



# NEXUSMINERALS

ASX ANNOUNCEMENT

3 July 2024

## Wallbrook Regional Aircore Drilling Commences as Diamond Drilling Completed

### Diamond Drilling

- ✓ Crusader-Templar diamond drilling program totaling 13 holes for 1,473 metres completed
- ✓ The program has successfully intercepted the orebody as planned, increasing confidence in the modeled mineralisation
- ✓ Metallurgical, geotechnical, waste rock characterisation and water monitoring studies all underway following on from the successful Scoping Study (AXS: NXM 4/6/2024)
- ✓ Initial results from the diamond drilling program are expected late July

### Aircore Drilling

- ✓ A 10,000 metre regional aircore drill program has commenced at Wallbrook, testing four new prospects across four mineralised corridors
- ✓ The priority targets represent near-surface opportunities to efficiently build the project ounce portfolio in line with the Company's exploration strategy
- ✓ The program will see approximately 10,000 metres drilled with results to follow in August



Figure 1: Aircore Rig at Target MC2.1 June 2024

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Nexus Minerals Limited (ASX: NXM) (Nexus or the Company) is pleased to announce that it has completed the diamond drilling program at the Crusader-Templar deposit at the Wallbrook Gold Project in the north-eastern goldfields region of WA. The program has focussed on de-risking key aspects of the project following on from the successful mine studies. An aircore program has now commenced to systematically assess four shallow priority regional targets in line with the Company's exploration strategy. Initial results for both programs are expected from late July through August.

Nexus Managing Director Andy Tudor commented "All planned diamond holes at the Crusader-Templar deposit have been successfully completed and it's been great to see targets intercepted as planned. This confirms confidence in our recent resource update and is testament to the hard work of the technical team. We continue to drive forwards with the various study work to support mine planning.

In addition to our successful diamond program, the regional aircore program is now underway. This program tests the first 4 of 17 regional targets identified for first pass aircore drill testing. We strongly believe in the opportunity at Wallbrook Project, with the project holding strong technical and commercial fundamentals. With regional drilling underway there is significant excitement around the opportunity for further shallow discoveries".

