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December 2010 Quarterly Report

Gwalia depth extensions confirmed [including 10m @ 73g/t Au from 1,868mbs]

Overview

Production Summary

- Gold production of 60,673 ounces for the December 2010 quarter.
- Gold production of 124,161 ounces for the six months ended 31 December 2010.

Leonora Operations

- Gold production was 28,505 ounces for the December 2010 quarter at a cash operating cost of \$874 per ounce.
- King of the Hills underground mine development is on schedule as at 31 December 2010.
- Gwalia mine will deliver increased gold production and lower unit costs in the second half, as the grade of the ore increases.

Southern Cross Operations

- Strong operating performance continues.
- Gold production of 32,168 ounces for the December 2010 quarter at a cash operating cost of \$840 per ounce.

Discovery and Growth

- The first phase of deep drilling at Gwalia has confirmed the extension of the Gwalia ore body at depth from 1,640mbs to at least 1,900mbs, including outstanding intersections of:
 - 7m @ 43 grams per tonne of gold (g/t Au) from 1,870mbs, including 1m @ 285g/t Au; and
 - 10m @ 73g/t Au from 1,868mbs, including 0.45m @ 1,358g/t Au.

Health & Safety

- The Total Recordable Injury Frequency Rate calculated as a rolling 12 month average improved significantly from 11.1 as at 30 September 2010 to 8.9 at 31 December 2010, reflecting a concerted effort to improve safety performance.

Finance and Corporate

- Gold shipped in the December 2010 quarter was 60,121 ounces, realising an average gold price of \$1,390 per ounce.
- The Company expects to exceed by approximately 20% the previously published Net Profit After Tax guidance for the six months ended 31 December 2010 of \$25.5 million, and will release its Half Year Report on 24 February 2011.
- Cash at bank at 31 December 2010 was \$96 million.

Outlook

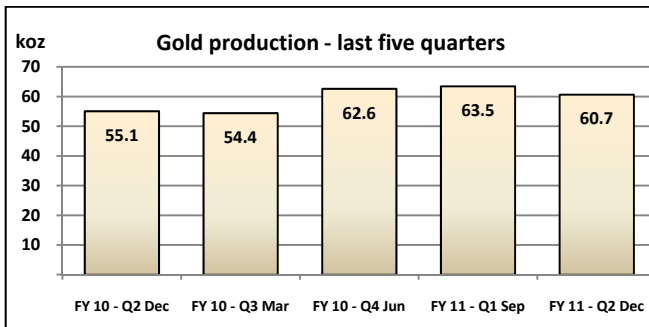
- Full year consolidated gold production is expected to be at the lower end of the FY11 production guidance range of 265,000 to 295,000 ounces. This represents a significant increase on FY10 gold production of 231,000 ounces.
- As a consequence of the lower Gwalia gold production to date, Gwalia's cash operating costs for FY11 are expected to be at the upper end of guidance of \$630 to \$680 per ounce.

Tim Lehany
Managing Director & CEO
18 January 2011

Operations

Consolidated Gold Production

Gold production was 60,673 ounces for the December 2010 quarter, and 124,161 ounces for the six months ended 31 December 2010.



Production Summary		Sep Qtr FY11	Dec Qtr FY11
Leonora	oz	30,005	28,505
Southern Cross	oz	33,483	32,168
Consolidated	oz	63,488	60,673
Total Cash Operating Costs			
Leonora	\$/oz	792	874
Southern Cross	\$/oz	801	840

Leonora Operations

Gwalia

Gold production for the December 2010 quarter of 28,505 ounces was disappointing. Operational mine planning and stope design issues were the main causes of lower head grade, lower production and higher unit costs for the quarter.

Mining and haulage performed well, delivering 183,641 tonnes of ore, achieving an annualised ore production rate of 735,000 tonnes per annum. The processing plant also continued to perform well and achieved recoveries of 95% for the quarter.

Equipment problems caused delays to the mining schedule in the first quarter. A number of measures were taken to recover the first quarter production slippage, including taking stopes from outside of the Ore Reserve in proximity to development, and increasing some stope sizes. The stopes taken from outside of Ore Reserve were lower grade, and consequently higher cost. Increased stope sizes resulted in some cases in overbreak, which in turn created ore dilution, increased handling costs and created consequential delays in the mine schedule.

These issues, which have been resolved, contributed to the lower grade, lower production and higher cash operating costs per ounce for the quarter.

The Leonora Operations management and mining contractor teams have been significantly strengthened over the last six months. In combination with improved mine planning and stope blasting designs, the overbreak

issues have been successfully addressed in the last two stopes mined and are not expected to recur.

