
- Delays relating to equipment reliability and availability have impacted the completion of the increased density drilling (30 m x 30 m) required to inform an updated Sulphide PFS, and this is now expected to finish in Q1 September FY20.
- Diamond drilling commenced during the quarter at Sorowar to ascertain geotechnical and metallurgical information to assist with informing consideration of sulphide processing options.
- The recent sulphide drilling results will inform a revised Resources and Reserves Statement, due for release on 21 August 2019. The Simberi Sulphide Resources and Reserves, and any further results from subsequent drilling, will be assessed at that time to determine whether to update the Simberi Sulphide Project PFS ahead of commencing a Feasibility Study.
- Some work is already underway to prepare for this possibility, including consideration of adding grinding capacity seeking to improve concentrate grade and onsite oxidisation options.

Exploration – Results Q3 March FY19

Gwalia Exploration Program, Leonora WA

- **Gwalia Deeps Extension:** The Gwalia Deeps drilling program continued with the completion of daughter holes GWDD16I, GWDD16J and GWDD16K as well as the commencement of GWDD23. These drill holes were designed to test a potential shallowing of the southerly extensions to the Gwalia deposit at approximately 2,000 mbs. The holes entered the Mine Sequence at depths between 2,030 and 2,060 mbs and passed through intervals interpreted to represent Main Lode (MNL), South West Branch and South Gwalia Series (SGS2), contained within a broader mineralised shear zone.
- Both 16I and 16J intersected the full mineralised shear zone consistent in width and characteristics to previous holes. Significant intercepts from these holes are indicated below with full details set out in Figures 1.0 to 1.3 and Table 1 in the Exploration Figures and Tables appendix (all intercepts downhole):

GWDD16J:

- 0.5 m @ 1.8 g/t Au from 2,036 m (MNL)
- 6.0 m @ 11.7 g/t Au from 2,092 m (SGS2)
- 0.5 m @ 11.0 g/t Au from 2,099 m (West Lode)

- Results continue to support a view that the deposit trends in a progressively shallower manner to the south from approximately 1,600-1,800 mbs, rather than the steeper plunge depicted in earlier conceptual models of Gwalia mineralisation.
- The intersection attributed to SGS2 in GWDD16J leads to consideration of the potential of this lode as another significant high grade target in this area of the shear zone.
- Daughter hole GWDD16K was completed at the end of the quarter with results pending.
- Parent hole GWDD23 commenced during the quarter and at the end of the quarter had reached a downhole depth of 2,190 m with 150m remaining to drill to planned end of hole.
- **Gwalia Seismic Program:** Data from 2D and 3D seismic surveys, located to the north and south of the Mine respectively, continue to be modelled and reviewed to identify new high value targets within the enlarged survey area surrounding Gwalia Mine.
- **Jessie Alma (Leonora, WA)**: An RC drilling program consisting of 17 holes (JARC002 – 018) was started late in Q3 March FY19, with holes directed at testing potential mineralisation located between the Gwalia and Tower Hill deposits. Five holes (JARC002 – 6) were completed with depths varying between 250m and 330m with results pending. The program is scheduled to be completed in early Q4 June FY19.
- **Regional Geophysical Program (Leonora, WA)**: As part of the ongoing regional exploration activities in the Greater Leonora region, and following the completion of Sub-Audio Magnetics (SAM) and Induced Polarisation (IP) programs in the Horse Paddock Well prospects during Q1 September FY19, an extended SAM program was subsequently completed during Q3 March FY19 to assist with the identification of additional drilling targets. The program also included the Poker prospect and a block immediately north of Gwalia Mine (Gwalia North). Interpretation efforts are currently being undertaken and a new IP survey is being planned for Q4 June FY19 over the same areas covered by the recent SAM program.

Pinjin Project, Yilgarn WA

- Exploration continued on the Pinjin project within the Yilgarn Province, WA. The Pinjin Project is located 150 km northeast of Kalgoorlie, comprising a large tenement package of 19 exploration licences (1,131 km^2) for 404 blocks (Figure 3.0).
- A 16 hole RC drill program (PJRC0058 to PJRC0073) for 3,203 metres was completed in November 2018. The program was designed to follow-up anomalous aircore results from previous drilling campaigns. The program tested five targets, including Old Homestead, Mulgabbie Trend North, Mulgabbie Trend South, Yindi SE and an historic soil anomaly. Final assay results were received in Q3 March FY19 (Figures 3.0 to 3.3 and Table 2).
- The final assay results were received for a 93 hole (PJAC2451 to PJAC2543), 5,596 metre aircore drill program completed in December 2018 (Figures 3.0 to 3.3 and Table 3). The program tested five geochemical targets (Old Homestead, Mulgabbie Trend North, Mulgabbie Trend South and Bosses Dam in Yindi SE) and one geophysical target (Far East).
- A 30 hole RC drill program commenced in mid-March with 24 holes (PJRC0074 to PJRC0097) for 4,911 metres completed by the end of the quarter, further testing four geochemical targets (Old Homestead, Mulgabbie Trend South, Middle Tank and Yindi SE, details in Figures 3.0 to 3.4). Assay results are pending. Six additional RC holes for approximately 1,290 metres are planned at SE Yindi.
- Further land and lake Aircore drilling is currently being planned for Q4 June FY19 (Figure 3.5). An exploration review and targeting study was completed over the Pinjin project in Q3 March FY19. Several new targets have been highlighted for follow-up ground geophysical surveys and Aircore drilling (Figure 3.5).
- St Barbara acquired the exploration tenements 28/2327 and 28/2313 from Element 25 Limited (ASX: E25) for $0.7 million and a 2% Net Smelter Royalty. These tenements adjoin the Pinjin Project to the south.

Lake Wells Gold Project, Yilgarn WA

- St Barbara Limited entered into an Earn-In and Joint Venture with Australian Potash Limited covering tenements at the Lake Wells Gold Project in October 2018. The Lake Wells Gold Project is located approximately 150 km northeast of Laverton, Western Australia. A 500 hole Aircore drill program for 23,500 metres testing 13 targets is expected to commence early in Q4 June FY19 (Figure 4.0).

Back Creek, NSW

- A single diamond drill hole (BKDD0001) with a 108 metre Aircore pre-collar was completed to 397 metres depth testing a geophysical target in EL 8530. The hole intersected intrusives, volcanics and sediments locally over printed by minor quartz ± pyrite veining and weak potassic alteration with trace to minor disseminated chalcopyrite. Seventeen Aircore drill holes (BKAC0025 to BKAC0041) were completed for 1,902 metres on traverses testing two targets in western EL 8214 (Figure 5.0). Assay results are pending.

Simberi, Tatau & Tabar Islands, Papua New Guinea

- **Simberi Island (PNG):** Sulphide drilling results beneath the Sorowar pit seeking to improve the potential for a sulphide gold processing project continue to be positive, indicating significant additional sulphide and oxide mineralisation is present (Figure 6.0 to 6.4). Significant results relating to seven additional holes are reported in the exploration section and ancillary tables, including (all intercepts down-hole):
  - 20 m @ 3.26 g/t Au from 95 m and
    7 m @ 25.5 g/t Au from 153 m (135SORDGC003)
  - 26 m @ 2.19 g/t Au from 72 m (185SORDGC011)
  - 10 m @ 8.84 g/t Au from 190 m (185SORDG020)
- Delays relating to equipment reliability and availability have impacted the completion of the increased density drilling (30 m x 30 m) required to inform the updated Sulphide PFS, and this is now expected to finish in Q1 September FY20.
- Other drilling to progress the sulphide project during the quarter included:
  - Diamond drilling has begun at Sorowar to ascertain metallurgical information (such as sulphur content) to assist with informing consideration of sulphide processing options, and,
  - Diamond drilling has continued at other locations in the mining lease to test potential high-grade gold sulphide targets. Seven diamond drill holes (SDH380 to SDH386) were completed for 1,519 metres during Q3 March FY19 testing three targets. Assay results were received for holes SDH377 to SDH382 (Figure 6.5 and Table 5).
  - Assay results are pending for the remaining drill holes SDH383 to SDH386.
- Exploration continued on EL609 on Tatau and Big Tabar Islands during Q3 March FY19. Work focussed on the execution of surface sampling (trenching at Banesa and soil sampling on Tatau Island) for St Barbara and continuing drilling at Banesa as part of the Newcrest Option and Farm-in agreement.
- 21 trenches (TABTR196 to TABTR216) were completed at Banesa for 3,635 metres and 916 samples. The trench results for TABTR208 to TABTR216 are highlighted in Figure 6.6 and include:
  - TABTR213: 40m @ 0.19 % Cu and 0.46 g/t Au,
    26 m @ 0.16 % Cu and 0.73 g/t Au,
    inc. 12 m @ 0.19 % Cu and 1.10 g/t Au
    30 m @ 2.09 g/t Au
  - TABTR214: 20 m @ 0.76 g/t Au
- 165 hand auger soil samples were collected on Tatau Island within EL2462 and southern EL609. The soil results are shown in Figure 6.7.

Option and Farm-in with Newcrest, Tatau & Tabar Islands, Papua New Guinea

- The St Barbara group (through its wholly owned PNG subsidiary Nord Australex Nominees (PNG) Ltd) entered into an Option and Farm-in Agreement with Newcrest PNG Exploration Limited (a wholly owned subsidiary of Newcrest Mining Limited) in November 2016 for copper - gold porphyry exploration within EL609 and EL2462 on nearby Tatau and Big Tabar Islands.
- Two diamond drill holes were planned to test the Banesa copper - gold porphyry prospect on Big Tabar Island. Diamond drill hole BND008 was extended from 69 metres to a final depth of 750 metres (Figure 6.6). A second diamond drill hole BND009 planned to scissor BND008, commenced in March and is currently at 594 metres depth. Drilling intersected pyroxene monzodiorite, monzonite, feldspar porphyry and polymict hydrothermal breccia. Trace levels of bornite and chalcopyrite occur locally on fractures associated with potassic (biotite ± magnetite ± actinolite ± k-feldspar) and silicic alteration. Assay results are pending. Drilling is expected to continue into Q4 June FY19.
- To date, a total of five diamond drill holes and one part hole have been completed as part of the Newcrest Option and Farm-in at Talik North (TTD084 to TTD086), Kupo (TTD087) and Banesa (BND08, with BND09 ongoing) for a combined 4,594 metres.

Expenditure Q3 March FY19 (unaudited)

Expenditure on mineral exploration is shown below:

	Q1 Sep FY19	Q2 Dec FY19	Q3 Mar FY19	
		A$ million		
Australia	2.1	2.4	2.4	(expensed)
Pacific	1.7	1.1	1.3	(expensed)
Gwalia Deep Drilling	1.7	1.6	1.6	(capitalised)
	5.5	**5.1**	**5.3**	

Planned Exploration – Q4 June FY19

The map below shows current and planned target areas for Q4 June FY19.

Exploration in Q4 June FY19 will focus on:

- **Greater Gwalia**
  - 2,000 – 2,200 mbs: Complete drilling of two daughter holes (GWDD16L and GWDD16M), parent hole GWDD23 and daughters GWDD23A and GWDD23B to investigate the southern strike extension of the Gwalia lode system.
- **Leonora Region**
  - Horse-Paddock Well: Second phase RC drilling program to follow up on drilling results from Q2 December FY19 and test high priority Geophysical targets.
  - Jessie Alma: Complete RC drilling program.
  - Cricket Pitch: Diamond drilling program to test Geophysical anomalies in the Cricket Pitch prospect area (0.5 km north of Gwalia Mine).
  - RC drilling programs to test the Whistler (17 km north of Gwalia Mine) and Trevor Bore (20 km north of Gwalia Mine) prospects.
  - Induced Polarisation (IP) work program in the Trevor Bore, Kailis East and Gwalia North prospects.
- **Pinjin**
  - Complete the current 30 hole (PJRC0074 to PJRC0103) Reverse Circulation (RC) drilling program and assess the assay results.
  - Complete further land based Aircore drilling and potentially commence lake Aircore drilling at the best Pinjin geochemical and geophysical targets.
  - Design and potentially commence follow-up ground geophysical surveys and Aircore drilling of new targets highlighted by the recently completed targeting study.
- **Lake Wells**
  - Complete a 36,000 line kilometre detailed airborne geophysical survey over the Lake Wells tenements.
  - Commence the 500 hole, 23,500 metre Lake Wells Aircore drilling program.
- **Back Creek (NSW)**
  - Assess the assay results of a diamond drill hole testing one target on EL8530 and 17 Aircore holes testing two targets in western EL8214.
- **Simberi Island**
  - Ongoing campaign of increased density RC drilling focused on the Sorowar mining area.
  - Upon receipt of final assays, assess the results of the three holes (SDH383 to SDH386) completed testing high-grade gold sulphide targets within ML136.
- **Tabar Islands (St Barbara)**
  - Subject to access, continuing the soil, rock chip sampling, reconnaissance mapping and trenching over gold and copper-gold targets on Tatau and Big Tabar Islands.
- **Tabar Islands (Newcrest option agreement)**
  - As part of the Newcrest option period work program, complete the diamond drilling at the Banesa gold - copper porphyry target on Big Tabar Island.

Exploration Investments

- One component of the Company's growth strategy is targeted investments in early to advanced stage exploration through earn-in arrangements, joint ventures or direct equity investments.
- At the date of this report, St Barbara holds the following investments in Australian explorers[1] :

Catalyst Metals Limited (ASX:CYL)	16%
Duketon Mining Limited (ASX:DKM)	12%
Peel Mining Limited (ASX:PEX)	18%
Prodigy Gold (ASX:PRX)	10%

- In addition St Barbara has entered into an Earn-in and Joint Venture with Australian Potash Limited (ASX: APC) on the Lake Wells Gold Project. St Barbara can earn a 70% interest through total expenditure of $7.0 million.
- On 10 April 2019 St Barbara acquired the exploration tenements 28/2327 and 28/2313 from Element 25 Limited (ASX: E25) for $0.7 million and a 2% Net Smelter Royalty. These tenements adjoin the Pinjin Project to the south.

Health & Safety

- The Total Recordable Injury Frequency Rate (TRIFR, 12-month moving average) increased from 2.9 at the end of Q2 December FY19 to 4.1 at the end of Q3 March FY19, due to six recordable injuries in the quarter.
- The corresponding industry measure of Lost Time Injury Frequency Rate (LTIFR, 12-month moving average) was 0.9 at the end of Q3 March FY19, which remains well below the WA gold industry LTIFR average of 1.9[2].
- The six injuries were relatively minor, five of these were at Gwalia, and all related to underground mining contract services.
- The injuries primarily related to manual underground activities such as production and development drilling, installation of rock bolts and loading and unloading of equipment, resulting in minor hand injuries (fractures and crush injuries to single fingers).
- The Company has completed a gap analysis and is implementing a series of new measures around contractor management.