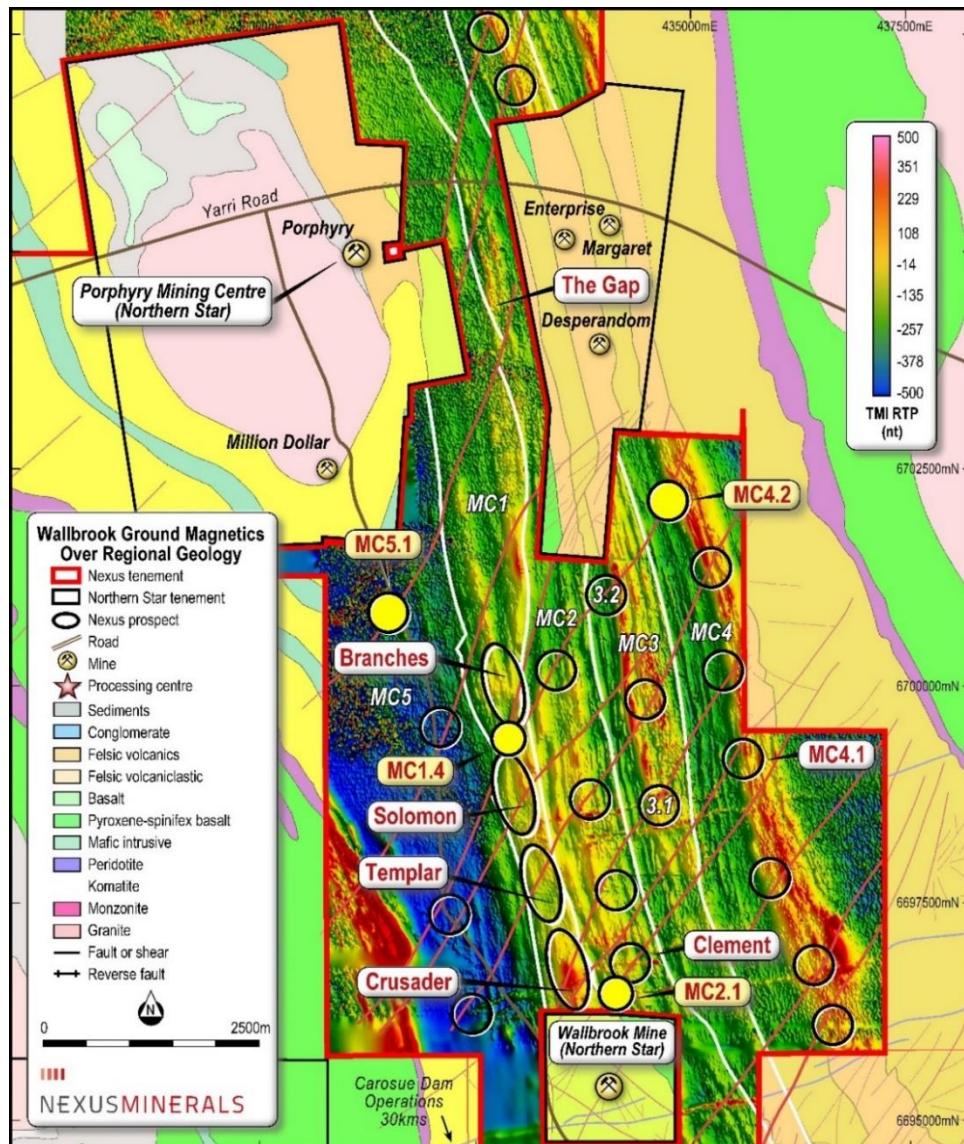


Figure 2: Nexus Wallbrook Project Map with Regional Target Locations



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## Diamond Drilling Program

The Crusader-Templar diamond drilling program has now been successfully completed. The final program consisted of 13 holes totaling 1,473 metres, which all successfully intercepted planned targets. Intercepting the mineralised zones at planned depths and widths provides further validation of the modelling work completed in the most recent resource update (ASX: NXM 1/5/2024). The diamond program is being used to facilitate key studies following on from the successful Scoping Study. Studies include water monitoring, metallurgical testwork, geotechnical assessment, and waste rock characterisation, an update for which is provided below. The drill core is currently being cut and sampled, with results expected in late July.

## **Metallurgical Study**

The metallurgical study builds upon insights gained from previous test work (ASX: NXM 25/1/2022) and incorporates metallurgical parameters commonly requested by toll milling plants for assessing ore for third-party treatment.

Master composite samples will be collected from diamond core representing the ore from the proposed mine plan, categorised by oxidation state. These composites will be assessed for full suite testing, inclusive of grind sensitivity testing. Targeted variability composites will be collected to assess the metallurgical characteristics of discrete zones and domains. The test work will also allow for more accurate estimates for gravity recovery, plant recovery, reagent consumptions and leach kinetics. Mill specific information will be gained such as comminution indices (energy required for crushing/milling), abrasion index (wear ore will place on processing plant infrastructure), and rheological testing (ore amenability to pumping and screening).

Five dedicated metallurgical holes were completed as part of the program. Examples of mineralised zones intercepted are provided in Figure 3 and Figure 4 (results pending).



**Figure 3: Example of mineralisation intercepted at Crusader (NMWBDD24-030: 69.7 - 74.5 metres)**



Figure 4: Example of mineralisation intercepted at Templar (NMLWBDD24-038: 95.4 - 100.1 metres)

## Geotechnical Study

A total of eight geotechnical holes were completed as part of the diamond drilling program. Where possible, these holes were positioned or extended through mineralised zones to maximise the benefits of the program. Geotechnical logging has been completed, along with targeted sampling for laboratory analysis to identify key criteria, including rock mass characterisation, rock strength, and key structural defects. This information will be collated and analysed to better inform slope parameters for the proposed Crusader-Templar open pits.



Figure 5: Geotechnical logging of drill core



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## **Waste Rock Characterisation Study**

Waste rock characterisation is a critical component of a Mining Proposal to ensure environmental risks are effectively managed through the project life cycle. Existing data has been reviewed, and additional samples from the recently completed diamond drilling program will be analysed to determine waste rock characteristics. This analysis will assess acid-forming potential, contaminant solubility, and develop waste rock and rehabilitation management strategies.

## **Water Monitoring Study**

Prior to any development of the project, Nexus requires an understanding of the potential dewatering requirement of the proposed open pit mine. The assessment focuses on deriving hydraulic conductivity and water occurrence in the immediate proposed pit areas, encompassing three main tasks: data review; field testing; and reporting. The data review and field testing components have been completed, with the reporting phase currently pending.

