Barton Gold

ASX Announcement

5 May 2025

Optimised Scoping Study Accelerates Tunkillia PFS Programs

Material efficiencies and record gold prices drive sub-one year payback

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EXECUTIVE SUMMARY

- Tunkillia's July 2024 Initial Scoping Study (**ISS**) outlined a ~8 year project (incl. construction) processing 30.7Mt materials, ~833koz Au and ~1,993koz Ag payable metal, 40% equity IRR and 1.9 year payback[1]
- Optimised Scoping Study (**OSS**) identifies material efficiencies, extending Tunkillia to ~10 year project life (incl. construction) and accelerating higher-value mill feed over an ~8 year life-of-mine (**LoM**), with:
  - **~A$35 million up-front capex savings (to A$399m) compared with July 2024 ISS (A$434m)[1]**
  - **~34 - 35% lower comminution power cost for oxide and fresh materials (respectively);**
  - **~18 - 24% lower process operating cost in fresh and oxide materials (respectively);**
  - **~942koz Au and ~2Moz Ag payable metal (a ~13% increase in payable gold); and**
  - **~120koz Au and ~250koz Ag avg annual production during ~8 year processing period.**
- **Within an open pit optimised to A$3,500/oz Au (~70% of current Au price), based on revenues of A$4,000 – 5,000/oz Au (below current Au price), Tunkillia LoM financial estimates include:**
  - **avg All-in Sustaining Cost (AISC): ~A$2,172 – 2,222/oz Au** (net of by-product Ag credits);
  - **avg operating cashflow of: ~A$1,879 – 2,829/oz Au** (net of by-product Ag credits);
  - **total LoM revenues of: ~A$3.9 – 4.8 billion**
  - **total operating free cash: ~A$1.8 – 2.7 billion** (unlevered, pre-tax)
  - **Net Present Value ($NPV_{7.5\%}$): ~A$781 million – 1.4 billion** (unlevered, pre-tax)
  - **Internal Rate of Return (IRR): ~48.3 – 73.2%** (unlevered, pre-tax); and
  - **Payback period: ~0.8 – 1.1 years** (unlevered, pre-tax)
- **Higher-grade Stage 1 'Starter Pit' produces ~206koz Au and ~491koz Ag during first 13 months at an operating cash cost of only ~A$997/oz Au (net of Ag credits), generating ~A$825 million operating free cash, or ~A$4,003/oz Au, at the current market gold price of A$5,000/oz Au**

Barton Gold Holdings Limited (ASX:BGD, OTCQB:BGDFF, FRA:BGD3) (**Barton** or **Company**) is pleased to announce the Optimised Scoping Study (**OSS**) results for its South Australian Tunkillia Gold Project (**Tunkillia**).

Commenting on the Optimised Scoping Study results, Barton Managing Director Alex Scanlon said:

"The OSS has delivered material gains as anticipated, following review of the Tunkillia ISS's conservative assumptions. The energy savings from three stage crushing and lower work indices, combined with higher oxide recoveries and gold prices, demonstrate the financial and capital leverage available to large-scale processing of bulk open pit materials. The higher-grade 'Starter Pit' alone could pay back over 2x the up-front capital costs – within the first 13 months.

"With an estimated NPV-to-capex ratio of between ~2:1 and ~3:1, Barton is accelerating key Tunkillia PFS long-lead programs such as environmental studies and Resource upgrade drilling. We are well positioned to do so with a $12m track record of continuing asset monetisation initiatives, a low net cash burn rate, and $7m cash on hand."

[1] Refer to ASX announcement dated 16 July 2024

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CAUTIONARY STATEMENTS

Optimised Scoping Study

The OSS referred to in this announcement has been undertaken by Barton as a preliminary assessment of Barton's Tunkillia project for prospective development on a large-scale, 5 million tonne per annum (**Mtpa**) processing model for fresh materials, with oxide materials processed at a rate of 5.5Mtpa.

The OSS is a preliminary technical and economic study of Tunkillia's potential viability. It is based on low level technical and economic assessments insufficient to support the estimation of Ore Reserves. Further exploration and evaluation work and appropriate studies are required before Barton will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.

Basis of Study (Key Geological and Cost Estimation Factors)

This announcement has been prepared in compliance with the JORC Code 2012 Edition (**JORC**) and the ASX Listing Rules. All material assumptions on which the forecast financial information is based have been provided in this announcement and are also outlined in the annexed JORC table disclosures.

The capital cost estimate for the process plant and associated infrastructure has been prepared by GR Engineering Services Limited with a nominal accuracy of ±35%, with mining costs estimated by Mining Associates Pty Ltd at a scoping study level of accuracy from first principles on a bench-by-bench basis.

Production is based on Tunkillia's JORC Mineral Resources Estimate (**MRE**). The JORC MRE has been prepared by a competent person in accordance with JORC, with ~56% of all Tunkillia JORC Mineral Resources classified as 'Indicated' and ~44% classified as 'Inferred'. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

That portion of the JORC MRE which underpins the OSS production target comprises ~64% of JORC Mineral Resources classified as 'Indicated' and ~36% classified as 'Inferred'. Approximately 75% of the JORC Mineral Resources scheduled during the first five (5) years of the production target are classified as Indicated. Given a projected payback period of 0.8 – 1.1 years (from start of production), Barton considers that Tunkillia's financial viability does not depend upon inclusion of Inferred Resources, and therefore that a reasonable basis exists for disclosing a production target including Inferred Resources.

Funding Requirements

The OSS is based on the material assumptions outlined in this announcement. These include assumptions about the availability of funding. Barton's leadership has a strong track record of raising funding as required on attractive terms, and a significant combined professional track record in the development of resources projects. However, while Barton considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the OSS will be achieved.

To achieve the range of outcomes indicated in the OSS, funding in the order of ~A$460 million will likely be required (inclusive of all capital, owner's, and other costs associated with an Engineering, Procurement and Construction (**EPC**) contract, and all factored contingencies). This funding may take the form of debt and/or equity. Investors should note that there is no certainty that Barton will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Barton's existing shares. It is also possible that Barton could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of Tunkillia. If it does, this could materially reduce Barton's proportionate ownership of the project.

Reasonable Basis

Barton considers that it has a reasonable basis for providing the forward-looking statements in this announcement, and to expect that it will be able to complete the development of Tunkillia as outlined in the OSS. However, given the uncertainties involved, investors should not make any investment decisions based solely on the results of the OSS.

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Background & Study Approach

Barton acquired Tunkillia in December 2019 with the view that the project had significant growth potential due to limited historical exploration during periods of lower gold prices. During the ~4.5 year period from October 2020 to March 2025, Barton completed multiple rounds of reverse circulation (**RC**) and diamond (**DD**) drilling, identified several extensions and new gold zones, and delivered five JORC MRE updates.[2]

The July 2024 ISS detailed an initial ~6.4 year LoM and ~8 year project life (incl. construction), processing 30.7Mt materials grading an avg 0.93 g/t gold (**Au**) and 2.52 g/t silver (**Ag**) to produce ~833koz Au and ~1,993koz Ag at an AISC of ~A$1,917/oz Au, with an equity IRR of 40% and a 1.9 year payback (both unlevered, pre-tax).[3]

Following a subsequent JORC MRE upgrade to ~1.6Moz Au (62.9Mt @ 0.80 g/t Au) and the completion of further third party technical studies and metallurgical analyses, Barton commissioned GR Engineering Services Limited (**GRES**) and Mining Associates Pty Ltd (**Mining Associates**) to lead the OSS for Tunkillia.[4]

The OSS is an updated preliminary technical and economic assessment of Tunkillia's prospective viability for potential development on a large-scale, bulk open pit basis, targeting capital and operating efficiencies and a revised 5.0 – 5.5Mtpa processing plant throughput (fresh / oxide) based on key drivers identified in the ISS. The OSS has evaluated Tunkillia on a 'standalone' basis, with the process plant and associated process infrastructure delivered via an EPC contract and mining performed by a third-party contractor.

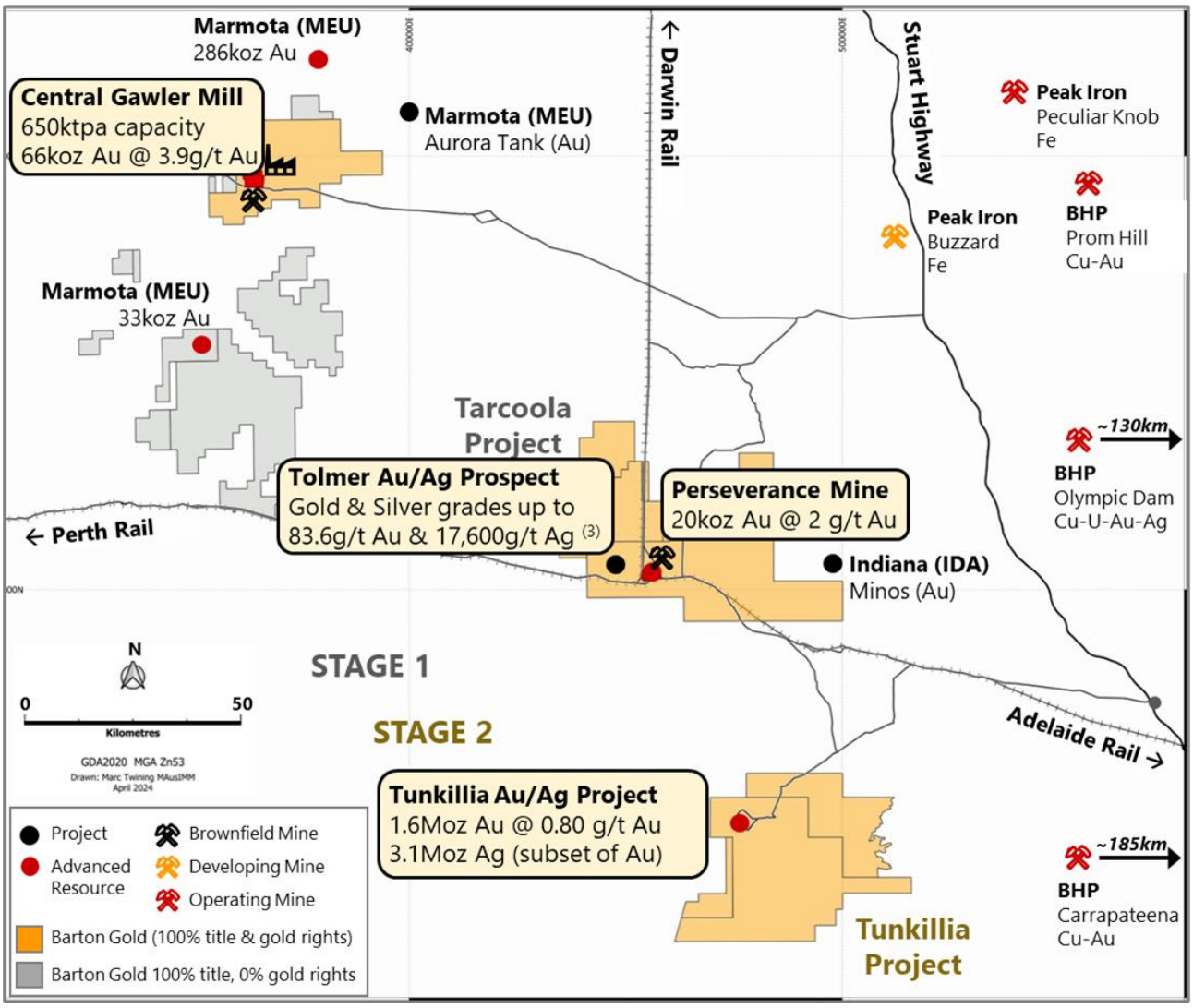

Figure 1 – Tunkillia project location relative to regional projects and road and rail infrastructure

[2] Refer to Prospectus and ASX announcements dated 9 Sep and 3 / 8 / 15 Nov 2021, 6 Jun and 5 / 7 Sep 2022, 23 Jan, 15 Feb, 19 / 26 April, 30 Oct, 15 / 21 Nov, and 4 / 11 Dec 2023, and 14 Feb and 4 Mar 2024 and 4 Mar 2025
[3] Refer to ASX announcement dated 16 July 2024
[4] Refer to ASX announcements dated 24 Feb and 4 Mar 2025

Key Analyses Undertaken for OSS

Since the completion of the July 2024 ISS, Barton has undertaken the following key additional testwork and technical reviews (among others) to inform the updated OSS physical, operating and financial assumptions:

JORC Mineral Resources

- Drilling – during November and December 2024 Barton completed an additional 5,064 metres of reverse circulation (**RC**) drilling targeting further definition of mineralisation and depth extensions below the July 2024 ISS's optimised 'Main' pit, which confirmed extensions 50 – 100m below the ISS optimised pit floor.[5]

Comminution & Metallurgy

- Bond Ball Mill Work Indices – Barton commissioned new comminution testwork on 3 diamond drill holes for validation of historical analyses by Orway Mineral Consultants (**OMC**), a subsidiary of Lycopodium.
- Oxide materials grind size – based on testwork, GRES estimated the effective oxide grind size at 120µm, versus an estimated efficient grind size of 75µm for fresh material throughput in the processing plant.

