

Barton Gold

ASX:BGD

FRA:BGD3

OTCQB:BGDFF

detectORE™ Exploration at the Tolmer Prospect, Tarcoola

29 November 2024 | South Australian Exploration & Mining Conference

Perseverance Mine, Tarcoola Project



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Date and Currency

This document is dated 29 November 2024 ("Preparation Date") and is based on the Company's prospectus dated 14 May 2021 ("Prospectus") for an offer to acquire fully paid ordinary shares ("Shares") in the capital of the Company ("Offer"), updated for the results of the Offer, and Barton ASX announcements as from the date of the Prospectus. A copy of the Prospectus is available for download at www.bartongold.com.au or www.asx.com.au. The delivery of this document at any time after the Preparation Date does not imply the information contained in it is correct at any time after the Preparation Date. Delivery of this document does not imply, and is not to be relied upon as a representation or warranty that: (i) there has been no change since the Preparation Date in the business, operations, financial condition, prospects, creditworthiness, status or affairs of the Company or any of the Company's related bodies corporate or affiliates; or (ii) the information contained in this document remains correct and not misleading at any time after the Preparation Date. The information in this document should be considered dynamic and may change over time. Subject to its obligations at law, Barton has no responsibility or obligation to update this document or inform the recipient of any matter arising or coming to their notice after the Preparation Date which may affect any matter referred to in the document. All dollar values expressed in this document are Australian dollars (\$, A\$, or AUD).



Acknowledgements

- **Portable PPB**

Simon Bolster, Sylvie Nombre, Wade Lonsdale

- **Department For Energy & Mining**

ADI financial assistance





Key Findings

detectORE™

- Powerful tool for screening drill results accurately and quickly
- Accelerated Barton's generative exploration at Tarcoola
- Iterative targeted drilling made possible by rapid on-site analysis
- Preliminary analysis allowing for reduction in assay costs





detectORE™

Background & Development —

Developed by CSIRO in 2016

Commercialised by Portable PPB

- Industry-partner field trials since 2019
- Global commercial release 2022
- WA Innovator of the Year Award 2023





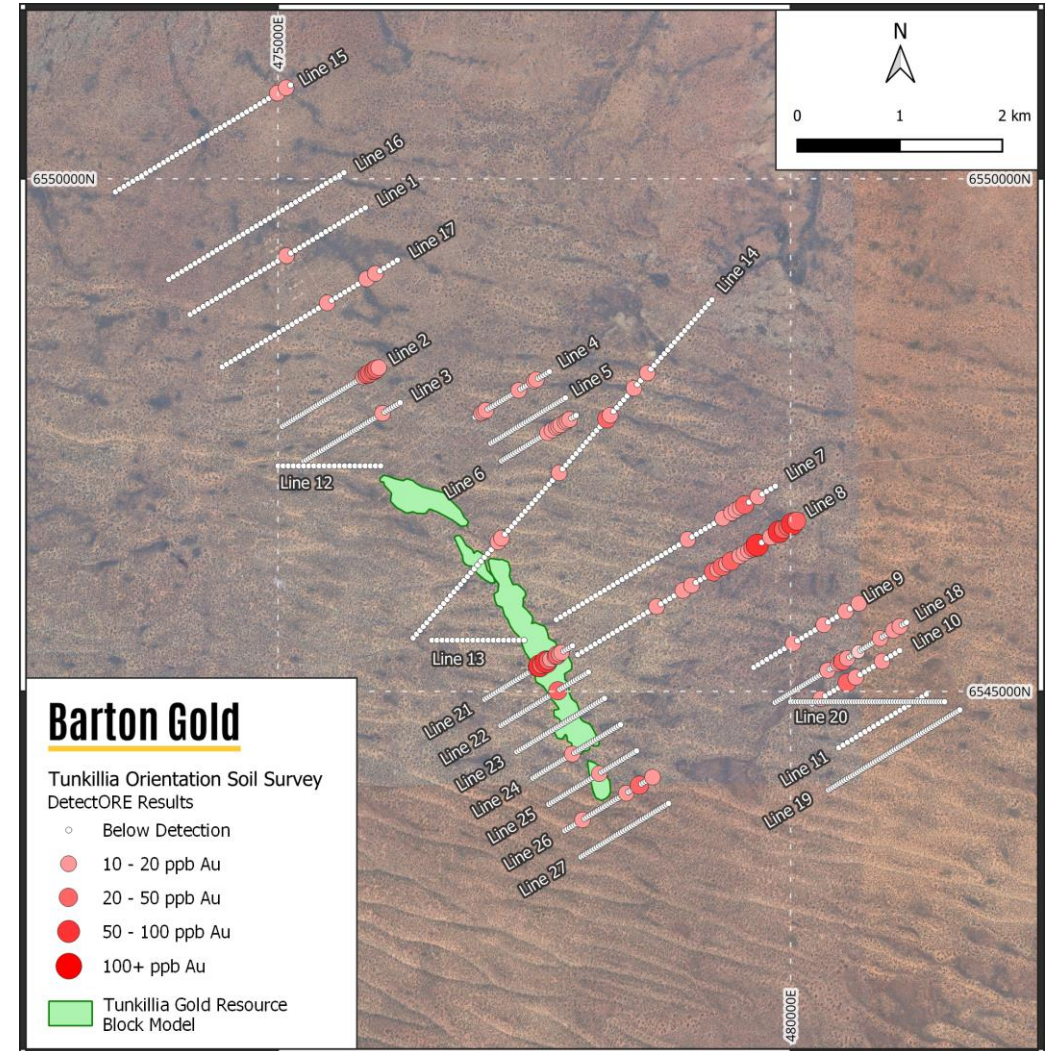
BGD Engagement & Testing

- **2022 CSIRO Collaboration Soil Sampling**
8 orientation lines
- **2023 Tunkillia Orientation Soil Sampling**
28 orientation lines
- **2023 Tunkillia RC Sample Testing**
Composite lab residues and RC chips
- **2024 Tarcoola Conceptual Test Drilling**
Testing newly interpreted regional 3D structural model
First-pass detectORE™ analysis of 3m composite samples

ACCELERATED
DISCOVERY
INITIATIVE



*Test work supported by
ADI funding agreements*





detectORE™

Workflow

[Watch the Video Here](#)