## **Regional Aircore Drilling Program**

The regional aircore drill program has commenced at Wallbrook and will continue through July, targeting four new prospects across four mineralised corridors. These priority targets offer near-surface opportunities to efficiently expand the project's ounce portfolio, aligning with the Company's exploration strategy. The program involves drilling approximately 10,000 metres and is scheduled for completion by the end of July.

The four targets are summarised below and displayed in Figure 2. Results are anticipated in August.

**Target MC1.4** is an area of increased porphyry dyke activity, the geological units implicated in controlling gold mineralisation at the Crusader-Templar deposit. A major NW-SE trending structure with multiple splays serves as a potential pathway for hydrothermal fluids.

**Target MC2.1** consists of two zones immediately north of the Wallbrook Gold Mine (Northern Star Resources), with potential to host extensions of the same resource. Historical exploration has identified gold opportunities with characteristics similar to the Crusader-Templar deposit.

**Target MC4.2** lies on the boundary between iron-rich and iron-poor intermediate packages with a series of NE-SW faults. The disruption in the magnetic signature suggests a zone of magnetic destruction due to hydrothermal activity. This target is situated south along the strike from the Enterprise Gold Mine (Northern Star Resources) within the same geological package.

**Target MC5.1** is located immediately south along the strike from the Million Dollar Gold Mine (Northern Star Resources) and features structural complexity with NNE-SSW trending faults, which may act as conduits for mineralising fluids.



