

Barton Signs Agreements to Trial CSIRO Exploration Technology

HIGHLIGHTS

- **Barton to trial next-generation CSIRO exploration technology at Tarcoola Gold Project**
- **Technology delivers in-field soil sampling analysis, avoiding traditional lab-based delays**
- **Potential benefits include more effective use of resources, a faster rate of discovery, better target validation, and real-time optimisation of live drilling programs**
- **Works co-funded by South Australian Government Accelerated Discovery Initiative (ADI)**

Barton Gold Holdings Limited (ASX: **BGD**) (**Barton** or the **Company**) is pleased to announce that (via its wholly-owned subsidiary Barton Gold Pty Ltd), it has signed collaboration agreements with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to trial new and innovative advanced geochemical and machine learning techniques at the Tarcoola Gold Project.¹

Technology Deployment

Pursuant to the agreements, Barton will work with CSIRO across two project phases to trial the deployment of Portable PPB's detectORE™ technology, originally patented by CSIRO, across high priority target areas of the Tarcoola Gold Project. This novel technology, not yet widely available to the commercial market, offers the potential to revolutionise soil geochemical testing with Au results available in-field in as little as 8 hours' time versus several weeks for conventional lab-based assays.

During Phase 1, CSIRO will orient the technology to Tarcoola via ~500 soil samples and compare these to CSIRO's UltraFine+™ and biogeochemistry techniques. Phase 2 will see in-field analysis of a further ~2,000 soil samples using detectORE™ and CSIRO's machine learning adaptive sampling approach.

Trial Objectives

The Company's objectives are to optimise sampling on an hourly basis, make more effective use of resources, generate faster results, and zero in on drilling prospects more quickly than conventional means. This would also allow rapid integration into the Company's exploration database for cross-validation of targets identified by other programs, enabling immediate follow-up and potentially real-time optimisation of live drilling programs.

These programs form part of the works co-funded by the Government of South Australia under the Company's recently awarded \$300,000 Accelerated Discovery Initiative (ADI).¹ Pursuant to the terms of the ADI Funding Agreement, the Government of South Australia will provide a \$100,000 up-front cash grant to Barton subject to their approval of the formal agreements.¹

¹ Refer to Barton Gold Holdings Limited ASX announcements dated 28 July and 4 August 2021.

Commenting on the CSIRO collaboration, Barton MD Alexander Scanlon said:

"We are honoured and excited to be working alongside innovation leaders CSIRO and Portable PPB to validate next generation exploration techniques in areas with geology hidden under cover. These programs are a unique opportunity to live trial advanced techniques which are not yet commercially available, and to be a part of developing more cost-and-time efficient exploration methodologies.

We see the potential for scale deployment of these technologies to revolutionise gold exploration in the central Gawler Craton and deliver significant stakeholder value. We are immensely grateful to the Government of South Australia for their continued support of our innovation-driven exploration strategy."

Authorised by the Board of Barton Gold Holdings Limited.

For further information, please contact:

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About Barton Gold

Barton Gold is an ASX listed Australian gold exploration company with a **total attributable ~1.1Moz Au JORC (2012) Mineral Resources endowment** (28.68Mt @ 1.2 g/t Au), a pipeline of advanced exploration projects and brownfield mines, and **100% ownership of the only regional gold mill** in the central Gawler Craton of South Australia.*

Tarcoola Gold Project

- Existing brownfield open pit mine within trucking distance of Barton's processing plant
- Significant mineral extensions
- Under-explored asset with untapped scale potential

Tunkillia Gold Project

- **965koz Au Mineral Resources (26.1Mt @ 1.15 g/t Au)***
- Host structure extends 7km north and 7km south
- District-scale structures with advanced satellite targets

Infrastructure

- 650ktpa CIP process plant, 240 person village, workshop, labs and airstrip
- Tarcoola ~40 person lodging to support mine operations
- Tunkillia camp to support dedicated project team



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 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 qualify as a Competent Person as defined in the JORC Code 2012.

Activity	Competent Person	Membership	Status
Tarcoola Mineral Resource	Dr Andrew Fowler	AusIMM	Member
Tarcoola Exploration Results	Mr Colin Skidmore	AIG	Member
Tunkillia Mineral Resource	Dr Andrew Fowler	AusIMM	Member
Challenger Mineral Resource	Mr Dale Sims	AusIMM / AIG	Fellow / Member
Western Gawler Craton JV Mineral Resource	Mr Richard Maddocks	AusIMM	Fellow

The information relating to historic Exploration Results and Mineral Resources in this announcement is extracted from the Company's Prospectus dated 14 May 2021, 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 the Prospectus and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Prospectus 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 Prospectus.

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 that 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 Gold Holdings Limited Prospectus dated 14 May 2021.