



Gwalia Extension Project approved

The St Barbara Board has approved capital expenditure relating to the Gwalia Extension Project, as described in the December 2016 Quarterly Report and summarised below.

A detailed budget and execution plan confirm that the Project will generate a robust financial return, and extend mining at Gwalia to at least 2,000 metres below surface (mbs) in FY 2024¹, as well as provide the foundation for potential further extensions.

The Project has an overall budget of \$100 million and will take two and a half to three years to construct. The Project consists of two main components, a ventilation upgrade and 'paste aggregate fill'.

Ventilation Upgrade

The Project provides additional ventilation via raise-bore² intake and exhaust ventilation shafts and related power and cooling infrastructure needed to mine between 1,800 and 2,000 mbs. To manage the primary execution risk associated with long raise-bore shafts, the design uses shorter, two-stage raise-bore shafts, connected by horizontal development (refer illustration on page 3). The timeframe for completion of the raise-bore shafts will depend on the eventual sequencing of the four individual shafts.

Paste Aggregate Fill (PAF)

PAF involves mixing paste from surface with waste rock crushed underground for stope fill. Disposing waste underground allows truck and ventilation resources to focus on ore production, boosting efficiency and potentially increasing production. PAF also allows faster stope filling and therefore reduces stope cycle times.

- 1 Ore Reserves at 30 June 2016 extend down to 1,940 mbs, Annual Mineral Resources and Ore Reserves Report at 30 June 2016, available at www.stbarbara.com.au
- 2 A raise-bore shaft is excavated from the bottom of the shaft by a rotating cutting device hauled up through a small, conventionally drilled pilot hole. A raise-bore is in contrast to a 'blind-sink' shaft which is excavated from surface.

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Expediting PAF for use during ventilation shaft construction will allow underground disposal of raise-bore chippings (i.e. waste), significantly reducing the impact of the project on ongoing production and greatly enhancing overall project value. PAF should be completed within 12 months.

As previously advised, in January 2017 the Board approved \$6 million project readiness and early works expenditure during the March 2017 quarter, including detailed engineering, hiring project staff, engaging with vendors and commencing underground development. These early works are included in the overall project budget of \$100 million and are progressing on schedule.

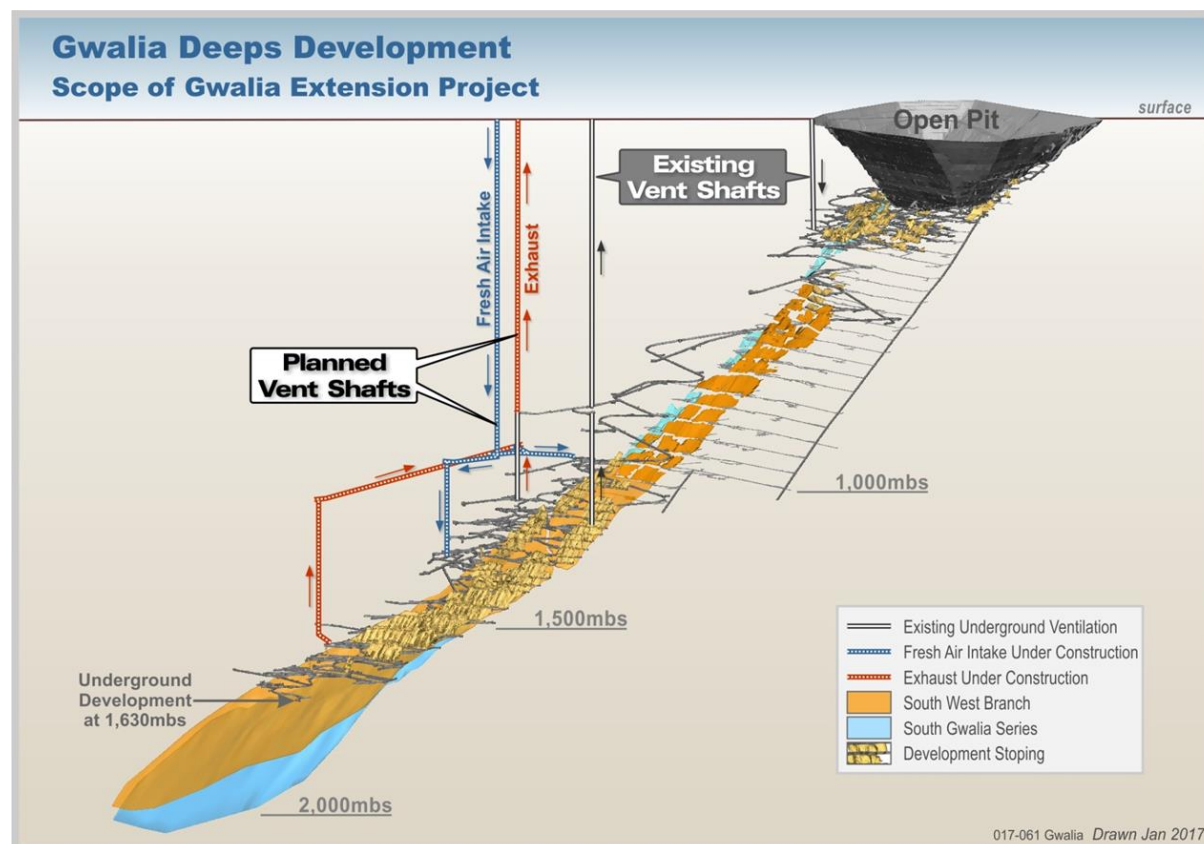
Gwalia Extension Project Summary	
Capex	A\$100 million
Construction period	• 2.5 to 3 years • PAF completed in first year
Works	
Ventilation upgrade	• Ventilation shafts, power & cooling • Supports mining to at least 2,000 mbs in FY 2024³ • Approx. 80% of project budget
Paste Aggregate Fill (PAF)	• Underground waste crushing, paste and aggregate fill mixing and pumping • Increase trucking efficiency • Improve stope cycle times • Reduce impact of vent shaft construction on production • Approx. 20% of project budget