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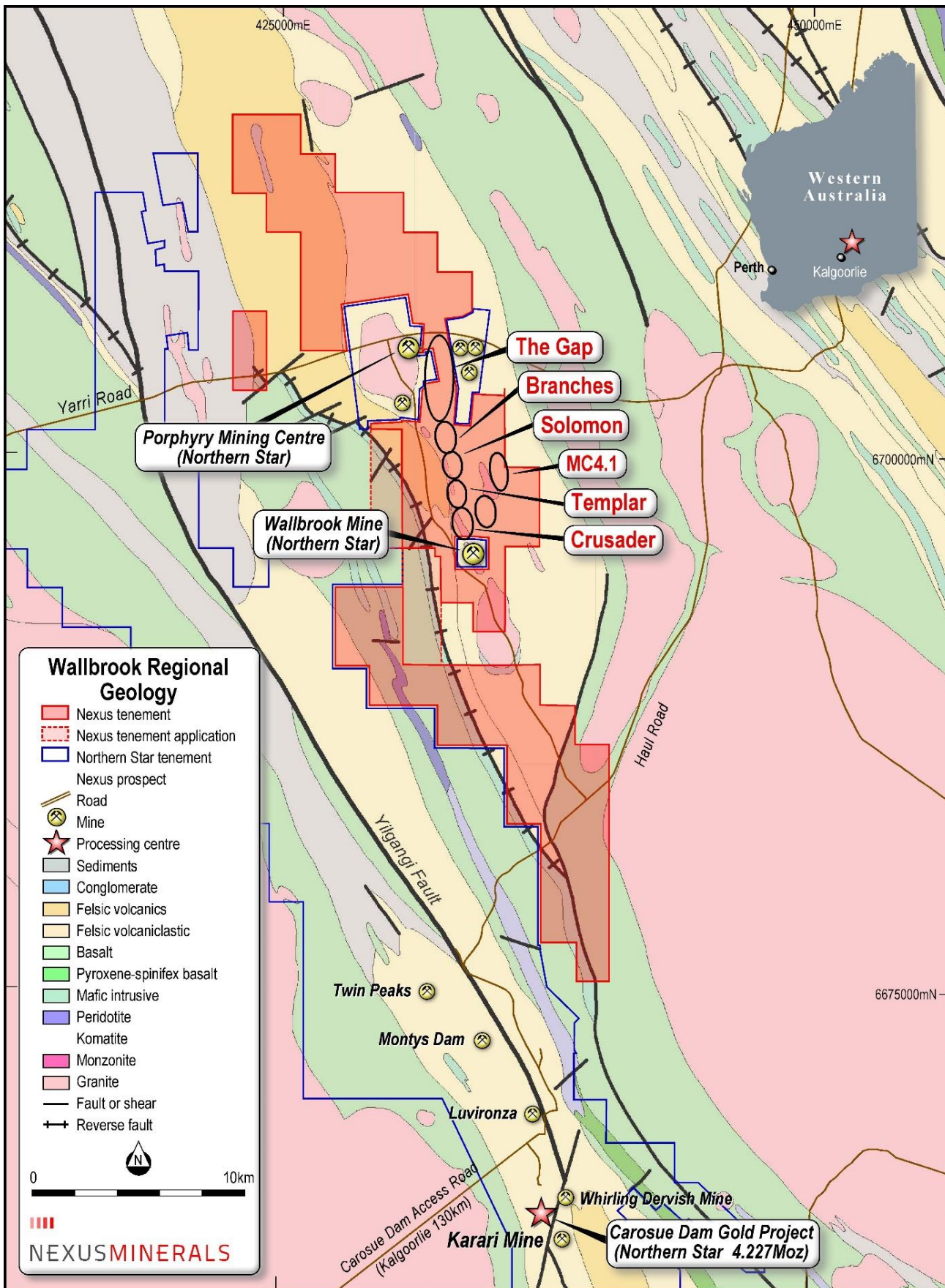
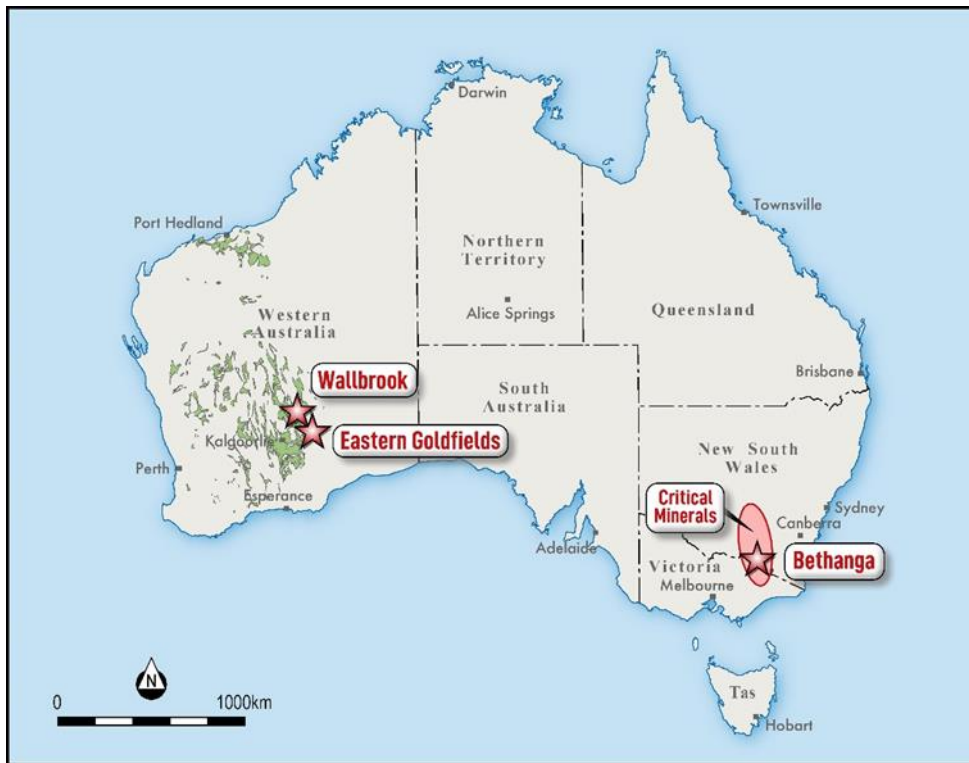


Figure 6: Nexus Wallbrook Gold Project Location, Australia



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This announcement is authorised for release by Mr Andy Tudor, Managing Director, Nexus Minerals Limited.



**Figure 7: Nexus Project Locations, Australia**

## **About Nexus**

Nexus is actively exploring for gold deposits on its highly prospective tenement package in the Eastern Goldfields of Western Australia. In addition to this, the Company has expanded its existing project portfolio with the addition of the Bethanga Porphyry Copper-Gold project in Victoria, and has recently been granted over 15,000km<sup>2</sup> of Gold, Copper and Critical Mineral prospective tenure in NSW.

In Western Australia, the consolidation of the highly prospective Wallbrook Gold Project by the amalgamation of existing Nexus tenements with others acquired, will advance these gold exploration efforts. Nexus holds a significant land package of highly prospective geological terrane within a major regional structural corridor and is exploring for gold deposits.