Corporate

- The Company paid a $0.04 fully franked interim divided on 27 March 2019. Thirty-four percent of shares participated in the Dividend Reinvestment Plan, resulting in 1,698,495 shares being issued on 27 March 2019.

Scheduled Future Reporting

Date	Report
24 July	Q4 June FY19 Quarterly Report
21 August	Annual Financial Report
	Final dividend announcement (dividend policy and history at stbarbara.com.au/investors/dividend/)
	Resources and Reserves Statements

Dates are tentative and subject to change

Share Capital	
Issued shares	
Opening balance 31 Dec 2018	**524,290,599**
Issued[3]	**1,698,495**
Closing balance 31 Mar 2019	**525,989,094**
Unlisted employee rights	
Opening balance 31 Dec 2018	**2,969,089**
Issued	nil
Exercised as shares	nil
Lapsed	nil
Closing balance 31 Mar 2019	**2,969,089**
Comprises rights expiring:	
30 June 2019[4]	1,028,427
30 June 2020[5]	1,175,059
30 June 2021[6]	765,603
Closing balance 31 Mar 2019	**2,969,089**

1 Shareholdings as notified by St Barbara in substantial holder notices
2 www.dmp.wa.gov.au/Safety/Safety-statistics-16198.aspx , Safety performance in the Western Australian mineral industry 2017-18 - poster
3 ASX Appendix 3B 27 March 2019 shares issued in accordance with the St Barbara Dividend Reinvestment Plan
4 If these rights do not vest at 2019, they may be retested at 2020 and 2021
5 If these rights do not vest at 2020, they may be retested at 2021 and 2022
6 These rights are not subject to retesting

Finance (unaudited)

- 88,708 ounces of gold were sold in Q3 March FY19, at an average realised gold price of A$1,810 per ounce (Q2 Dec FY19: 97,283 ounces at A$1,722 per ounce).
- Total cash at bank and term deposits at 31 March 2019 was A$382 million[1] (31 December 2018: A$357 million) after growth capex of $19 million, income tax payments of $4 million and interim dividend payment of $14 million.
- The Company generated an operational cash contribution[2] in Q3 March FY19 of A$71 million (Q2 Dec FY19: A$76 million). Cash movements for FY19 are summarised in the following table:

Cash movements & balance A$M (unaudited)	**Q1 Sep FY19**	**Q2 Dec FY19**	**Q3 Mar FY19**
Leonora - operating cash flow [3]	45	53	51
Simberi - operating cash flow [3]	34	23	20
Operational cash contribution	79	76	71
Leonora - growth capital	(11)	(13)	(19)
Rehabilitation , land management & project costs	(2)	(2)	(2)
Corporate costs [4]	(8)	(4)	(5)
Corporate royalties	(1)	(2)	(2)
Exploration [5]	(6)	(5)	(5)
Investments [6]	(4)	(2)	-
Income tax payments	(6)	(46)	(4)
Working capital movement [7]	(9)	3	3
Cash flows before finance costs	32	5	37
Net interest income	3	2	2
Dividends paid	(28)	-	(14)
Net movement for period	7	7	25
Cash balance at start of quarter	343	350	357
Cash balance at end of quarter	**350**	**357**	**382**
Closing balance excludes restricted cash	1	2	2

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

FY19	**27,000** ounces of forward gold contracts to be delivered in monthly instalments between April and June 2019 at **A$1,750** per ounce (remaining FY19 component of original 100,000 ounce hedges announced 7 and 19 February 2018 and 7 March 2018).
FY20	**50,000** ounces of forward gold contracts to be delivered in monthly instalments between July and December 2019 at **A$1,750** per ounce (FY20 component of hedges announced 7 and 19 February 2018 and 7 March 2018). **24,000** ounces of forward gold contracts to be delivered in monthly instalments between January and June 2020 at **A$1,809** per ounce (FY20 component of hedge announced 26 October 2018). **24,000** ounces of forward gold contracts to be delivered in monthly instalments between January and June 2020 at **US$1,300** per ounce (FY20 component of hedge announced 10 December 2018).
FY21	**26,000** ounces of forward gold contracts to be delivered in monthly instalments between July and December 2020 at **A$1,809** per ounce (FY21 component of hedge announced 26 October 2018). **26,000** ounces of forward gold contracts to be delivered in monthly instalments between July and December 2020 at **US$1,300** per ounce (FY21 component of hedge announced 10 December 2018).

1 Financial information unaudited. Balance comprises $247 M cash and $135 M term deposits (maturing between Jul 2019 and Jan 2020), excludes $2 M restricted cash.
2 Non-IFRS measure, see cash movements table this page. Corresponds to Operational Cash Flow less sustaining capital, but excludes growth capital of $19 million.
3 Net of sustaining capex
4 Cash corporate costs in Q1 Sep FY19 include payment of short term incentives for employees (inc. key management personnel) accrued at 30 June 2018
5 Includes Gwalia deep drilling
6 Refer 'Explorations Investments' earlier in this report
7 Working capital movement in Q3 March FY19 was predominantly due to a reduction in gold receivables

Corporate Directory

St Barbara Limited ABN 36 009 165 066

Board of Directors

Tim Netscher .....Non-Executive Chairman

Bob Vassie ..... Managing Director & CEO

Kerry Gleeson ..... Non-Executive Director

David Moroney..... Non-Executive Director

Stef Loader ..... Non-Executive Director

Executives

Bob Vassie ..... Managing Director & CEO

Garth Campbell-Cowan ..... Chief Financial Officer

Rowan Cole..... Company Secretary

Registered Office

Level 10, 432 St Kilda Road

Melbourne Victoria 3004 Australia

Telephone	+61 3 8660 1900
Facsimile	+61 3 8660 1999
Email	info@stbarbara.com.au
Website	www.stbarbara.com.au

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 FY19 = quarter to 30 Sep 2018

Q2 Dec FY19 = quarter to 31 Dec 2018

Q3 Mar FY19 = quarter to 31 Mar 2019

Q4 Jun FY19 = quarter to 30 Jun 2019

Shareholder Enquiries

Computershare Investor Services Pty Ltd

GPO Box 2975

Melbourne Victoria 3001 Australia

Telephone (within Australia)	1300 653 935
Telephone (international)	+61 3 9415 4356
Facsimile	+61 3 9473 2500

www.investorcentre.com/au

American Depositary Receipt enquires:

BNY Mellon Depositary Receipts

www.bnymellon.com/shareowner

Investor Relations

David Cotterell, Manager Investor Relations	+61 3 8660 1959
Rowan Cole, Company Secretary	+61 3 8660 1900

Substantial Shareholders

	% of Holdings [1]
Van Eck Associates Corporation	13.3%

1 As notified by the substantial shareholders to 17 April 2019

Appendix

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

Competent Persons Statement

Exploration Results

- The information in this report that relates to Exploration Results for Simberi, Pinjin and Back Creek 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.
- The information in this report that relates to Exploration Results for Gwalia and the Leonora region is based on information compiled by Mr Robert Love, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Love 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'. Mr Love consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resource and Ore Reserve Estimates

- The information in this report that relates to Mineral Resources or Ore Reserves is extracted from the report titled 'Ore Reserves and Mineral Resources Statements 30 June 2018' released to the Australian Securities Exchange (ASX) on 27 August 2018 and available to view at www.stbarbara.com.au and for which Competent Persons' consents were obtained. Each Competent Person's consent remain 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 ASX announcement released on 27 August 2018 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 ASX announcement 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 ASX announcement.
- Full details are contained in the ASX release dated 27 August 2018 'Ore Reserves and Mineral Resources Statements 30 June 2018' available at www.stbarbara.com.au.

Exploration Figures and Tables

Figure 1.0: Leonora: Gwalia Deeps Drilling Program Q3 FY19 Plan View

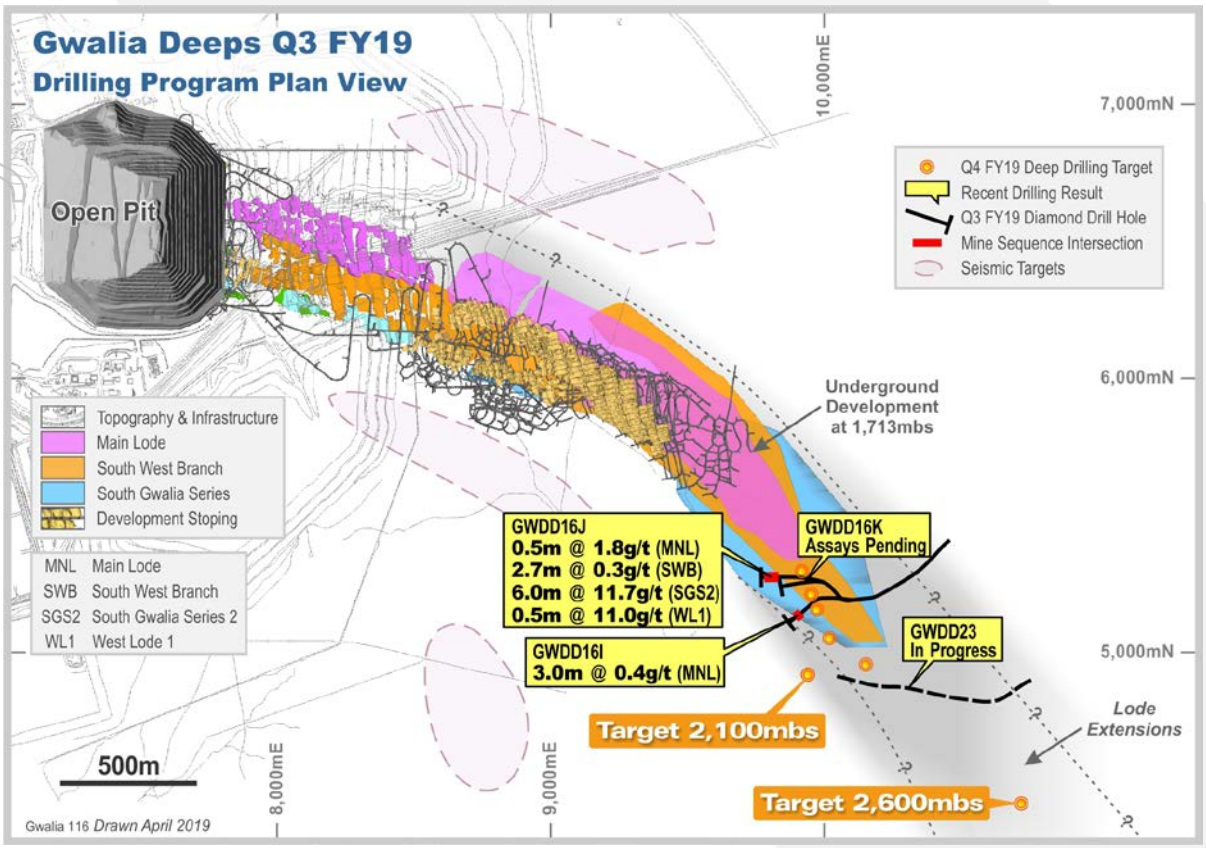


Figure 1.1: Gwalia Deeps Drilling Program Q3 FY19, Cross Section (looking north)

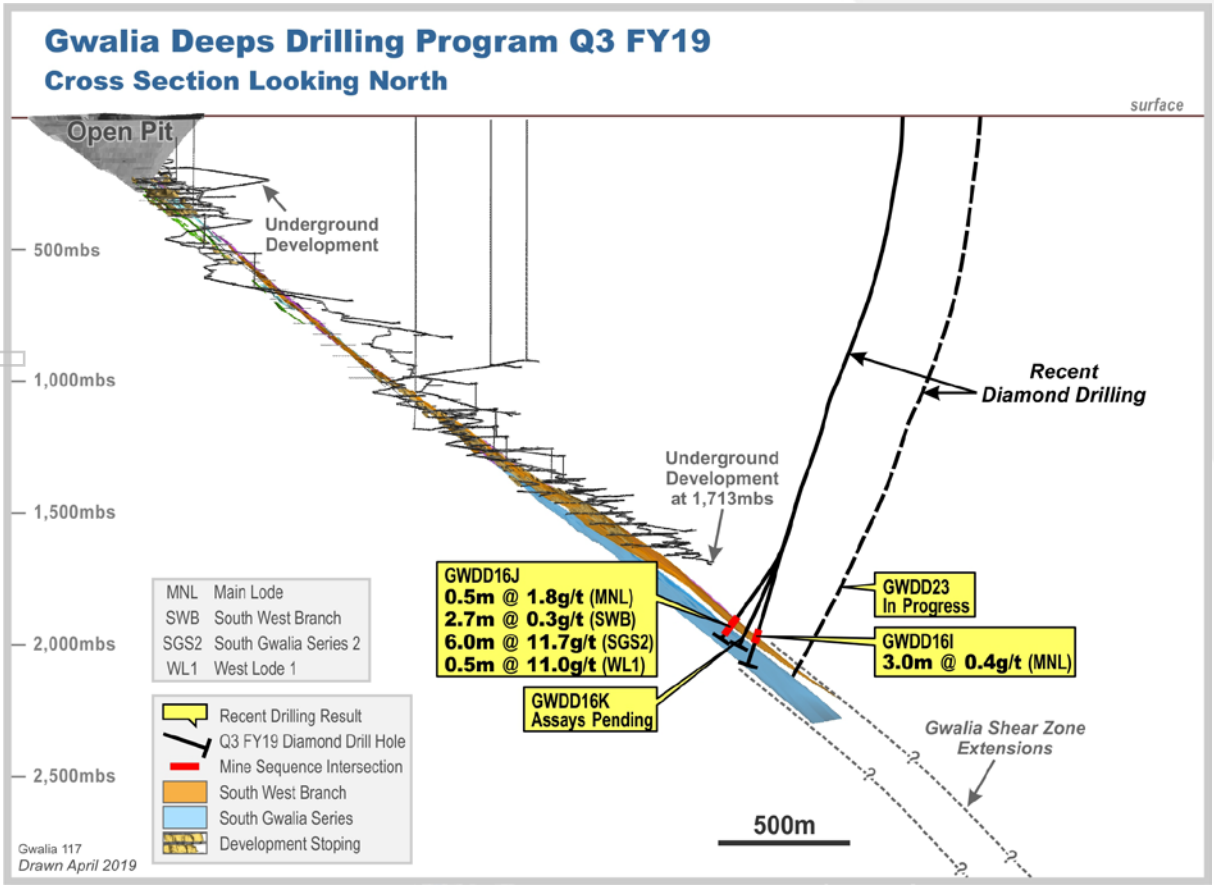


Figure 1.2: Gwalia Deeps Drilling Program Q3 FY19 Results, Long Section (looking west)