Tarcoola Regional Setting

▪ Wilgena Domain

Archean Mulgathing Complex

St Peter Suite

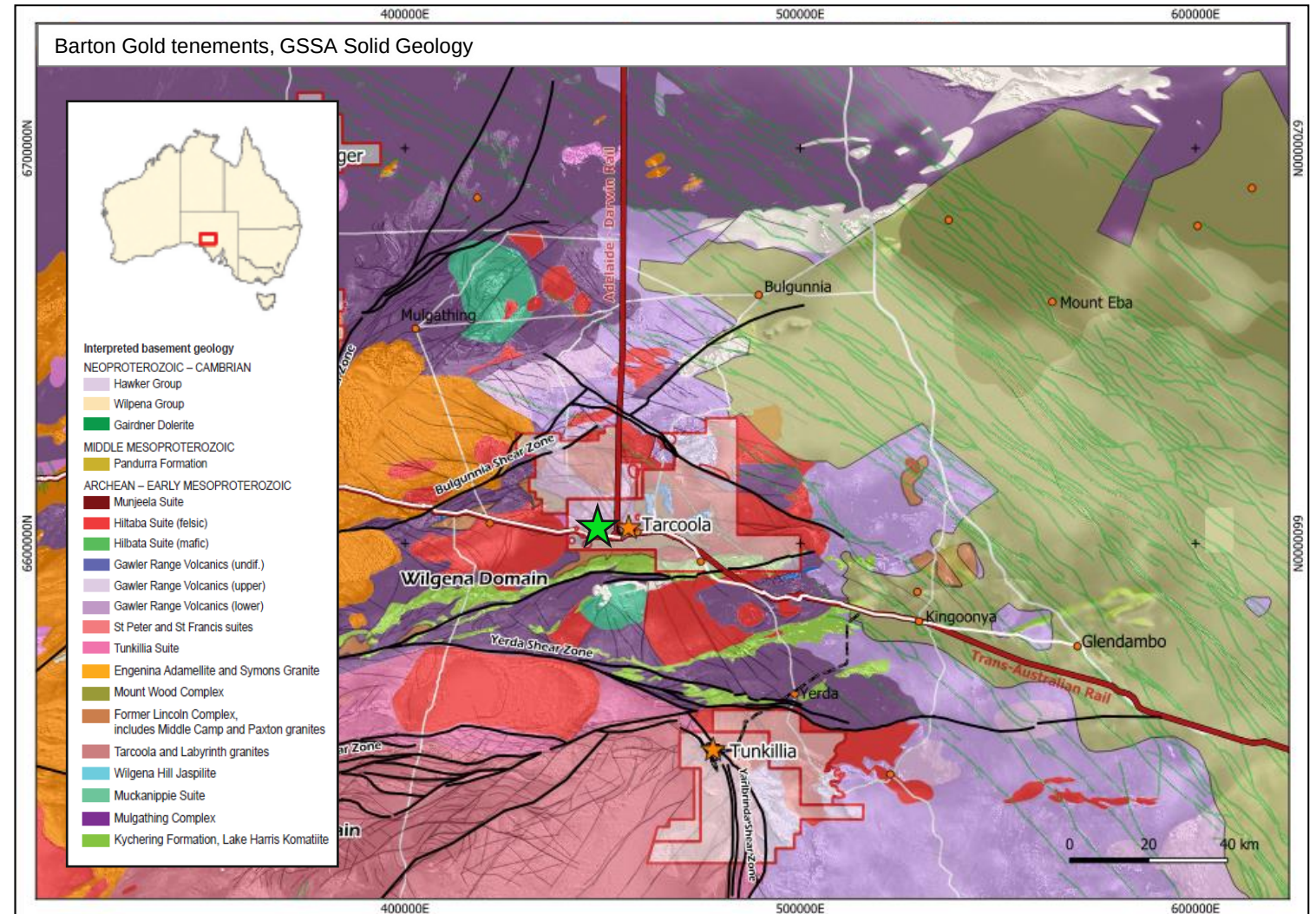
Tarcoola Formation

Hiltaba /GRV

▪ Regional Scale Shear zones

Define southern boundary of domain

Hosts significant gold mineralisation at Tunkillia, Minos-Ariadne



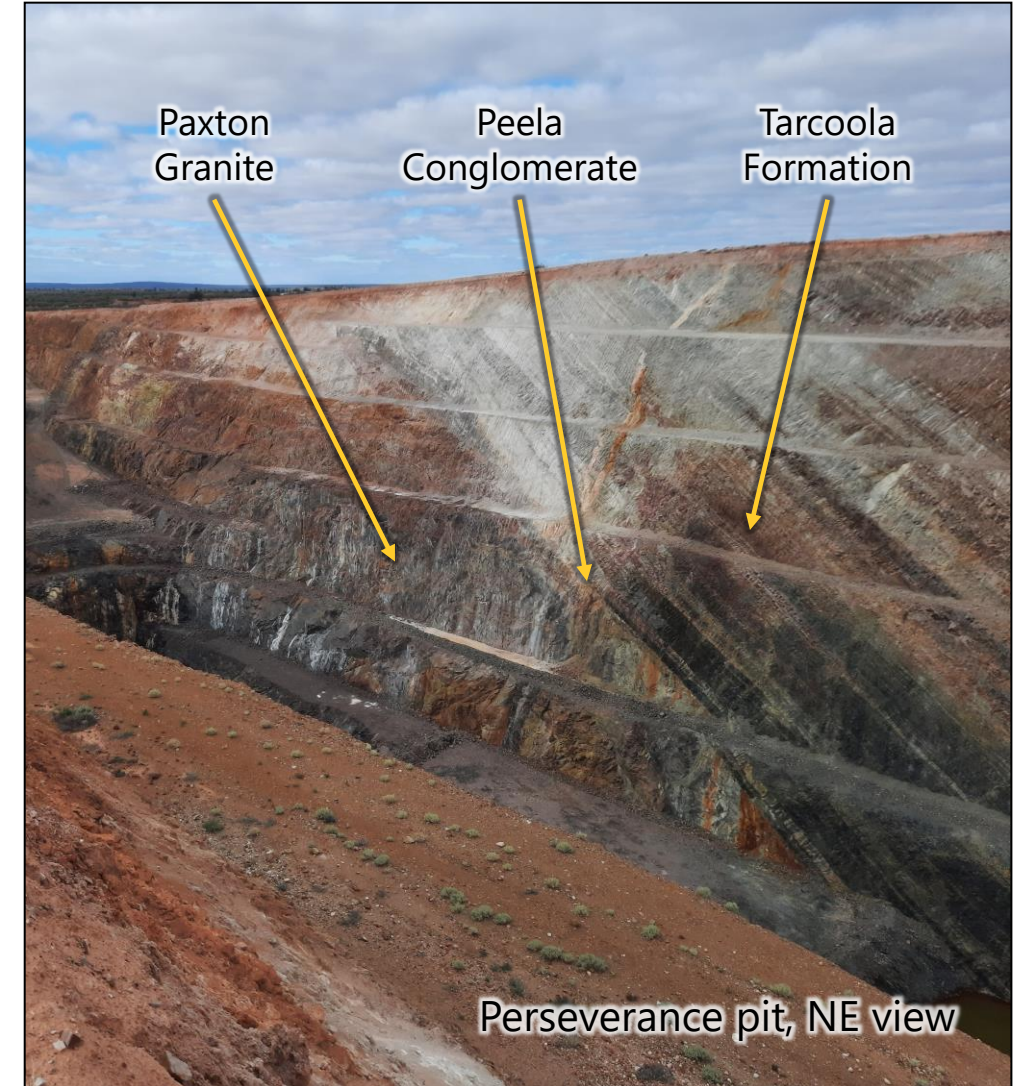
Tarcoola Local Geology

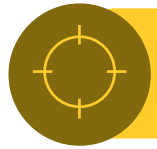
Tarcoola Gold Mineralisation

- Hosted in Tarcoola Formation sediments and underlying Paxton Granite
- Exploration and production since 1893
- Sparse historical exploration

