



St Barbara LIMITED

St Barbara Limited ACN 009 165 066

Level 14, 90 Collins Street, Melbourne VIC 3000

Locked Bag 9, Collins Street East, Melbourne VIC 8003

Tel +61 3 8660 1900 Fax +61 3 8660 1999

www.stbarbara.com.au



515,000 ounces of contained gold added to Gwalia Deeps Mineral Resources

Leonora, Western Australia

- Drilling at Gwalia beneath 1,640 metres below surface (mbs) has added 515,000 ounces of contained gold in Indicated and Inferred Resources down to 1,840 mbs, at a discovery cost of \$16 per ounce.
- The Gwalia ore body remains open at depth, with potential to add to Mineral Resources and Ore Reserves in the South Gwalia Series and Main lodes, adjacent to the South West Branch lode on planned mining levels.
- Gwalia Ore Reserves as at 30 June 2011 are 6.9 million tonnes @ 8.9 grams per tonne of gold (g/t Au) for 2.0 million ounces of contained gold:
 - representing a net increase of 135,000 ounces;
 - extending Ore Reserves down to 1,780 mbs;
 - including 460,000 ounces of gold contained in Ore Reserves elevated to the Proved category.
- Gwalia Deeps Mineral Resources as at 30 June 2011 increased net of depletion by 10% to 14.5 million tonnes @ 8.5 g/t Au for 3.9 million ounces of contained gold.
- A detailed review of the Tower Hill deposit, a potential additional source of ore for the Gwalia treatment plant, has resulted in a revised estimate of Probable Ore Reserves containing 329,000 ounces of gold.

Company summary

- Company Ore Reserves as at 30 June 2011 totalled 14.7 million tonnes @ 5.8 g/t Au for 2.8 million ounces of contained gold.
- Company Mineral Resources totalled 46.9 million tonnes @ 5.1 g/t Au for 7.6 million ounces of contained gold.

Details of Ore Reserves and Mineral Resources as at 30 June 2011 are attached.

Tim Lehany

Managing Director and CEO

24 August 2011

Ore Reserves Statement as at 30 June 2011

Total Ore Reserves as at 30 June 2011 totalled 14,681,000 tonnes at 5.8 grams per tonne of gold (g/t Au) for 2,756,000 contained ounces of gold (2010: 15,692,000 tonnes at 5.8 g/t Au for 2,906,000 contained ounces of gold) (Table 1). A comparison with 30 June 2010 is shown in Table 2.

The 2011 Ore Reserve estimate is based on:

- A gold price of A\$1,250 per ounce for Gwalia, Tower Hill and Nevoria, A\$1,150 for King of the Hills and A\$1,400 for Marvel Loch (2010: A\$1,000 per ounce);
- The Life of Mine design and schedules for Gwalia Underground and Marvel Loch Underground;
- The Definitive Mining Study for King of the Hills Underground; and
- The most recent project studies completed in 2011 for Tower Hill Underground and the Nevoria district.

The net decrease of 150,000 ounces from the 2010 Ore Reserve estimate is attributable to:

- 284,000 ounces from mining depletions (136,000 ounces at Gwalia, 9,000 ounces at King of the Hills, 129,000 ounces at Marvel Loch, and 10,000 ounces in stock pile movements);
- 149,000 ounces through reclassification of the underlying Resource (i.e. changes from Inferred to Indicated classification);
- 63,000 ounces due to mining design revisions based on resource re-interpretation (26,000 ounces at Gwalia, 9,000 ounces at Tower Hill, 28,000 ounces at Nevoria).
- 346,000 ounces from additions to resources partially offsetting the above reductions. The additions are from new resources at Marvel Loch (49,000 ounces) and Gwalia (297,000 ounces).