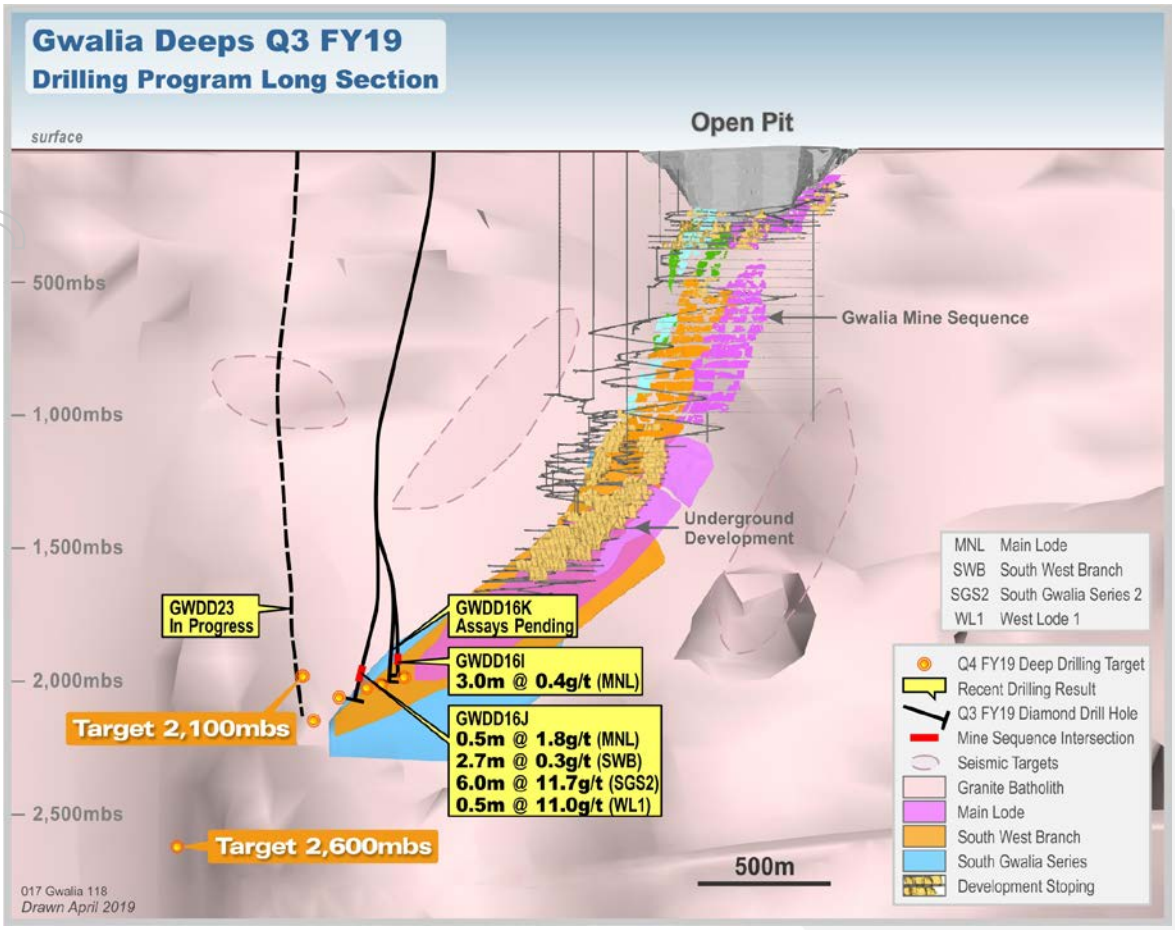


Figure 1.3: Gwalia Deeps Drilling Program Q3 FY19 Results, Long Section (looking west)

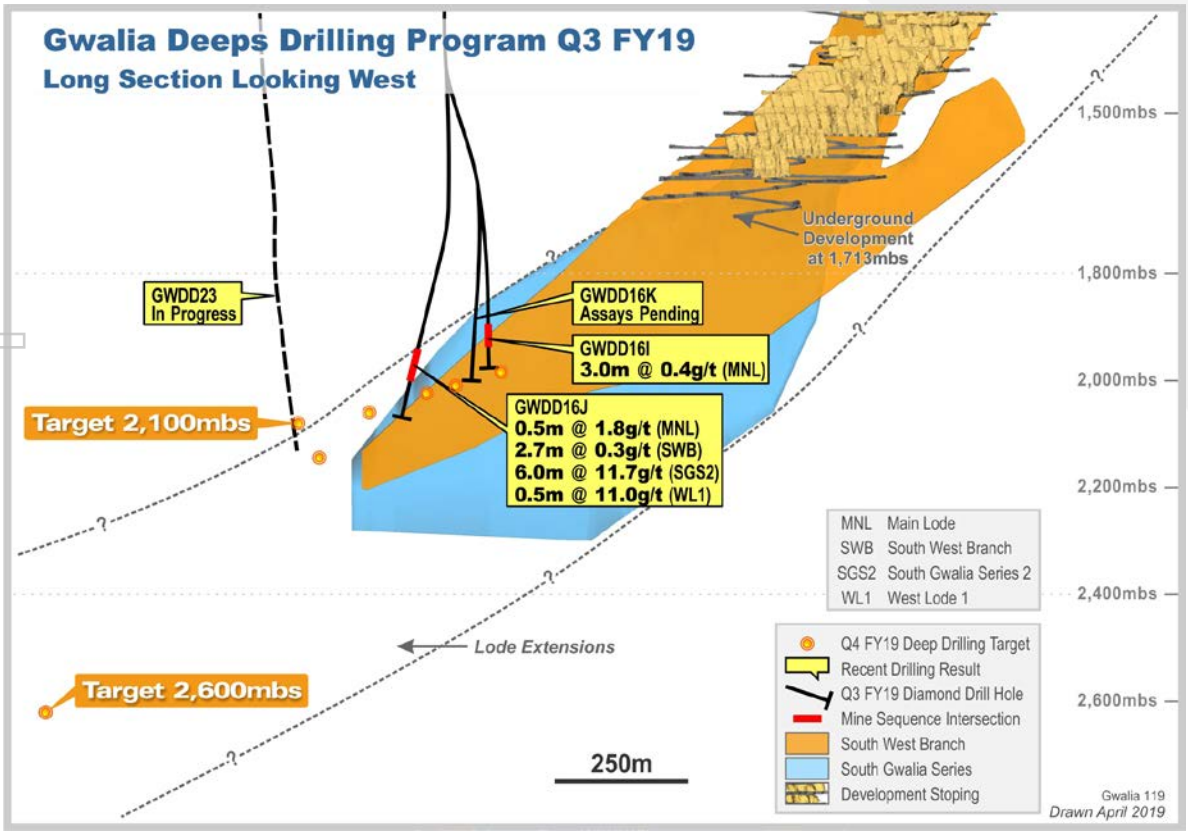


Figure 2.0: Jessie Alma Project Area - Location Map

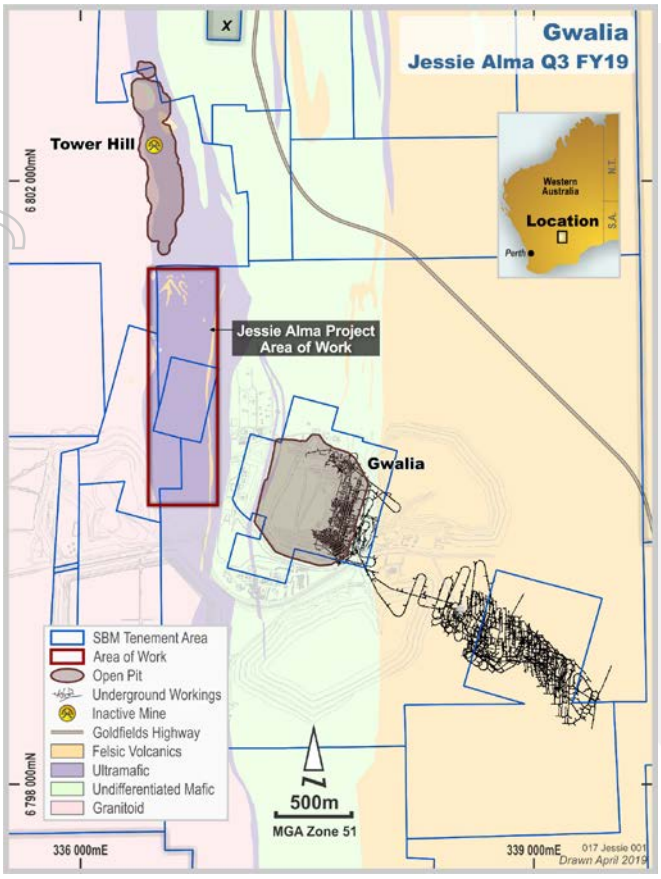


Figure 2.1: Leonora Sub-Audio Magnetics Program Q3 FY19

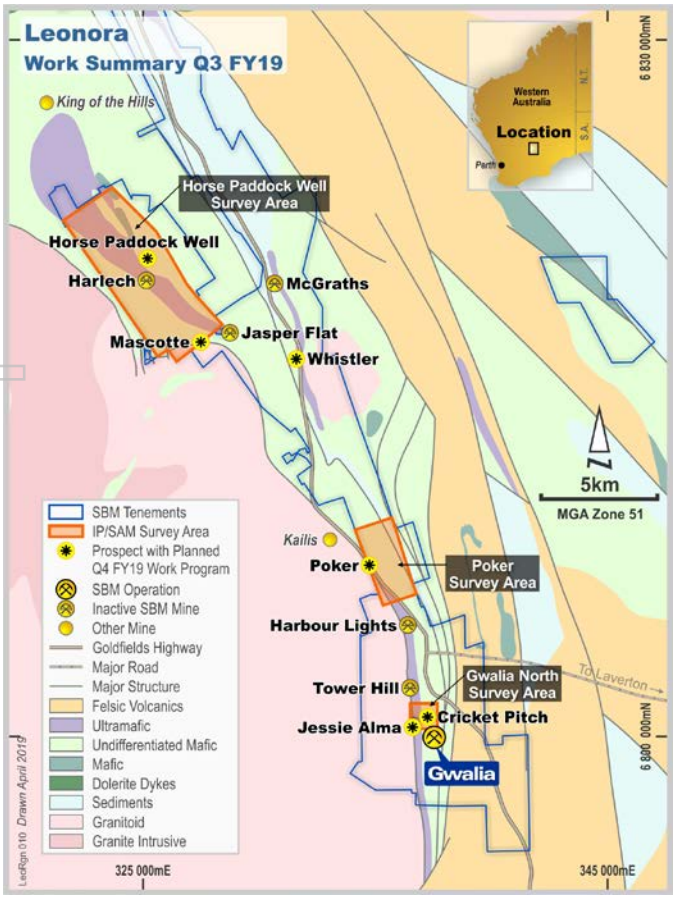


Figure 3.0: Pinjin Project Aircore and Reverse Circulation Drilling Location Map

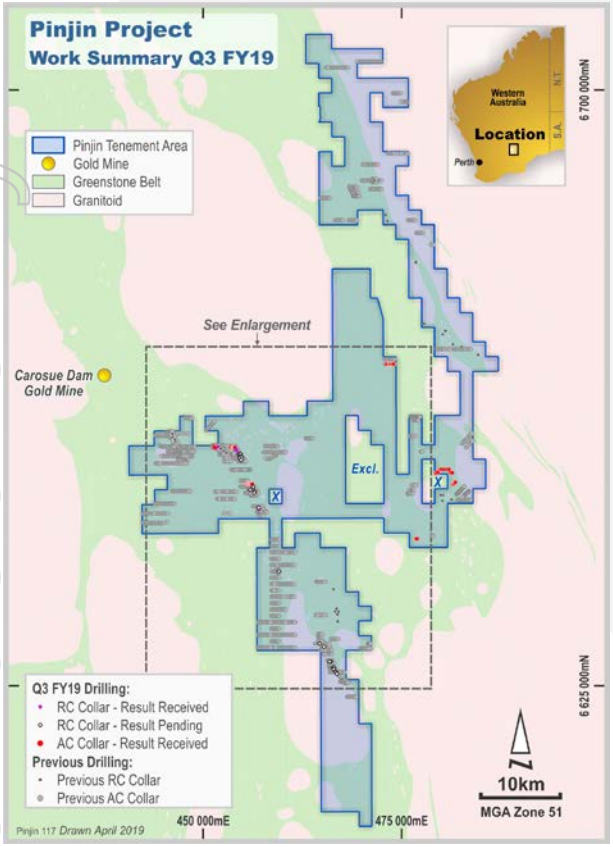


Figure 3.1: Pinjin Project Drilling Results Map (Enlargement) – maximum gold in bedrock

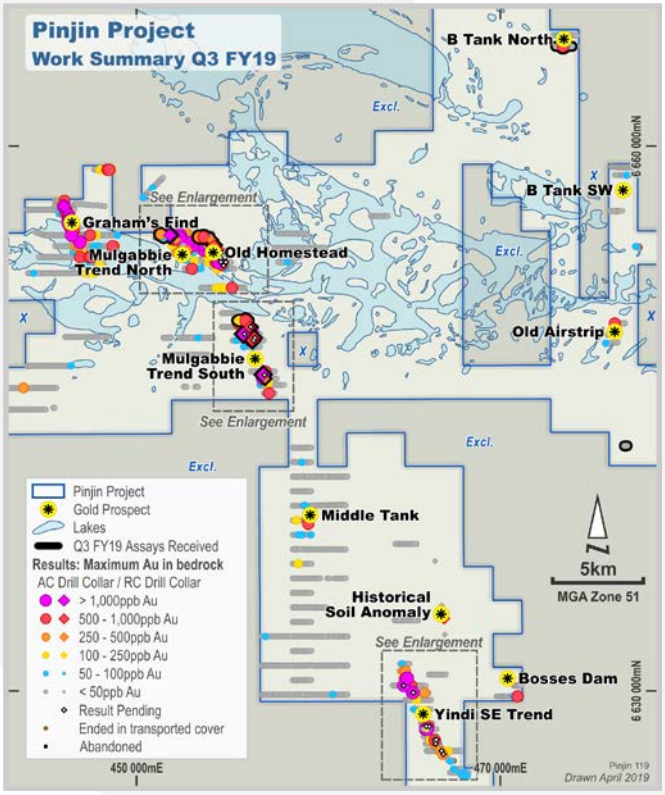


Figure 3.2: Homestead and Mulgabbie Trend North Drilling Results Map (Enlargement) – maximum gold in bedrock