Tolmer Prospect

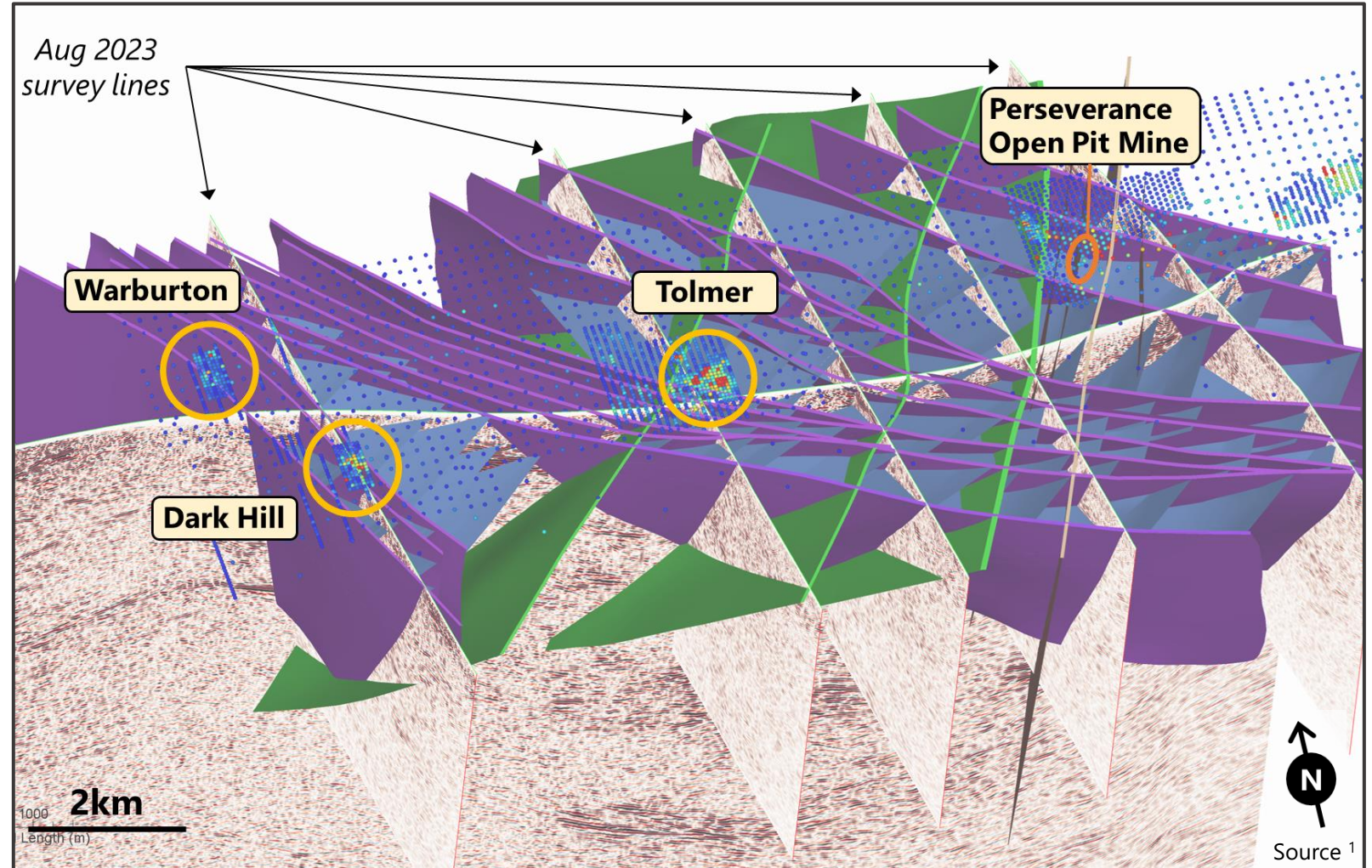
- Thrust-stacked Tarcoola Formation sediments, over Paxton Granite
- Tarcoola Formation 1657Ma, Paxton Granite 1722Ma
- Very similar setting to Perseverance
- Calcrete anomaly, not well covered by historical drilling



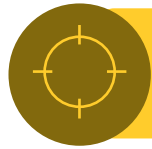


Tarcoola Seismic R&D Program

- Structures mapped under ~15km historical high-grade gold field ¹
- First time that Tarcoola gold occurrences can be put into a consistent structural framework ¹
- Larger Au occurrences associated with deeper sub-vertical structures analogous to Perseverance area ¹
- Conceptual test drilling program May – July to validate new model
- Opportunity to trial detectORE™ platform in-field, in parallel with other R&D workstreams

