Barton Gold

ASX Announcement

22 August 2022

High-Grade Assays Extend Perseverance West Gold Zone

HIGHLIGHTS

- **Assays from May 2022 step-out drill holes extend Perseverance West gold zone at the Tarcoola Gold Project – mineralisation remains open to depth and to the west**
- **Significant new assay results from these step-out holes include:**
  - **2m @ 7.07 g/t Au from 52m, including 1m @ 11.8 g/t Au from 52m**
  - **3m @ 1.95 g/t Au from 82m**
  - **2m @ 1.99 g/t Au from 94m, including 1m @ 3.76 g/t Au from 94m**
  - **4m @ 1.85 g/t Au from 151m, including 1m @ 4.8 g/t Au from 151m**
- **Results continue to validate prior Perseverance West drilling results confirming southern strike and depth extensions of the shallow Perseverance open pit**
- **Assay results from Area 51 discovery target (Tunkillia Project) expected shortly**

Barton Gold Holdings Limited (ASX: **BGD**) (**Barton** or the **Company**) is pleased to announce assay results from the remaining three holes of its 3,267m May 2022 drilling at the Tarcoola Gold Project (**Tarcoola**).

The mineralised assays are from the Perseverance West gold zone located at the southern end of the shallow open pit Perseverance Mine, and confirm further western extensions of mineralisation. Perseverance West was initially discovered by Barton during its August 2020 Phase 1 Tarcoola drilling program.[1] Assays for the completed drilling at the School and Ealbara prospect areas[2] have also been received although no significant mineralisation has yet been intersected from this drilling, in part due to the thick cover sequence being tested at Ealbara pursuant to the Company's Accelerated Development Initiative (**ADI**) Round 2 funding grant from the South Australian Government.

Commenting on the latest assay results, Barton MD Alexander Scanlon said:

"Perseverance West continues to demonstrate its prospective value as a shallow, high-grade open pit extension. We will continue to advance our work across the Mining Lease and surrounding Exploration License, where we have identified a ~15km corridor amenable to hosting multiple repeats of this style of mineralisation. This will include significant additional geophysical investigation and drilling to build up Tarcoola's discovery pipeline.

"We are also expecting imminent receipt of first assays from the Tunkillia Project's Area 51 prospect, a discovery target indicated by the same new geophysical model which correctly predicted new mineralised zones discovered late last year at Areas 223 North and 191. We are already planning our next Tunkillia drilling programs which will start in early September, with the objective to support an updated year end Mineral Resources Estimate."

[1] Refer to Barton Prospectus dated 14 May 2021.
[2] Refer to Barton ASX announcement dated 28 April 2022.

Step Out Holes Confirm ~50m Extension of Perseverance West Strike

Barton's August 2020 and July 2021 drilling programs discovered multiple shallow high-grade structures and gold-enriched zones at Perseverance West to ~125m depth in Tarcoola Formation lithologies.[3]

The May 2022 drilling campaign was designed to infill drill the gold mineralisation, improve confidence in continuity, and to contribute to a future mineral resource estimate update.

The results reported in this release confirm the continuation of mineralisation ~50m further along strike to the west of the initial assay results reported to the ASX by Barton on 25 July 2022, with mineralisation remaining open both at depth and to further western extension. Key results (>1.0 g/t Au) include:

- **TBM0086: 3m @ 1.95 g/t Au from 82m**
- **TBM0087: 3m @ 1.40 g/t Au from 41m**
- **TBM0087: 1m @ 1.25 g/t Au from 69m**
- **TBM0077: 2m @ 1.99 g/t Au from 94m**
- **TBM0088: 1m @ 1.58 g/t Au from 6m**
- **TBM0088: 2m @ 7.07 g/t Au from 52m,** incl **1m @ 11.8 g/t Au from 52m***
- **TBM0088: 2m @ 1.60 g/t Au from 62m**
- **TBM0088: 4m @ 1.85 g/t Au from 151m,** incl **1m @ 4.80 g/t Au from 151m***

Figure 1 below shows the location of May 2022 drilling activity, with a representative cross-sectional view of the final three step-out holes reported in this announcement presented in Figure 2.