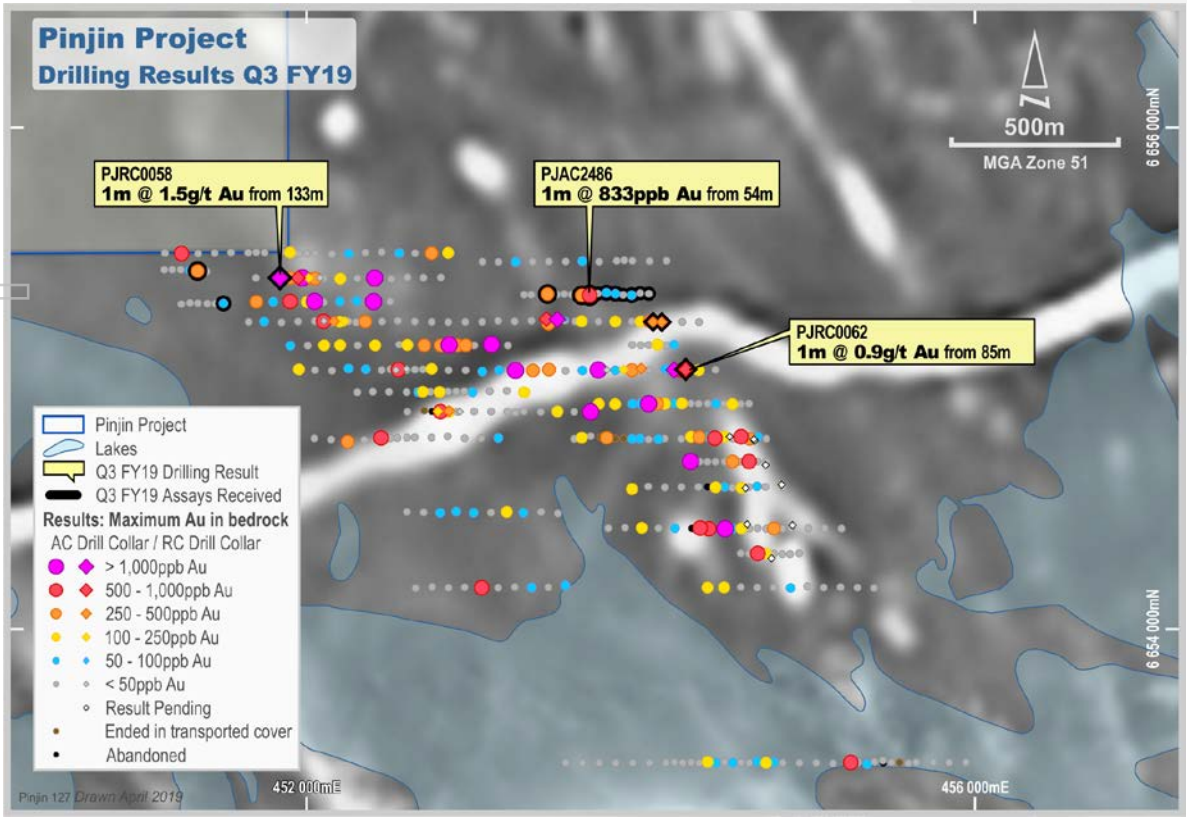


Figure 3.3: Mulgabbie Trend South Drilling Results Map (Enlargement) – maximum gold in bedrock

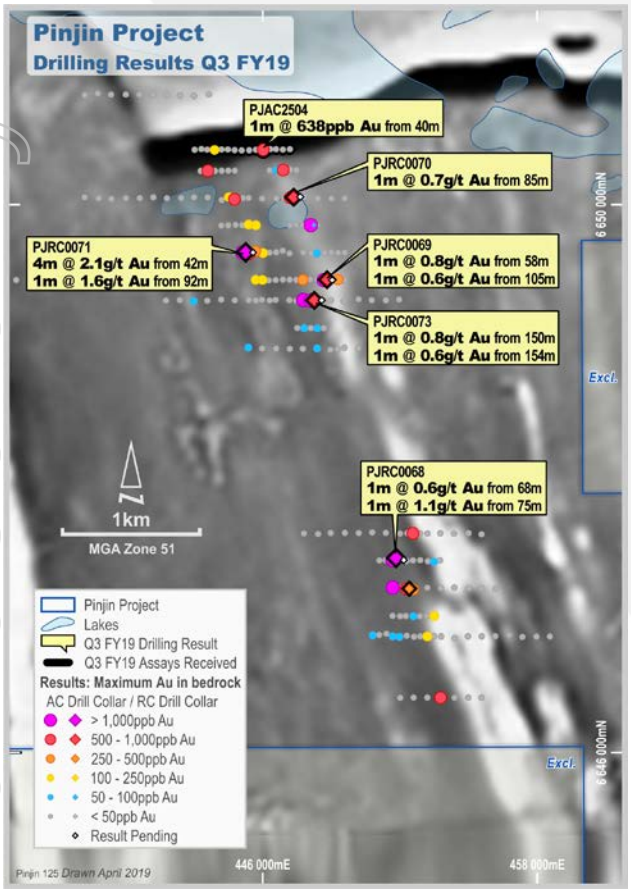


Figure 3.4: Yindi Southeast Drilling Results Map (Enlargement) – maximum gold in bedrock

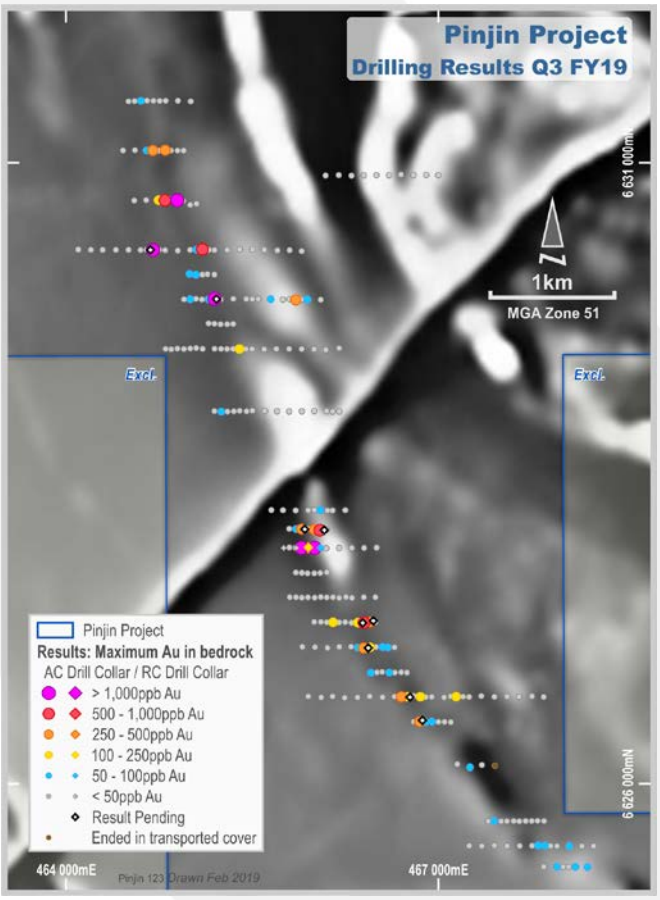


Figure 3.5: Pinjin Project Planned Drilling and Geophysical Survey Location Map

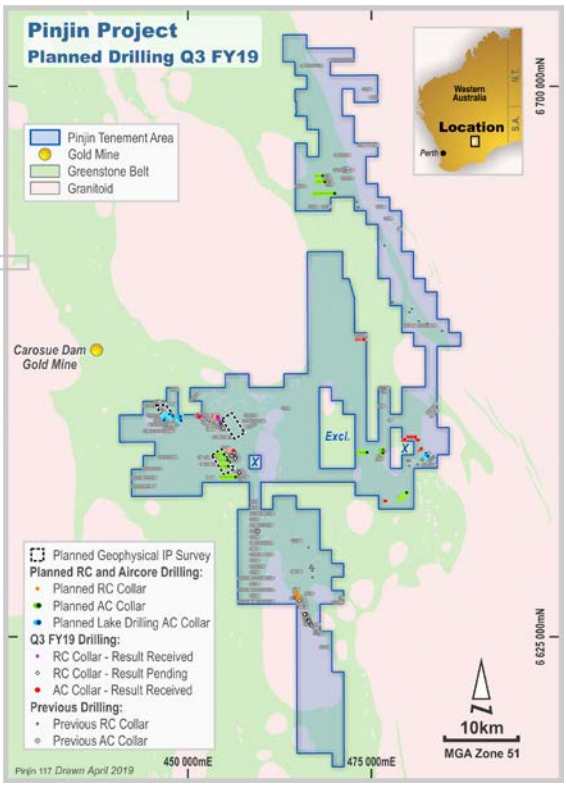


Figure 4.0: Lake Wells Planned Aircore Drilling Map

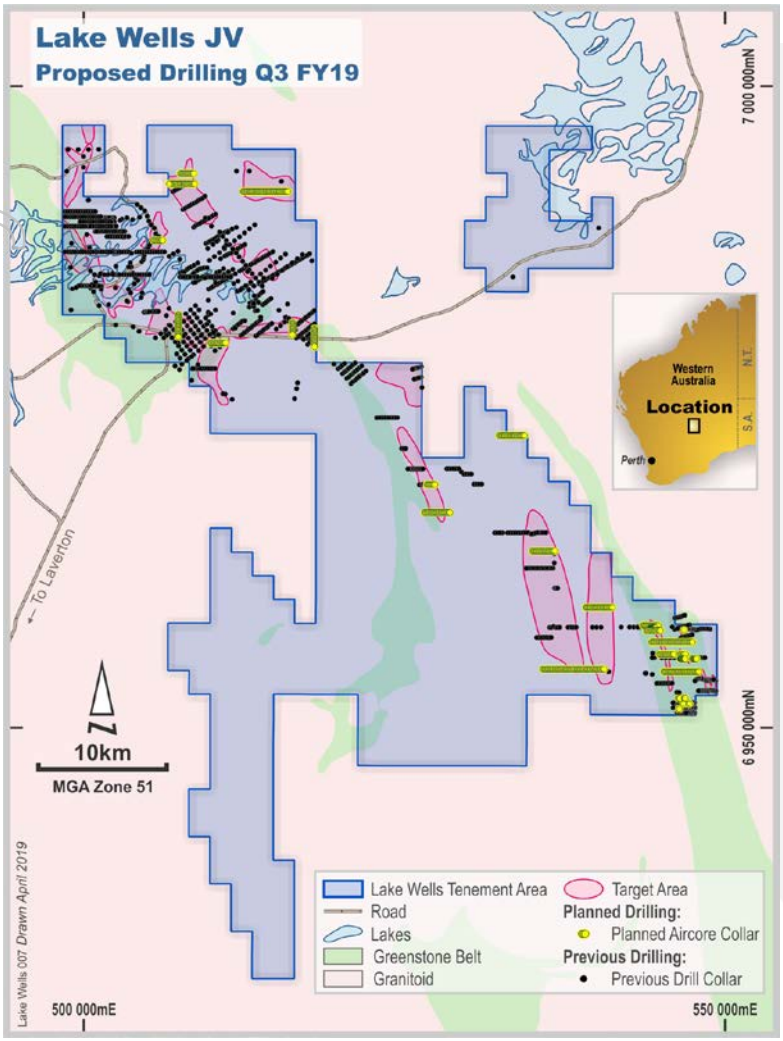


Figure 5.0: Back Creek Diamond and Aircore Drilling Location Map

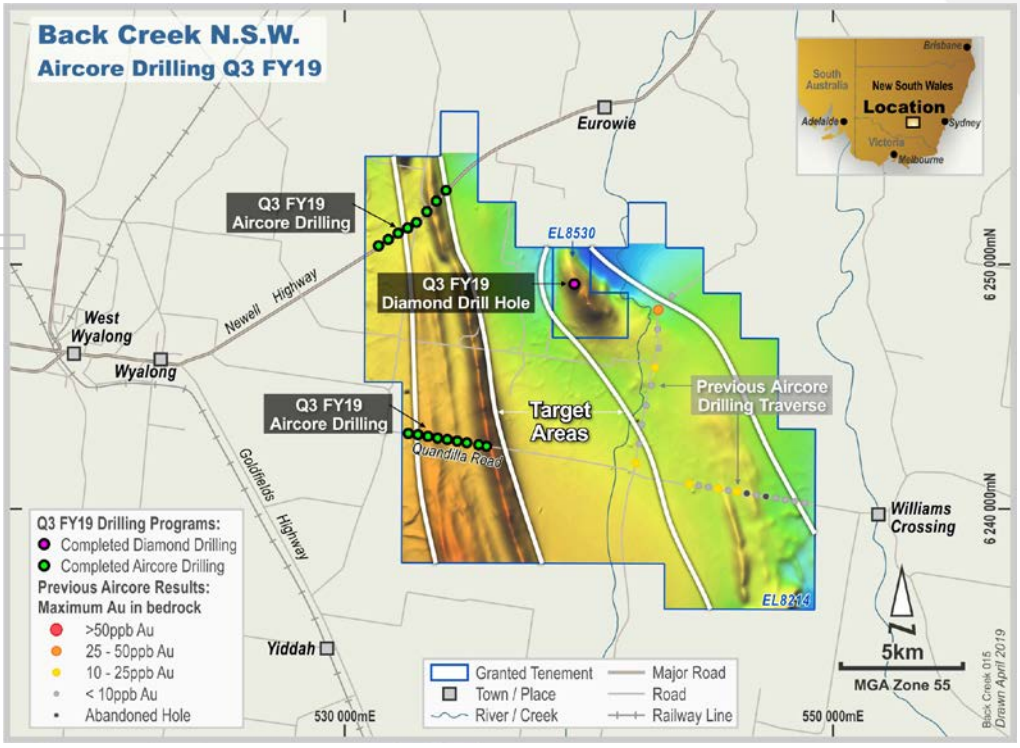


Figure 6.0: Tabar Islands Location Map, Papua New Guinea

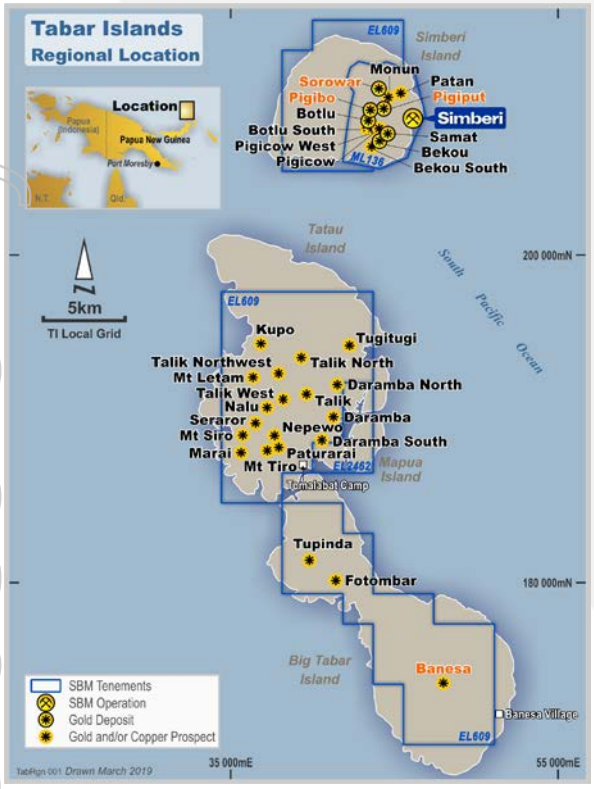


Figure 6.1: Location of Sorowar Sulphide Drill Cross Sections, Simberi Island, Papua New Guinea