Nexus Minerals' tenement package at the Wallbrook Gold Project commences immediately to the north of Northern Star's multi-million ounce Carosue Dam mining operations, and current operating Karari and Whirling Dervish underground gold mines.

Nexus is actively investing in new exploration techniques to refine the targeting approach for their current and future tenements.

**- Ends -**

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<b>ASX Code</b>	<b>NXM</b>



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The information in the report to which this statement is attached that relates to Mineral Resources based upon information compiled by Mr Paul Blackney, a Competent Person who is a member of the Australian Institute of Geoscientists. Mr Blackney is a full-time employee of Snowden Optiro, consultants to Nexus Minerals Limited. Mr Blackney has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Blackney consents to the inclusion in the report of matters based on his information in the form and context in which it appears.

The Exploration Target estimate has been prepared by Mr Andy Tudor, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Tudor is the Managing Director and full-time employee of Nexus Minerals Limited. Mr Tudor has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Tudor consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.

The information in this release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on, and fairly represents, information and supporting documentation, prepared, compiled or reviewed by Mr Adam James, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr James is the Exploration Manager and full-time employee of Nexus Minerals Limited. Mr James has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity for which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr James consents to the inclusion in the release of the matters based on his information in the form and context in which it appears. The results are available to be viewed on the Company website [www.nexus-minerals.com](http://www.nexus-minerals.com). The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcements.

**FORWARD LOOKING AND CAUTIONARY STATEMENTS.** Some statements in this announcement regarding estimates or future events are forward-looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as "planned", "expected", "projected", "estimated", "may", "scheduled", "intends", "anticipates", "believes", "potential", "predict", "foresee", "proposed", "aim", "target", "opportunity", "could", "nominal", "conceptual" and similar expressions. Forward-looking statements, opinions and estimates included in this report are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward-looking statements may be affected by a range of variables that could cause actual results to differ from estimated results and may cause the Company's actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward-looking statements. So, there can be no assurance that actual outcomes will not materially differ from these forward-looking statements.

No Ore Reserves have currently been defined on the Pinnacles or Wallbrook tenements. There has been insufficient exploration and technical studies to estimate an Ore Reserve and it is uncertain if further exploration and/or technical studies will result in the estimation of an Ore Reserve. The potential for the development of a mining operation and sale of ore from the Pinnacles or Wallbrook tenements has yet to be established.

Indicated			Inferred			TOTAL		
Tonnes (kt)	Au grade (g/t)	Au ounces (koz)	Tonnes (kt)	Au grade (g/t)	Au ounces (koz)	Tonnes (kt)	Au grade (g/t)	Au ounces (koz)
2,460	1.8	140	3,210	1.6	164	5,670	1.7	304

**Crusader-Templar Mineral Resource Summary (0.4g/t cut-off) (rounding errors may occur)**





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## Northern Star Ltd Carosue Dam Resource Table as at 29/8/2022

	Measured			Indicated			Inferred			Total Resources		
	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)
NST ATTRIBUTABLE INCLUSIVE OF RESERVE												
<b>CAROSUE DAM GOLD PROJECT</b>												
Surface	3,794	1.6	195	22,687	1.7	1,217	10,467	1.6	522	36,947	1.6	1,934
Underground	7,583	3.0	727	12,685	2.5	1,036	5,977	2.9	473	26,244	2.7	2,235
Stockpiles	2,526	1.8	58	-	-	-	-	-	-	2,526	1.8	58
Gold in Circuit	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Carosue Dam	13,903	2.2	980	35,371	2.0	2,253	16,444	2.1	995	65,718	2.1	4,227

## Northern Star Ltd Carosue Dam Reserve Table as at 29/8/2022

	Proved			Probable			Total Reserve		
	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)	Tonnes (000's)	Grade (gpt)	Ounces (000's)
NST ATTRIBUTABLE RESERVE									
<b>CAROSUE DAM PROJECT</b>									
Surface	588	1.2	23	15,996	1.5	768	16,584	1.5	791
Underground	4,019	3.0	392	6,124	2.7	527	10,143	2.8	919
Stockpiles	2,526	1.8	58	-	-	-	2,526	1.8	58
Gold in Circuit	-	-	7	-	-	-	-	-	7
Sub-Total Carosue Dam	7,133	2.1	481	22,120	1.8	1,295	29,252	1.9	1,776