



19 December 2011

Bullabulling Scoping Study Completed

Highlights

- 230,000 ounces of annual recovered gold production targeted
- 7.5 million tonnes per annum base case plant size
- Capital costs of A\$366 million
- Significant OPEX cost reduction potential
- IRR of 29% at A\$1,500/oz (IRR of 42% at A\$1,700/oz)
- Reduced CAPEX costs being studied with external consultants
- Ten year plus mine life targeted
- Full pre-feasibility study underway, reporting in Q3 2012

Commenting on the Scoping Study Results, Jeff Malaihollo, GGG's Managing Director said:

"With over 200,000 ounces of annual gold production targeted, the Joint Venture is proceeding with a full pre-feasibility study, which it expects to complete by the third quarter of 2012. This will be initially based on a 7.5 Mtpa processing operation and a new resource model due in Q1 2012 that will be upgraded to include the current infill drilling results. The pre-feasibility study will refine the costs estimation and allow the establishment of a maiden reserve for the project."

Overview

The Bullabulling Joint Venture is pleased to announce the completion of an initial Scoping Study prepared by the joint venture at the Bullabulling Gold Project that has delivered positive and encouraging results. The aim of the Scoping Study was to examine the potential economic and technical viability of a large tonnage – low grade open cut mining operation at Bullabulling. The study is an initial attempt to estimate the capital and operating costs based on the current inferred and indicated resources and the estimated costs have an accuracy of $\pm 30\%$.

The 6.0km long Bullabulling Trend (between Bacchus and Bonecrusher pits) has been the focus of the Study where resource drilling and assessment programmes to date have been concentrated. Based

on the current Indicated and Inferred Resources at Bullabulling the Scoping Study base case suggests that a large scale open pit mining and carbon-in-leach (CIL) operation producing 7.5 million tonnes per year of ore with a run of mine (ROM) grade of 1.04 g/t Au could generate approximately 2.1 million ounces of gold recovered at a cash cost of A\$968/ounce and deliver a before tax NPV of A\$389M and IRR of 29% using a gold price of A\$1,500.

The main results from the study suggest that:

- The project has sufficient resources to target an operation with a minimum 10 year mine life.
- The metallurgy has no issues and recoveries for the operation should range from 92.5% to 94.0%.
- Annual production should average around 230,000 ounces with a life of mine production of 2.15 million ounces.
- Initial estimates of operating costs of approximately A\$30 per tonne of ore treated, with potential for significant improvements in both mining and processing operating costs.
- Capital costs of approximately A\$366 million, again with potential for improvements.
- Using a 6% discount rate and gold price of A\$1,500/ounce the NPV is A\$389M with an IRR of 29% (NPV of A\$703M and IRR of 42% at A\$1,700/ounce).
- No identified environmental or social issues to developing the project.
- Current infrastructure including water bores, haul roads and pit voids are in good condition and can be used for the proposed operation, although for some it needs upgrading and expansion.

Scoping Study Details

Mineral Resources and mining inventory

The Bullabulling Mineral Resource as previously released to AIM and the ASX in August 2011 was used as the basis for the scoping study and included both Indicated and Inferred resources. The Bullabulling estimate was compiled by Snowden in 2011, the Gibraltar estimate was compiled by CSA Global in 2010 while the Laterite dump estimate was compiled by the Joint Venture from data taken from previous company reports dated 1998. The Gibraltar and Laterite dump resources have been excluded from the resource inventory for this study.