Power Supply Mix

- Renewable energy microgrid – Barton engaged Ammjohn Solutions (**Ammjohn**) to model and price a renewable microgrid power solution for Tunkillia including consideration of wind, solar, battery storage and liquid fuels (eg. gas and diesel) options, similar to that developed for Gold Fields' Agnew Gold Mine.[6]

Process Operating Costs

- Comminution circuit design – Barton engaged each of GRES and MACA Interquip Mintrex (**MIQM**) to independently model multiple circuit designs and grind sizes efficiencies, based upon analytical testwork.
- Oxide processing rate – after selecting a comminution circuit, GRES modelled effective oxide throughput rates at 5.5Mtpa (vs. 5Mtpa for fresh materials) based upon equipment sizing and a coarser 120µm grind.

Mine Operating Costs

- Mining Associates re-estimated mining costs following detailed review of new pricing and feedback from Barton, Mining Associates, and other third party experts and service providers (eg. for drill and blast).

Mine Plan

- Pit re-optimisation – the Tunkillia OSS pits were re-optimised to take into account higher oxide recoveries, lower processing operating costs, and an assumed gold price of A$3,500/oz (among other factors).
- Mine stages – a new 'Stage 2' pit was inserted between the Stage 1 'Starter Pit' and the optimised 'Main' pit (see *'Staged Mine Design'* below), improving material scheduling and prioritising higher value materials.

Capital Costs

- Updated equipment pricing – GRES updated pricing for the majority of capital equipment to current as at Q1 2025, based upon its current costs database and contract pricing from within the last six months.
- Up-front capital reductions – Knight Piésold provided an updated plan for a TSF starter cell for 12 months' initial storage capacity (vs. 24 months in the ISS), plus leasing of certain mining and village infrastructure.

Water Consumption / Environmental

- Post-leach thickener - added to the processing circuit, sacrificing further capital cost savings, but reducing the amount of processing water required by approximately 35%, a material environmental benefit.

Independent Third Party Reviews

- At various stages of the above analyses (and others), Barton has engaged third party experts including GRES, OMC, MIQM, and Ammjohn, and several others, to review the work of other third party experts.

[5] Refer to ASX announcements dated 16 July, 19 November and 12 December 2024, and 10 February 2025
[6] Refer to Australian Government ARENA Project Final Report: https://arena.gov.au/knowledge-bank/gold-fields-agnew-gold-mine-final-report/

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Key Assumptions & Outcomes (OSS vs. ISS)

Development Model & Key Assumptions

The OSS has considered Tunkillia's development as a bulk open pit mining operation sourcing materials from three large-scale pits (Area 223, Area 223 North and Area 51), using a third-party mining contractor model and processing via a newly built adjacent 5.0 – 5.5Mtpa (fresh / oxide materials) carbon-in-leach (**CIL**) processing plant. Project delivery (development and commissioning) has assumed EPC contract basis for the delivery of the processing plant and associate process infrastructure. See *'Capital Costs'* for further detail.

The key physical, operating and financial assumptions for the OSS (vs. the ISS) are set out in Table 1 below. Key observations relating to adjustments in material assumptions between the ISS and OSS include:[7]

- a ~22% and ~34% reduction in Bond Ball Mill Work Indices for fresh and oxide materials, respectively;
- an ~18% and ~24% reduction in processing costs for fresh and oxide materials, respectively;
- a 10% increase in achievable throughput rates for oxide materials based on the process plant design;
- a ~2.7% increase in metallurgical recoveries for gold in oxide materials (from 92% to 94.65%);
- a larger pit re-optimised at a gold price of A$3,500/oz Au (roughly 70% of the current ~A$5,000/oz Au), with a ~28% increase in total materials processed based upon a larger A$3,500/oz optimised pit; and
- OSS 'Base Case' and 'Market Case' revenue assumptions of A$4,000/oz and A$5,000/oz Au (~80 – 100% of current price) vs. ISS A$3,500/oz assumption (~93% of the then-current July 2024 price of A$3,750/oz).

Metric	Units	ISS (July 2024)[6]	OSS (Base Case)	OSS (Market Case)
Project				
Project Life	Years	7.7	10	10
Development Period	Weeks	104	104	104
Processing Duration	Years	6.4	7.8	7.8
Mining Optimisation				
Assumed LoM Gold Price	A$/oz	$3,000	$3,500	$3,500
Assumed LoM Silver Price	A$/oz	$37.50	$40.00	$40.00
Mining Duration	Years	6.4	8.0	8.0
Waste & Low-Grade Mined	Mt	191.5	268.7	268.7
Mineral Resources Mined	Mt	30.7	39.2	39.2
Project Strip Ratio	waste:ore	6.23	6.85	6.85
Initial Pre-Strip	Mt	29.0	21.9	21.9
Operating Strip Ratio	waste:ore	5.29	6.32	6.32
Processing Physicals				
Plant Throughput Capacity (Oxide)	Mtpa	5.0	5.5	5.5
Plant Throughput Capacity (Fresh)	Mtpa	5.0	5.0	5.0
Total Material Processed	Mt	30.7	39.2	39.2
Bond Ball Mill Work Index (Oxide)	kWh/t	25.5	16.9	16.9
Bond Ball Mill Work Index (Fresh)	kWh/t	26.7	20.7	20.7
Gold Recoveries (Oxide Materials)	%	92.00%	94.65%	94.65%
Gold Recoveries (Fresh Materials)	%	90.00%	90.00%	90.00%
Silver Recoveries (All Materials)	%	80.00%	80.00%	80.00%
Average LoM Gold Grade	g/t Au	0.93	0.82	0.82
Average LoM Silver Grade	g/t Ag	2.52	2.00	2.00
Processing Costs				
Oxide Materials	A$/t	$23.57	$17.82	$17.82
Fresh Materials	A$/t	$25.57	$20.98	$20.98
Royalties (Public & Private)	%	6.0%	6.0%	6.0%
Selling Costs	A$/oz Au	$37.32	$7.50	$7.50
General & Administrative	A$/t	$2.56	$2.84	$2.84
Financial Assumptions				
Discount Rate	%	7.5%	7.5%	7.5%
Gold Price	A$/oz	$3,500	$4,000	$5,000
Silver Price	A$/oz	$45.00	$45.00	$50.00

Table 1 - Key physical, operating and financial assumptions (July 2024 ISS vs. May 2025 OSS)

[7] Refer to ASX announcement dated 16 July 2024

Key Financial Results

The key estimated LoM production and financial results of the OSS (vs. ISS) are detailed in Table 2 below. To compare the OSS processing efficiencies gained, Table 2 also sets out 'Adjusted ISS' financial results assuming the same ISS A$3,000/oz ISS pit optimisation and A$3,500/oz gold price, but applying OSS processing costs (before any other efficiencies). These alone deliver a ~10% AISC reduction and a ~22% Project NPV increase.[8]

Tunkillia is now estimated to produce ~942,000oz recovered gold and ~2,019,000oz recovered silver during a 7.8 year processing period, for average annual production of ~120koz Au gold and ~250koz silver. Estimated OSS LoM revenues are ~A$3.9 – 4.8 billion, with total operating pre-tax cash margins of ~A$1.8 – 2.7 billion, based upon OSS 'Base Case' and 'Market Case' gold prices of A$4,000/oz and A$5,000/oz (respectively).

Net of by-product silver, Tunkillia's average estimated operating cash cost ranges from ~A$2,121 – 2,171/oz Au, with average estimated operating cash margins of ~A$1,879 – 2,829/oz Au, and average All-in Sustaining Costs (**AISC**) of ~A$2,172 – 2,222/oz Au (see *'Additional Financial Analysis'* for further information). AISC increases from the July 2024 ISS due to the addition of lower grade materials and more waste in the expanded pit design.

The OSS estimates an updated ~A$341m initial capital cost (incl. ~A$77.8m EPC), before owner costs, pre-strip and contingencies. An additional allowance of ~A$58m is made for capitalised pre-strip, with further allowances totalling ~A$8m for owner's costs and ~A$46m for owner's and design contingencies. Please refer to the *'Operating Costs'*, *'Capital Costs'* and *'Additional Financial Analysis'* sections below for further detail.

Metric	Units	ISS[7]	ISS Adjusted	OSS (Base)	OSS (Market)
Mining Production					
Contained Gold	oz Au	919,868	919,868	1,035,158	1,035,158
Contained Silver	oz Ag	2,491,148	2,491,148	2,523,738	2,523,738
Metal Production					
Payable Gold	oz Au	832,852	832,852	942,247	942,247
Payable Silver	oz Ag	1,992,919	1,992,919	2,019,151	2,019,151
Avg Gold Production (Processing Period)	oz Au	130,133	130,133	120,800	120,800
Avg Silver Production (Processing Period)	oz Ag	311,394	311,394	258,865	258,865
Operating Financials (excl. initial pre-strip)					
LoM Revenues	A$m	3,005	3,005	3,860	4,812
LoM Cash Operating Costs	A$m	1,710	1,562	2,089	2,146
LoM Operating Cashflow (EBITDA)	A$m	1,295	1,443	1,771	2,666
LoM Operating Margins (excl. initial pre-strip, net of Ag)					
Silver By-Product Credit	A$/oz Au	108	108	96	107
Cash Operating Cost	A$/oz Au	1,874	1,696	2,121	2,171
All-in Sustaining Cost (AISC)	A$/oz Au	1,917	1,737	2,172	2,222
Operating Cashflow	A$/oz Au	1,626	1,804	1,879	2,829
LoM Capital Costs					
Processing & Infrastructure	A$m	374	374	341	341
Capitalised pre-strip	A$m	60	60	58	58
Owner's Costs	A$m	9	9	8	8
Owner's Contingency	A$m	18	18	16	16
Design Growth Contingency	A$m	32	32	30	30
Sustaining Capital	A$m	34	34	48	48
Mine Closure & Rehabilitation	A$m	20	20	20	20
Total	**A$m**	**546**	**546**	**520**	**520**
Project Returns (Unlevered, Pre-Tax)					
Project Free Cash Flow (undiscounted)	A$m	806	956	1,245	2,140
Project NPV(7.5)	A$m	512	625	781	1,416
Project IRR	%	40%	46.4%	48.3%	73.2%
Payback Period (from start of gold production)	Years	1.9	1.7	1.1	0.8

Table 2 - LoM production and financial results summary (ISS vs. 'Adjusted ISS' vs. OSS 'Base' & 'Market'

[8] Refer to ASX announcement dated 16 July 2024

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Site Access & Layout

Tunkillia is located ~550km northwest of Adelaide, South Australia, and is accessible by existing access tracks on North Well Station connecting Tunkillia to the Tarcoola Road near Kingoonya, and from there to the Stuart Highway (which connects Adelaide in the south to Darwin, NT in the north).

65.5km of existing access tracks will be upgraded to an unpaved access road leading to a 300-person accommodation village. Three open pit areas (Area 223, Area 223 North and Area 51), each with a 500m blast exclusion zone, are located ~5km southwest of the village (see Figure 2 below).

Raw water will be sourced from a borefield ~20km north of the project site. A tailings storage facility (**TSF**) designed to accommodate a total 39.5Mt of tailings (with expansion possible) will be established east of Area 51 open pit with an initial 12 months (5Mt) capacity. A waste rock facility (**WRF**) will be established east of the Area 223 open pit, between the open pit and a 5Mtpa (fresh throughput) carbon-in-leach (**CIL**) process plant.