Another contributing factor to the lower gold production for the quarter, as has previously been disclosed, was one South West Branch stope reporting a lower grade than originally expected. Localised grade variations to Ore Reserve for small volumes of ore on this scale are not unusual at the Gwalia mine. The South West Branch has been stoped or developed on 4 levels so far this financial year (2 above the dyke and 2 below the dyke). The understanding of this lode, and the geological controls over the distribution of gold within the lode, which contributes approximately 80% of the overall ore reserve at Gwalia, is improving substantially as a result.

Based on the strengthening geological understanding of grade distribution within the South West Branch lode, detailed mining plans will ensure the cost effective extraction of the ore from future stopes.

Production Summary		Sep Qtr FY11	Dec Qtr FY11
Underground ore mined	t	155,392	183,641
Grade	g/t	6.0	4.9
Ore milled	t	170,086	193,854
Grade	g/t	5.7	4.8
Recovery	%	96	95
Gold production	oz	30,005	28,505
Cash Operating Costs (\$ per ounce)			
Mining		547	689
Processing		153	198
Site services		84	92
Stripping and ore inventory adjustments		(26)	(136)
		758	843
By product credits		(2)	(2)
Third party refining and transport costs		1	1
Royalties		35	32
Total cash operating costs		792	874
Depreciation and amortisation		255	257
Total operating costs		1,047	1,131

Given the sequential nature of the mine production schedule, the delays, lower grade and incremental costs incurred were not recovered by the end of the December 2010 quarter. The Company is confident of a stronger second half, and achieving the lower end of production guidance for the full year.

As part of investing in the long term productivity of the mine, a number of underground infrastructure projects will be completed during the March 2011 quarter. These include a four bay underground workshop, an underground explosives magazine, and an underground fuel bay. A new underground pump station was completed in the December 2010 quarter.

Collectively, these projects are expected to reduce congestion in the decline and assist to underpin the long term reliable performance of the mine.

King of the Hills

Decline development has advanced by 444 metres since commencing on 9 October 2010, and is expected to be at the depth of the first production level by the end of January 2011. First gold production remains on plan for the June 2011 quarter.

Site infrastructure construction and Leonora Village expansion were completed in the quarter on schedule and are fully functional.

Outlook for Leonora Operations

Full year gold production for Leonora Operations is likely to be at the lower end of the FY11 production guidance range of 155,000 ounces to 170,000 ounces. Gold production from Gwalia will progressively increase as the gold grade of the ore increases. A significantly stronger second half is expected.

The lower production from Gwalia in the six months ended 31 December 2010 means cash operating costs per ounce are expected to be at the upper end of guidance for FY11.

Southern Cross Operations

Gold production for the December 2010 quarter was 32,168 ounces, at a total cash operating cost of \$840 per ounce, in line with expectations.

The December quarter production sources included Exhibition, New Lode and the higher grade northern stopes of Undaunted and Contact. The firing of the 430,000 tonne 365-Exhibition pillar was successfully executed in December and will form the bulk of the process plant feed source for the second half of FY11.

Outlook for Southern Cross Operations

With the main source of ore for the second half being the bulk low grade Exhibition lode, ore grades are expected to fall, and cash costs per ounce will increase, in line with the guidance range for the full year.

Published production and cost guidance for Southern Cross Operations for the 2011 financial year is maintained at between 110,000 to 125,000 ounces and \$950 to \$990 per ounce respectively.

Discovery and Growth (D&G)

The Discovery and Growth team continued drilling programs during the December 2010 quarter with a number of drill targets tested both near-mine and regionally. Evaluation of new targets continued within the Company's tenement holdings, and acquisition studies continued elsewhere on high priority areas.

Leonora Region

Gwalia: Deep resource extension drilling continued at Gwalia during the quarter with the aim of extending the resource from its current 1,640mbs to more than 1,800mbs (Figure 3). Drilling results to date confirm the extension of high grade gold mineralisation to at least 1,900mbs. Three wedge holes were completed during the quarter – GWDD 13B, 12E and 12F and a fourth GWDD 13C is nearly completed:

- GWDD 13B successfully intersected and further confirmed the down-plunge extension of the central Gwalia lode system by over 200m depth to 1,930mbs, intersecting 6.7m @ 9.2g/t Au (approximately true width).
- Having delineated the Gwalia lode with the first two wedge holes, GWDD 12E and 12F were aimed at the main part of the Gwalia lode system - GWDD 12E intersected 7m @ 43.6g/t Au, including 1m @ 285.2g/t; and GWDD 12F intersected 10m @ 73.3g/t Au including 4m @ 174g/t Au (all approximately true thicknesses of the lode system, refer to Table 1). These results are confirming the high grade gold tenor of the Gwalia lode system down to 1,800mbs.