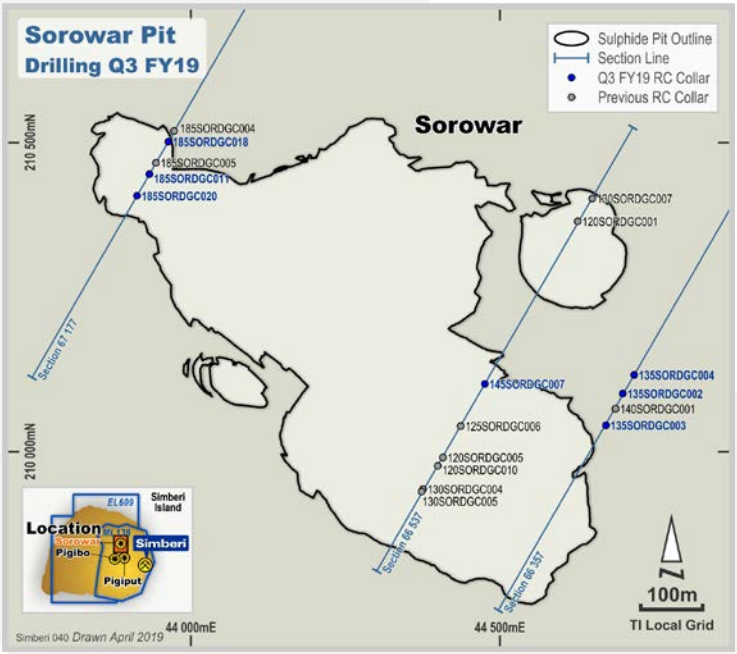


Figure 6.2: Sorowar Sulphide Drill Cross Section (66,177), Simberi Island, Papua New Guinea

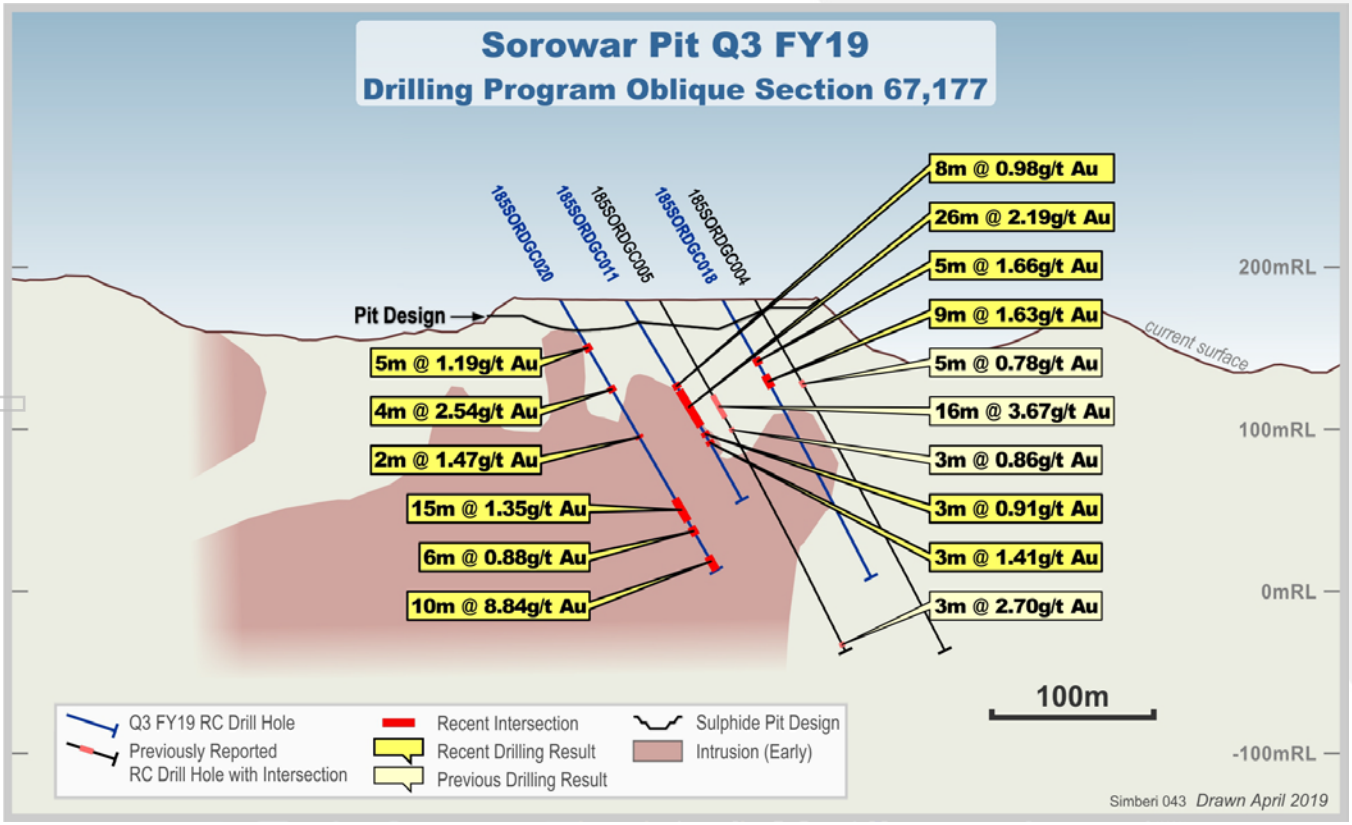


Figure 6.3: Sorowar Sulphide Drill Cross Section (66,337), Simberi Island, Papua New Guinea

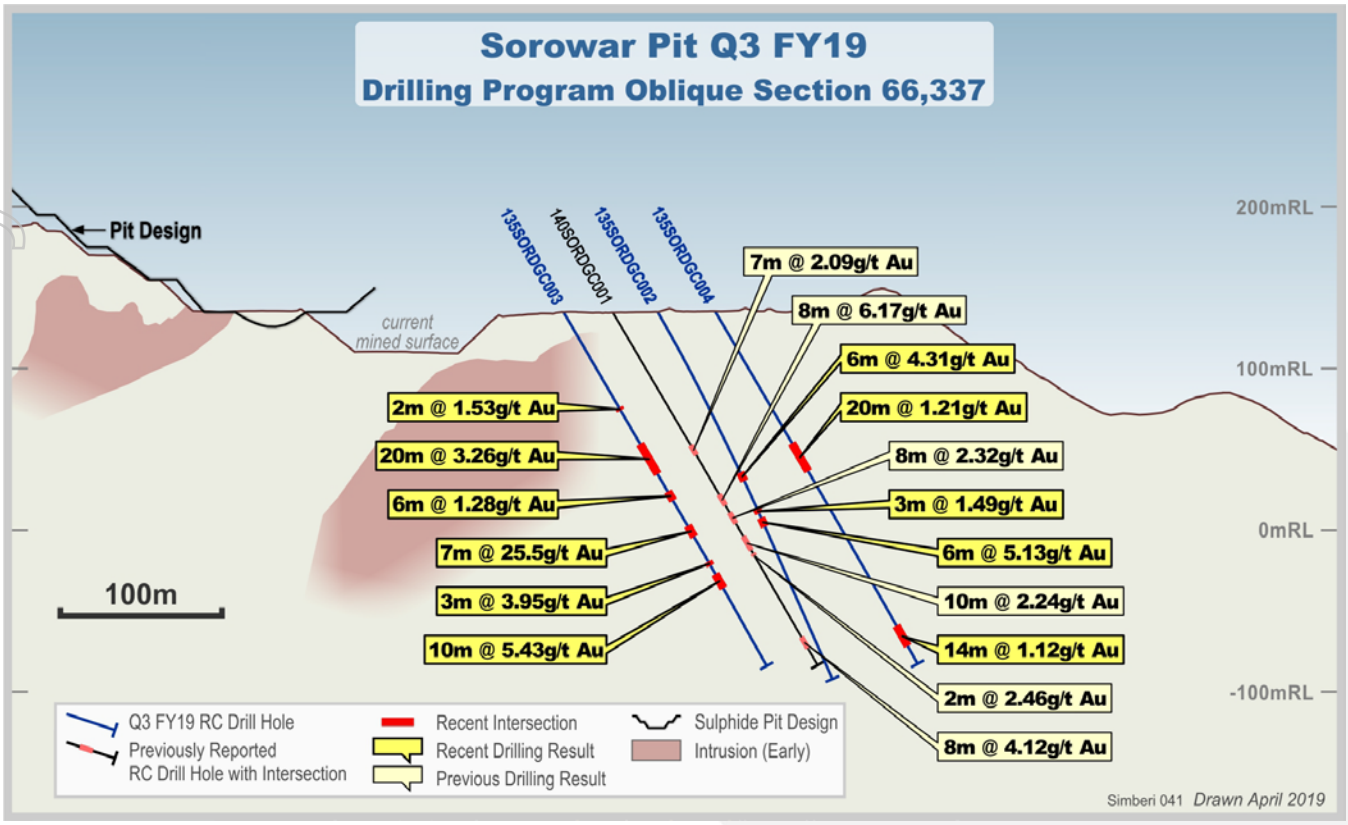


Figure 6.4: Sorowar Sulphide Drill Cross Section (66,537), Simberi Island, Papua New Guinea