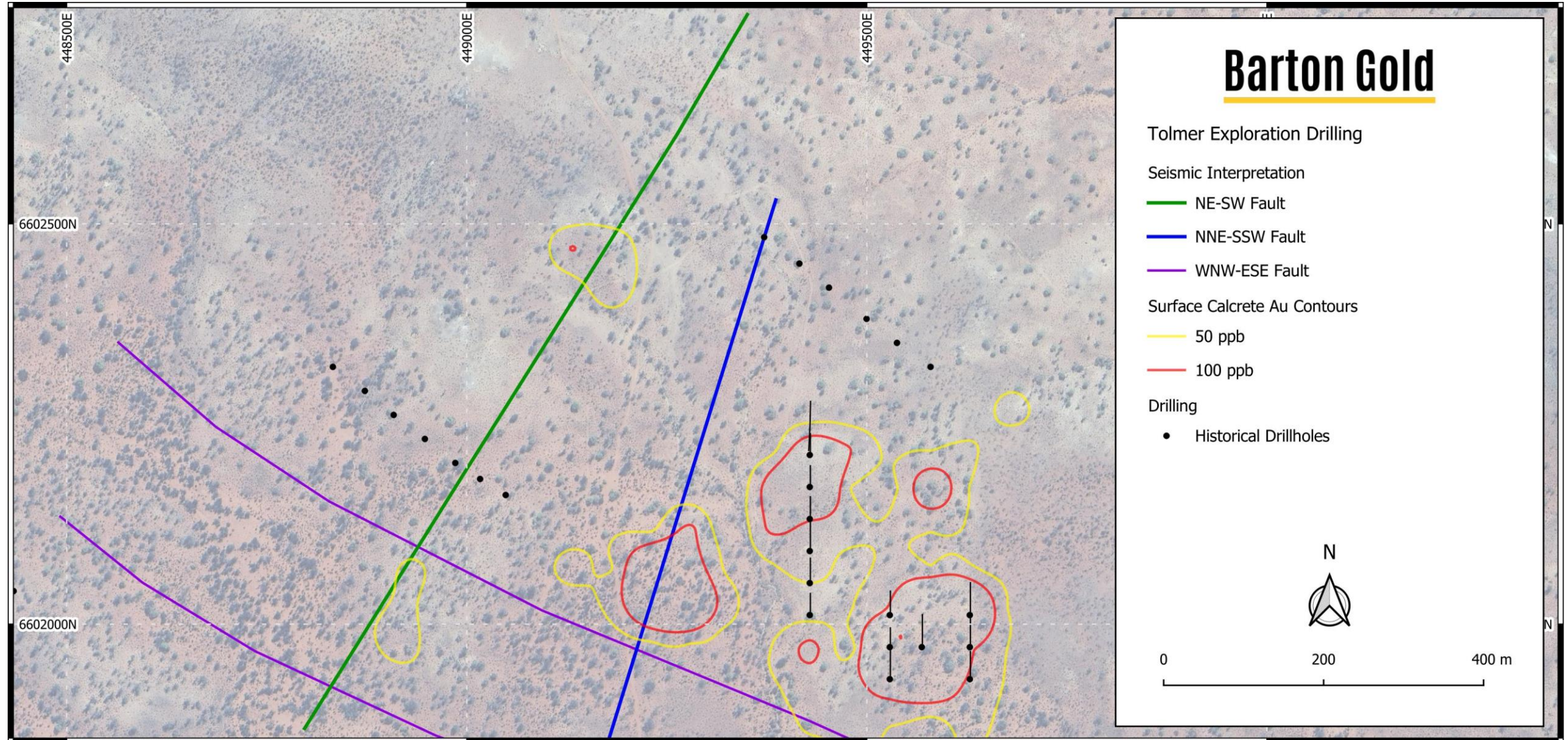


¹ Refer to Prospectus and ASX announcement dated 28 Nov 2023



Tolmer

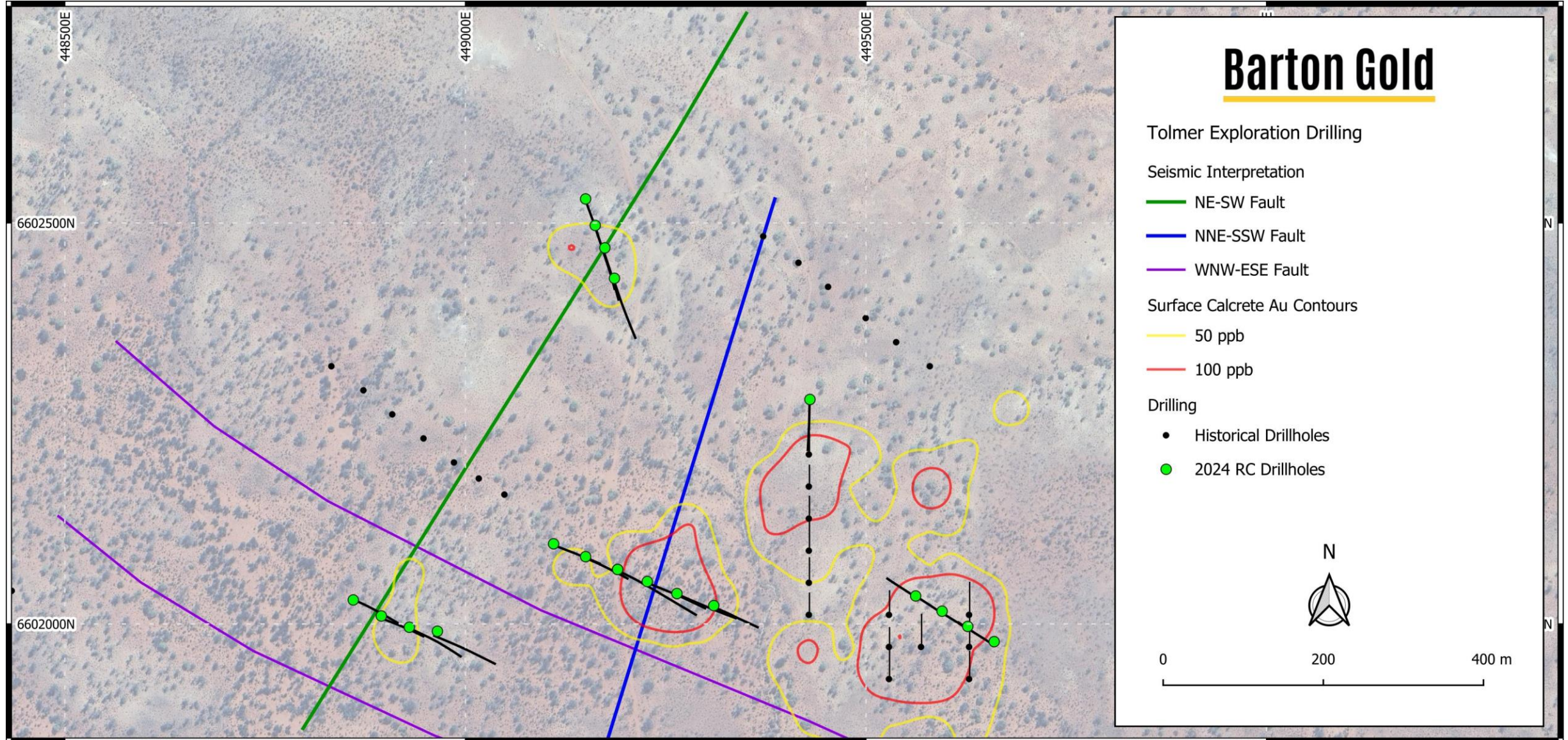
Generative Exploration





Tolmer

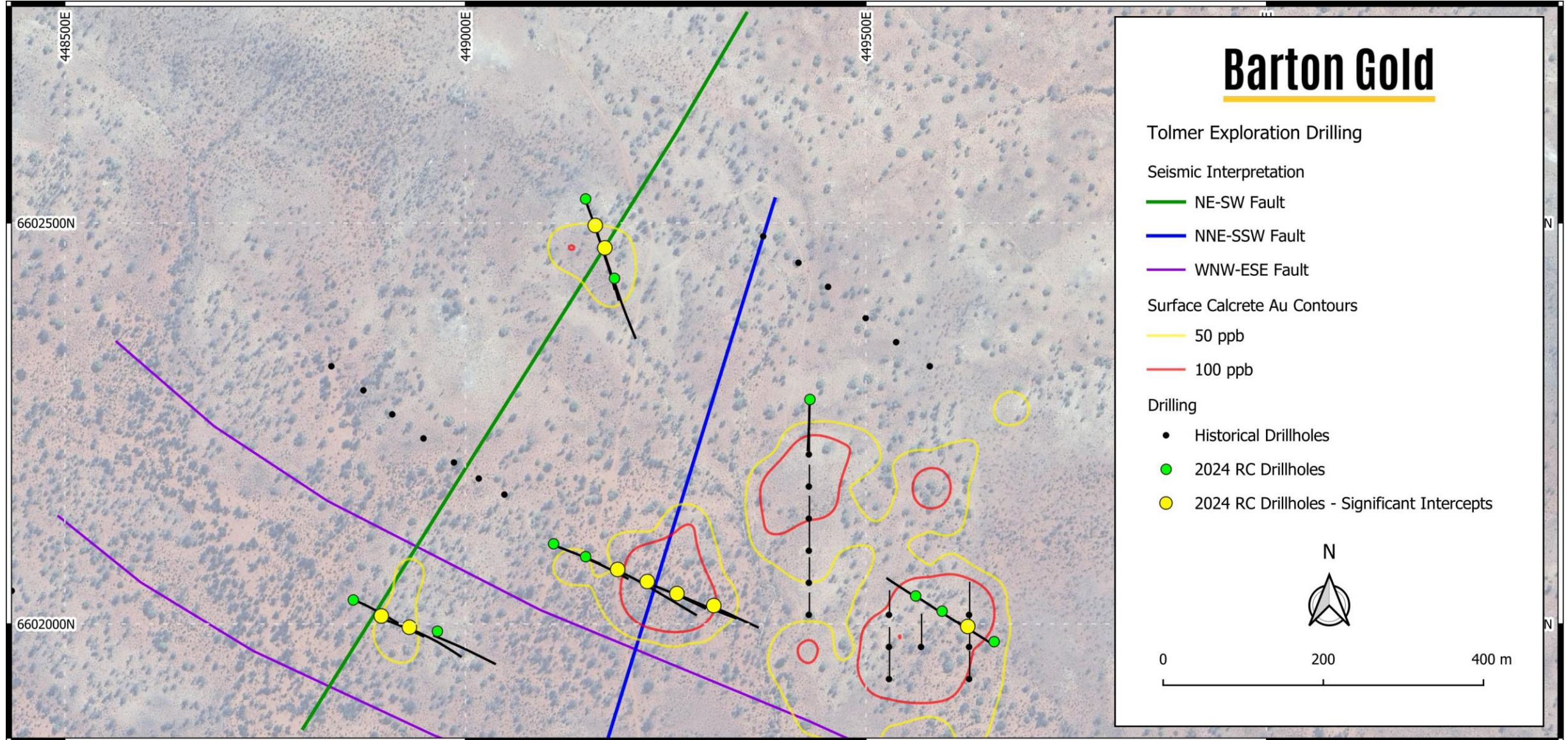
Generative Exploration





Tolmer

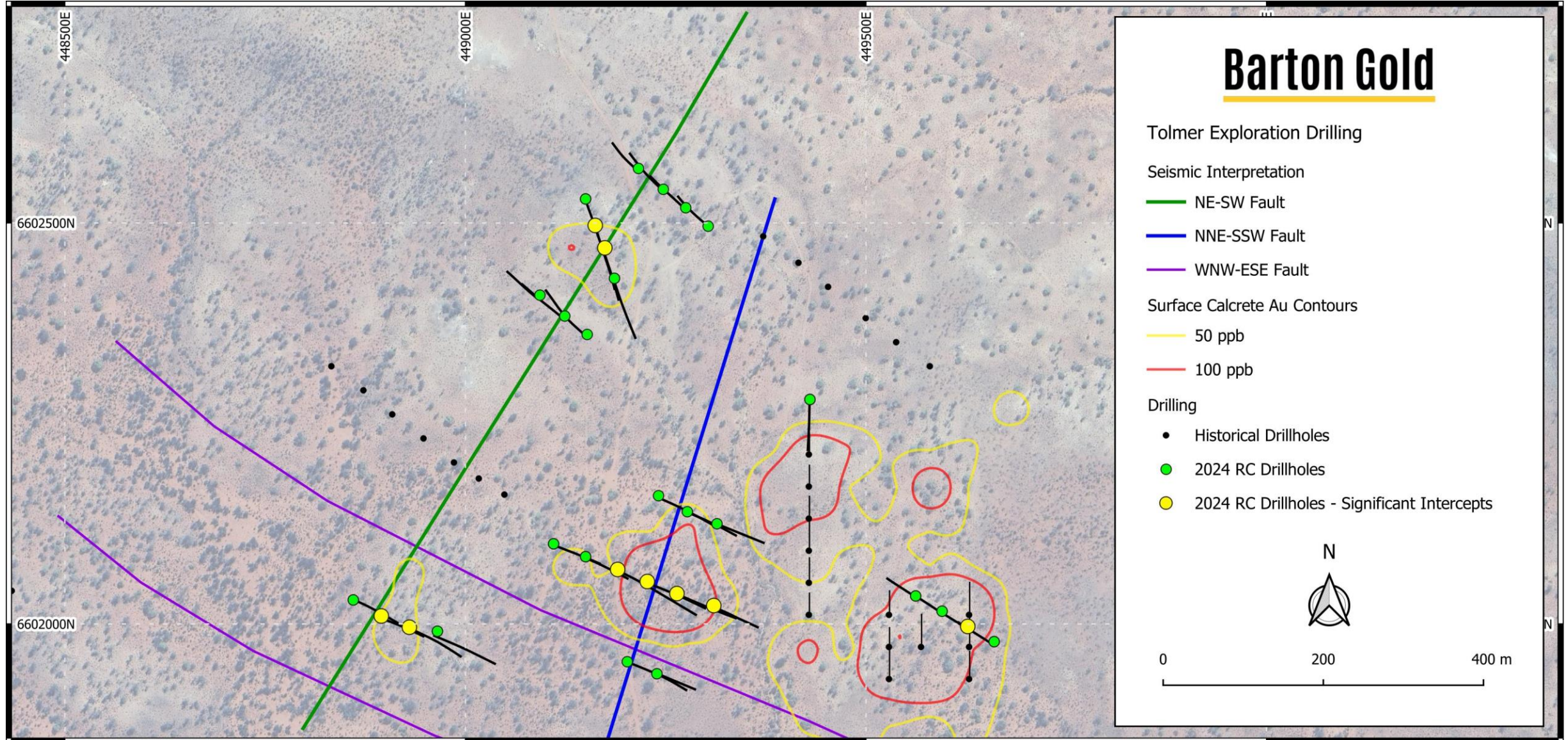
Generative Exploration





Tolmer

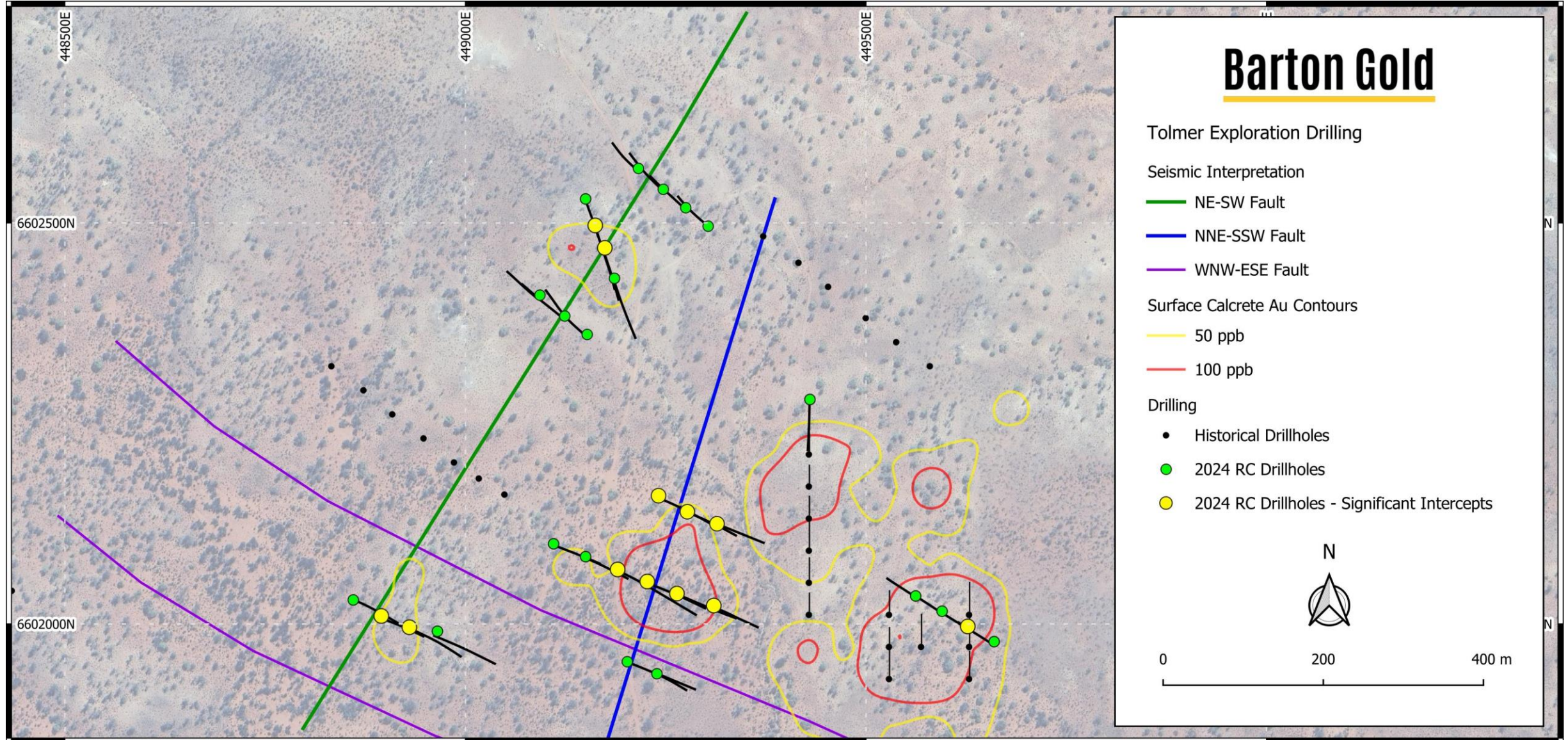
Generative Exploration





Tolmer

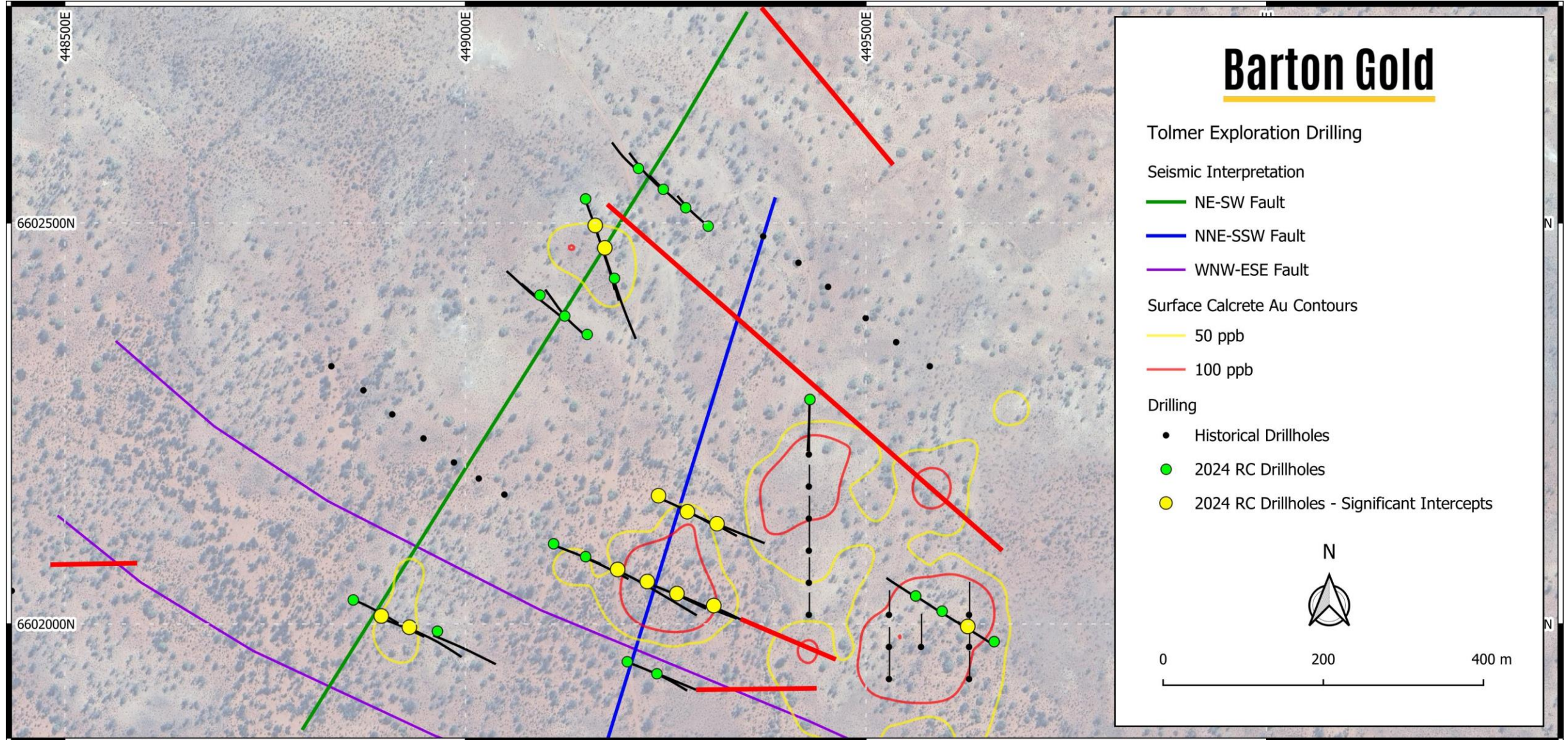
Generative Exploration





Tolmer

Generative Exploration





Tolmer

Drilling Results