At the end of the quarter, the next hole in the drilling programme, GWDD 13C, appears to be intersecting the Gwalia lode system, and based on this next result, it is expected that this deep drilling will continue to the end of the June quarter.

King of the Hills: A drill hole 200m from previous drilling north on the potential northern extension of the deposit intersected 2m @ 6.3g/t Au (down-hole) from 684m. This intersection delineates gold mineralisation extending at least 800m north of the deposit as a guide to future near-mine exploration.

Hibernia prospect: An initial program of 32 reverse circulation (RC) drill holes totalling 4,230m was completed to test gold anomalies identified by air-core geochemical drilling on the 'Thunderbox Shear Zone'. This drill

Production Summary		Sep Qtr FY11	Dec Qtr FY11
Underground ore mined	t	267,822	278,107
Grade	g/t	3.4	3.8
Ore milled	t	270,729	292,260
Grade	g/t	4.1	3.7
Recovery	%	93	93
Gold production	oz	33,483	32,168
Cash Operating Costs (\$ per ounce)			
Mining		490	466
Processing		224	239
Site services		72	76
Stripping and ore inventory adjustments		(5)	37
		781	818
By product credits		(15)	(14)
Third party refining and transport costs		2	2
Royalties		33	34
Total cash operating costs		801	840
Depreciation and amortisation		157	161
Total operating costs		958	1,001

program covered both previously identified targets, Hibernia South and Hibernia North, returning moderately anomalous gold and arsenic results. All anomalous RC drill results are currently being sub-sampled and results will be compiled early next quarter to plan further drill testing if warranted.

Southern Cross Region

Copperhead: The first hole of an initial drill program of six diamond drill holes is in progress. Four holes will test potential high grade underground zones within the largely unmined Western Lode and another two holes will test potential depth extensions of the previously mined Northern and Southern lodes. The drill programme will be completed during the March 2011 quarter.

Fraser's South: Historic data compilation has been completed. An initial program of 6 holes to test potential high grade underground extensions is expected to commence early in the March 2011 quarter.

Other Areas

Geochemical air-core drilling was completed over another two projects in the Yilgarn area, WA.

The Company's targeting system for acquiring prospective ground positions has successfully identified and applied for a new area, referred to as **Lake Carnage**, located on the prospective Zulieka Shear Zone approximately 75km NW of Kalgoorlie, WA (Figure 6). Elsewhere, a major structural geology study of the Leonora province, with the aim of generating targets for further drill testing, has been completed.

East Lachlan Fold Belt (NSW): During the December quarter a detailed gravity survey had been planned to test three main target areas for potential porphyry-style copper-gold mineralisation under younger cover rocks. However, because of recent heavy rain falls in the Nyngan area and following consultation with the landowners, this survey had to be postponed. Subject to no further heavy rains, this gravity survey will recommence early in the March 2011 quarter.

Health & Safety

The Total Recordable Injury Frequency Rate, calculated as a rolling 12 month average, reflected concerted safety improvement efforts during the quarter, improving from 11.1 at 30 September 2010 to 8.9 at 31 December 2010.

Financials (unaudited)

Gold shipped in the December 2010 quarter of 60,121 ounces was sold at an average price of \$1,390 per ounce.

Cash at bank was \$96 million as at 31 December 2010, which did not include cash proceeds of \$8.3 million from the sale of gold on 31 December 2010, received in January 2011.

Total interest bearing liabilities at 31 December 2010, comprising asset financing facilities, were \$12.5 million.

Corporate

During the quarter the Company successfully completed its one-for-six share consolidation approved at the Company's AGM in November 2010, and the voluntary share top-up and share sale facilities. The unmarketable parcel share sale facility was launched in December and will conclude in March 2011.

The Company's share capital structure as at 31 December 2010 was:

Issued shares	325,615,389
Unlisted employee options	4,033,567
Unlisted performance rights	2,412,992

Outlook

The Company maintains previously published forward guidance for the current financial year, noting that consolidated gold production will be at the lower end of the guidance range of 265,000 to 295,000 ounces, and cash operating costs for Gwalia will be at the upper end of the guidance range of \$630 to \$680 per ounce.

Subject to finalisation of the six-month audit review, the Company expects to exceed by approximately 20% the previously published Net Profit After Tax guidance for the six months ended 31 December 2010 of \$25.5 million. This result is before the benefit from changes in the market-to-market value of gold options. The Company will release its Half Year Report on 24 February 2011.