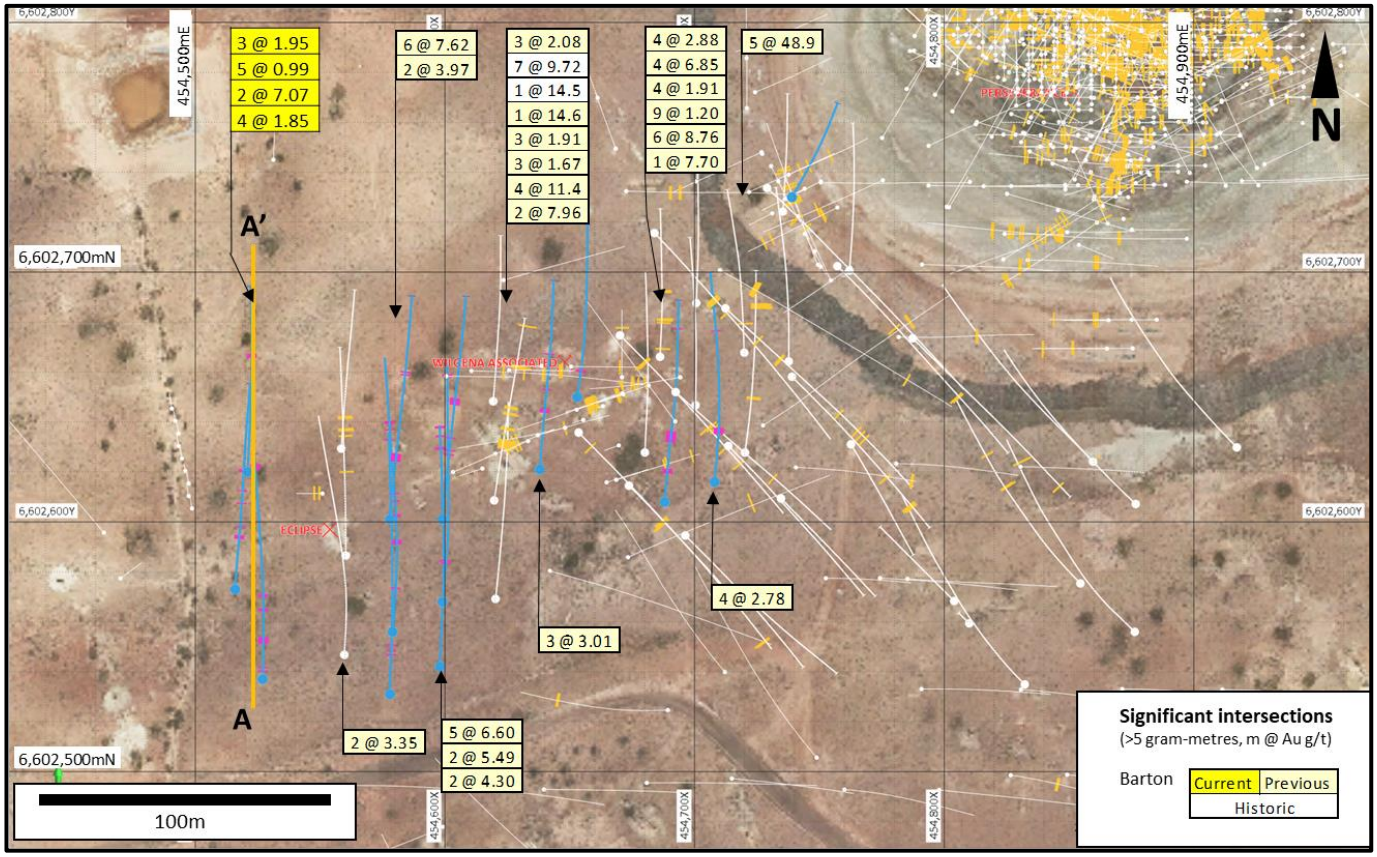

Figure 1 – Perseverance West drill hole location plan with key >5 gram-metre Au intercepts

May 2022 Barton drilling displayed as labelled blue traces, all previous drilling as white traces
Reported significant intersections >0.5 g/t Au displayed in pink; Previous intersections >1.0 g/t Au displayed in yellow

Detailed drilling intersections relating to these assays are tabulated in Table 3.