Hole ID	Interval (m)		Grade (g/t Au)		Depth (m)	Including
TBM0145	1	@	2.16	from	79	
and	2	@	1.29	from	99	1m @ 1.99 g/t Au from 99m
TBM0148	1	@	1.01	from	103	
and	9	@	3.92	from	202	2m @ 7.15 g/t Au from 202m
TBM0154	6	@	1.12	from	44	1m @ 3.67 g/t Au from 46m
and	2	@	1.16	from	73	
and	1	@	6.20	from	88	
TBM0161	1	@	1.27	from	70	
and	4	@	24.6	from	95	1m @ 83.6 g/t Au from 97m
TBM0162	1	@	2.44	from	51	
and	1	@	1.19	from	67	
and	5	@	3.15	from	97	1m @ 9.00 g/t Au from 99m
TBM0163	3	@	1.48	from	5	
and	2	@	2.71	from	20	1m @ 4.43 g/t Au from 21m
and	1	@	2.34	from	101	
TBM0180	6	@	1.24	from	16	1m @ 2.89 g/t Au from 18m
and	11	@	0.79	from	37	2m @ 2.03 g/t Au from 38m
and	1	@	2.50	from	77	
TBM0181	5	@	1.35	from	45	
and	14	@	1.41	from	80	1m @ 3.54 g/t Au from 82m 1m @ 3.40 g/t Au from 89m

* Refer to ASX announcement dated 27 Aug 2024



detectORE™

Economics & Outcomes

Benefits	Considerations, Costs & Limitations
Time saved – Preliminary analysis in <48hrs	Capital expenditure – pXRF & ROKBOT™ – Lab Equipment
Opportunity costs – Iterative exploration – Eliminates remobilisation costs.	Operational expenditure – Additional field personnel – Lab consumables