Gwalia

The overall Reserve increased by 135,000 ounces after mining depletions of 136,000 ounces. The overall Reserve grade is slightly lower at 8.9 g/t Au compared with 9.0g/t Au at June 2010. The 30 June 2011 reserve estimate represents the first complete revision of reserves since the June 2007 model on which all Ore Reserves since June 2007 have been substantially based. In the remodelling, the South West Branch Reserve ounces above 1,640 mbs have been preserved (net of mining depletions) with small losses in lodes other than South West Branch. The Indicated Resource has extended at depth to 1,780 mbs resulting in equivalent reserve extension (297,000 ounces).

Nevoria

The Nevoria area ore reserve decreased from 258,000 ounces to 80,000 ounces. The bulk of the reduction is due to mineral resource reclassification from Indicated to Inferred.

Relevant tables:

Table 1: Summary of Proved and Probable Ore Reserves as at 30 June 2011

Table 2: Ore Reserve changes in contained gold ounces from June 2010 to June 2011

Table 1: Summary of Proved and Probable Ore Reserves as at 30 June 2011

Region	Category	Proved			Probable			Total		
		Tonnes kt	Gold grade Au g/t	Gold koz	Tonnes kt	Gold grade Au g/t	Gold koz	Tonnes kt	Gold grade Au g/t	Gold koz
Leonora	Gwalia Deeps	2,015	7.1	460	4,902	9.6	1,512	6,917	8.9	1,973
	Tower Hill	0	0	0	2,699	3.8	329	2,699	3.8	329
	King of the Hills	0	0	0	1,610	4.3	221	1,610	4.3	221
	Total Leonora	2,015	7.1	460	9,211	7.0	2,063	11,226	7.0	2,523
Southern Cross	Marvel Loch	62	3.8	8	1,349	2.6	111	1,411	2.6	119
	Nevoria Underground	0	0	0	713	4.0	80	713	3.5	80
	Other	1,286	0.8	32	45	1.0	1	1,331	0.8	34
	Total Southern Cross	1,348	0.9	40	2,107	2.9	193	3,455	2.1	233
Total All Regions		3,363	4.6	500	11,317	6.2	2,256	14,681	5.8	2,756

Notes

- 1) Reserves based on a gold price of A\$1,250 per ounce for Gwalia, Tower Hill and Nevoria, A\$1,150 for King of the Hills and \$1,400 for Marvel Loch.
- 2) Mineral Resources are reported as inclusive of Ore Reserves.
- 3) All data is rounded to two significant figures. Discrepancies in summations will occur due to rounding.
- 4) The ore reserves have been estimated and compiled under the direction of Mr Andrew Law.
 Mr Law is a Member of The Australasian Institute of Mining and Metallurgy and was a full time employee of St Barbara at 30 June 2011 and is a full time employee of Optiro at the date of this report.
 Mr Law has sufficient experience relevant to the style of mineralisation, type of deposit under considerations and for the activity being undertaken to qualify as a Competent Person as defined by the 2004 edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (JORC Code).
 Mr Law consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.
- 5) Other relates to surface stockpiles with a cut-off grade based on a gold price of A\$1,075/oz.

Table 2: Ore Reserve changes in contained gold ounces from June 2010 to June 2011

Region	Project	2010 Au (koz)	Mining Depletion Au (koz)	Resource Reclassification Au (koz)	Interpretation & Design Changes Au (koz)	Addition Au (koz)	2011 Au (koz)	Comment
Leonora	Gwalia Deeps	1,838	-136	0	-26	+297	1,973	Mining depletions and minor impact from remodelling (Deeps Drilling) Additions from Resource increase
	Tower Hill	338	0	0	-9	0	329	Design revision with Revised Geology Model
	King of the Hills	230	-9	0	0	0	221	Depletion from mining production which commenced May 2011
	Total Leonora	2,406	-145	0	-35	+297	2,523	
Southern Cross	Marvel Loch	198	-129	0		+49	119	Predominantly mining depletion with extension to reserve due to diamond drilling in a number of lodes
	Nevoria West	48	0	-48	0	0	0	Removed due to Resource downgrade
	Nevoria Underground	210	0	-101	-28	0	80	Nevoria underground mining study completed Jan 2011.
	Other	44	-10	0	0	0	34	Stockpiled material processed during FY11.
	Total Southern Cross	500	-139	-149	-28	+49	233	
Total All Regions		2,906	-284	-149	-63	+346	2,756	

