



ST BARBARA LIMITED SHORT FORM ORE RESERVE REPORT

Simberi Gold Mine

TENEMENT: ML136

OWNER: St Barbara Ltd 100%

OPERATOR: St Barbara Ltd (ACN 009 165 066)
Level 10, 432 St Kilda Road,
MELBOURNE, VIC 3000

COMMODITIES: Gold

COMPILED BY: Richard Brownbill & Beng Ko

REPORT BY: Richard Brownbill, Beng Ko & John de Vries

REPORTING DATE: 30 June 2013

JORC CODE COMPLIANCE STATEMENT

The information in this report that relates to Ore Reserve is based on information compiled by John de Vries who is a Member of the Australasian Institute of Mining and Metallurgy. John de Vries is a full-time employee of St Barbara Limited 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" John de Vries consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Project Summary

SBM acquired the existing operating Simberi open pit project on September 7th 2012. The SGC project includes the mining of the Sorowar, Pigiput, Pigibo, Samat, Botlu, Pigicow and Bekou pits that are all located on Simberi Island in close proximity to the Simberi processing facility.

The Simberi Gold project is located on Simberi Island in the Tabar Islands Group and is comprised of an oxide plant and a sulphide development project. The oxide treatment plant was designed as a 2 Mtpa but is being expanded to 3.5Mtpa.

The Tabar Islands are situated in the New Ireland Province of Papua New Guinea (PNG), approximately 500km north-east of the PNG mainland and 90km NW of Lihir Island. The mine is located within the Mining Lease ML136 which covers the eastern half of Simberi Island.

The currently known gold prospects (Sorowar, Pigiput, Pigibo, Botlu, Pigicow, Samat and Bekou) on Simberi Island are located in the eastern half of the island within the central volcanic core. They are contained within a sub-cropping epithermal alteration system and structural corridor extending 4km north-south and 2km east-west. The host rocks for the mineralisation comprise Pliocene altered alkaline lava flows or intrusives (porphyries), volcanoclastics and tuffs. Gold mineralisation, however, does not appear to be closely associated with any particular lithology.

Of the seven separate deposits, Sorowar in the north is by far the largest oxide gold resource. Samat and Bekou lie to the south, and while relatively small, are relatively higher grade. Pigiput, Pigibo, Botlu and Pigicow lie between the Sorowar and Samat areas and have oxide gold resources of intermediate tonnage but at a grade similar to Sorowar. Pigiput has the largest sulphide gold resource. All deposits lie within 2 to 3km of each other. Sorowar, Pigiput and Samat are currently being mined via open pit methods.

The estimation was unconstrained by geological boundaries and structures, with data categorised according to oxidation type, (oxide, transitional and fresh). The resource classification was assigned based on the number and configuration of data used. Gold grade was estimated for each of the deposits using the ordinary kriging technique.

The mines shallow, low grade, low strip ratio deposits make the deposits suitable for Open Pit Mining.

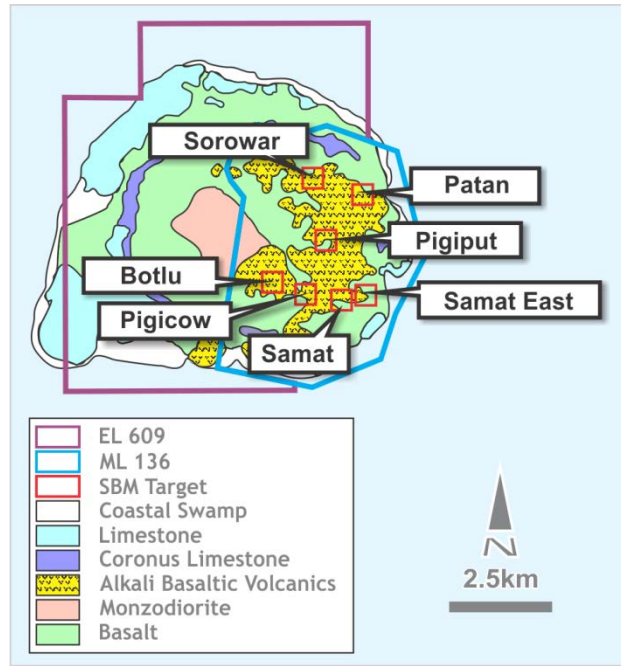


Figure 1: Simberi Island showing Pit Locations and tenement boundaries.

Classification	Cut-off (g/t)	Tonnes (kt)	Grade (g/t)	Ounces (koz)
Proved		8,086	0.9	238
Probable	0.4-0.9* g/t Au	17,561	0.9	518
Total		25,647	0.9	756

*Cut-off grade vary between resources.