Low detection limit – Consistent mineralisation detection	Skillsets required – Trained Operators
Reduced wet assay costs – Preliminary screening	Limitations – Wet samples (sample quality & dilution) – Partial leach, limited by mineral context (e.g refractory mineralisation)
Portable and easy to set up	JORC context



Tolmer Conclusions

3940m of RC Drilling at Tolmer

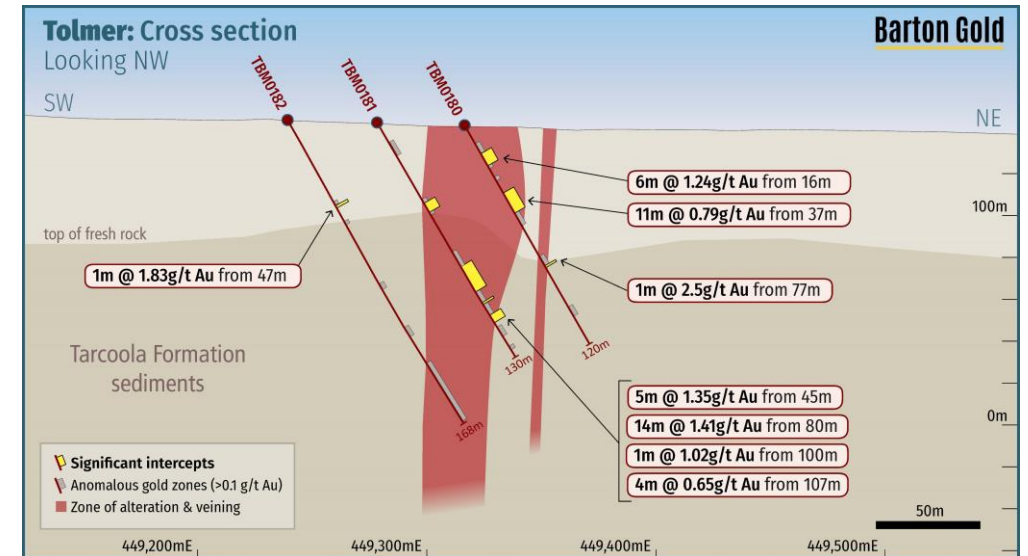
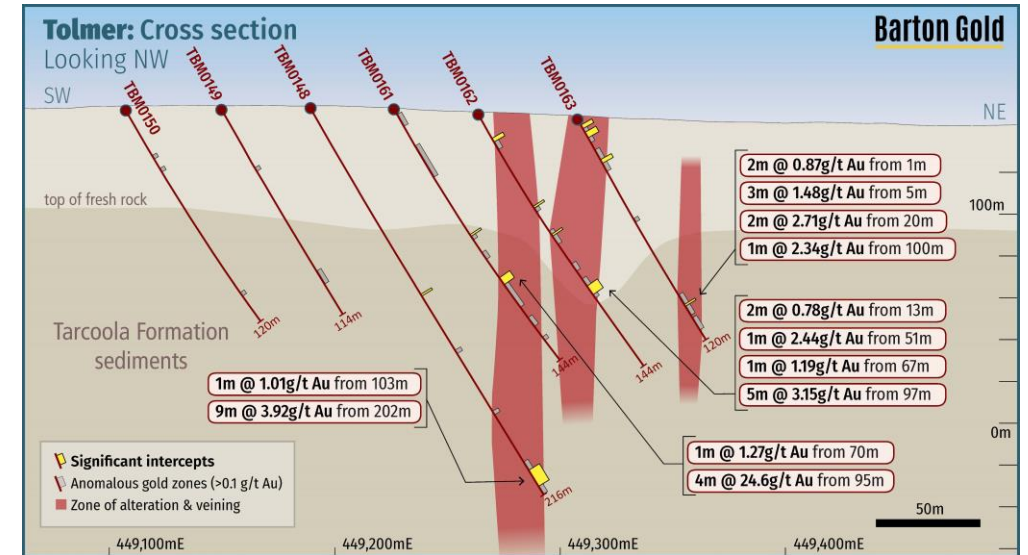
- 1314 x 3m composite samples analysed by detectORE™
- 1432 x 1m samples analysed by Fire Assay
- 63% reduction in wet assays at Tolmer