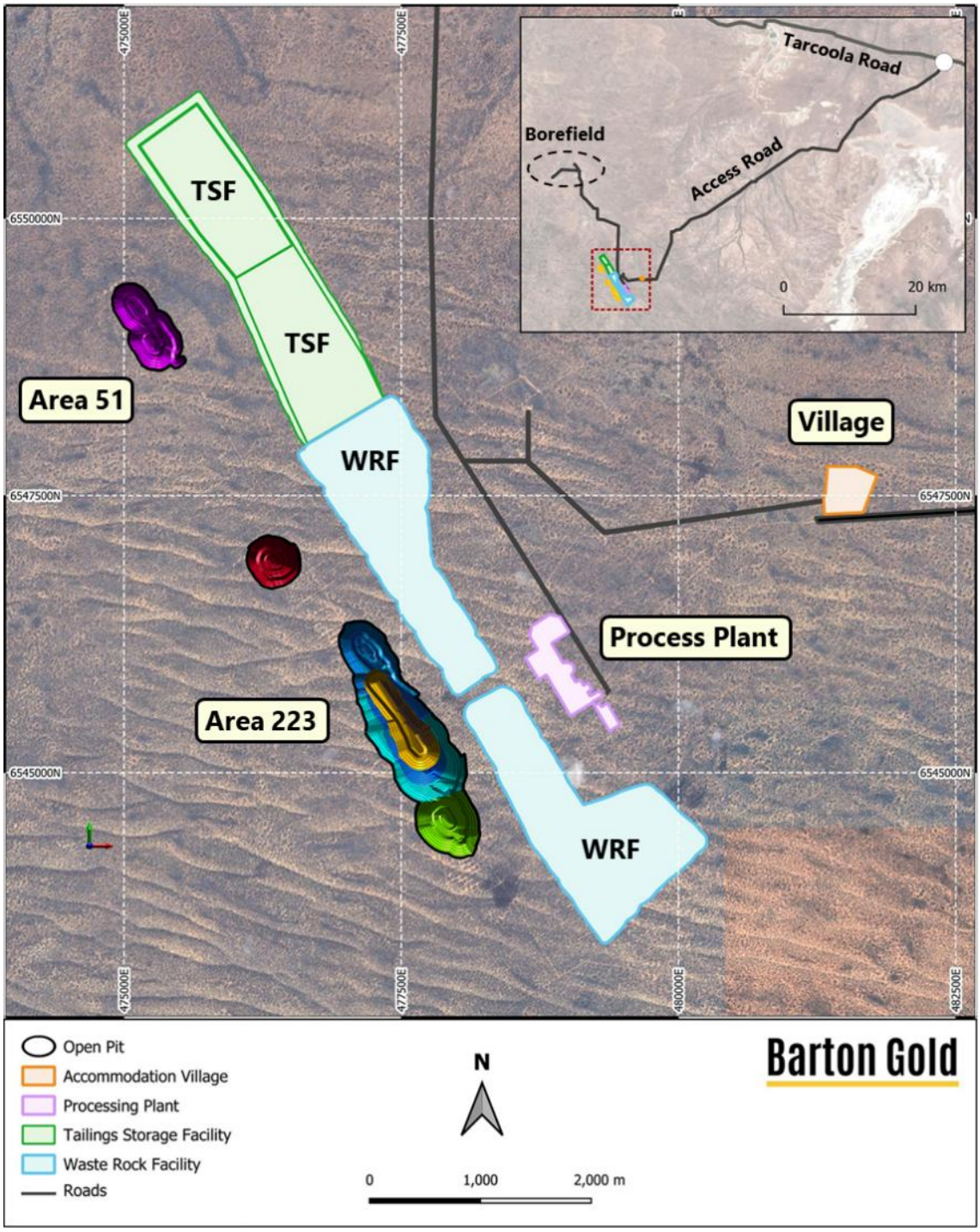

Figure 2 - Overall Tunkillia project site plan including key infrastructure

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Processing & Recovery Circuit

Comminution is via three stage crushing circuit (**3C**) to 80% passing 9mm, followed by single stage grinding in a ball mill (**BM**) to 80% passing 75µm for fresh material and 80% passing 120µm for oxide material. The plant design is rated to process fresh materials at a throughput rate of 5Mtpa, and 5.5Mtpa for oxide materials. Materials are discharged to a cyclone cluster, with cyclone underflow split ~35% to a gravity circuit feeding concentrates to an intensive leach reactor (**ILR**) and ~65% of the cyclone underflow returned to the ball mill for further milling. Cyclone overflow reports to a leaching circuit with two leach tanks and six adsorption tanks. Total retention (leaching) time is 24 hours, followed by an elution circuit with an ~18 hour cycle time. ILR and elution circuit outputs are passed through electrowinning cells and then smelted to produce doré. Silver is a material by-product of gold production. Tunkillia doré is expected to comprise approximately 2 parts silver to 1 part gold (~68% Ag / ~32% Au) in doré. See Figure 3 below for a simplified 3C/BM flow diagram.

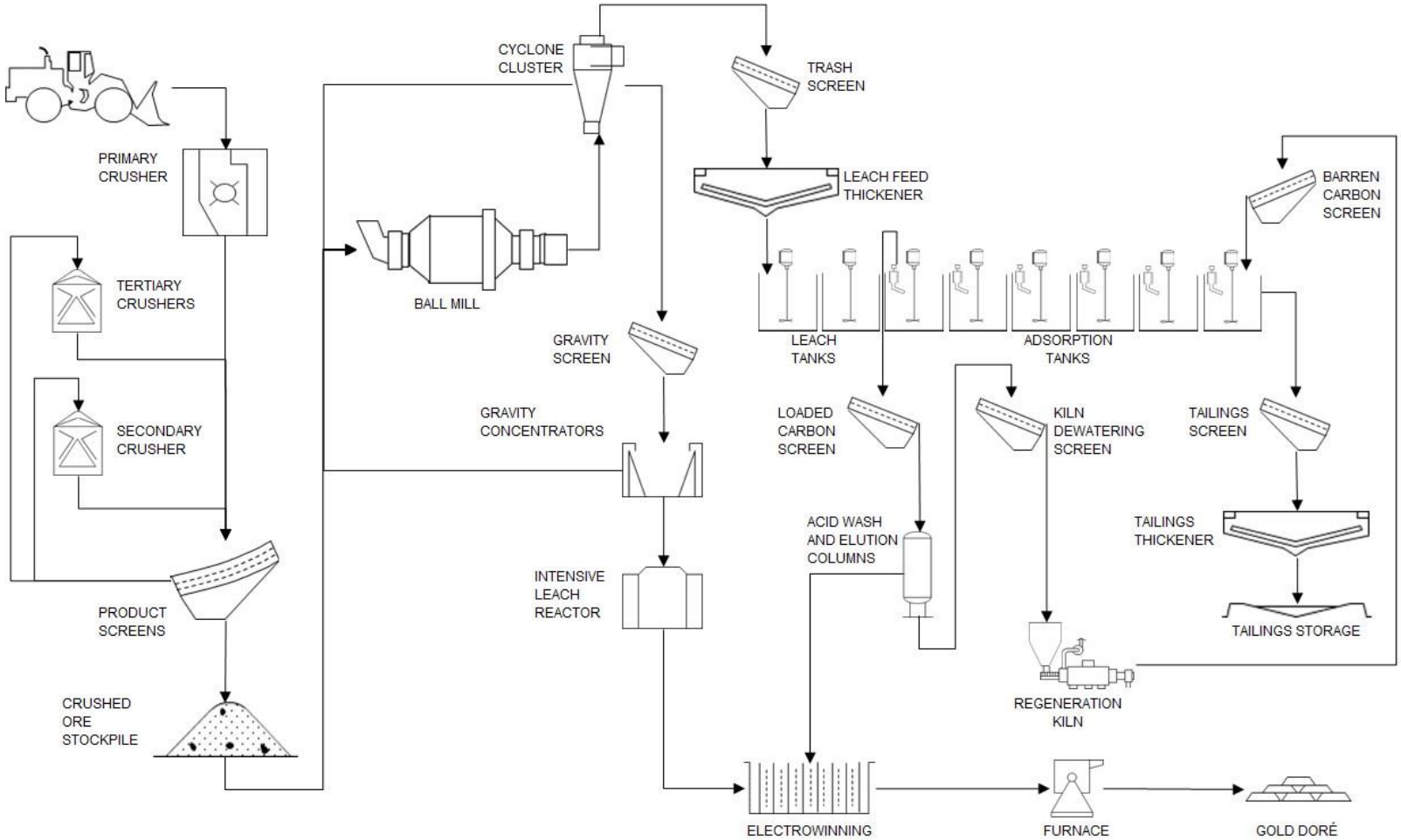

Figure 3 - Simplified 3C/BM processing circuit flow diagram

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Staged Mine Design

Mining Associates completed a pit optimisation and mine schedule for Tunkillia utilising processing cost estimates prepared by GRES, and mining costs estimated by Mining Associates from first principles. Further details of these costs are set out in the sections below entitled *'Capital Costs'* and *'Operating Costs'*.

A gold price of US$2,333/oz, a silver price of US$27/oz, and an AUD / USD exchange rate of 0.6667 were used in the open pit optimisations, equivalent to AUD prices of A$3,500/oz for gold and A$40/oz for silver.

A mine design was then completed using the optimal shells as a basis. Three pits ('Main', 'Area 223 North', 'South 1' and 'Area 51') contain a total ~39.2Mt materials for processing, with ~268.7Mt waste and low-grade materials, of which ~21.9Mt are capitalised pre-strip. The larger Area 223 'Main' pit is developed in three stages, targeting higher value material early in the mine life including a high value Stage 1 'Starter Pit' (refer to Figure 4)).

The project strip ratio (Waste : Resource) is 6.85 (including capitalised pre-strip) and the operating strip ratio is 6.32 (excluding capitalised pre-strip), with a maximum vertical mining depth of 310m in the 'Main' pit. There is potential for further optimisation of the mine design with infill drilling and the use of a strategic scheduling software to smooth the overall mine production profile and bring forward higher value tonnes.

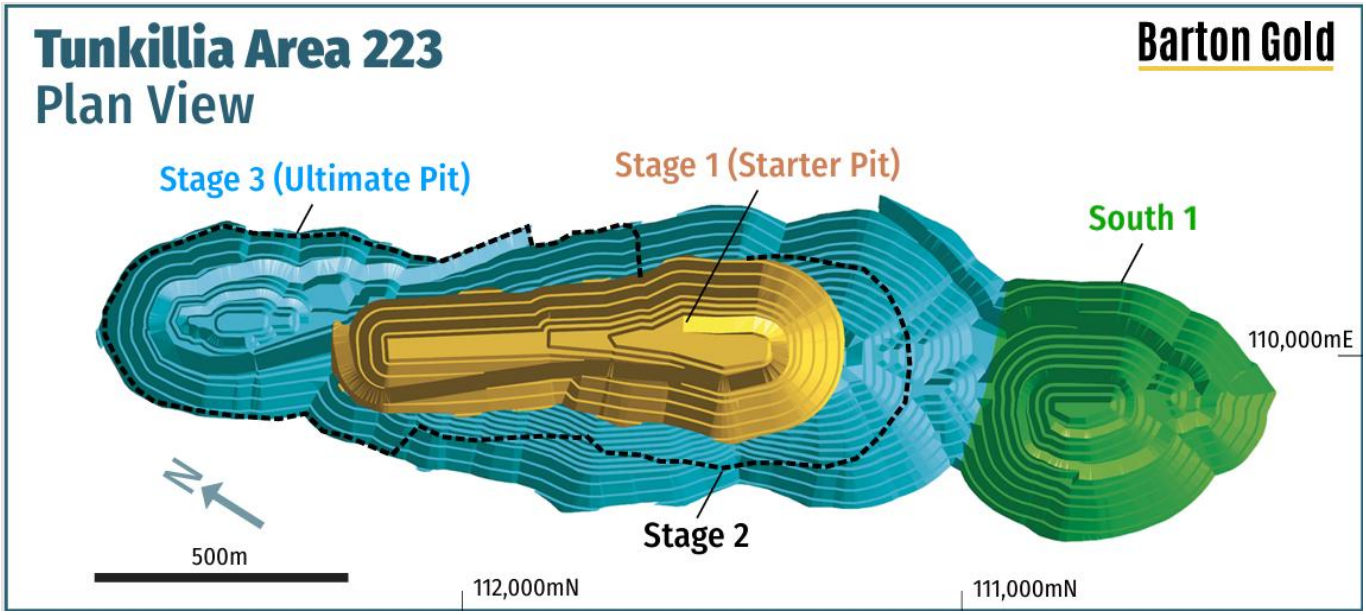

Figure 4 - Plan view showing Area 223 Main pit area and stages

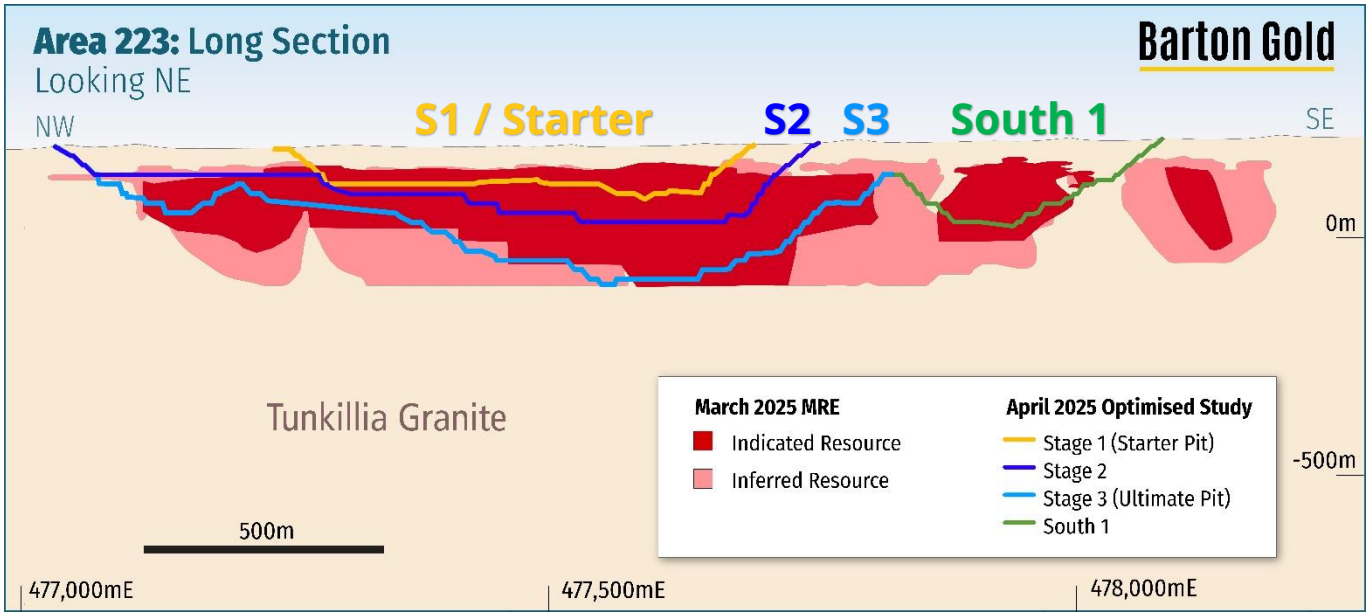

Figure 5 - Long section showing Area 223 'Main' pit are and stages, and Tunkillia JORC MRE block model

The Area 233 North pit (also referred to as '223N' or 'North 1') is located ~1km northwest of the 'Main' pit and has a maximum depth of ~170m. Figure 6 below shows a combined plan view and long sectional of this pit.