Bullabulling Mineral Resource (August 2011) at a 0.5 g/t cutoff (JORC, 2004)

Mineralisation Type	Cut off (g/t Au)	Class	Tonnes (Mt)	Gold grade g/t	Contained Ounces
Bullabulling Laterite	0.5	Inferred	1.6	0.89	45,700
Bullabulling Fresh	0.5	Indicated	21.0	1.01	691,000
	0.5	Inferred	50.9	1.03	1,683,900
*Bullabulling Trend Total			73.8	1.02	2,420,600
Gibraltar	0.5	Inferred	4.5	1.12	161,900
Laterite Dumps	0.5	Indicated	0.5	1.20	20,700
Grand Total			78.8	1.03	2,603,100

**Note: The Bullabulling Trend resource is quoted for blocks with a grade of greater than 0.5 g/t and the tonnage figures for the fresh mineralisation have been discounted by 7% to allow for the impact of barren pegmatite dykes.*

**Grade-tonnage table for the current resource of Bullabulling Trend
(excluding Gibraltar and Laterite Dumps)**

Cut Off	Tonnes	Au g/t	Ounces Gold
1.5	10,788,169	2.36	819,500
1	23,053,536	1.74	1,292,600
0.9	28,301,988	1.60	1,453,300
0.8	35,647,859	1.44	1,653,400
0.7	44,424,667	1.30	1,863,100
0.6	56,511,541	1.16	2,112,700
0.5	73,875,494	1.02	2,417,500
0.4	102,359,462	0.86	2,826,500
0.3	145,928,029	0.71	3,310,300

The current planned infill drilling programme has been designed to convert the predominantly Inferred resource at Bullabulling to Indicated resource category and this new resource estimate, targeted for Q1 2012, will be used in the pre-feasibility study.

Mining

This Scoping Study is based on the development of a large scale open pit mining operation using bulk mining methods and assuming mining cost inputs independently sourced from equivalent large scale Eastern Goldfields operations. The bulk mining approach also strongly influenced the parent block size utilised in the resource estimate. Significant historical open pit voids already exist and these provide early access to ore production, and some ability to blend fresh and oxide ore early in the mine schedule. Excavation, load and haul costs are based on dry hire rates. It is assumed that stockpiling of marginal low grade ore will be adopted and that backfilling of pit voids with waste rock will be conducted wherever possible. The study also assumes that RC drilling will be utilised for grade control.

Mining costs of \$3.41/tonne of material mined were developed by consultants using databases from large scale operations in the Eastern Goldfields. The Joint Venture believes this estimate is conservative and can be improved during the pre-feasibility study.

Whittle optimisations were conducted at various gold price and throughput scenarios. The optimisations produced waste to ore strip ratios of 3.7:1. A very high percentage of the current resources is included in all the pit shells, which results in all scenarios having long mine life. The large quantity of mineralisation captured in the pit shells and long mine life allows for the implementation of stockpiling and cut-off grade management strategies to increase project value.

Two waste dumps have been planned to be centrally located to minimise waste haulage costs, assuming that waste dumps can be constructed to 30m height. Once the pit void waste disposal program has been defined with greater confidence, final dump designs can be finalised.

Proprietary consultant software was utilised to develop a mining sequence and stockpiling and backfilling schedule. This assessment identified that mining should commence at the Phoenix and Bacchus areas, and confirmed that stockpiling marginal ore and backfilling pit voids will materially increase project value.

The open pit areas defined by the scoping study extend over a 7km strike and reach 160m to 180m final depth. Importantly the bulk of the material will come from two large pits, which will reduce the project strip ratio. The main pit that contains 70% of the material to be mined stretches four kilometres from Bacchus South to Hobbit and the second pit that contains 15% of the material to be mined covers a one kilometre strike of the Bullabulling trend at Bonecrusher to Dickson.

The scoping study did not include detailed pit designs and this work and a more detailed study using variable mining costs related to distance from the plant and ore stockpiles will be included in the pre-feasibility study.