Corporate Directory

St Barbara Limited
ABN: 36 009 165 066

Board of Directors

Colin Wise.....Chairman
 Tim Lehany Managing Director & CEO
 Doug Bailey Non-Executive Director
 Phil Lockyer Non-Executive Director
 Robert Rae..... Non-Executive Director

Executive Team

Tim Lehany Managing Director & CEO
 Garth Campbell-Cowan Chief Financial Officer
 Ross Kennedy EGM Corporate Services
 David Rose..... Chief Operating Officer
 Phil Uttley.....EGM Discovery and Growth

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Substantial Shareholders	% of Holdings
	As Notified
M&G Group*	18.1%
Franklin Resources	6.0%
Hunter Hall Investment Management	5.1%

* M&G Group's interest includes shares disclosed by Vanguard Precious Metals & Mining Fund

Australian Securities Exchange Listing **"SBM"**

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Financial figures are in Australian dollars.

Investor Relations Contacts

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Figure 1: Leonora Operations – Gwalia mine development

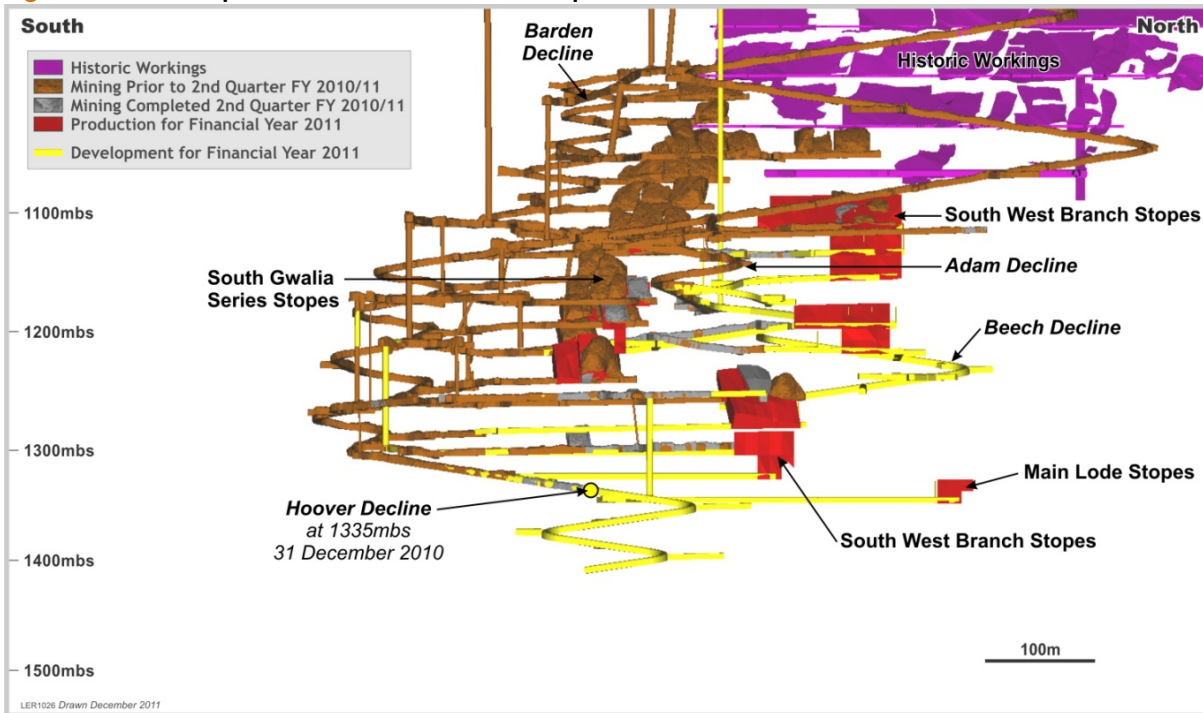


Figure 2: Leonora Operations - Gwalia Deep

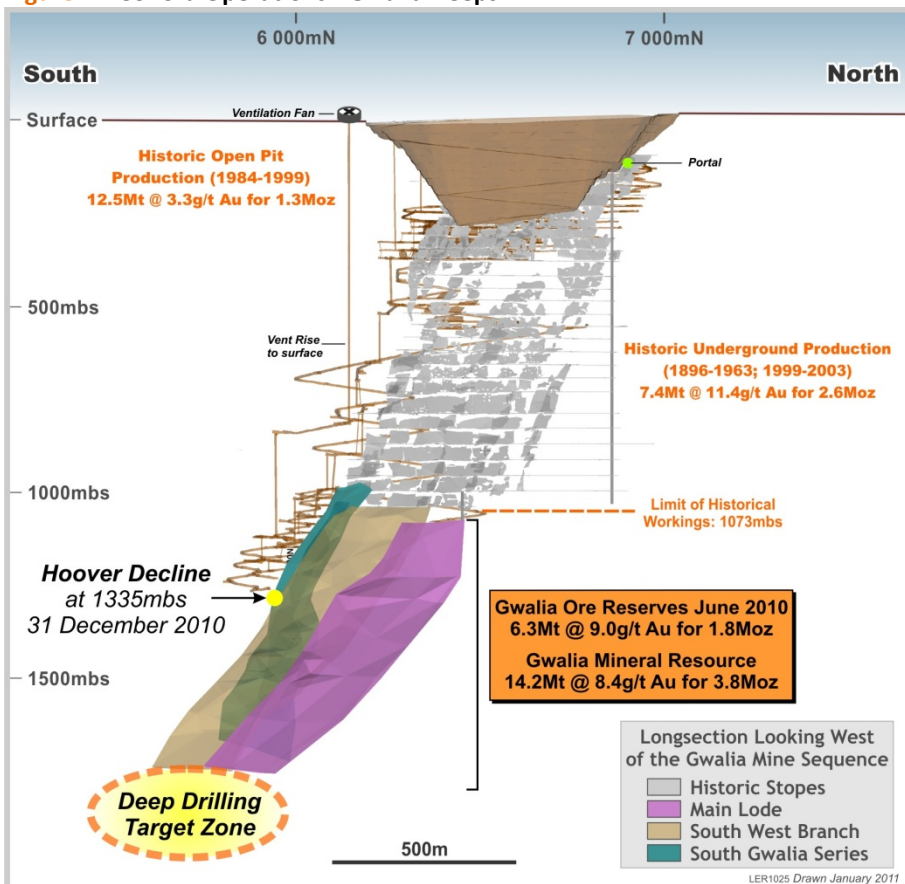


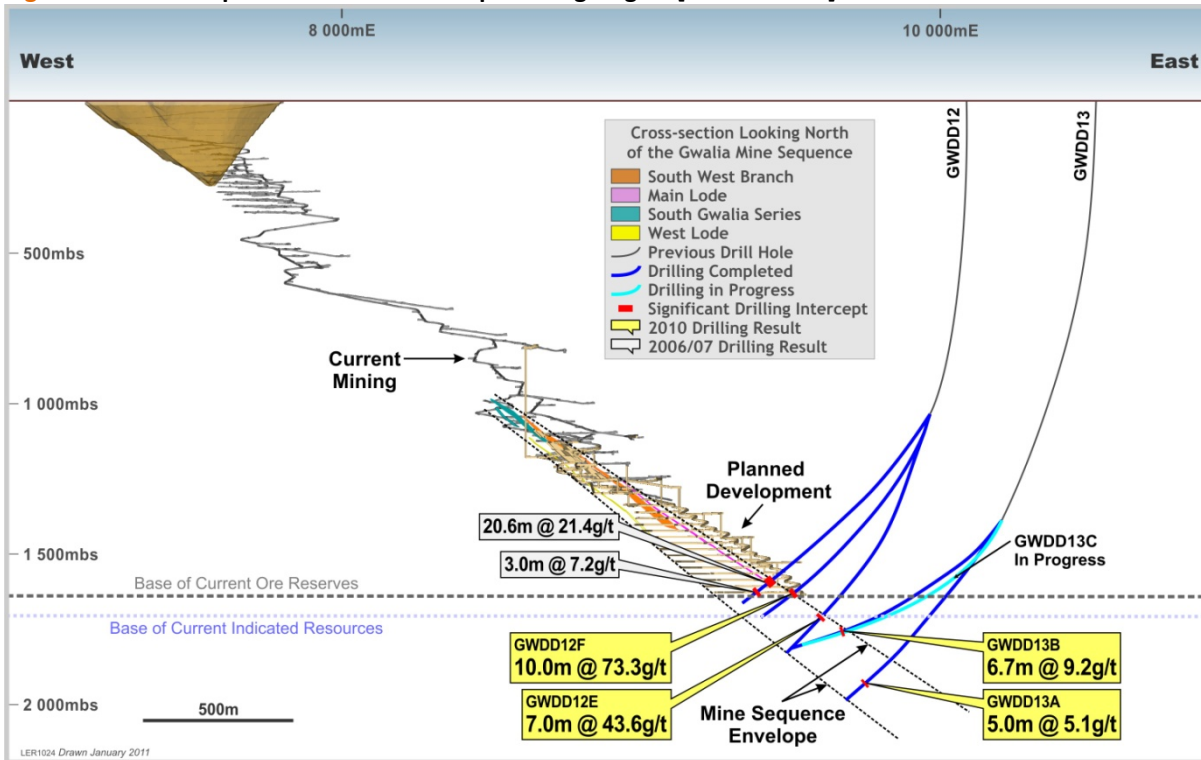
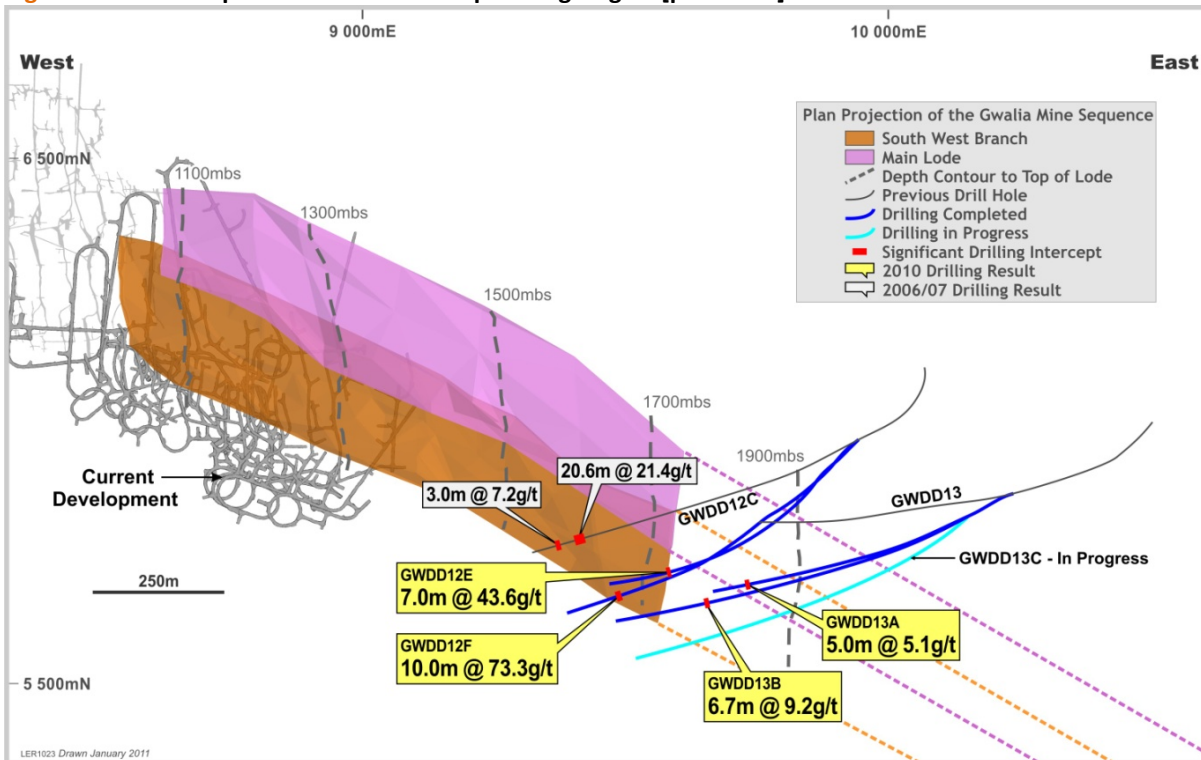
Figure 3: Leonora Operations – Gwalia Deeps drilling targets [cross section]

Figure 4: Leonora Operations - Gwalia Deep drilling targets [plan view]