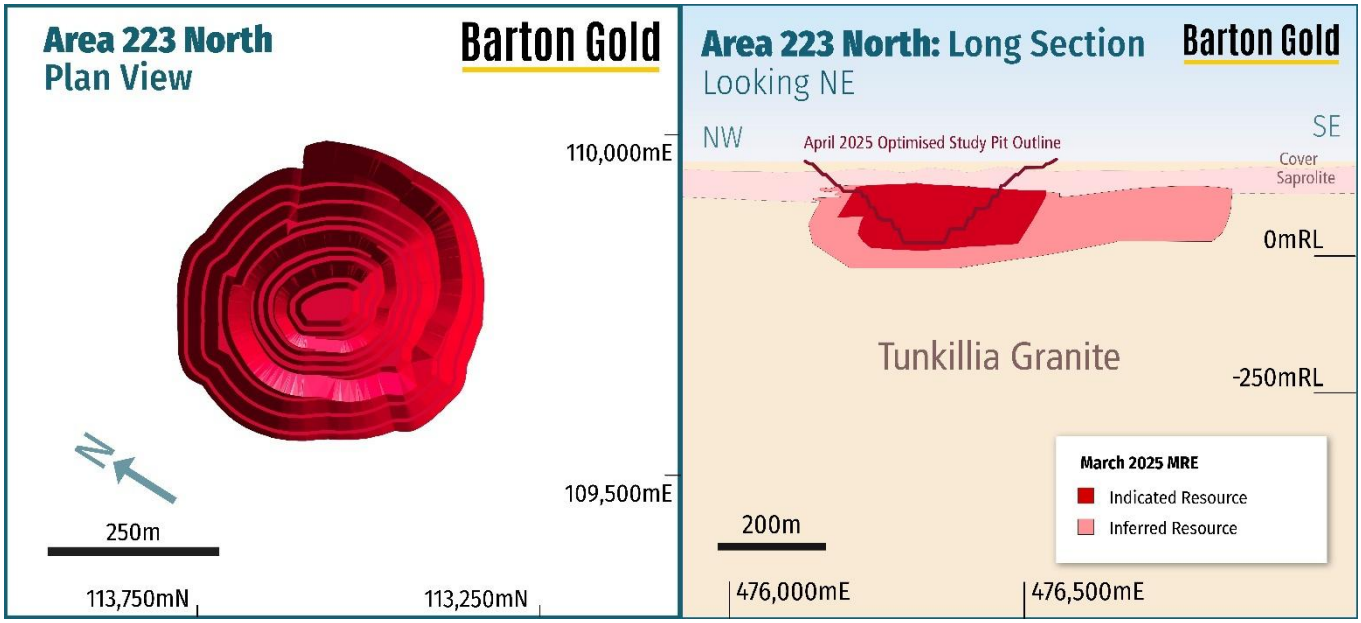

Figure 6 – Plan view and long section of Area 223 North pit and Tunkillia JORC MRE block model

The Area 51 pit is located ~3km northwest of the Main pit and has a maximum depth of ~170m. Most of the Area 51 material is mined later in the mine life. Figure 7 below shows a combined plan view and long sectional of this pit.

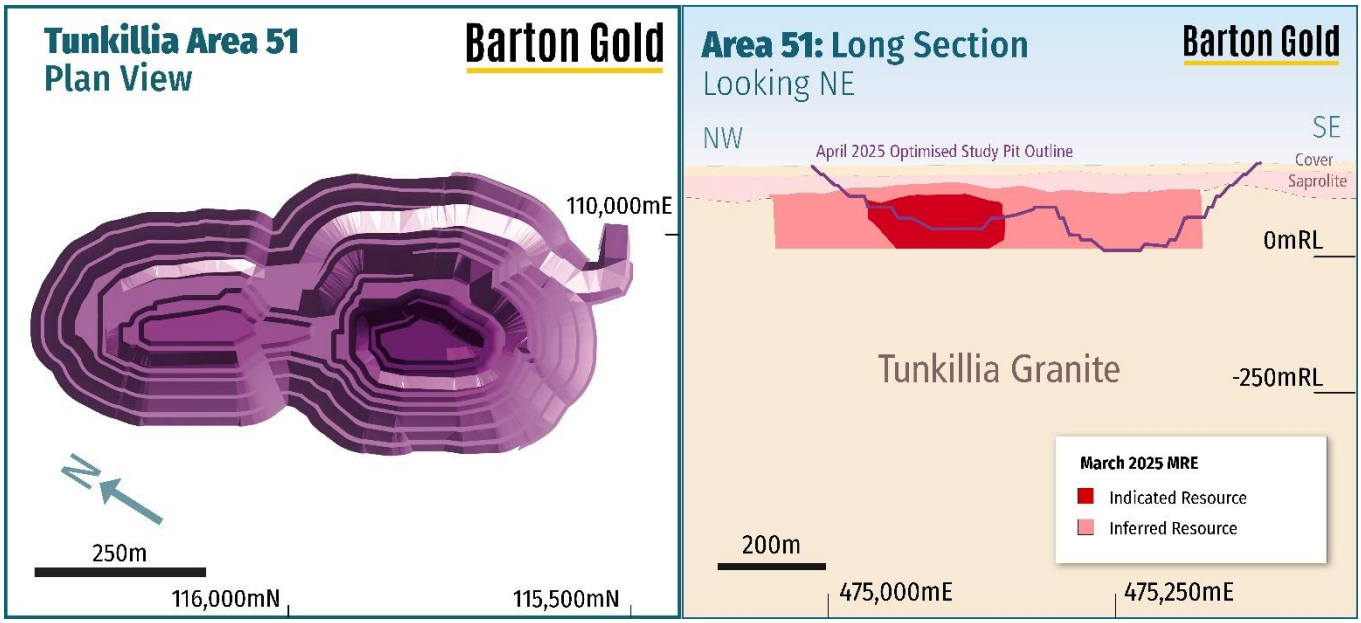

Figure 7 – Plan view and long section of Area 51 pit and Tunkillia JORC MRE block model

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Target Mined Materials & Production by Year

An equipment-based schedule was developed by Mining Associates with planned mill feed constrained to 5.0Mtpa for fresh materials and 5.5Mtpa for oxide materials. Mining operations are estimated for ~8.0 years, including six months of pre-strip, with higher value pits mined early in the mine life. Figure 8 below shows the estimated mill feed by project year (left axis) along with estimated annual gold and silver production (right axis).

Barton notes that silver is not estimated within the 'Area 51' portion of the March 2025 Tunkillia JORC MRE. It is possible that the estimation of silver in the 'Area 51' JORC MRE may increase total LoM silver production.

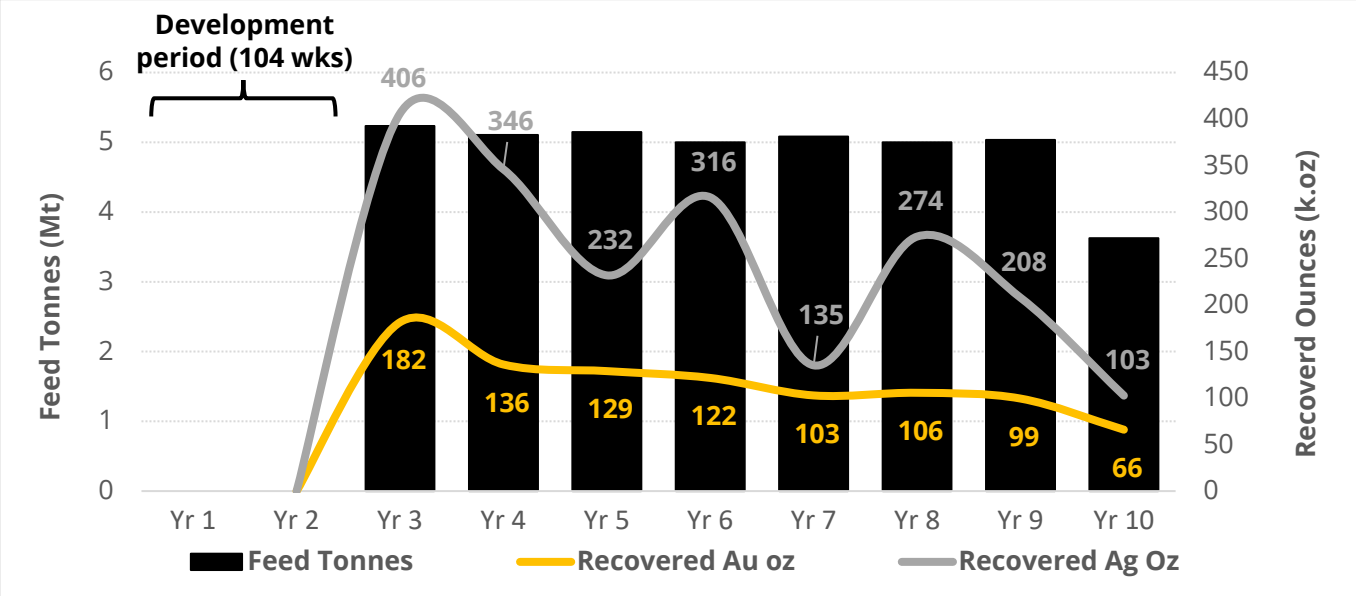

Figure 8 – Mill feed (L axis) and recovered gold and silver production (R axis) (by project year)

~78% of the materials mined during the first 6 months, and ~53% over the first 18 months, are oxide materials. This material is typically preferentially processed due to the following benefits estimated by the OSS:

- higher average gold grade of 0.85g/t Au (vs. an average gold grade of 0.81 g/t Au in fresh materials);
- higher process plant throughput rate of 5.5Mtpa (vs. a throughput rate of 5Mtpa for fresh materials);
- higher metallurgical gold recoveries of 94.65% (vs. 90% for fresh materials);
- lower Bond Ball Mill Work Index of 16.9 kWh/t (vs. 20.7 kWh/t for fresh materials);
- less grinding required for efficient recoveries, to a size of 120um (vs. 75um for fresh materials); and
- materially lower process operating costs due to energy savings and higher effective throughput rates.

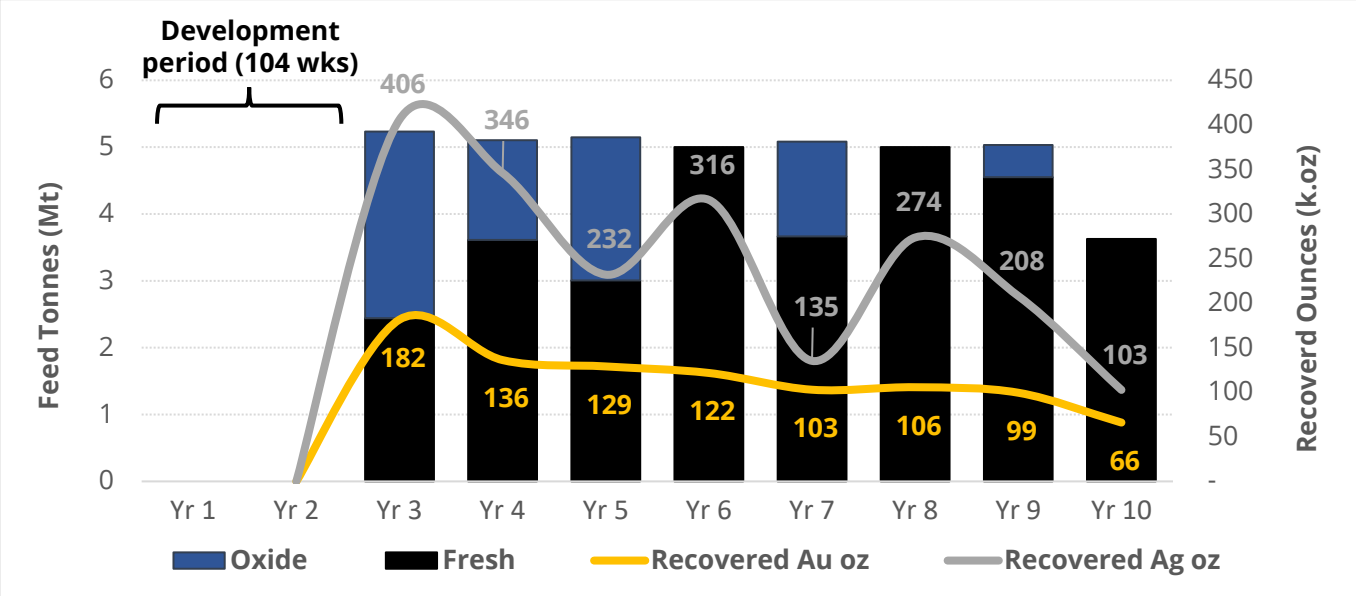

Figure 9 – Mill feed by type (L axis) and recovered gold and silver production (R axis) (by project year)

That portion of the JORC MRE which underpins the OSS production target comprises ~64% of JORC Mineral Resources classified as 'Indicated' and ~36% classified as 'Inferred' during the life of the project.