Table 2: Simberi Oxide Ore Reserve Summary - June 2013

Classification	Cut-off (g/t)	Tonnes (kt)	Grade (g/t)	Ounces (koz)
Proved		1,116	1.1	38
Probable	0.9-1.1* g/t Au	23,677	1.9	1,411
Total		24,793	1.8	1,449

*Cut-off grade vary between resources.

Table 2: Simberi Sulphide Ore Reserve Summary - June 2013

Classification	Tonnes (kt)	Grade (g/t)	Ounces (koz)
Proved	9,203	0.9	276
Probable	41,237	1.5	1,929
Total	50,440	1.4	2,205

Table 3: Simberi Total Ore Reserve Summary - June 2013

References

Bateman, J, (2013), '2013 Annual Mineral Resource Report as at 30th June 2013', July 2013.

Brownbill, R., Ko B., and de Vries, J., 2013., St Barbara Limited Ore Reserve Report – Simberi June 2013, SBM Report. June, 2013

JORC 2012 Table 1 Checklist of Assessment and Reporting Criteria

Section 4 Estimation and Reporting of Ore Reserves

Criteria	Comments
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none">• The Ore Reserve estimate is based on the Mineral Resource estimate carried out by St Barbara. Gold grade was estimated using ordinary kriging.• The Mineral Resources are reported inclusive of the Ore Reserve.
Site visits	<ul style="list-style-type: none">• The Competent Person makes regular site visits as part of the normal company reporting processes. On these visits the asset performance and modifying factors are reviewed and reconciled to those used in the reserve estimate.
Study status	<ul style="list-style-type: none">• SGC is currently an operating mine. Pit Optimisation, Design and Life of Mine studies have been conducted to enable the Mineral Resource to be converted to Ore Reserves. As well as this, an internal Due Diligence Study, 2012, was carried out and a report generated prior to the acquisition of the project. Reserves are supported by operational budget planning and evaluations based on operational designs and current practices. The Sulphide component has been subject to a pre-feasibility study carried out by Battery Limits in 2009.
Cut-off parameters	<ul style="list-style-type: none">• Cut-Off grades have been determined on a pit by pit basis. The calculation of cut off grade take the following factors into consideration:<ul style="list-style-type: none">• Gold Price• Milling Cost• G&A Costs• Metallurgical Recoveries• Royalties
Mining factors or assumptions	<ul style="list-style-type: none">• The Simberi Reserve has been estimated after running pit optimisations using costs, recoveries, dilution and slope angles that are based on zero base build approach using current operating history as a data source. The pit shells generated from these pit optimisations were then used as a guide to staged pit designs. The material inside these pit designs represents what was available for reporting. The staged pit designs were then used to generate a life of mine plan.• The mining methods used to do the LOM schedules are in line with what is currently used on site.• The overall slopes used for the pit optimisation and design work were sourced from reports carried out by external geotechnical consultants. Grade control drilling is carried out in advance of mining and the information obtained from this drilling is made available for decision making in advance of mining.

Criteria	Comments
	<ul style="list-style-type: none"> • The models used for the ore reserve are consistent with that produced for the Mineral Resource declared for the Simberi deposits. These models are internally known as: <ul style="list-style-type: none"> • Sorowar - sor_bm_1206_ald_mii_final_reclass.mdl • Pigibo/Pigiput – pigpbo_bm_1301_ald_mii_final_reclass.mdl • Samat – sam_bm_1007_mii_final.mdl • Botlu - bot_bm_1206_gld_mii_final.mdl • Bekou – bek_bm_0611_gld_mii_final.dm • Pigicow -pco_bm_0611_gld_mii_final.dm • Mining Dilution of 5% has been applied at a grade of 0.5 g/t. • Mining Ore recovery was applied at 95%. • A minimum mining width of 30m was applied for all design work. • Inferred material is set to zero value in the optimisation. Subsequently, inferred material reported in the pit shells is considered in the Life of Mine, but not included in the Reserve. Additional optimisations were run, and shells produced, to evaluate the influence of inferred material prior to the Mine Design phase to ensure potential future mill feed is not sterilised when generating current Pit Designs. Inferred material can only present a potential upside to the ore reserve if and when it is reclassified as indicated. • The infrastructure requirements of the current mining methods used are already in place. Replacement costs, expected maintenance costs or costs of additional items required have been accounted for in the life of mine evaluation on which the project costings are based.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • Material from the various Simberi Deposits is trucked to the Simberi processing plant. The Simberi processing plant consists of a Wet Scrubber, Oversize Ball Mill, Cyclone Circuit, CIL Circuit, elution and acid washing facilities, electrowinning cells, and Kiln. Tails from the process are discharged using a Deep Sea Tailings Placement where the tailings is diluted with sea water, to the ratio of 8:1, prior to its disposal. An operation is currently in progress to expand the capacity of the Oxide Circuit. Feasibility studies are being conducted in the options for Sulphide processing. • The technology associated with processing of Simberi ore is currently in operation and is based on industry standard practices. • Recovery performance is variable for the different weathering profile of the material. The predicted recoveries are shown below: <ul style="list-style-type: none"> • Oxide Recovery – 89% • Transitional Recovery – 71.8% • Sulphide Recovery – 90%