Figure 5: Southern Cross D&G – Copperhead Planned Drilling of Western Lode

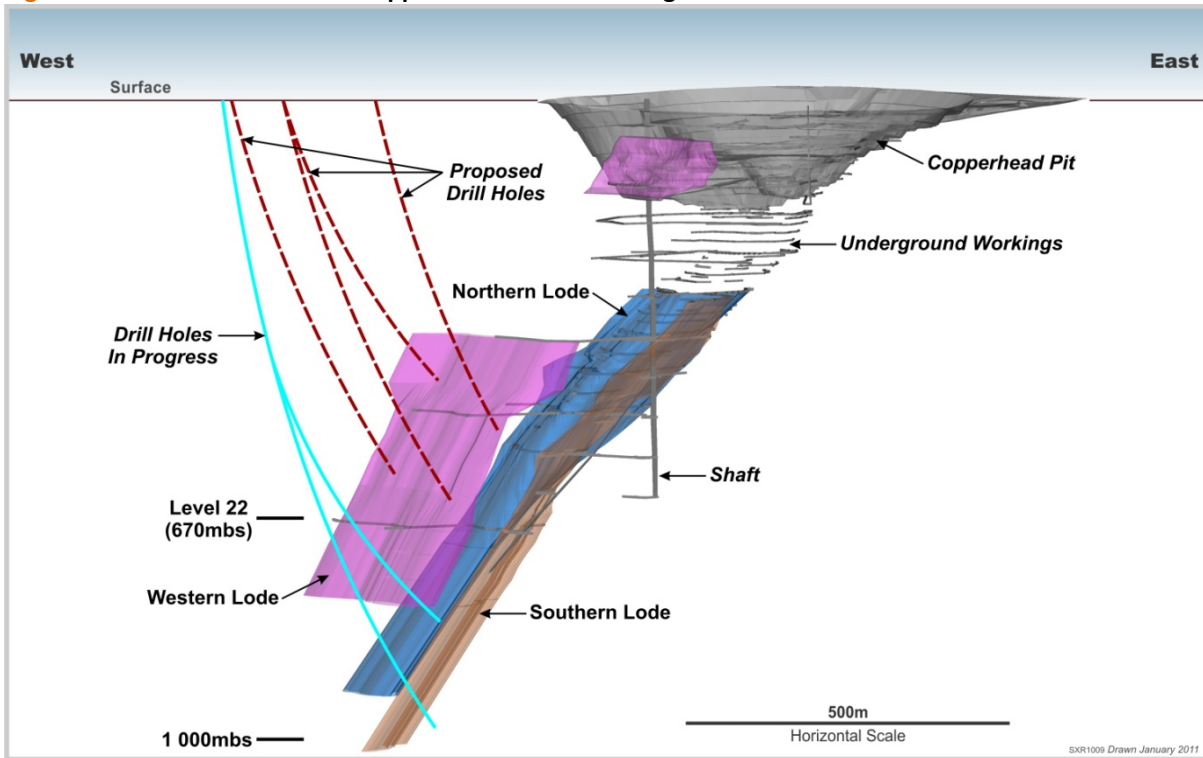


Figure 6: Leonora D&G – Regional

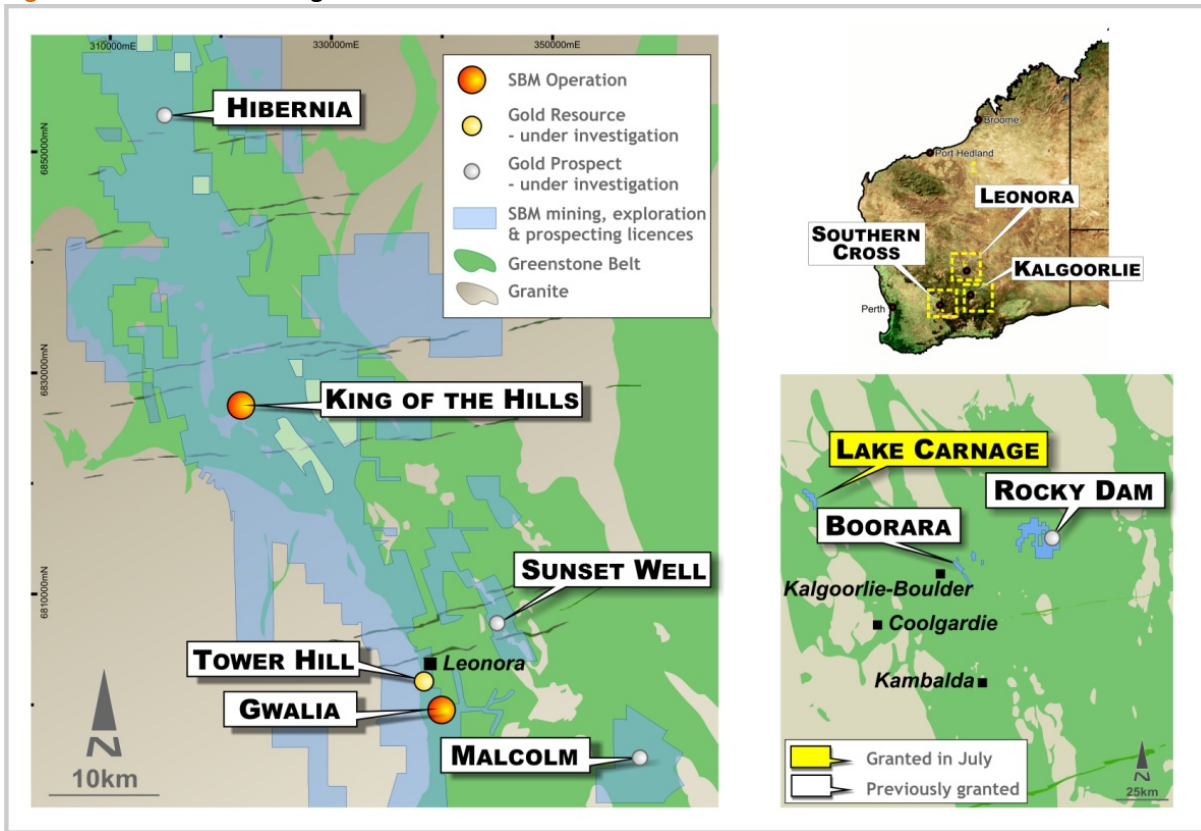


Figure 7: Southern Cross D&G - Regional

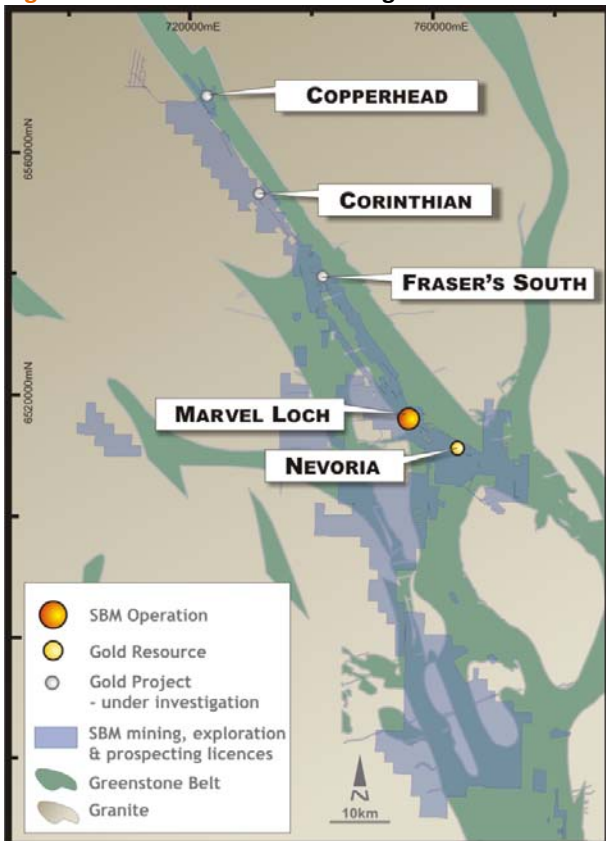


Table 1: Significant Intercepts

Hole No	North (local)	East (local)	Dip/Azi	Vertical Depth mbs	Lode	Mineralised Intersection		
						From mbs	Length m	Gold g/t Au
LEONORA								
Gwalia Deeps								
GWDD12E	5711	9581	-46/255	1710	South West Branch	1870	7.0	43.5
Incl. GWDD12E	5711	9580	-46/255	1711	South West Branch	1875	1.0	285.1
GWDD12E	5700	9535	-45/258	1758	South Gwalia Series	1938	6.4	4.6
GWDD12F	5667	9489	-35/251	1629	South West Branch	1868	10.0	73.3
Incl. GWDD12F	5666	9491	-35/251	1629	South West Branch	1868	4.0	174.7
Incl. GWDD12F	5668	9492	-35/251	1626	South West Branch	1868	0.45	1358.4
GWDD13B	5652	9653	-19/257	1756	South West Branch	2119	6.7	9.2
King of the Hills								
TADD4111	11261	51014	-53/283	592	Granite	684	2.0	6.3

Note:

1. Mineralised intersections are quoted as downhole lengths and uncut; nominal cut-off grade 3g/t Au.

Competent Persons Statement

References to Exploration Results including significant gold intersections and geological interpretations contained in this report have been compiled by Mr. Phillip Uttley. Mr. Uttley is a Fellow of The Australasian Institute of Mining and Metallurgy and is a full time employee of the company. Mr. Uttley has sufficient experience relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person in accordance with the Australasian Code for Reporting of Mineral Resources and Ore Reserves, December 2004 (JORC Code). Mr. Uttley consents to the inclusion in the report of the matters based on his information in the form and context in which they appear