As ~75% of the materials mined to be processed during the first five (5) years of production are classified as Indicated (refer to Figure 10 below), and the project has an estimated 0.8 – 1.1 year payback period (from start of production), Barton considers the inclusion of such Inferred materials to be reasonable.

Approximately 1.2Mt of the total rock tonnes captured within the mine design (<1% of all processed and waste materials) are above the marginal cut-off grade but are not JORC classified. This material is treated as waste and is immaterial to the results.

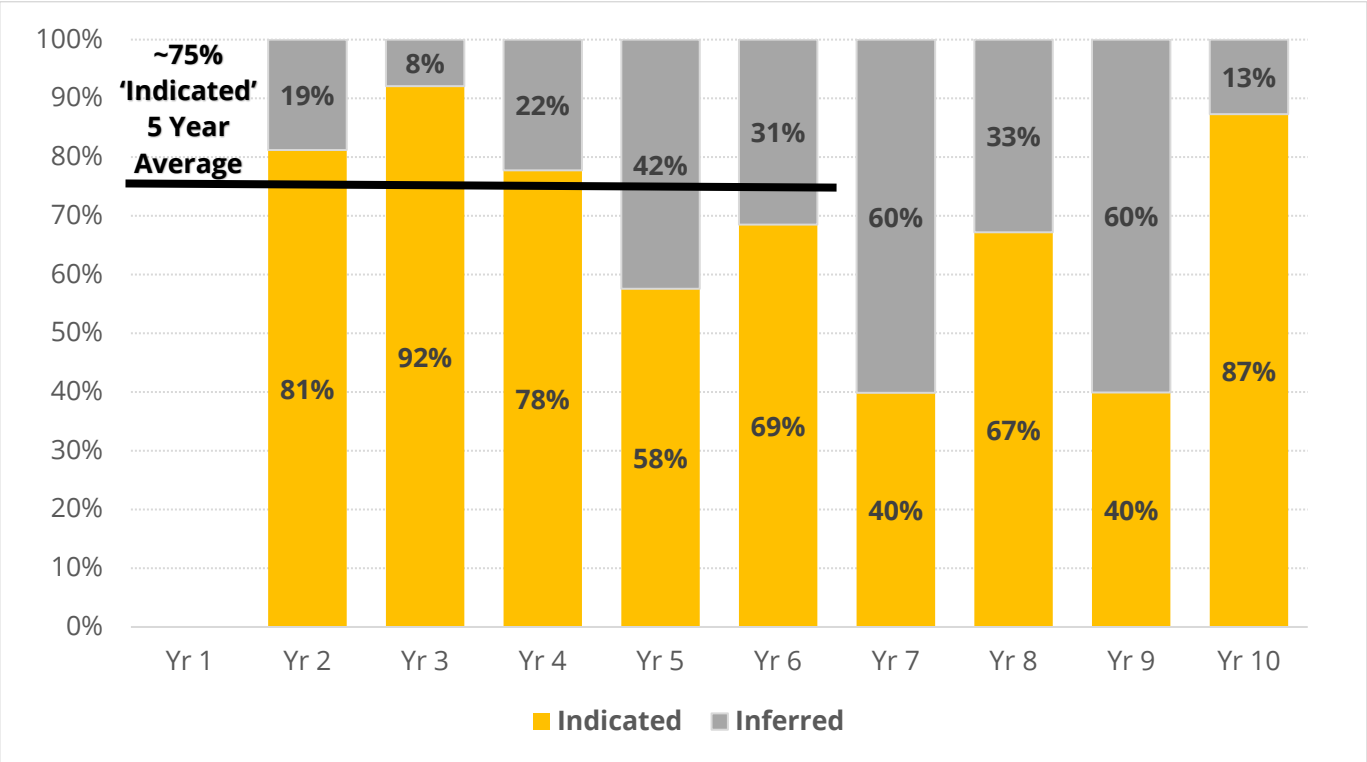

Figure 10 – Mined materials by JORC MRE category (% of total mined materials) (by project year)

Classification	Units	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total Mt	Total %
Measured	Mt	--	--	--	--	--	--	--	--	--	--	--	--
Indicated	Mt	--	0.1	5.3	4.9	3.1	2.5	3.1	2.8	1.8	1.2	**25.0**	**63.6%**
Inferred	Mt	--	--	0.5	1.4	2.3	1.2	4.7	1.4	2.7	0.2	**14.3**	**36.4%**
Total	**Mt**	**0.0**	**0.2**	**5.8**	**6.4**	**5.3**	**3.7**	**7.8**	**4.2**	**4.5**	**1.4**	**39.2**	**100%**

Table 3 – Mined materials by JORC MRE category (total tonnes) (by project year)

* Note – table values subject to rounding.

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Operating Costs

LoM operating costs (excluding capitalised pre-strip mining costs) are estimated based upon:

- a detailed estimate of LoM mining operating costs prepared by Mining Associates from first principles, averaging A$3.18/t of material mined or A$23.60/t of material processed;
- a detailed estimate of process operating costs prepared by GRES of A$17.82/t for oxide mill feed materials and A$20.98/t for fresh mill feed materials; and
- an estimate of owner's general and administrative costs of A$16.8 million per annum.

LoM mill feed is comprised of ~21% oxide materials and ~79% fresh materials, the estimated processing costs of which are presented by input component in Figures 11 and 12 below (respectively).

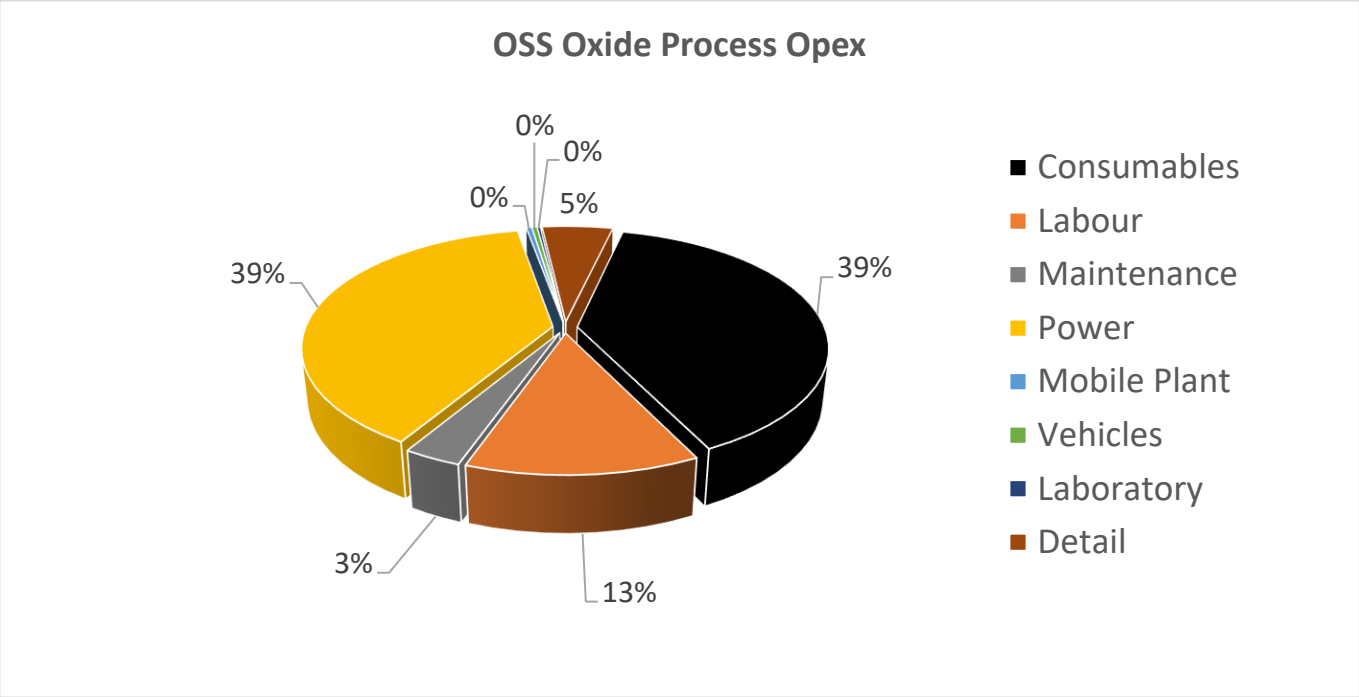

Figure 11 - Process operating cost breakdown by input component (oxide materials)

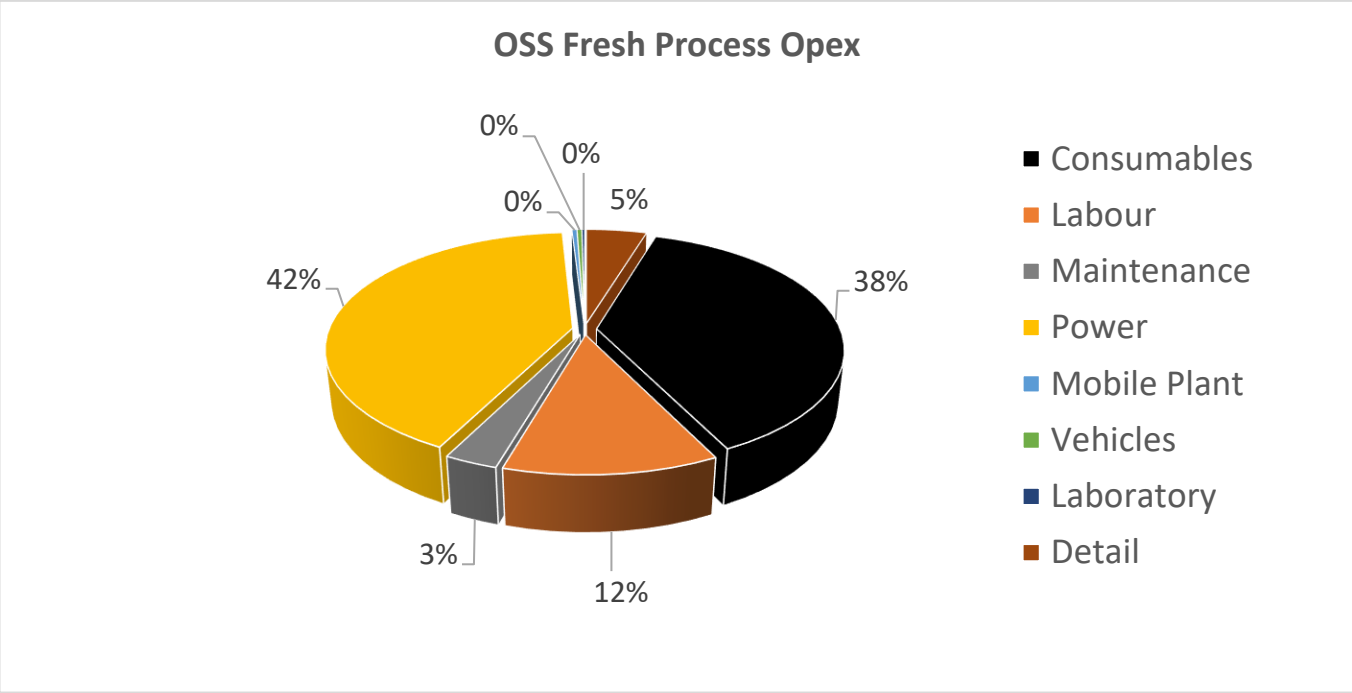

Figure 12 - Process operating cost breakdown by input component (fresh materials)

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Comparison with ISS Operating Cost Estimates

Further to the summary of *'Key Analyses Undertaken for OSS'* detailed above, the following changes to the ISS process plant design have significantly reduced the estimated OSS process operating costs:[9]

- reduced material properties indices including Bond Ball Mill Work Index (**BBWI**) and Crusher Work Index (**CWI**), generating values more representative of the materials to be processed;
- the inclusion of a post-leach thickener, which has the additional material environmental benefit of significantly reducing the amount of water required for processing (by approximately 35%);
- reduced power demand from changes to the comminution flowsheet, from (in the ISS)) a single stage crush to 150mm feeding a semi-autogenous grinding mill (**SAG**) mill feeding a ball mill (**BM**)(together, an **SABC** circuit), to a three stage crush (**3C**) to 9mm feeding a ball mill (BM)(together, a **3CBM** circuit);
- reduced power cost from A$0.30/kWh to A$0.25/kWh via the inclusion of a renewables microgrid; and
- accelerated revenues from increased throughput rates of 5.5Mtpta (from 5Mtpa) for oxide materials.