Current mining is predominantly between 1,500 and 1,540 mbs. The mine plan extends to 1,940 mbs in FY 2024. Should the current drilling program identify sufficient resources below 2,000 mbs, the Feasibility Study defines additional infrastructure that could extend ventilation from 2,000 mbs to allow mining to 2,200 mbs at a cost of between A\$30 to A\$35 million.

Bob Vassie, St Barbara MD & CEO, said: ‘The approval of the Gwalia Extension Project begins an exciting new phase in St Barbara’s and the Gwalia mine’s history. Gwalia started in 1896 and it just keeps going. The Project will ensure Gwalia can continue delivering strong, high margin gold production until at least 2024, with the foundation laid for further extensions to the mine life beyond this, as well as potential for increased production.’

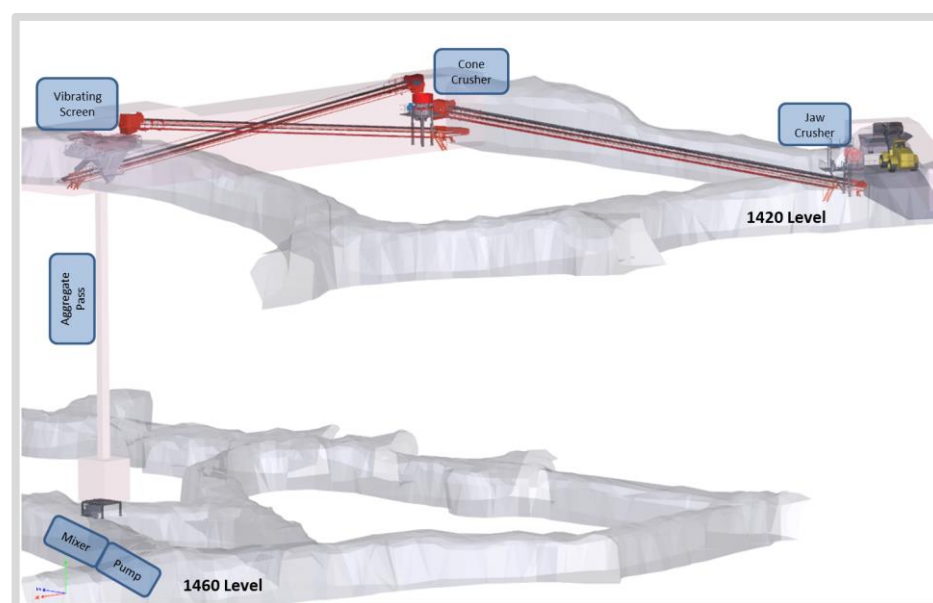
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Gwalia Extension Project – Ventilation Upgrade



Conceptual illustration only, studies underway will determine final design

Gwalia Extension Project – PAF Isometric Fixed Plant View



Paste aggregate fill

Mix paste with waste crushed underground for stope filling:

- > **Increases truck productivity**, only ore hauled to surface
- > Allows **faster stope filling**, reducing cycle times
- > **Crush raisebore chippings** underground - avoids production interruption during vent shaft construction

Conceptual illustration only, studies underway will determine final design