Mineral Resources Statement as at 30 June 2011

The Company's total Measured, Indicated and Inferred Mineral Resources as at 30 June 2011 are estimated as 46,850,000 tonnes @ 5.1 grams per tonne of gold (g/t Au) containing 7,637,000 ounces of gold (Table 3). The previous publicly reported Mineral Resource estimate was 47,580,000 tonnes @ 5.0 g/t Au containing 7,651,000 ounces of gold as at 30 June 2010.

- **Gwalia, Leonora Operations**

Surface drilling of the Gwalia Lode system targeting extensions to mineralisation added 515,000 ounces (Indicated & Inferred Resource) to the Gwalia Mineral Resource, contained within South West Branch, South Gwalia Series and West Lodes below 1,640 mbs. These resource extensions helped to offset a net depletion of 213,000 ounces and a small reduction in the Main Lode Resource of 15,000 ounces. Depletion for the Gwalia Resource consists of 136,000 mined ounces and a further 77,000 ounces that are contained within remnants, pillars or skins on the margins of stopes and are unlikely to be recoverable at this time.

- **Tower Hill**

A review of the structural geology and controls on the distribution of gold mineralisation for the Tower Hill deposit was completed over the year. The result of this review was an improved geological model and a decrease of 325,000 ounces contained in total mineral resources for this deposit. There was a negligible impact on Ore Reserves – refer Table 2.

- **Marvel Loch, Southern Cross Operations**

Additional resources of 233,000 ounces were also identified at the Marvel Loch Mine due to the inclusion of Main Lode, Main Lode West and Western Lodes (155,000 ounces) and review of the geological controls on mineralisation for the O'Brien and Mazza Lodes (75,000 ounces). These additions to resources exceeded depletion due to mining (115,000 ounces).

- **Nevoria**

A review of the Nevoria deposit also resulted in a small reduction in the total resource of 57,000 ounces based on a new estimate. This resulted in a change of categorisation for part of the Nevoria East lodes from Indicated to Inferred Resource based on a revised geological model. This change will impact Ore Reserves for this deposit.

- **Others**

A further reduction resulted from the sale of a small lease south of Marvel Loch which contained the Redwing Resource of 34,000 ounces.

As a consequence of these changes, the Total Mineral Resource Inventory at 30 June 2011 of 7,637,000 ounces of contained gold is marginally down from 7,651,000 ounces of contained gold as at 30 June 2010.

Relevant tables:

Table 3: Mineral Resource Summary 30 June 2011

Table 3: Mineral Resources Summary 30 June 2011

Region	Category	Measured			Indicated			Inferred			Total		
	Project	Tonnes	Gold Grade	Contained Gold	Tonnes	Gold Grade	Contained Gold	Tonnes	Gold Grade	Contained Gold	Tonnes	Gold Grade	Contained Gold
		kt	Au g/t	koz	kt	Au g/t	koz	kt	Au g/t	koz	kt	Au g/t	koz
Leonora	Gwalia Deepes	4,380	6.1	860	7,490	9.6	2,319	2,580	9.2	762	14,450	8.5	3,941
	Gwalia Int & West Lode	0	0.0	0	10	6.2	2	1,260	6.0	244	1,270	6.0	246
	King of The Hills	0	0.0	0	1,930	5.4	337	490	4.8	76	2,420	5.3	413
	Tower Hill	0	0.0	0	2,780	4.6	411	210	3.9	26	2,990	4.5	437
	Harbour Lights	0	0.0	0	0	0.0	0	2,580	3.3	274	2,580	3.3	274
	Other (note 7)	990	1.0	33	2,280	0.9	69	50	0.6	1	3,320	1.0	103
	Total Leonora	5,370	5.2	893	14,490	6.7	3,138	7,170	6.0	1,383	27,030	6.2	5,414
Southern Cross	Marvel Loch	320	4.7	48	3,350	3.2	349	2,310	2.9	217	5,980	3.2	614
	Nevoria	0	0.0	0	2,140	4.0	276	1,240	4.2	167	3,380	4.1	443
	Transvaal	0	0.0	0	1,630	4.8	249	1,800	4.9	286	3,430	4.9	535
	Jaccolletti	0	0.0	0	0	0.0	0	720	5.4	126	720	5.4	126
	Axehandle	0	0.0	0	0	0.0	0	2,080	2.0	131	2,080	2.0	131
	Cornishman	0	0.0	0	120	4.4	17	0	0.0	0	120	4.4	17
	Edwards Find, EFN & Tamarin	0	0.0	0	20	1.6	1	420	3.8	51	440	3.7	52
	Yilgarn Star	0	0.0	0	390	6.5	82	0	0.0	0	390	6.5	82
	Other (note 6)	1,290	0.8	32	1,650	2.7	141	340	4.6	50	3,280	2.1	223
	Total Southern Cross	1,610	1.5	80	9,300	3.7	1,115	8,910	3.6	1,028	19,820	3.5	2,223
Total All Regions		6,690	4.3	973	23,790	5.6	4,253	16,080	4.7	2,411	46,850	5.1	7,637

Notes to this table appear on the following page.

Table 3: Mineral Resource Summary 30 June 2011 (continued)

Notes

- 1) Identified Mineral Resources have been compiled under the direction of Mr Phillip Uttley (FAusIMM) who qualifies as the Competent Person.
- 2) Mr Uttley has sufficient experience relevant to the style of mineralisation and type of deposits under consideration and to the activities which were undertaken to qualify as Competent Persons as defined in the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Mr Uttley has consented to the inclusion in the report of the matters based on their information in the form and context in which they appear.
- 3) Mineral Resources updated during the financial year ended 30 June 2011 have been estimated using economic cut-off grades and mining optimisations based on an A\$1,500 per ounce gold price.
- 4) Cut-off grades: Gwalia Deeps 2.5 g/t Au; King of the Hills 3.0 g/t Au; Tower Hill 3.2 g/t Au; Marvel Loch 2.1 g/t Au; Nevoria 3.0 g/t Au.
- 5) Mineral Resources carried over unchanged from June 2010 include Southern Cross District: Axehandle; Jaccoletti; Edwards Find, Edwards Find North and Tamarin; Transvaal; Ruapehu; New Zealand Gully; Cornishman; GVG - South Burbidge; GVG Lode 1; Yilgarn Star. Leonora District: Gwalia Intermediates; Rainbow; Royal Arthur Bore; Tarmoola Stockpile; McGraths; Harbour Lights.
- 6) Southern Cross Other comprises 6 resources including: Frasers South, GVG Lode 1, New Zealand Gully, Ruapehu, GVG South Bronco, Various Stockpiles (Measured).
- 7) Leonora Other comprises 6 resources including: McGraths, Tarmoola Stockpile, Royal Arthur Bore, Rainbow (Measured), Gwalia and Tower Hill ROM Stockpiles.
- 8) Mineral Resource updates completed by St Barbara Ltd during the financial year ended 30 June 2011 include: Gwalia Deeps, King of The Hills, Tower Hill, Marvel Loch Underground, and Nevoria. All the remaining Mineral Resources remain unchanged from the June 2010 estimates.
- 9) Mineral Resources are inclusive of Ore Reserves.
- 10) Data is rounded to ten thousand tonnes and thousands of ounces. Differences in totals may occur due to rounding.

Gwalia Deeps Mineral Resources as at 30 June 2011

The Gwalia Deeps Measured, Indicated and Inferred total Mineral Resource estimate at a 2.5 g/t Au cut-off grade is 14,450,000 tonnes @ 8.5g/t Au containing 3,941,000 ounces of gold (Table 4).