These amendments have reduced ISS process operating costs for oxide materials by ~24% (from A$23.57/t to A$17.82/t) and fresh materials by ~18% (from A$25.57/t to A$20.98/t).[9] See Figures 13 and 14 below for details.

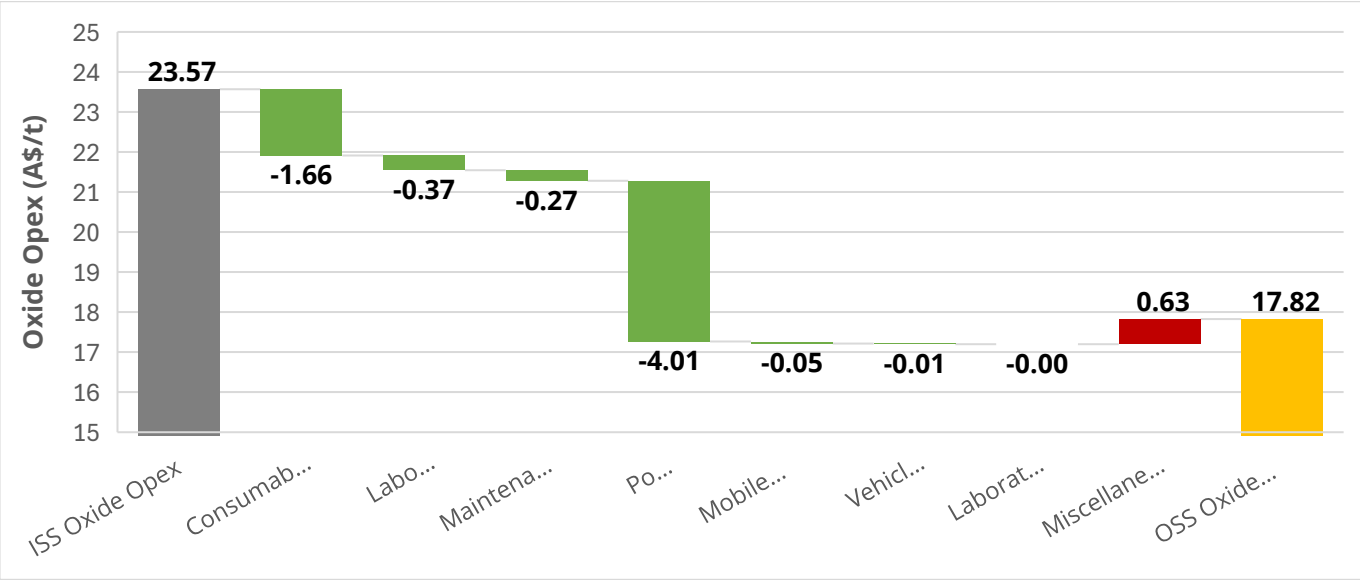

Figure 13 – Tunkillia 2025 OSS process operating cost compared to 2024 ISS (oxide materials)[9]

Figure 14 – Tunkillia 2025 OSS process operating cost compared to 2024 ISS (fresh materials)[9]

[9] Refer to ASX announcement dated 16 July 2024

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Capital Costs

GRES prepared the Tunkillia capital cost estimate with a nominal accuracy of +/- 35% by reference to designs for similar facilities, budget pricing for similar equipment, and rates from recently completed studies and projects. GRES maintains an up-to-date database of such costs which were used for estimation.

A summary of estimated capital cost for the process plant, all associated process infrastructure, and all non-process infrastructure (including design growth contingency and EPC margin fees) is shown in Table 4. These costs represent a savings of approximately $35 million compared with the July 2024 ISS.[10]

Project Facility / Area	Supply (A$m)	Install (A$m)	Freight (A$m)	Subtotal (A$m)	Design Growth (A$m)	Total (A$m)
Processing Infrastructure	148.6	30.6	12.0	191.2	18.5	209.6
Tailings Storage	0.1	11.9	0.0	12.0	1.2	13.2
Mine village and construction camp	19.7	-	-	19.7	-	19.7
Mine infrastructure	1.4	-	-	1.4	-	1.4
General and supporting infrastructure	11.1	14.4	0.5	26.1	2.7	28.7
EPC engineering, drafting and management	0.3	21.7	-	22.0	2.2	24.3
Other Construction Costs	35.4	31.2	1.5	68.2	5.7	73.9
Total	**216.7**	**109.8**	**14.0**	**340.5**	**30.3**	**370.8**

Table 4 - Processing and infrastructure capital cost estimate, by project area and cost type

Capital costs were estimated on the basis of a mixed implementation approach. Barton will self-manage early works for site access and supporting infrastructure. An engineering, procurement and construction (**EPC**) package has been assumed for delivery of the process plant and associated process infrastructure. The estimated total cost for these EPC works is ~A$300m (see Table 5), inclusive of all EPC margin fees allowance on supply, labour and freight (**EPC Margin**). This also includes EPC direct services such as project management, engineering and drafting, site supervision and management, and commissioning of ~A$49.4m (**EPC Services)**.

Within the capital cost estimate in Table 4, GRES have also allowed a design growth contingency, which are based on the scope described in the study and do not allow for any changes to be made to the process flow sheet, major equipment selections or process plant layout and design. These are summarised in Table 6 below.

Cost Type	EPC Value (A$m)
Supply	175.7
Install	84.8
Freight	13.1
Design growth	26.6
Total	**300.2**

Table 5 – EPC package by type

Discipline	Materials	Installation
General	10%	10%
Earthworks – access road	15%	15%
Mechanical equipment – recent budget quotes[1]	7.50%	10%
Buildings – recent budget quotes[1]	7.50%	10%

[1] Budget quotes received within previous six months

Table 6 – Design growth allowances for capital cost estimate

TSF design and capital costs were completed by Knight Piésold. The TSF is designed to accommodate 39.5Mt of tailings, with initial capacity for 12 months' storage (~5Mt) established prior to the start of processing operations. The TSF will subsequently be lifted in raises to suit storage requirements. Further expansion of the TSF is possible if required.

Other Capital Cost Allowances

Mining pre-strip is estimated at ~A$58 million, completed during the ~6 months prior to mill commissioning.

A provision of 2.5% of the direct and indirect costs (but excluding EPC Services) has been included for Owner's costs, for items such as the owner's team and consultants, approvals and licenses, operational readiness, training, business systems, pre-production costs, insurances and operating / inventory spares.

[10] Refer to ASX announcement dated 16 July 2024

A further provision of 5.0% of the direct and indirect costs (but excluding EPC Services) has been included for owner's contingency, to account for the risks associated with geotechnical conditions, weather delays, industrial actions, incident management, contractual risks, foreign exchange risks and scope changes.

Sustaining capital costs for processing, infrastructure and TSF are estimated by project year in Table 7 below. Additionally, TSF closure costs were estimated by Knight Piésold to be ~A$19.6 million (unchanged from ISS).[11]

Project Year	Processing & Infrastructure (A$m)	Tailings Storage Facility (A$m)
1	--	--
2	--	--
3	--	5.53
4	0.77	5.53
5	1.54	5.53
6	1.54	5.53
7	1.54	5.53
8	1.54	5.53
9	1.54	5.53
10	0.77	-
Total	**9.20**	**38.7**

Table 7 – Life of project sustaining capital cost estimate summary (by project year)

Comparison with ISS Capital Cost Estimate

Key changes to the ISS process and infrastructure capital cost estimate (~$406m) include:[11]

- a change to the process plant comminution flowsheet from an SABC to a 3CBM circuit;
- a reduction in some plant component size and overall size due to lower comminution effort (energy);
- the addition of post-leach thickener to reduce water consumption by approximately 35%;
- reduced borefield and associated infrastructure, due to lower total water demand;
- reduced TSF starter cell to 12 months' storage capacity (from 24 months in the ISS);
- the leasing of certain mine support infrastructure rather than up-front capital purchase;
- the leasing of the mine accommodation village rather than up-front capital purchase; and
- updated market pricing for the majority of capital equipment from GRES (current as at Q1 2025).

OSS processing and infrastructure capex is now ~A$371m (incl. ~$30m design growth contingency), or ~9% lower, with key factors increasing and decreasing this figure compared to the ISS shown below at Figure 15.[11]

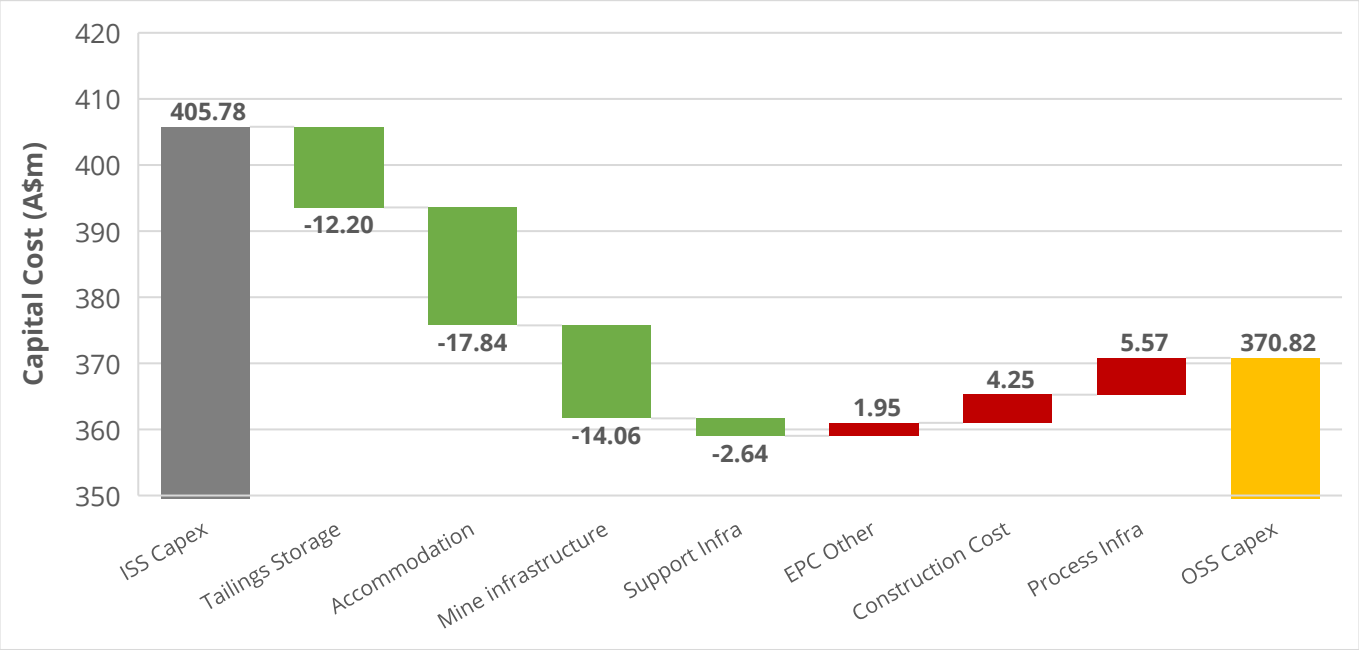

Figure 15 – Tunkillia 2025 OSS processing and infrastructure capital cost compared to 2024 ISS[11]

[11] Refer to ASX announcement dated 16 July 2024

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Additional Financial Analysis

Economic Analysis by Pit Area / Stage

Mining Associates has estimated each pit's individual financial performance by reference to mined materials, metal production, and operating cashflows, as shown below in Table 8. In November 2021 Barton confirmed the central zone of the 'Area 223' Deposit as a higher-grade priority development area.[12] This area is modelled as 'Stage 1' or 'Starter Pit' in the mine development plan. A second intermediate 'Stage 2' has also been added.

A Stage 1 'Starter Pit' produces ~206koz gold and ~491koz silver during the first ~13 months of metal production, generating ~A$629 – 825 million operating free cash on a particularly strong operating cash margin of ~A$3,052 – 4,003/oz Au (net of Ag by-product credits) and driving a 0.8 – 1.1 year payback.

Stages 1 and 2 of the 'Main' pit produce a combined ~365koz gold and ~923koz silver during the first ~27 months of metal production, generating ~A$956 million – 1.3 billion operating free cash on a weighted average cash margin of ~A$2,619 – 3,571/oz Au (net of Ag by-product credits).