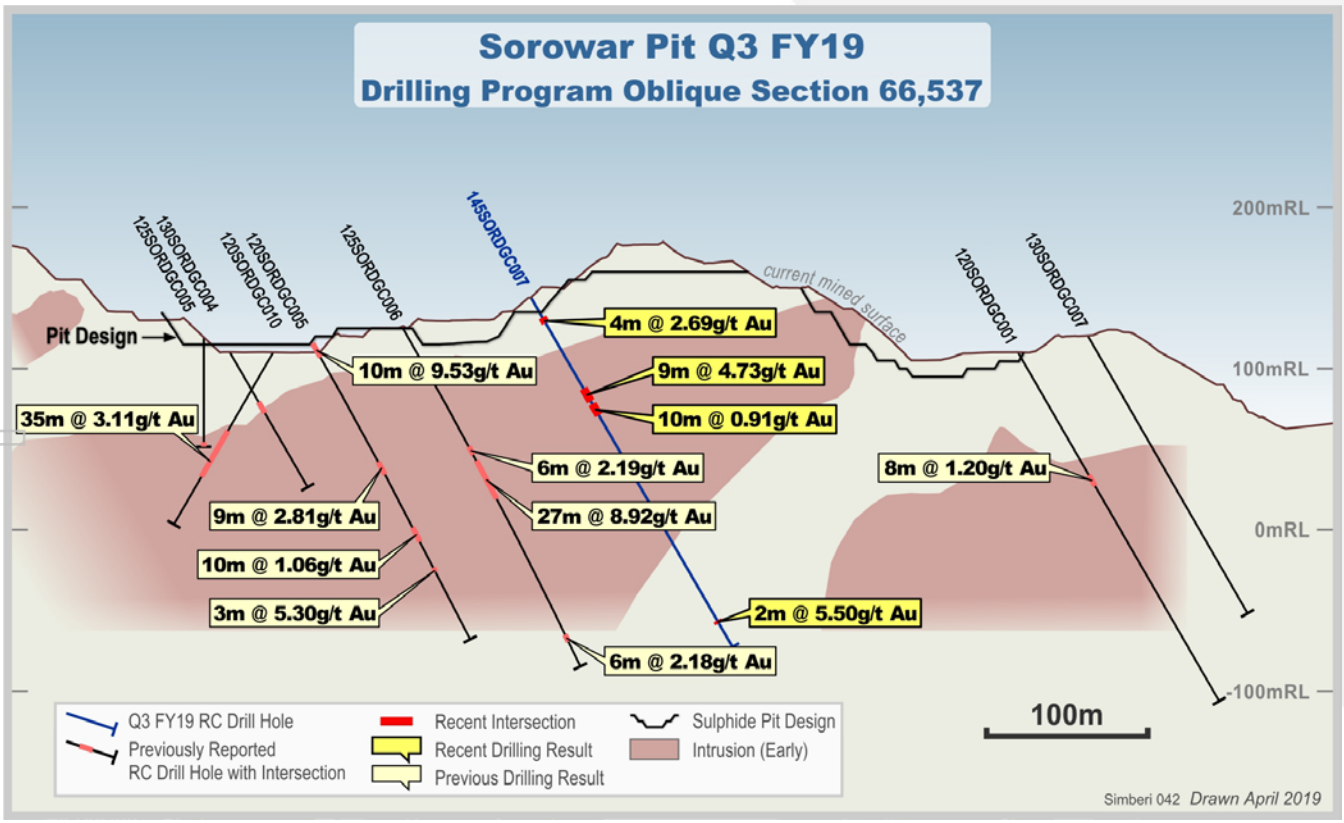


Figure 6.5: Simberi ML136 Drill Location Map, Simberi Island, Papua New Guinea

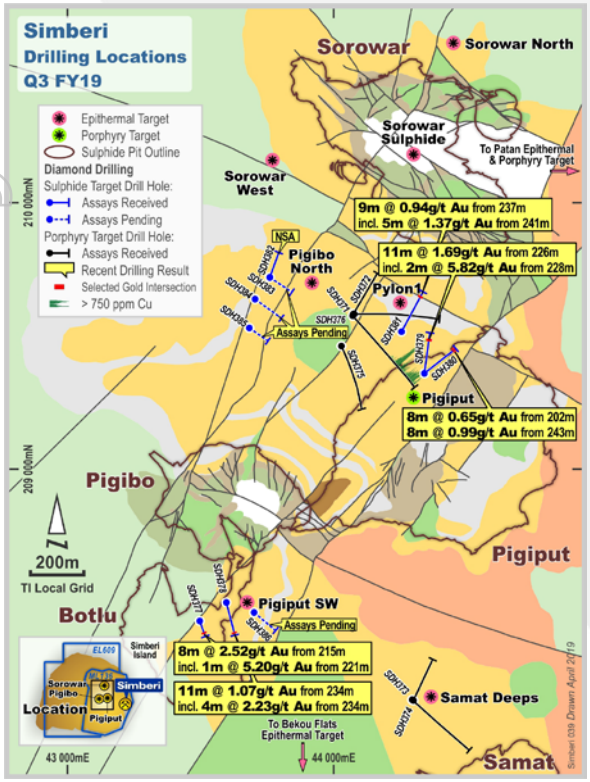


Figure 6.6: Banesa Drill Location Map, Big Tabar Island, Papua New Guinea

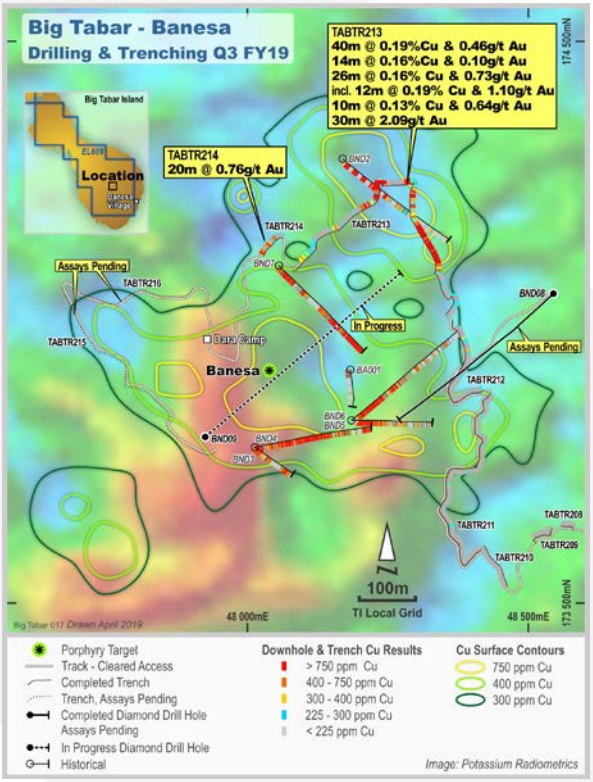


Figure 6.7: Soil Copper Results Map, Tatau Island, Papua New Guinea

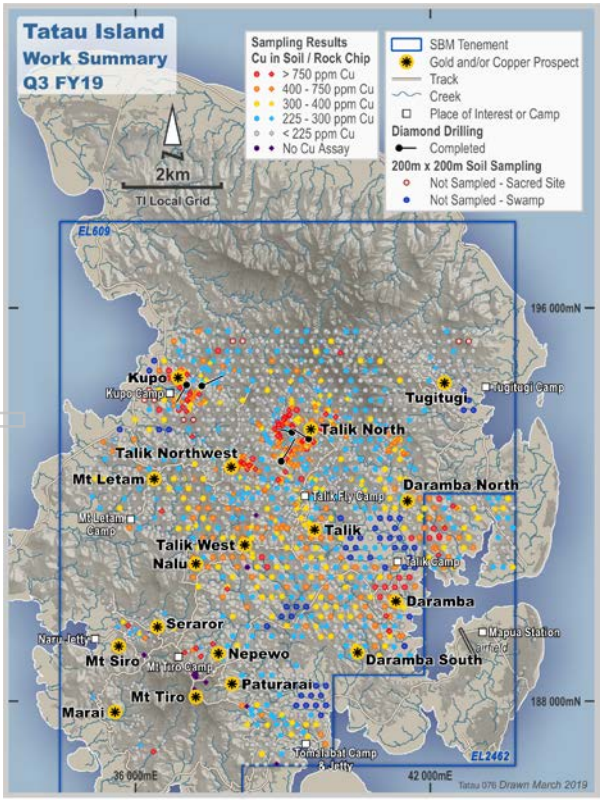


Table 1: Gwalia Deeps Significant Intercepts – Leonora Operations, Gwalia Mine

Hole Id	Down-hole Mineralised Intersection									
	North	East	RL	Metres Below Surface	Lode	Dip/ Azimuth	From	To	Interval	Gold grade
	m	m	m			degrees	m	m	m	g/t Au
GWDD16I	5,139.5	9,909.1	3,436.5	1,943.5	MNL	-68/232	2041.0	2,044.0	3.0	0.4
GWDD16J	5,276.8	9,827.6	3,483.1	1,896.9	MNL	-54/270	2,036.0	2,036.5	0.5	1.8
GWDD16J	5,276.8	9,823.0	3,476.7	1,903.3	SWB	-54/270	2,043.0	2,045.7	2.7	0.3
GWDD16J	5,276.8	9,793.4	3,435.5	1,944.5	SGS2	-54/271	2,092.0	2,098.0	6.0	11.7
GWDD16J	5,276.9	9,790.7	3,431.9	1,948.1	WL1	-54/271	2,099.5	2,100	0.5	11.0

NOTES:

High grade cuts have not been applied.
Dip and Azimuth angles estimated at intercept depth.
Coordinates and Azimuth referenced to Gwalia Local Mine Grid.
Reported intercepts are all down hole lengths.
Numbers have been rounded to one significant figure.

Table 2: Pinjin RC Significant Intercepts – Yilgarn, WA

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection				
						From	To	Interval	Gold grade	Comments[1]
	m	m	m	degrees	m	m	m	m	Au g/t	
PJRC0058	6,655,100	451,840	334.6	-60/090	200	133	134	1	1.5	FR
PJRC0062	6,654,552	454,268	336.1	-57/274	252	85	86	1	0.9	FR
PJRC0068	6,647,421	456,971	341.4	-61/270	150	68	69	1	0.6	FR
						75	76	1	1.1	FR
PJRC0069	6,649,452	456,469	335.2	-65/278	132	58	59	1	0.8	OX
						105	106	1	0.6	FR
PJRC0070	6,650,053	456,225	334.5	-58/274	150	85	86	1	0.7	FR
PJRC0071	6,649,651	455,876	335.3	-64/272	132	42	46	4	2.1	OX
						92	93	1	1.6	FR
PJRC0073	6,649,301	456,376	335.2	-61/277	252	150	151	1	0.8	FR
						154	155	1	0.6	FR

NOTES:

Coordinates and Azimuth referenced to MGA94 zone 51 Grid.
Reported intercepts are all down hole lengths.
OX: oxide, SU: sulphide, TR: transitional material.

Table 3: Pinjin Aircore Significant Intercepts – Yilgarn, WA

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection				
						From	To	Interval	Gold grade	Comments[1]
	m	m	m	degrees	m	m	m	m	Au ppb	
PJAC2486	6,654,996	453,693	338.3	-60/270	55	54	55	1	833	TR
PJAC2504	6,650,400	456,003	333.0	-60/272	51	40	41	1	638	TR
PJAC2538	6,665,500	473,449	342.1	-60/271	100	76	77	1	505	OX

NOTES:

Coordinates and Azimuth referenced to MGA94 zone 51 Grid.
Reported intercepts are all down hole lengths.
OX: oxide, SU: sulphide, TR: transitional material.

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

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection				
	m	m	M	degrees	m	From	To	Interval	Gold grade	Comments[1]
135SORDGC002	210,094	44,699	135	-60/30= -2	252	112	118	6	4.31	SU
						137	140	3	1.49	SU
						143	149	6	5.13	SU
135SORDGC003	210,043	44,672	135	-60/30= -2	252	68	70	2	1.53	SU
						95	115	20	3.26	SU
						128	134	6	1.28	SU
						153	160	7	25.5	SU
Including						*153*	*159*	*2*	*76.8*	*SU*
						178	181	3	3.95	SU
						187	197	10	5.43	SU
135SORDGC004	210,124	44,717	136	-60/30= -2	252	95	115	20	1.21	SU
						225	239	14	1.12	SU
145SORDGC007	210,110	44,476	146	-60/30= -2	252	16	20	4	2.69	OX
						67	76	9	4.73	OX,SU
						76	86	10	0.91	OX,SU
						233	235	2	5.5	SU
185SORDG011	210,449	43,933	186	-60/30= -2	150	64	72	8	0.98	OX,TR
						72	98	26	2.19	OX,TR,SU
						102	105	3	0.91	SU
						108	111	3	1.41	SU
185SORDG018	210,502	43,964	185	-60/30= -2	200	47	52	5	1.66	OX
						59	68	9	1.63	OX
185SORDG020	210,414	43,913	186	-60/30= -2	200	39	44	5	1.19	OX
						69	73	4	2.54	SU
						104	106	2	1.47	SU
						149	164	15	1.35	SU
						169	175	6	0.88	SU
						190	200	10	8.84	SU
Including						*191*	*192*	*1*	*45.7*	*SU*

NOTES:

Azimuth referenced to Tabar Island Grid (TIG).
Reported intercepts are all down hole lengths.
OX: oxide, SU: sulphide, TR: transitional material.

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

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Down-hole Mineralised Intersection				
						From	To	Interval	Gold grade	Comments1
	m	m	m	degrees	m	m	m	m	g/t Au	
SDH377 (Pigiput SW)	208,430	43,497	230.0	-77/160	277.6	215.0	223.0	8.0	2.52	SU
including						221.0	222.0	1.0	5.20	SU
SDH378 (Pigiput SW)	208,499	43,597	236.0	-60/166	253.7	234.0	245.0	11.0	1.07	SU
including						234.0	238.0	4.0	2.23	SU
SDH379 (Pylon 1)	209,359	44,341	145.0	-55/365	278.9	226.0	237.0	11.0	1.69	SU
including						228.0	230.0	2.0	5.82	SU
SDH380 (Pylon 1)	209,359	44,341	145.0	-55/050	269.4	202.0	210.0	8.0	0.65	SU
						243.0	251.0	8.0	0.99	SU
SDH381 (Pylon 1)	209,516	44,255	122.0	-50/030	281.7	237.0	246.0	9.0	0.94	SU
including						241.0	246.0	5.0	1.37	SU
SDH382 (Pigibo N)	209,720	43,760	155.0	-55/020	167.7	No Significant Results				

NOTES:

Coordinates and Azimuth referenced to Tabar Island Grid (TIG).
Reported intercepts are all down hole lengths.
OX: oxide, SU: sulphide, TR: transitional material.

LEONORA – JORC Code, 2012 Edition – Table 1

Contents

Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	• Half-core sampling of NQ2 diamond drilling with boundaries defined geologically. Samples are mostly 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 submitted for sample analysis, with each one metre of half core providing between 2.5 – 3 kg of material as an assay sample.
Drilling techniques	• Diamond drilling using NQ2 (50.6mm) sized core (standard tubes). Holes have been surveyed using a single shot electronic camera. All core is orientated using a Reflex ACT II RD orientation tool.
Drill sample recovery	• Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for. • Sample recovery is rarely less than 100%. Where minor core loss does occur it is due to drilling conditions and not ground conditions.
Logging	• 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. • All logging is qualitative.
Sub-sampling techniques and sample preparation	• 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 <4mm followed by complete pulverisation (90% passing 75 µm).
Quality of assay data and laboratory tests	• SBM samples were analysed for gold using fire assay with a 50g charge and analysis by flame Atomic Absorption Spectrometry (AAS). QC includes insertion of 3 commercial standards (1 per 20 samples), barren material used for blank control 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. The analysis of gold was sound and re-analysis of pulps showed acceptable repeatability with no significant bias.
Verification of sampling and assaying	• Sampling data is recorded electronically in spread sheets 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.
Location of data points	• Collars for surface holes are recorded by DGPS. 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. • All coordinates and Azimuth are specified in using the Gwalia Local Mine Grid (LE_SGMG). The two-point transformation of MGA_51 to LE_SGMG is detailed below:

Grid	Azimuth	MGAE 1	MGAN 1	MGAE 2	MGAN 2	GridE 1	GridN 1	GridE 2	GridN 2	Rotation	Scale
LE_SGMG Sons of Gwalia Mine Grid	15.13	337371.157	6800342.586	340246.451	6799408.751	7200.281	6987.844	10219.711	6836. 814	344.522	1

Data spacing and distribution	• Surface drilling is spaced on an approximate 60m x 80m below 1620 metres below surface. Drilling data is sufficient to establish down plunge continuity for all lodes.
Orientation of data in relation to geological structure	• Sampling is perpendicular to lode orientations and is sound-based on past production and underground mapping.
Sample security	• Company personnel or approved contractors only allowed on drill sites; drill samples are only removed from drill site by approved contractors to the company's secure core logging/processing facility; cut core is consigned to accredited laboratories for sample preparation and analysis.
Audits or reviews	• Regular reviews of core logging and sampling are completed through SBM mentoring and auditing. Additionally, regular laboratory inspections are conducted by SBM personnel. Inspections are documented electronically and stored on secure company server. No significant issues were identified.

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 the two tenements M37/25 and M37/333 over the Gwalia deposit.
Exploration done by other parties	• Western Mining Corporation (WMC) and Sons of Gwalia (SGW), have previously completed deep diamond drilling below 1,100 metres below surface.
Geology	• Gold mineralisation occurs as a number of stepped, moderately east dipping, foliation parallel lodes within strongly potassic altered mafic rocks which extend over a strike length of approximately 500 metres and to a vertical depth of at least 2,200 metres below surface. The deposit exhibits significant down-plunge continuity but is interrupted at approximately 1,200 metres below surface (mbs) by a cross cutting post-mineralisation doleritic dyke, with a horizontal width of approximately 30 metres.
Drill hole Information	• Drill hole information is included in intercept table outlining mid-point co-ordinates including vertical hole depth and composited mineralized intercepts lengths and depth.
Data aggregation methods	• Down hole intercepts are reported as length weighted averages. No high grade cut is applied.
Relationship between mineralisation widths and intercept lengths	• Down hole length is reported for all holes; true width is not immediately known until further drilling is completed and the orebody modelled.
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	• These holes test the deepest limits and extents of mineralisation and no other data is available.
Further Work	• Further exploration drill holes are planned.
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	• Follow-up drilling is planned and is discussed in the body of the report.