Iterative Drilling Campaign

- 19 initial RC drillholes
- 12 immediate follow-up drillholes from preliminary results

New Mineralisation Zones Identified

- Hosted in faulted Tarcoola Formation sediments
- Highest-grade intercept 4m @ 24.6g/t
- High-grade quartz-sulphide veins
- Interpreted NNE-SSW & NNW-SSE orientation



* Refer to ASX announcement dated 27 Aug 2024



detectORE™

Conclusions

Fit-for-purpose

- Preliminary analysis for Au detection

Logistic and economic benefit

- More efficient and adaptive exploration opportunities

Ongoing implementation by Barton Gold

- Accelerating and streamlining generative exploration



Barton Gold

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Competent Persons Statements

The information relating to Exploration Results and Mineral Resources in this presentation is extracted from the Company's Prospectus dated 14 May 2021 (Prospectus) and Barton ASX announcements as cross-referenced in the body of this presentation. A copy of the Prospectus is available for download at www.bartongold.com.au or www.asx.com.au. Following publication of the Prospectus, the Company published details of updated Mineral Resource Estimates (including in respect of the Company's attributable ownership where a project is not wholly owned) on 14 October 2021 and 1 September 2023 (for the Western Gawler Craton Joint Venture Project, in which the Company no longer has any interest) and 26 April 2023, 11 December 2023 and 4 March 2024 (for the Tunkillia Project) and 3 July 2024 (for the Tarcoola Project). The Company confirms that the form and context in which the applicable Competent Persons' findings are presented have not been materially modified from the relevant market announcement. 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 in the previous announcements continue to apply and have not materially changed.

The Scoping Study referred to in this Presentation 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. All material assumptions underpinning the production targets and forecast financial information derived from the production targets continue to apply and have not materially changed.

Competent Persons (Tarcoola)

The information in this presentation that relates to the estimate of open pit Mineral Resources for the Tarcoola Gold Project is based upon, and fairly represents, information and supporting documentation compiled by Mr Ian Taylor BSc (Hons). Mr Taylor is an employee of Mining Associates Pty Ltd and has acted as an independent consultant on Barton Gold's Tarcoola Gold Project, South Australia. Mr Taylor is a Fellow and certified Professional of the Australian Institute of Mining and Metallurgy (FAusIMM (CP Geo) 110090) and has sufficient experience with the style of mineralisation, the deposit type 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" (The JORC Code).

The information in this presentation that relates to the estimate of stockpile Mineral Resources for the Tarcoola Gold Project is based upon, and fairly represents, information and supporting documentation compiled by Dr Andrew Fowler MAusIMM (CP Geo). Dr Fowler is an employee of Mining Plus Pty Ltd and has acted as an independent consultant on Barton Gold's Tarcoola Gold Project, South Australia. Dr Fowler is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience with the style of mineralisation, the deposit type 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" (The JORC Code).

The information in this presentation that relates to Exploration Results for the Tarcoola Gold Project prior to 15 Nov 2021 (including drilling, sampling, geophysical surveys and geological interpretation) is based upon, and fairly represents, information and supporting documentation compiled by Mr Colin Skidmore BSc Hons (Geology) MAppSc. Mr Skidmore is an employee of Mining Plus Pty Ltd and has acted as an independent consultant on Barton Gold's Tarcoola Gold Project, South Australia. Mr Skidmore is a Member of the Australian Institute of Geoscientists (AIG Member 05415)) and has sufficient experience with the style of mineralisation, the deposit type 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" (The JORC Code).

The information in this presentation that relates to new Exploration Results for the Tarcoola Gold Project after 15 Nov 2021 (including drilling, sampling, geophysical surveys and geological interpretation) is based upon, and fairly represents, information and supporting documentation compiled by Mr Marc Twining BSc Hons (Geology). Mr Twining is a full-time employee of Barton Gold Holdings Ltd, and is a Member of the Australasian Institute of Mining & Metallurgy (AusIMM Member 112811) and has sufficient experience with the style of mineralisation, the deposit types 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" (The JORC Code).

Competent Person (Tunkillia)

The information in this presentation that relates to the estimate of Mineral Resources for the Tunkillia Gold Project (including drilling, sampling, geophysical surveys and geological interpretation) is based upon, and fairly represents, information and supporting documentation compiled by Mr Ian Taylor BSc (Hons). Mr Taylor is an employee of Mining Associates Pty Ltd and has acted as an independent consultant on Barton Gold's Tunkillia Gold Project, South Australia. Mr Taylor is a Fellow and certified Professional of the Australian Institute of Mining and Metallurgy (110090) and has sufficient experience with the style of mineralisation, the deposit type 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" (The JORC Code).

The information in this presentation that relates to Exploration Results for the Tunkillia Gold Project prior to 15 Nov 2021 (including drilling, sampling, geophysical surveys and geological interpretation) is based upon, and fairly represents, information and supporting documentation compiled by Mr Colin Skidmore BSc Hons (Geology) MAppSc. Mr Skidmore is an employee of Mining Plus Pty Ltd and has acted as an independent consultant on Barton Gold's Tunkillia Gold Project, South Australia. Mr Skidmore is a Member of the Australian Institute of Geoscientists (AIG Member 05415)) and has sufficient experience with the style of mineralisation, the deposit type 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" (The JORC Code).

The information in this presentation that relates to new Exploration Results for the Tunkillia Gold Project after 15 Nov 2021 (including drilling, sampling, geophysical surveys and geological interpretation) is based upon, and fairly represents, information and supporting documentation compiled by Mr Marc Twining BSc Hons (Geology). Mr Twining is a full-time employee of Barton Gold Holdings Ltd, and is a Member of the Australasian Institute of Mining & Metallurgy (AusIMM Member 112811) and has sufficient experience with the style of mineralisation, the deposit types 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" (The JORC Code).

Competent Person (Challenger)

The information in this presentation that relates to the estimate of Mineral Resources for the Challenger Mine is based upon, and fairly represents, information and supporting documentation compiled by Mr Dale Sims, a Competent Person, who is a Chartered Professional Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Sims is the principal of Dale Sims Consulting Pty Ltd and an independent consultant engaged by Barton Gold for this work and 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 Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code).