Metric	Units	All Pits	Main ST1 (Starter)	Main ST2	Main Pit (Ultimate)	STH1 Pit	Nth1 Pit	A51 Pit
Pit Inventory	Mt	39.2	5.9	6.2	17.7	2.9	2.0	4.7
Pit Inventory Au Grade	g/t	0.82	1.19	0.88	0.74	0.96	0.54	0.63
Pit Inventory Ag Grade	g/t	2.00	3.26	2.73	2.25	0.98	0.00	0.00
Au Oz Recovered	koz	942	206	159	378	81	32	86
Ag Oz Recovered	koz	2,019	491	432	1,024	72	0	0
A$4,000/oz Au and A$45/oz Ag								
Operating Revenue	A$M	3,860	846	656	1,560	326	128	344
Operating Cash Cost	A$M	2,089	217	329	983	205	106	247
Operating Cash Margin	A$M	1,771	629	327	577	121	22	97
Silver Credit	A$/Oz Au	96	107	122	122	40	--	--
Operating Cash Cost	A$/Oz Au	2,121	948	1,943	2,475	2,500	3,327	2,868
Operating Cash Margin	A$/Oz Au	1,879	3,052	2,057	1,525	1,500	673	1,132
A$5,000/oz Au and A$50/oz Ag								
Operating Revenue	A$M	4,812	1,055	817	1,944	407	160	430
Operating Cash Cost	A$M	2,146	230	338	1,006	210	108	252
Operating Cash Margin	A$M	2,666	825	479	938	197	52	178
Silver Credit	A$/Oz Au	107	119	136	135	45	--	--
Operating Cash Cost	A$/Oz Au	2,171	997	1,990	2,522	2,555	3,387	2,928
Operating Cash Margin	A$/Oz Au	2,829	4,003	3,010	2,478	2,445	1,613	2,072

Table 8 - Analysis on per-oz-Au basis by pit / pit stage (excl. capitalised pre-strip, and net of Ag credits)

Based upon analysis of the OSS Base Case (factoring A$4,000/oz gold price and A$45/oz silver price – see Table 1 for key assumptions), Barton has prepared an AISC estimate for the Tunkillia OSS as follows in Table 9.

Operating Costs / oz Au Recovered	A$ million	A$ / t milled	A$ / oz
Mining (excluding capitalised pre-strip)	924	23.6	981
Processing	797	20.3	845
G&A (excluding capitalised pre-strip)	130	3.3	138
Silver by-product credit	(91)	(2.3)	(96)
C1 Cash Cost	**1,760**	**44.8**	**1,868**
Royalties	239	6.1	253
Sustaining Capital	48	1.2	51
All-in Sustaining Cost (AISC)	**2,046**	**52.2**	**2,172**

Table 9 – Tunkillia Optimised Scoping Study estimated AISC calculation (subject to rounding)[13]

[12] Refer to ASX announcement dated 15 Nov 2021

[13] Includes C1 cost, royalties, sustaining capital and Ag by-product credits, but excludes corporate, exploration, and non-sustaining capital costs

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Sensitivity Analysis

Tunkillia's project value is most sensitive to variation in gold price (or grade, of a nearly identical impact) and operating costs, but is materially less sensitive to variation in capital costs and discount rate. This is consistent with Barton's expectations for a project targeting capital economies of scale in processing and will be a key focus for subsequent optimisation reviews, feasibility analyses and prospective financing discussions. The pre-tax NPV sensitivity to key input assumptions for the Tunkillia OSS is shown below at Figure 16.

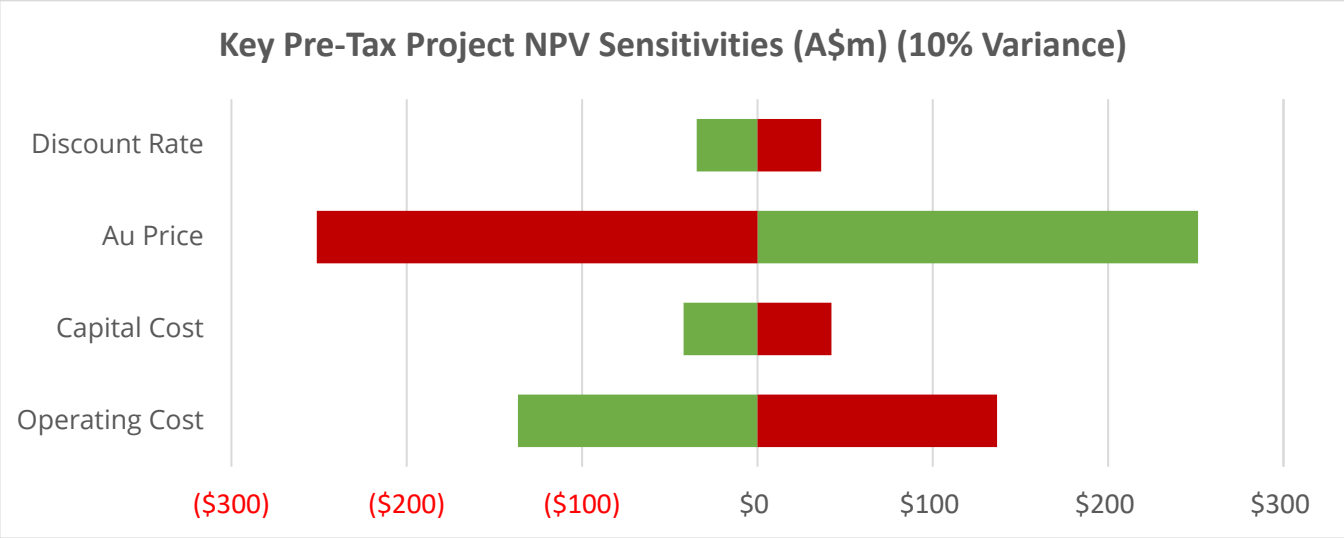

Figure 16 - Pre-tax NPV sensitivity analysis (10% variance) around baseline NPV (A$ millions)

Key Opportunities

The OSS has optimised Tunkillia's modelled technical and financial results based on existing data, in terms of process design, capital costs and operating costs. Further refinement of technical and financial aspects will be the focus of future studies to improve project metrics and reduce financial risks. These include:

Process Design & Performance

- Material properties: infill drilling and further comminution testwork to optimise metallurgical recovery, increase confidence in processing operating cost estimates, and maximise Stage 1 and Stage 2 mill feed.

Capital Costs

- Procurement: the OSS assumes that a majority of project supply is via indirect procurement (including via EPC). There is potential to increase the proportion of direct supply procurement and lower costs.

Operating Costs

- Energy efficiencies: additional comminution testwork for metallurgical process optimisation, and recent reductions in energy costs relative to gold prices, may offer further improvement in operating margins.

Mine Design

- Mine design and schedule : further refinement and staging of the mine design and production schedule via strategic scheduling software may offer improvements in mining costs, margins and project value. Additional geotechnical analyses also offer potential to steepen certain pit walls and reduce mined waste.
- Site layout: optimisation of site layout to minimise haulage and TSF development and operating costs.
- Mined materials: infill drilling and future Tunkillia gold and silver JORC MRE upgrades may offer additional revenues within optimised pits. The OSS pit design also contains ~1.2Mt non-JORC materials classified as waste that, with additional drilling, have potential to be reclassified as mineralised material for mill feed.

Other

- Project schedule: A faster development schedule can materially reduce total estimated capital and time-related installation costs (eg. labour), with the benefit of bringing forward production and revenues.

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Funding

Including all factored contingencies, the OSS estimates a cost of ~A$460 million for Tunkillia's development, including all supply, installation and labour, freight, owner's costs, pre-strip and EPC costs, to cover capital and operating costs from the start of project construction through to gold production.

Barton anticipates that this funding requirement will be met by a typical combination of debt and equity financing, which capital will need to be raised prior to starting the project construction. It is also possible that other forms of financing may be considered in due course, including royalty and streaming options.

Barton considers that there is a reasonable basis to conclude that funding for the project will be available when required, on the following bases (among others):

- Conservative assumptions: the OSS has utilised detailed first principles analysis of key project operating and capital costs and value drivers, including a zero-based (current) capital cost estimate, a detailed mechanical equipment list (**MEL**), and a common comminution circuit design. These provide a higher level of confidence and lower future project evaluation risk relative to most projects at a 'scoping' stage;
- Robust estimates: Before further analysis or optimisation, this OSS has demonstrated robust technical fundamentals and estimated economics for Tunkillia which deliver significant operating free cash flows, a fast payback period, and attractive returns metrics at metals prices below current market prices; and
- Professional expertise: Barton's leadership has a strong track record of raising equity funds as required and on attractive terms to advance Tunkillia, and a significant combined professional track record in the evaluation, financing, development and operation of resources projects.

However, and notwithstanding the foregoing, there can be no assurance or certainty that Barton will be able to source this funding as and when required. Where such funding is available, it is possible that it may only be available on terms that may be dilutive to, or otherwise affect, the value of the Company's existing shares.

Conclusion & Recommendations

Compared to the ISS, the OSS has demonstrated materially improved estimated baseline technical and financial results for the Tunkillia project, and the justification that it is a commercially viable standalone project.

Accordingly, the Board of Barton is supportive of advancing the project to subsequent analyses in the form of a preliminary feasibility study (**PFS**).

Exploration and evaluation activities are ongoing for the Tunkillia project, and Barton is also actively exploring the neighbouring Tarcoola project which may yield complementary development opportunities. Both projects offer potential for additional drilling to increase and / or upgrade JORC Mineral Resources for Tunkillia mill feed.

The timing of Tunkillia's development has not yet been determined due to the preliminary nature of the OSS. However, Barton based upon the OSS' compelling financial outputs, Barton expects to now accelerate certain long-lead PFS work programs including environmental surveys and a staged JORC MRE upgrade drilling program.

Authorised by the Board of Directors of Barton Gold Holdings Limited.

For further information, please contact:

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About Barton Gold

Barton Gold is an ASX, OTCQB and Frankfurt Stock Exchange listed Australian gold developer targeting future gold production of 150,000ozpa with **1.7Moz Au & 3.1Moz Ag JORC Mineral Resources** (64.0Mt @ 0.83 g/t Au), brownfield mines, **and 100% ownership of the region's only gold mill** in the renowned Gawler Craton of South Australia.*

Tarcoola Gold Project

- Fully permitted open pit mine with ~20koz Au within trucking distance of Barton's Central Gawler Mill
- Historical goldfield with new high-grade gold-silver discovery in grades up to 83.6 g/t Au and 17,600 g/t Ag

Tunkillia Gold Project

- 1.6Moz Au & 3.1Moz Ag JORC Mineral Resources
- Optimised Scoping Study for competitive ~120kozpa gold and ~250kozpa silver bulk open pit operation

Key Regional Infrastructure

- Region's only gold processing plant (650ktpa CIP)
- Multiple camps / accommodation across projects

Competent Persons Statement & Previously Reported Information

The information in this announcement that relates to the historic Exploration Results and Mineral Resources as listed in the table below is based on, and fairly represents, information and supporting documentation prepared by the Competent Person whose name appears in the same row, who is an employee of or independent consultant to the Company and is a Member or Fellow of the Australasian Institute of Mining and Metallurgy (**AusIMM**), Australian Institute of Geoscientists (**AIG**) or a Recognised Professional Organisation (RPO). Each person named in the table below has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he has undertaken to quality as a Competent Person as defined in the JORC Code 2012 (**JORC**).

Activity	Competent Person	Membership	Status
Tarcoola Mineral Resource (Stockpiles)	Dr Andrew Fowler (Consultant)	AusIMM	Member
Tarcoola Mineral Resource (Perseverance Mine)	Mr Ian Taylor (Consultant)	AusIMM	Fellow
Tarcoola Exploration Results (until 15 Nov 2021)	Mr Colin Skidmore (Consultant)	AIG	Member
Tarcoola Exploration Results (after 15 Nov 2021)	Mr Marc Twining (Employee)	AusIMM	Member
Tunkillia Exploration Results (until 15 Nov 2021)	Mr Colin Skidmore (Consultant)	AIG	Member
Tunkillia Exploration Results (after 15 Nov 2021)	Mr Marc Twining (Employee)	AusIMM	Member
Tunkillia Mineral Resource	Mr Ian Taylor (Consultant)	AusIMM	Fellow
Challenger Mineral Resource	Mr Dale Sims (Consultant)	AusIMM / AIG	Fellow / Member

The information relating to historic Exploration Results and Mineral Resources in this announcement is extracted from the Company's Prospectus dated 14 May 2021 or as otherwise noted in this announcement, available from the Company's website at www.bartongold.com.au or on the ASX website www.asx.com.au. The Company confirms that it is not aware of any new information or data that materially affects the Exploration Results and Mineral Resource information included in previous announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates, and any production targets and forecast financial information derived from the production targets, continue to apply and have not materially changed. The Company confirms that the form and context in which the applicable Competent Persons' findings are presented have not been materially modified from the previous announcements.