PINJIN – JORC Code, 2012 Edition – Table 1

Contents

Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	• Sampling was conducted via Aircore and RC drilling. Aircore drill holes were on 50 m or 100 m spacing with line spacing ranging between 200 m and 600 m or as individual scout lines. RC holes were not designed on any regular spacing. • Samples were collected from a rig-mounted cyclone by bucket and were then placed directly on the ground in neat rows of between ten and fifty (depending on hole depth). • Drill spoil was sampled with a scoop to 4 m composite samples of approximately 3 kg. • During RC drilling one meter samples were also generated by the rigs cone splitter system and collected in calico bags, these were left on the ground on top of the corresponding meter of drill spoil. One meter samples are submitted for assaying based on the results of the initial 4m composite sampling. • The 3kg Aircore composites were submitted to Bureau Veritas Minerals Pty Ltd - Perth where they were sorted and dried, crushed to 10 mm and pulverised to -75 µm. A 40 g charge of pulverised sample was then digested with aqua regia with a gold analysis by ICP-MS to a detection limit of 1 ppb. The same digested sample was also tested for arsenic by ICP-AES to 1ppm detection limit. • Anomalous Aircore composite samples (>100ppb Au) were subsampled on a metre by metre basis using an aluminium scoop. These samples were submitted to Bureau Veritas Minerals Pty Ltd- Perth where they were sorted and dried, crushed to 10mm and pulverised to -75 µm. A 40 g charge of pulverised sample was then analysed for Au, Pd & Pt by Fire Assay with an ICP-AES finish to a detection limit of 1ppb. • Anomalous RC composite samples (>100 ppb) were subsampled using the previously collected one metre samples from the rigs cone splitter system. These were submitted to Bureau Veritas Minerals Pty Ltd - Perth where they were sorted and dried, crushed to 10 mm and pulverised to -75 µm. A 40 g charge of pulverised sample was then analysed for Au by Fire Assay with an ICP-AES finish to a detection limit of 1 ppb. • Representative specimens from end of hole Aircore rock chips were stored in plastic chip trays for future reference. For RC drilling a representative specimen of every meter was stored in plastic chip trays for future reference. • The EOH Aircore samples, as well as a selection of RC samples, were submitted to Genalysis and were prepared in the same manner as those samples submitted to Bureau Veritas. A 10g charge of pulverised sample was then digested by four acid digestion with analysis by the Scott Halley technique (ICP-OES & ICP-MS to ultra-trace levels) via 4A/OM20 method for 60 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, Ln, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn & Zr).
Drilling techniques	• Aircore drilling was carried out by an 85 mm bit. All holes were drilled to refusal which was generally at the fresh rock interface. Drilling was carried out by Raglan Drilling, who utilised a truck mounted R/A 180 Rig with 750 cfm and 350 psi. • RC drilling was carried out using 140 to 145 mm hammer bits. Drilling was completed by Raglan Drilling who utilised a truck mounted SCHRAMM T685W rig with Sullair 1150/350 on board air.
Drill sample recovery	• Sample recoveries and condition (wet/dry) were routinely recorded. • The drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered. The cyclone was also cleaned several times during the course of each hole and after the completion of each hole.
Logging	• All drill holes were logged in full for lithology, alteration, weathering/regolith and colour. • Aircore and RC logging is both qualitative and quantitative.
Sub-sampling techniques and sample preparation	• Aircore and RC samples were collected as both dry and wet samples using a sample scoop. • All composite samples were sorted, dried, crushed and pulverised to produce a 40g charge prior to fire assay. • Samples were collected at 1 m intervals and composited in 4 m samples using a scoop to sample individual metre samples. • QC procedures for composite sampling involved the insertion of certified reference material, field duplicates and blanks at ratios of 1:50. • Bureau Veritas inserted certified standards, replicates and lab repeats.
Quality of assay data and laboratory tests	• The Aircore composite samples used a 40 g charge with an aqua regia digest which is considered appropriate for analysis of the regolith dominated sample medium. • The RC composite samples used a 40 g charge for fire assay which is considered appropriate for gold mineralisation in fresh rock material. • Certified reference material was inserted into the sample stream at a ratio of 1:50. • Field duplicates and blanks were inserted at a ratio of 1:50. • Bureau Veritas inserted certified standards, replicates and lab repeats.

Criteria	Commentary
Verification of sampling and assaying	• Primary geological and sampling data were recorded into made for purpose excel spreadsheets. Data was then transferred into the St Barbara corporate DataShed database where it was validated by an experienced database geologist. • No adjustments to assay data were made.
Location of data points	• Prior to drilling, all holes were marked out using a handheld GPS with ±3 m accuracy for easting, northings and ±10m elevation. Upon completion of the program all holes were resurveyed using a DGPS with decimetre accuracy to determine the final collar positions. • No downhole surveys were conducted on Aircore holes. • All RC holes were surveyed downhole by Raglan drilling who captured dip/azimuth readings at five meter intervals using a Reflex gyro tool. The gyro tool provides True North Azimuth. • All locations were captured in MGA94 zone 51 grid.
Data spacing and distribution	• Aircore drill holes were on 50 m or 100 m spacing with line spacings ranging between 200 m and 600 m or as individual scout lines. • RC holes were not designed on any regular spacing. • Reported Aircore and RC results are based on the 1 m Fire Assay re-splits of original 4 m composite samples or the original composite sampling.
Orientation of data in relation to geological structure	• The majority of Aircore drill holes had a dip and azimuth of -60/270. AC holes were drilled vertically in areas were transported cover made drilling difficult. AC drill traverses were designed perpendicular to the regional structures known to control mineralisation. This was either east – west or northeast – southwest. • All RC holes had a planned dip and azimuth of -60/270.
Sample security	• Only trained and experienced contractors and company personnel were allowed to collect the samples; all samples were held within a secure company location before dispatch to Bureau Veritas in Perth for Au analysis.
Audits or reviews	• No audits or reviews of sampling protocols have been completed.

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 the 19 tenements comprising the Pinjin Project. These include: E28/2234, E28/2283, E28/2284, E31/0999, E31/1000, E31/1005, E31/1007, E28/2218, E28/2245, E28/2250, E28/2264, E28/2357, E28/2375, E28/2445, E31/1056, E31/1082, E28/2246, E28/2247 and E28/2494.
Exploration done by other parties	• There have been numerous historical holders of the project area which covers over ~1,131 square kilometres. • Exploration has been conducted by numerous companies including but not limited to: Newmont Pty Ltd, Endeavour Minerals, WMC, Goldfields Exploration Pty Ltd, Anglo American, Gutnick Resources, Carpentaria Exploration Company, BHP, Uranez, Placer Exploration Ltd, Jacksons Minerals Limited, Anglo Australian Resources, Troy Resources NL, Saracen, Hawthorn Resources and Renaissance Minerals Limited.
Geology	• SBM is targeting Archean orogenic gold mineralisation near major regional faults. • The tenement package covers Archaean greenstones within the highly prospective Eastern Goldfields Province of the Yilgarn Craton. The Pinjin project covers portions of the prospective Laverton and Keith-Kilkenny Tectonic Zones which pass through the eastern and western portions respectively.
Drill hole Information	• Drill hole information for holes returning significant results have been reported in the intercept table. Included in the intercept table are collar position obtained by DGPS pickup, hole dip and azimuth acquired from hand held compass and clinometer, composited mineralised intercepts lengths and depth as well as hole depth. Metres below surface (mbs) for intercepts were calculated for the start of the intercept.
Data aggregation methods	• Broad down hole intercepts are reported as length weighted averages using a cut-off of 500 ppb Au. Such intercepts may include material below cut-off but no more than 1 sequential meter of such material and except where the average drops below the cut-off. Supplementary grades of > 1000 ppb Au are used to highlight higher grades zones within the broader zone. • No high grade cut is applied. • No metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	• Down hole length is reported for all holes; true width is not known as the orientation of mineralisation is not fully understood.
Other substantive exploration data	• Included in the body of the report.
Diagrams	• Diagrams show all drill holes material and immaterial to Exploration Results.
Balanced reporting	• Details of all holes material to Exploration Results have been reported in the intercept table, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.
Other substantive exploration data	• Data is included in the body of the report.
Further Work	• Further exploration Aircore and RC drill holes are planned and are discussed in the body of the report.

Back Creek – JORC Code, 2012 Edition – Table 1

Contents

Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	• Aircore drill holes were spaced at 400 m intervals on lines. Only two Aircore drill lines were completed and these were not on any regular spacing. Diamond hole BKDD0001 was designed as a single drill hole. • Aircore samples were collected from a rig-mounted cyclone via a green plastic bags and were then placed directly on the ground in neat rows of between ten and fifty (depending on hole depth). • Drill spoil was sampled with a spear to 4 m composite samples of approximately 1.5 kg. • The Aircore composites were submitted to ALS Orange where they were sorted and dried, crushed to 10 mm and pulverised to -75 µm. A 25 g charge of pulverised sample was then digested with aqua regia with a gold analysis by ICP-MS to a detection limit of 1 ppb. The same digested sample was also tested for Ag, Al, As, B, Ba, Be, Bi. Ca. Cd. Ce. Co. Cr. Cs. Cu. Fe, Ga, Ge, Hf, Hg, 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, Zr by ICPAES. • The EOH Aircore samples, were submitted to ALS Orange and were prepared in the same manner the composites. A 25 g charge of pulverised sample was then digested with aqua regia with a gold analysis by ICP-MS to a detection limit of 1 ppb. A second charge was digested via multi acid digestion with HF and analysed for 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 & Zr by ICAES & ICPMS. ALS also analysed the EOH Aircore samples with a hyperspectral device using technique HYP-PKG. • Half-core sampling of NQ3 diamond drilling occurred on a metre by metre basis. The upper or right-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. • Diamond core samples, were submitted to ALS Orange where they were sorted and dried, crushed to 10 mm and pulverised to -75 µm. Samples were analysed for Au via 30g Fire Assay and AAS finish (Au-AA21 method) to a detection limit of 2ppb. Multi-elements (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) were analysed via multi acid digest with HF with ICAES and ICPMS. ALS also analysed the diamond core samples with a hyperspectral device using technique HYP-PKG.
Drilling techniques	• Aircore drilling was carried out by an 85 mm bit. All holes were drilled to refusal which was generally at the fresh rock interface. Drilling was carried out by Chief Drilling, who utilised a Ute mounted Aircore rig. • Diamond drilling comprised NQ3 (45mm) core.
Drill sample recovery	• Sample recoveries and condition (wet/dry) were routinely recorded. • The drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered. The cyclone was also cleaned several times during the course of each hole and after the completion of each hole.
Logging	• All drill holes were logged in full for lithology, alteration, weathering/regolith and colour. • Aircore and diamond logging is both qualitative and quantitative.
Sub-sampling techniques and sample preparation	• Aircore samples were collected as both dry and wet samples using a spear tool. • All composite samples were sorted, dried, crushed and pulverised to produce a 25g charge prior to digestion. • Aircore samples were collected at 1 m intervals and composited in 4 m samples using a scoop to sample individual metre samples. • QC procedures for composite sampling involved the insertion of certified reference material, field duplicates and blanks at ratios of 1:50. • ALS inserted certified standards, replicates and lab repeats.
Quality of assay data and laboratory tests	• The Aircore composite samples used a 25 g charge with an aqua regia digest which is considered appropriate for analysis of the regolith dominated sample medium. • The diamond core samples used a 30 g charge for fire assay and multi acid digest for base metals which is considered appropriate for gold & base metal mineralisation in fresh rock material. • Certified reference material was inserted into the sample stream at a ratio of 1:50. • Field duplicates and blanks were inserted at a ratio of 1:50. • ALS inserted certified standards, replicates and lab repeats.
Verification of sampling and assaying	• Primary geological and sampling data were recorded into made for purpose excel spreadsheets. Data was then transferred into the St Barbara corporate DataShed database where it was validated by an experienced database geologist. • No adjustments to assay data were made.
Location of data points	• Prior to drilling, all holes were marked out using a handheld GPS with ±3 m accuracy for easting, northings and ±10m elevation. Upon completion of the program all holes were resurveyed using the same handheld GPS to determine the final collar positions. • No downhole surveys were conducted on Aircore or DDH holes. • All locations were captured in MGA94 zone 55 grid.

Criteria	Commentary
Data spacing and distribution	• Aircore drill holes were spaced at 400 m intervals on lines. Only two drill lines were completed and these were not on any regular spacing. • BKDD0001 was designed as a single drill hole.
Orientation of data in relation to geological structure	• Aircore drill holes were drilled vertically due to expected difficult conditions in transported cover. AC drill traverses were designed to follow roadways or boundary fences to minimise the impact on agricultural land. • The single diamond hole BKDD0001 was also drilled vertically.
Sample security	• Only trained and experienced contractors and company personnel were allowed to collect the samples; all samples were held within a secure company location before dispatch to ALS in Orange for analysis.
Audits or reviews	• No audits or reviews of sampling protocols have been completed.

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 the two tenements comprising the Back Creek Project. These comprise EL8214 and EL8530.
Exploration done by other parties	• There have been numerous historical holders of the project area which covers over ~245 square kilometres. • Exploration has been conducted by numerous companies including but not limited to: Newcrest Mining Pty Ltd, Brynes FC, Base Mines Ltd, Seltrust Mining Corporation Pty Ltd, Nationwide Resources Pty Ltd, Vanwild Pty Ltd, CRA Exploration Pty Ltd, Gold Mines of Australia Ltd, Astco Resources NL, Golden Hills Mining NL, Resolute Ltd, Teck Cominco Australia Pty Ltd and Goodrich Resources Ltd.
Geology	• SBM is targeting epithermal and porphyry-style copper-gold mineralisation with Ordovician aged rocks along strike from known occurrences of Macquarie Arc rocks and mineralisation. • The tenement package covers Ordovician aged rocks within the highly prospective Macquarie Arc in the Lachlan Orogen.
Drill hole Information	• Drill hole information for holes returning significant results have been reported in the intercept table. Included in the intercept table are collar position obtained by GPS pickup, hole dip and azimuth acquired from hand held compass and clinometer, composited mineralised intercepts lengths and depth as well as hole depth. Metres below surface (mbs) for intercepts were calculated for the start of the intercept.
Data aggregation methods	• Broad downhole intercepts are reported as length weighted averages using a cut-off of 0.1% Cu and a minimum length of 20m with up to 10m of sequential internal dilution. Such intercepts may include material below cut-off and except where the average drops below the cut-off. Supplementary grades of > 0.3% Cu are used to highlight higher grades zones within the broader zone. • Core loss is assigned the same grade as the sample grade. No high grade cut is applied. Grades are reported to two significant figures and no metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	• Down hole length is reported for all holes. • True width is not known as the orientation of mineralisation is not fully understood.
Other substantive exploration data	• Included in the body of the report.
Diagrams	• Diagrams show all drill holes material and immaterial to Exploration Results.
Balanced reporting	• Details of all holes material to Exploration Results have been reported in the intercept table, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.
Other substantive exploration data	• Data is included in the body of the report.
Further Work	• Further exploration Aircore and Diamond drill holes are currently being planned.