Processing

Historical processing of predominantly oxide and transitional ore indicates that the ore is free milling with the gold readily recoverable using conventional cyanidation technologies. As the resource estimate for this study contains a high percentage of fresh mineralisation, the recently released (14 November 2011) metallurgical testwork programme specifically focused on fresh rock mineralisation with the results being used as the basis for the scoping study. The following conclusions were drawn from the scoping study recovery testwork and historical data:

- No significant deleterious elements identified.
- The base case grind size selected is a P_{80} of 75 microns.
- Gold recovery of 92.5% to 94.0%.
- No Gravity circuit.
- CIL residence time of 24 hours.
- Oxygen and lead nitrate addition to leach.
- 0.4 kg/t cyanide consumption.
- 4.0 kg/t lime consumption.
- Carbon loading 2,500 g Au/t.

The main findings of the comminution testwork indicated that:

- The samples are reasonably competent with ($A * b$) values between 32 – 47,

- Ball work indices are low to moderate at 10 – 15 kWh/t,
- Variability between samples was quite low,
- The Abrasion index was low to moderate,

Capital, Infrastructure and Operating Costs

The Bullabulling project has excellent road access with the Great Eastern Highway bisecting the project and the large population centres of Coolgardie (25km) and Kalgoorlie-Boulder (60km) in close proximity. The Western Power grid power line passes the site and the Perth to Kalgoorlie water pipeline is situated alongside the highway. There is an existing small site camp supporting the current resource drilling programme. Services to support the operation will be provided from Kalgoorlie and Perth. However, infrastructure will have to be installed to provide facilities for plant and infrastructure maintenance and provision of power and water supplies.

The cost estimation for the CIL process plant and associated services are based on a typical gold plant flowsheet. Two grinding circuit alternatives have been considered:

- 1) single stage crushing and a SABC comminution circuit; and
- 2) three stage crushing followed by ball milling.

The remainder of the circuit in each case comprises CIL, thickening, AARL desorption, gold room, reagents and air and water services. The plant infrastructure also includes site roads and buildings and tailings storage facility. Assumptions include

- water will be sourced from the known borefield located 2 km from the proposed plant site
- an EPCM contract approach will be adopted for CIL plant construction
- the construction workforce will be accommodated in Kalgoorlie and travel by bus to the site
- power will be sourced from the grid (a specific power supply study has yet to be conducted)
- a conceptual TSF design has been used for the purposes of preliminary capital cost estimation and site layout planning

Capital and operating cost estimates have an accuracy of $\pm 30\%$, with a number of conceptual sources of costs adopted from assumption derived from current similar operations and from advice from the consultancy groups involved in the study. The most important assumptions are that grid power will supply 100% of the power supply required and that the required water supply will be acquired or found locally. The study also does not include funding costs or tax.

Capital and operating cost estimates for process and administration were generated for 3.5, 5.0, 7.5 and 10.0Mtpa processing scenarios. For each of the four process rate scenarios, alternative comminution circuit arrangements, namely single stage crush SAG and ball mill (SABC circuit) and three stage crush and ball mill were assessed.

The process operating cost estimate of \$13.65/t ore treated has been compiled from a variety of sources including consultant price databases, modelling testwork undertaken, and employment levels and conditions from current operations.

Financial Outcomes

The financial model developed for the Study assumed a production rate of 7.5 Mtpa, and a base case gold price of A\$1,500/oz. The financial model indicates that the project will produce 2.1M ounces over a 9.2 year mine life, averaging gold production of 233,000 ounces per year with cash costs of gold production averaging A\$968 per ounce over the mine life. Project start-up capital costs total A\$366.5M. The pre-tax NPV of the project at 6% discount rate is A\$389M and the IRR 29%.