Criteria	Comments
Environmental	<ul style="list-style-type: none"> • Simberi holds two environmental permits. One for the extraction of water and one for the discharge of waste. Together these two permits form the environmental legislative basis in which the Simberi Gold Mine can operate. Compliance with these conditions is continuously monitored and reported on in Quarterly Environment Performance Reports that are submitted to the National Government, Department of Environment and Conservation (DEC). At present, Simberi Gold Mine have applied for new permits for the 3.5Mt/a expansion project which will replace the existing permits. The new environment permits are expected to be issued in September 2013. These permits are only relevant to operational mining activities within the Mining Lease. • In addition Simberi Gold Mine maintains an Environment Permit for Exploration relating to Waste Discharge. This Permit is referred to as Environment Permit WDL-2A(65).
Infrastructure	<ul style="list-style-type: none"> • All equipment required for the mining and processing of the reserve is in place and operational. They are located on St Barbara held tenements and leases. The infrastructure includes but is not limited to: <ul style="list-style-type: none"> • Dedicated heavy fuel oil diesel generators • Water supply • Simberi Processing plant • Surface roads and communications • Plant maintenance workshop facilities • Process plant buildings, administration offices, training rooms, assay laboratory, site security buildings, ablution and stores. • Core shed • Accommodation and camp facilities • Airstrip • Wharf
Costs	<ul style="list-style-type: none"> • All costs used in the generation of the reserves have been derived from the Simberi 5 Year Forecast cost model. • Operating costs are estimated as part of the internal budgeting process and approved by the St Barbara board. • A gold price of AU\$1250/oz has been used in all calculations. • Exchange rates are sourced from recommendations by the Group Treasury and accepted by the Executive Leadership Team (ELT). • Costs associated with treatment and transport have been included in the cost modelling completed for the project based on the Life of Mine plan. • Royalties have been included at the PNG government royalty of 2.0%

Criteria	Comments
	of gold produced. A MRA levy is also applied to at 0.25% of gold produced.
Revenue factors	<ul style="list-style-type: none"> • A gold price of AU\$1250/oz has been used in all revenue calculations.
Market assessment	<ul style="list-style-type: none"> • Gold doré bars are transported weekly by dedicated service provider from Gold room to final destination Perth Mint. Armoured vehicles are used from start to end of shipment process. Gold is sold on an \$A basis with at call option of \$USD sales.
Economic	<ul style="list-style-type: none"> • The mine is an operating asset and is not subject to project type analysis.
Social	<ul style="list-style-type: none"> • There are two community agreements which set the guidelines for community relations at Simberi. <ul style="list-style-type: none"> • The Memorandum of Agreement between SGCL, the national government, New Ireland Provincial Government, Simberi Land Owners Association and the Tabar Community Government • The compensation Agreement.
Other	<ul style="list-style-type: none"> • The Simberi Gold mine is in full operation on St Barbara held mining leases with all required government and statutory permits and approval in place. • A company risk register is maintained to address and mitigate against all foreseeable risks that could impact the Ore Reserve.
Classification	<ul style="list-style-type: none"> • The ore reserve includes only proven and probable classifications. • The economically minable component of the resource material identified as measured has been included in the proven category. • The economically minable component of the resource material identified as indicated has been included in the probable category. • The competent person believes the ore reserve declared is an accurate representation for the Simberi deposit. • No portion of the probable ore reserve has been derived from Measured Mineral Resources.
Audits or reviews	<ul style="list-style-type: none"> • No external audits or reviews have been conducted on the current ore Reserve.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> • The Ore Reserve estimate is prepared within the guidelines of the 2012 JORC code. The relative confidence of the estimates contained fall with the criteria of Proven and Probable Reserves. Significant operating history supports the magnitude of modifying factors

Criteria	Comments
	<p data-bbox="571 237 671 273">applied.</p> <ul data-bbox="549 315 1417 488" style="list-style-type: none"><li data-bbox="549 315 1417 488">• The ore reserve has been estimated in line with the St Barbara Ore Reserve process. The ore reserve process has been conducted to industry standard. The ore reserve has been peer reviewed internally and the competent person is confident it is an accurate estimation of the current Simberi reserve.