Cautionary Statement Regarding Forward-Looking Information

This document may contain forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "expect", "target" and "intend" and statements than an event or result "may", "will", "should", "would", "could", or "might" occur or be achieved and other similar expressions. Forward-looking information is subject to business, legal and economic risks and uncertainties and other factors that could cause actual results to differ materially from those contained in forward-looking statements. Such factors include, among other things, risks relating to property interests, the global economic climate, commodity prices, sovereign and legal risks, and environmental risks. Forward-looking statements are based upon estimates and opinions at the date the statements are made. Barton undertakes no obligation to update these forward-looking statements for events or circumstances that occur subsequent to such dates or to update or keep current any of the information contained herein. Any estimates or projections as to events that may occur in the future (including projections of revenue, expense, net income and performance) are based upon the best judgment of Barton from information available as of the date of this document. There is no guarantee that any of these estimates or projections will be achieved. Actual results will vary from the projections and such variations may be material. Nothing contained herein is, or shall be relied upon as, a promise or representation as to the past or future. Any reliance placed by the reader on this document, or on any forward-looking statement contained in or referred to in this document will be solely at the readers own risk, and readers are cautioned not to place undue reliance on forward-looking statements due to the inherent uncertainty thereof.

*** Refer to Barton Prospectus dated 14 May 2021 and ASX announcement dated 4 March 2025. Total Barton JORC (2012) Mineral Resources include 909koz Au (30.8Mt @ 0.92 g/t Au) in Indicated category and 799koz Au (33.2Mt @ 0.75 g/t Au) in Inferred category, and 3,070koz Ag (34.5Mt @ 2.80 g/t Ag) in Inferred category as a subset of Tunkillia gold JORC (2012) Mineral Resources.**

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Additional JORC (2012) Disclosures – Reasonable Basis for Forward Looking Assumptions

No JORC (2012) Ore Reserve has been estimated or declared for Tunkillia. This document has been prepared in compliance with the JORC Code (2012) and the ASX Listing Rules. All material assumptions on which the OSS production target and projected financial information are based have been included in this release and disclosed in the table below.

The level of this study does not support the estimation of Ore Reserves or provide any assurance that Tunkillia will proceed to development, or that the production target will be realised. The OSS supports progress to the next level of study in the form of a subsequent PFS.

JORC Table 1 – Tunkillia Gold Project

Reasonable Basis for Forward Looking Assumptions

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	*The Mineral Resource Estimate (MRE) on which the Optimised Scoping Study is based was announced to the ASX on 4 March 2025.* *No Ore Reserve has been declared as part of the Optimised Scoping Study.*
Site Visits *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	*Marc Twining, the Competent Person for the reporting of exploration results is Barton Gold's General Manager Exploration and conducts regular site visits.* *Ian Taylor, the Competent Person for the Estimation and Reporting of Mineral Resources at Tunkillia visited the project during November 2022 to inspect the site and review drill core, sampling practices and other field processes related to drilling and data collection contributing to Mineral Resource estimates for the project.*
Study status *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* *The Code requires that a study to at least Pre-feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered*	*No Ore Reserve has been declared.* *The Study is a Scoping Study.*
Cut-off parameters *The basis of the cut-off grade(s) or quality parameters applied.*	*The resource for the Tunkillia Gold Project is reported above a 0.3 g/t Au lower cut-off. Considering likely open pit mining, CIL processing and administration costs a head grade of 0.30 g/t is assumed to be profitable.* *Key Assumptions:* • *Open pit mining method* • *5 x 10 x 5m Mining Model Blocks,* • *6.85:1 project strip ratio (project) and 6.32:1 operating strip ratio* • *Mining, Processing and Administration costs of ~AUD$23/tonne for mineralised material.* • *Gold metal price AUD $3,500/oz and silver metal price AUD $40/oz* • *Gold metallurgical recoveries: 94.65% for oxide and 90.00% for fresh* • *Silver metallurgical recoveries: 80% for all materials* • *Mineralised material losses: 5.7% of Mineral Resource gold ounces within the mined pits lost as the result of the application 0.3m 'ore loss' and 0.3m dilution skins when creating the Skins Mining Model.* • *6.0% Royalty* *These key assumptions are based on assumptions used in the Initial Scoping Study and updated metals, capital and operating costs pricing.*
Mining factors or Assumptions *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of*	*No Ore Reserve has been declared.* *The deposit is a low-grade gold deposit, under approximately 50m of cover and extending to a depth of ~300m below surface. An open pit*

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Criteria	Commentary
appropriate factors by optimisation or by preliminary or detailed design). *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* *The mining dilution factors used.* *The mining recovery factors used.* *Any minimum mining widths used.* *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* *The infrastructure requirements of the selected mining methods.*	*mining method was selected for the deposit. Underground mining was not considered due to the low grade and proximity to surface. A pit optimisation was undertaken using a Pseudofllow optimiser to determine the economic pit limits.* *Geotechnical parameters applied are based on previously commissioned geotechnical studies. Geotechnical assumptions applied in this study are summarised as follows:* **Geotechnical Parameters used in Optimisation** / **Bench height (m)** / **Batter Angle (deg)** / **Berm Width (m)** Aeolian Sands: 10.0 / 30.0 / 5.0 Saprolite Oxidised & Partially Oxidised: 20.0 / 45.0 / 5.0 North Walls Fresh: 20.0 / 75.0 / 7.0 East Walls Fresh: 20.0 / 70.0 / 7.0 South Walls Fresh: 20.0 / 58.0 / 7.0 West Walls Fresh: 20.0 / 75.0 / 7.0 **Ramp Widths** / **Single Lane (m)** / **Dual Lane (m)** Ramp Widths for 789D Trucks: 18.0 / 32.0 *Input assumptions used for pit optimisation processes are provided in the body of the release.* *A 0.3 m dilution / ore loss skin was applied to the edge blocks of the mineralised resource in preparation for the pit optimisation. No other dilution or loss factors were applied to the block model prior to the optimisation. No mining recovery factors have been applied.* *Mineralised blocks to be processed by the processing plant were calculated on a block by block basis within the block model. When the recovered gold value within a particular block exceeded the processing cost for that block, then that block was processed through the mill.* *A minimum mining width of 40m has been applied.* *Approximately 64% of the material scheduled to be processed through the plant is classified as JORC 'Indicated' Mineral Resources, with the remaining 36% classified as JORC 'Inferred' Mineral Resources.* *The relative proportion of Inferred Mineral resources to be mined on a year-by-year basis is presented in Figure 10 and Table 3 of the release. The inclusion of these Inferred Mineral Resources is suitable for a scoping-level study. Given a projected 0.8 – 1.1 year payback period (from start of production), Tunkillia's financial viability does not depend upon the inclusion of Inferred Resources, and therefore a reasonable basis exists for disclosing a production target including Inferred Resources.* *Detailed infrastructure requirements relating to the (open cut) mining method have not been included within the scope of the scoping study.*
Metallurgical factors or Assumptions *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* *Whether the metallurgical process is well-tested technology or novel in nature.* *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* *Any assumptions or allowances made for deleterious elements.* *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	*The metallurgical process proposed in the study is a conventional Carbon-in-Leach (CIL) process, which is considered appropriate on the basis of existing characterisation testwork. The CIL process is proven process and flowsheet for this style of orebody.* *Metallurgical test work has been undertaken across the entire deposit which is sufficient for informing a scoping-level study, with samples representing a broad range of geological & metallurgical domains having been included in characterisation studies. Metallurgical recovery factors have been derived from this testwork.* *This testwork includes the metallurgical assessment of five gold-bearing samples for Helix Resources N.L. in 1997 conducted by Ammtec Limited; gold recovery from Tunkillia ore in 2006 by Amdel; laboratory test reports for Tunkillia composites Met Sul1, Met Sul 2, Met Ox1, Met Ox2 by Gekko Systems in 2009; the Tunkillia stage 1 metallurgical test work in 2013 by ALS Global; SMC test report by JK Tech in 2012; Mungana cyanidation tests in 2012 and additional comminution testwork and independent third party review undertaken by OMC and MIQM on behalf of Barton Gold during 2024 and 2025.* *No deleterious elements applicable to the proposed metallurgical process have been identified. No pilot-scale test work and limited bulk sampling has been undertaken for this scoping study.*

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Criteria	Commentary
Environmental *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	*Baseline environmental surveying has been undertaken during previous project studies and not identified any species or habitats requiring specific consideration. Additional environmental baseline surveying will be required as future studies are progressed.* *A preliminary waste rock characterisation study has been undertaken and has identified a small proportion of low-capacity potentially acid forming (PAF) material which would be integrated into the Waste Rock Facility (WRF).* *Consideration of specific approvals is beyond the scope of this study other than there are no issues (relating to process wastes) having been identified that cannot be addressed by accepted industry practices and the necessary approvals related to these practices.*
Infrastructure *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.*	*Tunkillia is a remote project location with the nearest townsite being Kingoonya, approximately 70km to the northeast. The project is serviced by existing gravel roads to within 15km of Kingoonya and the trans-Australian rail with rail siding facilities at Kingoonya. The project is proposed as being self-sufficient for power requirements and water would be derived from an existing defined (saline) borefield with reverse-osmosis generation of fresh water requirements. Existing pastoral station tracks would be upgraded to provide all-weather access for both light vehicles and heavy freight. An on-site accommodation village would house the fly in-fly out workforce.* *The project is located on an existing pastoral lease and extensive land is available to provide for the requirements of the project. An extensive local network of infrastructure service providers and related capacity are available from both Roxby Downs and more generally in South Australia. Labour for the project is readily available from South Australia.*
Costs *The derivation of, or assumptions made, regarding projected capital costs in the study.* *The methodology used to estimate operating costs.* *Allowances made for the content of deleterious elements.* *The source of exchange rates used in the study.* *Derivation of transportation charges.* *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* *The allowances made for royalties payable, both Government and private.*	*Capital costs used in the study have been developed by GRES using detailed Mechanical Equipment Lists and recent GRES database pricing for the supply of equipment, labour and installation. Capital costs of the tailings storage facility were provided by experienced constructors Knight Piésold, based upon the mining and processing schedules.* *Operating costs have been built up from first principles by GRES referencing comparable operations and existing metallurgical test work. Mining Associates built up mining operation costs from first principles.* *No allowance has been made for deleterious elements content on the basis that no deleterious elements have been detected. Previous testwork in particular notes a lower copper content in concentrates and therefore no penalties therefor are anticipated.* *Exchange rates used in the study are based upon current rates.* *Transportation charges have been estimated by GRES and based upon database pricing and recent contract history.* *Transport of dore, treatment and refining charges are based upon Mining Associates benchmark pricing.* *Total state and private royalties of 6% is based upon current agreements.*
Revenue factors *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	*The derivation of the feed grade comes from the application of the mining schedule to the Mineral Resource estimate. All other relevant revenue factors are assumed in line with current rates and as outlined above.* *Gold and silver are anticipated to be sold in the form of gold and silver doré produced at site, or refined gold and silver produced from doré.* *The mine optimisation assumes gold and silver prices at approximately 70% and 80% (respectively) of current prevailing market prices. Revenues are estimated using gold and silver prices set out at Table 1 of the release.*
Market assessment *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*	*Gold is a highly liquid commodity market with low transaction costs. No additional market analysis has been undertaken for this study.*

Criteria	Commentary
A customer and competitor analysis along with the identification of likely market windows for the product. *Price and volume forecasts and the basis for these forecasts.* *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract*	
Economic *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	*The financial model is estimated on a real basis, factoring into both revenue and cost assumptions. All other cost factors have been developed by GRES and Mining Associates from first principles, or based upon data base pricing, or recent contract pricing and detailed engineering evaluation.* *The pre-tax ungeared real discount rate of 7.5% is reflective of comparable and contemporary project studies.* *A sensitivity analysis for influence of key economic parameters has been provided in Figure 16 of the release, which shows that gold price (including foreign exchange rates) or gold grade as a close proxy for gold price, and operating costs, are the most sensitive input factors.*
Social *The status of agreements with key stakeholders and matters leading to social licence to operate.*	*An application for a Mining Lease will be required to authorise the development and operation of this project. Barton Gold maintains proactive relationships with key stakeholders during the exploration and study phase of this project and the company has not identified any specific matters that would impact a future development. Barton Gold has an existing South Australian Native Title Mining Agreement (NTMA) to enable exploration and study-related activities. A new NTMA to authorise the project's development and operation will be required in the future. The project is located on a Pastoral Lease for which there are established processes for obtaining authorisation for a potential future mining operation.*
Other (incl Legal and Governmental) *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* *Any identified material naturally occurring risks.* *The status of material legal agreements and marketing arrangements.* *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre- Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent*	*No Ore Reserve has been declared.* *No naturally occurring risks have been identified.* *The project is 100% owned by Barton Gold and there are no marketing arrangements in place.* *Statutory approvals are required to enable the development and operation of this project. South Australia has a well-defined statutory process for seeking the required approvals and the company anticipates the project would follow the standard approval process which is yet to mapped out in specific detail. Some Commonwealth approvals will also be required but it is anticipated these would follow similarly established approval processes.* *There are no currently identified third party unresolved matters that may impact upon future approvals.*
Classification *The basis for the classification of the Ore Reserves into varying confidence categories.* *Whether the result appropriately reflects the Competent Person's view of the deposit.* *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	*No Ore Reserve has been declared.*
Audits or reviews *The results of any audits or reviews of Ore Reserve estimates.*	*No Ore Reserve has been declared.*

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