Financial Model Summary Bullabulling Gold Project, November 2011 Gold price A\$1500oz		
<i>Mining Physicals</i>		
Total material movement	Mbcm	148.4
Waste tonnes mined	Mt	260.1
Ore mined	Mt	69.4
Ore grade mined	g/t	1.04
Waste:ore strip ratio	t:t	3.7
Mine life	years	9.2
Maximum marginal ore in stockpile	kt	1,750
Waste backfilled to pit void	Mlcm	114.91
<i>Processing Physicals</i>		
Total CIL ore processed	Mt	69.4
Annual process rate	Mt	7.5
CIL grade	g/t	1.04
CIL Au recovery	%	92.5
Total recovered gold	koz	2,149
Ave. recovered gold per annum	koz	233.6
<i>Operating Costs</i>		
Average mining unit cost	\$/t material	3.41
Average CIL process & admin unit cost	\$/t ore	13.65
Total operating unit cost	\$/t ore	29.98
<i>Capital Costs</i>		
Preproduction & working capital	\$M	22.5
Start-up capital	\$M	366.5
Cash operating cost per ounce produced	A\$oz	968
NPV (6% discount rate)	\$M	389
IRR%	%	29

Feasibility Studies and Improving Project Economics

As a low grade high tonnage project, Bullabulling requires further investigation of opportunities where project performance can be improved. There is the potential to reduce power consumption, and thus operating costs, by installing HGPR comminution technology. The exploitation of potential additional resources at Gibraltar, CKGM and Jervois heaps needs to be included in the mine scheduling. Grind optimisation testwork may indicate that a coarser grind may be able to be utilised with a net economic benefit. Investigation of alternative CIL process plant design options will be carried out in the pre-feasibility study that may reduce capital or operating costs. It is possible that the project can move towards more project specific design and cost estimation in high cost areas such as mining costs, TSF design, and plant design. The project economics are highly sensitive to metallurgical recovery, therefore further PFS CIL testwork on representative samples consistent with the average grade of ore mined over the mine life should be prioritised to determine if higher recoveries than the 92.5% recovery assumed are possible, and to determine if a coarser grind size can be utilised.

The mining, excavate, load and haul cost input to this study was very simplistic with only one unit cost estimate utilised irrespective of mining depth, haulage distance and material being mined. Whilst this conceptual approach is broadly adequate for a scoping study, it is inadequate for detailed scheduling. There is strong scope for a large variation in mining costs once more detailed mining cost models are developed. Sourcing or developing a more detailed cost model and re-running the Whittle optimisations and Evaluator results should be a high priority in the pre-feasibility study.

Studies relating to power supply are a high priority and additional CIL variability testwork is required on samples with head grades of less than 1.0g/t Au. Additional sources of process water need to be acquired or found to meet the required base case requirement. The mining schedule has utilised the Whittle pit shells rather than pit designs and the conversion of pit shells to pit designs, which include pit haul ramps, typically results in some loss of mineralisation and some gain of additional waste. Additional follow-up mining studies looking at using strategic cut-off grade is also justified.

The scoping study has provided confidence in moving to the next stage of project assessment and the JV management board has agreed to commence a detailed pre-feasibility study that addresses the issues highlighted by the scoping study. Some of the pre-feasibility work has already commenced with both water and ore samples collected for the recommended metallurgical testwork. These results should be available in Q2 2012, with the pre-feasibility study due for completion during Q3 2012.

Competent Person Statement

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Jeff Malaihollo PhD who is a full-time employee of the Company and Member of The Australasian Institute of Mining and Metallurgy and the Geological Society of London. He is qualified as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Further information, please contact:

Dr. Jeffrey Malaihollo MD, GGG Resources plc (UK) Tel: + 44 1992 531820 www.gggresources.com	David McArthur GGG Resources plc (Australia) BBG Management Pty Ltd 41 Stirling Highway Nedlands, WA 6009, Australia Tel: + 61 8 9423 3200
Westhouse Securities Limited (UK Nominated Adviser) Tom Price / Martin Davison Tel: + 44 20 7601 6100	Collins Stewart Europe Limited (Broker) John Prior / Adam Miller Tel: + 44 20 7523 8350
Neil Boom MD, Gresham PR Ltd (UK). Tel: + 44 7866 805 108	David Brook Professional Public Relations (Australia media) T: + 61 8 9388 0944/ +61 433 112 936 E: david.brook @ppr.com.au



Bullabulling Gold Deposits with Whittle Pit Shell Outlines