A Mineral Resource estimate for the entire Gwalia deposit has been completed following a surface drilling programme targeting depth extensions of the South West Branch (SWB) and South Gwalia Series (SGS) Lodes from 1,600 mbs to approximately 2,000 mbs, with the updated resource now extending to 1,840 mbs. The model also incorporates underground grade control drilling completed prior to June 2011.

The drilling programme has successfully defined resource extensions to the Western, SWB and SGS lodes. The resource extensions to SGS are classified as Inferred and therefore will have no impact on Ore Reserves at this time. However, the drilling programme has proven the strike continuity of the SWB below 1,640 mbs and therefore increased the categorisation of this resource from Inferred to Indicated.

In total the drilling programme is estimated to have added 515,000 Indicated and Inferred ounces to the Gwalia Deeps Mineral Resource below 1,640 mbs through resource classification conversion and extensions. Of this, 410,000 additional ounces of Indicated Resources, mainly in the SWB, becomes available for conversion to Ore Reserves.

The principal change this year sees the introduction of the Measured Resource category for the first time, based on closely spaced grade control drilled areas, established geological and grade continuity, and on mining experience for both SWB and SGS Lodes.

The apparent lower grade of the Measured Resource of 6.1 g/t Au, as shown in Table 4, should not be interpreted as resulting in lower Ore Reserve grades, as this essentially represents the lower grade upper zone of the SWB Lode (in which grade improves with depth).

Combined with the Gwalia Intermediate and Western Lode resource of 1,270,000 tonnes @ 6.0 g/t Au containing 246,000 ounces of gold, the total Gwalia Mineral Resource is 15,720,000 tonnes @ 8.3 g/t Au containing 4,187,000 ounces of gold.

Relevant tables:

Table 4: Gwalia Deeps Mineral Resource Estimate 30 June 2011

Table 4: Gwalia Deeps Mineral Resource Estimate 30 June 2011

Region	Category	Measured			Indicated			Inferred			Total		
	Project	Tonnes	Gold Grade	Contained Gold	Tonnes	Gold Grade	Contained Gold	Tonnes	Gold Grade	Contained Gold	Tonnes	Gold Grade	Contained Gold
		kt	Au g/t	koz	kt	Au g/t	koz	kt	Au g/t	koz	kt	Au g/t	koz
Leonora	Gwalia Deeps												
	• Main Lode	0	0.0	0	854	7.0	193	827	10.8	286	1,682	8.8	479
	• SW Branch Lode	3,067	6.8	672	4,833	11.5	1,792	411	11.8	155	8,311	9.8	2,620
	• SGS Lode	1,316	4.1	187	501	4.0	64	1,025	7.8	259	2,843	5.5	510
	• West Lode	0	0.0	0	1,301	6.5	270	314	6.1	62	1,615	6.4	332
	Total Gwalia Deeps	4,383	6.1	859	7,489	9.6	2,319	2,578	9.2	762	14,450	8.5	3,941

Notes:

1. Cut-off grade = 2.5g/t Au.
2. Data is rounded to thousands of tonnes and thousands of ounces. Differences in totals may occur due to rounding.

Competent Persons Statement:

References to Mineral Resources presented in this document have been produced in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2004 (JORC Code) under the direction of 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 as defined in the JORC Code. Mr Uttley consents to the inclusion in this document of the matters based on the information in the form and context in which they appear.

Members of the Company's team, including external consultants, preparing Mineral Resource estimates under Mr Uttley's supervision all qualify as Competent Persons.

References to Ore Reserves presented in this document have been produced in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, December 2004 (JORC Code) under the direction of Mr Andrew Law. Mr Law is a Member of The Australasian Institute of Mining and Metallurgy and was a full time employee of St Barbara at 30 June 2011 and is a full time employee of Optiro at the date of this report. Mr Law 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 as defined in the JORC Code. Mr Law consents to the inclusion in this document of the matters based on the information in the form and context in which they appear.

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