



# Further success with Gwalia deep drilling program

This announcement updates the deep drilling program at Gwalia previously reported on 25 February and 7 April 2015, and subsequently updated in the June 2015 quarterly report.

The objective of the resource extension drilling at Gwalia is to provide the required certainty to delineate an indicated resource below the current resource (which extends to 1,800 metres below surface (mbs)), and to support the planned shaft studies as part of developing the case for mining below the current resource.

Drilling has been completed on a third daughter hole from the original parent hole (GWDD16) on the Gwalia deposit targeting down-plunge extensions to the lode system approximately 400 m below the base of current underground workings. The drill hole (GWDD16C) passed through over 100 m of the Mine Sequence schists, commencing at a downhole depth of 2,203 m (1,850 mbs) and which displayed a similar thickness and characteristics to those found higher in the deposit where current mining activities are taking place.

Contained within the Mine Sequence were three intervals of significant mineralised veining interpreted to represent extensions of Main Lode, South West Branch and West Lode, the most notable intersection being for South West Branch of 7.0 m @ 6.0 g/t Au which occurred at approximately 1,850 mbs. Core returned from the drill hole displayed geotechnical features similar to those encountered at current production levels in the mine.

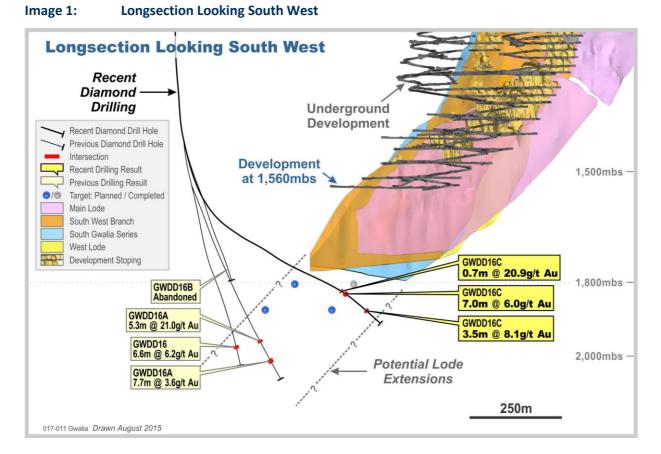
Significant results returned from GWDD16C were (all intercepts down-hole, details in Table 1):

- > Main Lode 0.6 m @ 20.9 g/t Au from 2,206 m
- > South West Branch 7.0 m @ 6.0 g/t Au from 2,220 m
- > West Lode 3.5 m @ 8.1 g/t Au from 2,312 m

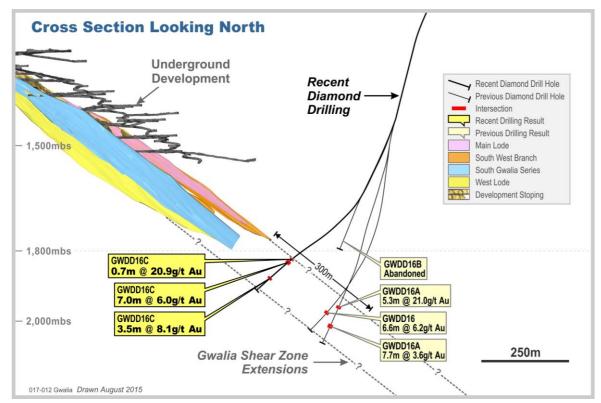
At least three further exploration drill holes are planned in the September 2015 quarter. The results obtained from these holes will inform the targeting of further holes in the December 2015 quarter, with the objective of delineating an indicated resource.

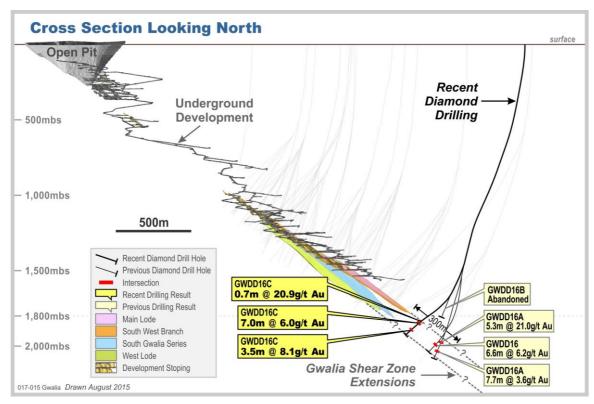
St Barbara MD & CEO, Mr Bob Vassie, said "It is very encouraging to have intersected the mine sequence with three separate holes. With each new successful intersection our confidence increases that the mine sequence extends below the current resource. This is an important input into the planned shaft study."

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## Image 3: Cross Section Looking North

### Table 1: Significant Intercepts – Leonora, Gwalia Mine

Hole Id	North	East	RL	Metres Below	Down-hole Mineralised Intersection					
			Surface	Lode	Dip/ Azimuth degrees	From m	To m	Interval m	Gold grade g/t Au	
GWDD16C	5644.0	9760.6	3530.9	1837.1	Main Lode	-26/322	2206.2	2206.8	0.6	20.9
GWDD16C	5656.0	9751.0	3523.2	1844.8	South West Branch	-27/321	2220.1	2227.1	7.0	6.0
GWDD16C	5713.1	9698.8	3477.8	1890.3	West Lode	-33/315	2311.7	2315.2	3.5	8.1

NOTES:

Down hole intercepts are determined using a cut-off of 0.5 g/t Au with up to 5m of internal dilution. No high grade cut is applied. Dip and Azimuth angles estimated at intercept depth.

Reported intercepts are all down hole lengths.

## **Competent Persons Statement**

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 Ltd and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. 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.

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

### **Contents**

Drilling: Section 1 Sampling Techniques and Data Section 2 Reporting of Exploration Results

# Drilling - Section 1 Sampling Techniques and Data

(Criteria in this section a	pply to all succeeding sections.)
Criteria	Commentary
Sampling techniques	<ul> <li>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.</li> </ul>
Drilling techniques	• Diamond drilling using NQ2 (50.6mm) sized core (standard tubes). Holes have been down hole surveyed by north seeking gyro. Core is orientated using a Reflex ACT II RD orientation tool.
Drill sample recovery	<ul> <li>Core is metre marked and orientated and checked against drillers blocks to ensure that any core loss is accounted for.</li> <li>Sample recovery is rarely less than 100%. Where minor core loss does occur it is due to drilling conditions and not ground conditions.</li> </ul>
Logging	<ul> <li>All SBM holes are logged primarily for lithology, alteration and vein type/intensity which are key to modelling gold grade distributions. Validation of geological data is controlled via the use of library codes and reliability and consistency of data is monitored through regular peer review.</li> <li>All logging is qualitative</li> </ul>
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 $\mu$ m).
Quality of assay data and laboratory tests	<ul> <li>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.</li> </ul>
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.
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	<ul> <li>Sampling is perpendicular to lode orientations and is sound based on past production and underground mapping.</li> </ul>
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	<ul> <li>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.</li> </ul>

## 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	<ul> <li>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 2,000 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.</li> </ul>
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	<ul> <li>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 5 gram-metres. Such intercepts may include material below cut-off.</li> <li>Using the same criteria for included sub-grade, supplementary cut-offs, may be used to highlight higher grade zones within the broader aggregated interval. No high grade cut is applied.</li> </ul>
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 of mineralisation and no other data is available
Further Work	Further exploration drillholes are planned