Simberi – JORC Code, 2012 Edition – Table 1

Contents

Drilling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	• Diamond Drilling - Sampled using PQ (85mm), HQ (63.5mm) or HQ3 (61.1mm) and on occasion NQ2 (50.5mm) or NQ3 (45mm) sized core using standard triple tubes. Half or quarter core was sampled on nominal 1 or 2-metre intervals with the upper or left - hand side of the core collected for sample preparation. For PQ diameter core a further cut was completed, whereby quarter core is submitted to provide a practical sample size. • Half core or quarter core was dispatched to the ITS PNG Ltd (Lae) sample preparation facility with 250g pulps sent to Intertek Laboratory in Perth. Pulps residuals are stored in (Lae) for six months following assay. • RC Drilling at Sorowar - One meter samples were generated by the rigs cyclone splitter system by collection in calico bags. One meter calico bag samples are then submitted for assay. Samples were fully prepared at the company's on-site sample preparation facility on Simberi Island with 200g pulps sent to SGS Laboratory in Townsville. Pulp residues are stored in Townsville for future re-assay if required.
Drilling techniques	• Diamond drilling comprised PQ (85mm), HQ (63.5mm) or HQ3 (61.1mm) and on occasion NQ2 (50.5mm) or NQ3 (45mm) core recovered using 1.5m to 3m barrels. 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. • RC drilling at Sorowar was carried out using 140 to 145mm hammer bits. Drilling was completed by Quest Exploration Drilling (QED) who utilised a track mounted SCHRAMM 685 rig coupled to an auxiliary compressor/booster unit. A limited number of holes were drilled using a DML 45 drill, also coupled to the auxiliary compressor/booster unit.
Drill sample recovery	• Diamond drilling recovery percentages were measured by comparing actual meters recovered per drill run versus meters measured on the core blocks. Recoveries averaged over >90% with increased core loss present in fault zones and zones of strong alteration. • RC drilling recoveries and condition (wet/dry) were routinely recorded. The drill cyclone and sample buckets were cleaned regularly, in particular after wet ground was encountered. The cyclone was also cleaned several times during the course of each hole and after the completion of each hole.
Logging	• Diamond holes are qualitatively geologically logged for lithology, structure and alteration and qualitatively and quantitatively logged for veining and sulphides. Diamond holes are geotechnically logged with the following attributes qualitatively recorded - strength, infill material, weathering and shape. Whole core together with half core, were photographed when dry and wet. • RC drilling chips were sieved, cleaned and stored in plastic chip trays for logging and future reference. • All holes are fully logged.
Sub-sampling techniques and sample preparation	• All diamond drill core associated with St Barbara work program was half cut with the upper or left-hand side submitted for assay. For PQ diameter core a further cut was completed, whereby quarter core is submitted to provide a practical sample size. All samples were sent to ITS PNG Ltd (Lae) sample preparation facility, where preparation involves drying, jaw crush to 95% passing -4.75mm, pulverise in LM5 or LM2 to a minimum 95% passing -106um, with 250g pulps sent to Intertek Laboratory in Perth. Pulps residuals are stored in Lae for six months following assay. Quality control of sub-sampling consisted of insertion of blank control samples and coarse reject duplicates, both at a ratio of 1:20 samples. • All diamond drill core samples associated with the Newcrest option and farm-in agreement work program diamond core was sampled on 2 metre intervals. For HQ and NQ diameters, core was cut in half with the upper or left-hand side of the core routinely submitted. For PQ diameter core a further cut was completed, whereby quarter core is submitted to provide a practical sample size. Quality control of sub-sampling consisted of insertion of blank control samples and coarse reject duplicates, both at a ratio of 1:20 samples. All samples were sent to ITS PNG Ltd (Lae) sample preparation facility, where preparation involves drying, jaw crush to 95% passing -4.75mm, pulverise in LM5 or LM2 to a minimum 95% passing -106um, with 250g pulps sent to Intertek Laboratory in Perth. • All Sorowar reverse circulation rock chip and diamond core samples were fully prepared at the company's on-site sample preparation facility on Simberi Island. Preparation involved drying, jaw crush to 70% passing -6mm, pulverise in LM5 or LM2 to a minimum 85% passing -75um, with 200g pulps sent to SGS Laboratory in Townsville. Pulp residues are stored in Townsville for future re-assay if required.

Criteria	Commentary
Quality of assay data and laboratory tests	• All diamond drill samples associated with the Newcrest option and farm-in agreement work program and the St Barbara work program (excluding the Sorowar RC and Diamond drill samples) were sent to Intertek for analysis. Half or quarter core samples were analysed for Au via 50g Fire Assay ICP and AAS finish (FA50/ICP OE04 method) for low detection sample or 50g Fire Assay and AAS finish (FA50/AA method) and then multi-elements (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 4 acid digest with HF (4A method) and Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) via (OM10 method). QC included insertion of certified reference material (1 in 20); insertion of in-house blank control material (1 in 20); and the insertion of reject residues (1 in 20). 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. • All Sorowar Reverse Circulation rock chips and diamond core were analysed for gold using fire assay with a 50g charge and analysis by flame atomic absorption spectrometry (FAA505 method) at SGS, Townsville; and then multi-elements (Ag, As, Ca, Cu, Mo, Pb, S, Sb, Zn) via 4 acid digest (DIG41Q method) and Inductively Coupled Plasma Atomic Emission Spectroscopy ICP-AES via (ICP41Q method). • QC included insertion of certified reference material (1 in 20); insertion of in-house blank control material (1 in 20); and the insertion of reject residues (1 in 20). 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. • Intertek Perth, SGS Townsville and ALS Townsville inserted certified standards and replicates and lab repeats.
Verification of sampling and assaying	• 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.
Location of data points	• All Simberi Island collars were surveyed by in-house surveyors using DGPS using Tabar Island Grid (TIG) which is based on WGS84 ellipsoid and is GPS compatible. Tatau and Tabar Island collars were surveyed initially by hand held GPS and by DGPS after hole completion. All holes were downhole surveyed using either a Reflex or Ranger single shot camera with the first reading at about 18m and then approximately every 30m increments to the bottom-of-the hole.
Data spacing and distribution	• Drilling data is not yet sufficient to establish continuity of the lodes and therefore the drill spacing is irregular and broad spaced. • At Sorowar pit, the RC drilling targeting sulphide gold mineralisation is drilled on an approximate 60m by 60m spacing.
Orientation of data in relation to geological structure	• Where surface mapping and sampling has contributed to understanding of outcropping geological structures, drilling and sampling has been undertaken orthogonal to the mapped structure. • At Sorowar pit, the RC drilling targeting sulphide gold mineralisation is optimised with holes drilled at 60° dip towards the northeast where possible to test the interpreted main northwest striking orientation to mineralisation. Limited RC holes are drilled in a vertical orientation when access is restricted.
Sample security	• 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 Intertek are stored in locked and guarded storage facilities until receipted at the Laboratory.
Audits or reviews	• No audits or reviews of sampling protocols have been completed.

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 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.
Exploration done by other parties	• CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.
Geology	• 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, porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation is present. • On Simberi Island, Diamond and RC drilling is being conducted on the Simberi ML136 testing for epithermal sulphide gold potential. • Diamond drilling is being conducted at Simberi Island on the Simberi ML136 at depth below Pigiput pit and on Big Tabar Island at Banesa Prospect testing for porphyry Cu-Au mineralisation.
Drill hole Information	• 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.
Data aggregation methods	• 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 and a minimum grade*length of 5gmpt. 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. Supplementary cut-offs, of 2.5g/t Au, 5.0g/t Au and 10g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where ≥5.0g/t Au and ≥1m down hole. • For porphyry copper-gold mineralisation, broad downhole intercepts are reported as length weighted averages using a cut-off of 0.1% Cu and a minimum length of 20m with up to 10m of sequential internal dilution. Supplementary cut-offs of > 1% Cu may be reported. Au and Cu grades are reported. Anomalous Au grades maybe also be reported independently where Au > 0.1 g/t and/or > 0.5 g/t Au using above minimum width and internal dilution criteria. • For both mineralised styles, core loss is assigned the same grade as the sample grade; no high grade cut is applied; grades are reported to two significant figures and no metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	• Down hole length is reported for all holes; true width is not known as the orientation of the orebody is not fully understood.
Diagrams	• Diagrams 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, and all other drill holes drilled during the reporting period are highlighted on diagrams included in the report.
Other substantive exploration data	• Included in the body of the report. Core holes are routinely measured for bulk density determinations to be used for potential future resource modelling.
Further work	• Included in the body of the report.

Trenching - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	• Sampling of trenches was done over measured intervals of between 1 and 5 meters 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.
Trenching/Benching techniques	• Trenches were created by both hand and mechanical techniques. Hand trenches were dug using spades, crowbars and shovels to depths of between 1 and 2 meters. Creek channel sampling is conducted in the same manner as trenches, where continuous exposure of bedrock is made by hand clearing of vegetation and cover. Mechanised trenches were dug by an excavator exposing up to 5 meters of trench wall.
Drill sample recovery	• N/A
Logging / Mapping	• All trenches were qualitatively geologically mapped for lithology, structure and alteration.
Sub-sampling techniques and sample preparation	• Trench samples (2 to 4kg) were taken to a restricted area at the company's on-site sample preparation facility on Simberi Island and dried in a dedicated oven at low Temperature (60°C) for 24 hours. • Trench samples are then prepped on-site (jaw crushed, disk mill pulverised and then split) to produce a 200g pulp sample. • The samples are routinely submitted for total pulverisation (85% passing <75 µm) at the company onsite sample preparation facility on Simberi Island. • The 200g pulps are sent to ALS Laboratory in Townsville for analysis.
Quality of assay data and laboratory tests	• The trench sample QC included the insertion of two in house blanks at the start of each batch of trench samples, the insertion of certified copper - gold Standards (OREAS45d, OREAS45e) into the sample sequence so that 1% of samples (1:100) as well as the collection of field duplicates (1:100). • The sample pulps were analysed at ALS (Townsville) for Au via 30g Fire Assay and AAS finish (Au-AA21 method) and then multi-elements (Ag, As, Sb, S, Cu, Pb, Zn, Mo, Fe) via aqua regia digest (GEO-AR01) and ICPMS analysis (ME-ICP41S method).
Verification of sampling and assaying	• 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.
Location of data points	• All 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 & Compass method. Trench interval coordinates were then generated using basic trigonometry. • Selected recent trenches have been picked up using dGPS WGS84 zone 56.
Data spacing and distribution	• Trench data spacing is irregular and broad spaced.
Orientation of data in relation to geological structure	• Where preceding surface mapping and sampling of trenches has contributed to 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.
Sample security	• Only company personnel or approved contractors are allowed on trench sites; trench samples are only removed from site to secure core logging/processing facility within the gated exploration core yard; samples are promptly logged, cut and prepped on site.
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	• 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.
Exploration done by other parties	• CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.
Geology	• 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/Bench Information	• Included in the report text and annotated on diagrams.
Data aggregation methods	• 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 5gmpt. 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. Selvage is only included where its average grade exceeds 0.5 g/t Au. • Using the same criteria for included sub-grade, supplementary cut-offs, of 2.5g/t Au, 5.0g/t Au and 10g/t Au, may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where ≥1.0g/t and ≥5m trench length is intercepted. No high grade cut is applied.
Relationship between mineralisation widths and intercept lengths	• Trench intercepts are sampled along the length of the trench and are reported for all trenches; true width is not reported.
Diagrams	• Diagrams show all trenches material and immaterial to Exploration Results.
Balanced reporting	• Details of all trenches material to Exploration Results have been reported in the text, and all other trenches dug during the reporting period are highlighted on diagrams included in the report.
Other substantive exploration data	• Included in the body of the report.
Further work	• Included in the body of the report.

Surface Sampling - Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	• The soil samples were collected by first removing organic litter from the surface. A hand auger was then used to collect a C-horizon sample from typically between 140cm to 190cm depth. Sampling teams were supervised by a geologist who determined the depth of the sample collected. A bulk sample of ≥2kg was then collected in a calico bag. A reference sample of soil and any weathered rock fragments is placed in a plastic chip tray for ASD analysis. • Rock chip samples (2 to 5kg) are cleaned of any organic material and placed in a calico bag. A small reference rock chip sample is placed in a plastic chip tray for ASD analysis.
Drilling techniques	• N/A
Drill sample recovery	• N/A
Logging	• All rock chip and float were qualitatively logged for lithology, alteration, weathering and colour. • Regional soil sample sites were recorded for land use, vegetation type, slope (degrees) and slope direction. For regional soil samples, the depth (from, to) collected was recorded in centimetres. Regional soil samples were logged for regolith (weathering) type, colour, tone and moisture content by a geologist. A digital photograph is taken showing the soil profile laid out and the location of the sample material highlighted.
Sub-sampling techniques and sample preparation	• Rock chip, float and soil samples collected were taken to a restricted area at the company's on-site sample preparation facility on Simberi Island and dried in a dedicated oven at low Temperature (60°C) for 24 hours to reduce weight for transport. • The surface samples are sent to Intertek in Lae (PNG) for sample preparation. • At Intertek, sample preparation involves drying, jaw crush to 95% passing -4.75mm, pulverise in LM5 or LM2 to a minimum 95% passing -106um.
Quality of assay data and laboratory tests	• The surface samples were prepared and analysed by Intertek Lae and Intertek Townsville. Samples were analysed for Au via 50g Fire Assay and AAS finish (FA50/AA method) and then multi-elements (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 4 acid digest with HF (4A method) and Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES) or Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) via (OM10 method). • Regional soil sample field duplicates are collected in the field while collecting the original sample. Field duplicates are collected from a new hole dug less than 1m from the primary sample site at the same depth as the primary sample. Field duplicates are collected so that 5% of samples (1 in 20) are a duplicate. Standards (OREAS45d, OREAS45e) are inserted into the sample sequence so that 5% of samples (1 in 20) are a standard. • For rock chip sample QC, Standards (OREAS45d, OREAS45e) are inserted into the sample sequence so that 5% of samples (1 in 20) are a standard.
Verification of sampling and assaying	• N/A
Location of data points	• All regional soil and rock chip sampling sites were surveyed by a hand held GPS for Easting, Northing and RL using WGS84, or using Tabar Island Grid (TIG).
Data spacing and distribution	• Regional soil sample sites are located on a 200m x 200m off-set grid. Subject to results, follow-up soil samples may be collected on 100m x 100m spacing in selected areas. In some areas samples cannot be collected due to the presence of sacred sites or swamps. • Rock chip sample locations are dictated by the presence of outcrop and are usually restricted to creeks, cliffs and breaks in slope.
Orientation of data in relation to geological structure	• N/A
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 at Intertek Lae and then analysed at Intertek Townsville.
Audits or reviews	• No audits or reviews of sampling protocols have been completed.

Surface Sampling - 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 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.
Exploration done by other parties	• CRA, BHP, Tabar JV (Kennecott, Nord Australex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.
Geology	• 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, porphyry Cu-Au, epithermal quartz Au-Ag and carbonate-base metal Au mineralisation is present. The current surface sampling is targeting porphyry Cu-Au mineralisation.
Drill hole Information	• N/A
Data aggregation methods	• N/A
Relationship between mineralisation widths and intercept lengths	• N/A
Diagrams	• Figures show all sample sites material and immaterial to Exploration Results.
Balanced reporting	• All rock chip, float and soils sample locations with any significant results are shown in Figures.
Other substantive exploration data	• Included in the body of the report.
Further work	• Included in the body of the report.

End of report