[3] Refer to Barton Prospectus dated 14 May 2021 and ASX announcement dated 27 October 2021
* Refer to JORC Tables 1 & 3 contained at annexures for commentary regarding nuggety gold

Figure 2 Cross Section A (454,520E)
Significant intersections highlighted in pink and labelled where >1.0 g/t Au
*(*refer to JORC Tables 1 & 3 contained at annexures for commentary regarding nuggety gold)*

Ealbara Prospect drilling results

The three drill holes completed at the Ealbara prospect intersected and were terminated within a thick stratigraphic sequence assigned to the Gawler Range Volcanic (**GRV**) formation. The GRV conceals the basement rocks targeted for gold mineralisation along the Lake Labyrinth Shear Zone (**LLSZ**).[4]

The purpose of trial drilling at Ealbara was to test existing theories relating to the thickness of GRV, which was found to be significantly greater than previously modelled. This work was co-funded by the South Australian Government under Round 2 of the ADI. The drill holes completed in this program have provided an adequate test as to the distribution of this GRV cover sequence across the Ealbara prospect area.

Barton still considers the targeted flexure along the underlying LLSZ as a priority exploration target and will consider alternative methods to predict the depth to basement prior to potential future drill testing.

School Prospect drilling results

The two drill holes completed at the School prospect tested the interpreted structural position and a local gravity anomaly. This work was co-funded by the South Australian Government under Round 2 of the ADI.

The intersected rocks adequately reconcile the gravity response. with no significant zones of alteration observed or anomalous gold mineralisation returned from assaying. The observations and data from this drilling will be incorporated in the ongoing review and interpretation of the geological setting at Tarcoola and future exploration targeting.

[4] Refer to Barton ASX announcement dated 28 April 2022.

Pending Assay Results

The Company expects the imminent receipt and publication of assay results from May 2022 drilling at the Tunkillia's Gold Project's Area 51 discovery target.

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

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Competent Persons Statement

The information in this announcement that relates to new Exploration Results for the Tarcoola Gold Project (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). Mr Twining is an employee of Barton Gold Holdings Ltd and is a Member of the Australasian Institute of Mining and Metallurgy Geoscientists (AusIMM Member 112811) 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). Mr Twining consents to the inclusion in this announcement of the matters based upon this information in the form and context in which it appears.

JORC Table 1 – Tarcoola Gold Project

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Sampling during Barton Gold's 2022 RC drill programs at Tarcoola was obtained through reverse circulation (RC) methods. Historic RC and diamond drilling methods were also used in drilling campaigns completed since the mid-1990s. Rotary air-blast (RAB) and aircore drilling has also been completed. These holes were used to guide interpretation but were not used for previous grade estimations or modelling of the results reported in the accompanying Announcement.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The drilling program used a Metzke cone splitter attached to the cyclone. One-metre splits were constrained by chute and butterfly valves to derive a 2-4kg split on the cyclone. Samples above 1m depth were not collected. Historic diamond core has been sawn in half or quarter using a core saw. Historic RC samples were collected using various splitting methods over the project's history. A splitter was generally used; however, spear samples were taken for a period of time in some holes.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. "RC drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay"). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	The sample preparation of the one-metre sampling for Barton Gold's RC drill program was conducted by Bureau Veritas (Adelaide) using method FA1 where the 2-3kg split sample received at the laboratory is weighed, dried, crushed to 10mm, pulverized to 75 micron and split to provide a 40g sample for fire assay analysis. The sample preparation of the one-metre sampling for Barton Gold's 2020 and 2021 RC drill programs was conducted by MinAnalytical (Perth) using method PAP3502R where the 2-3kg split sample received at the laboratory was weighed, dried, crushed to 3mm and split to provide a nominal 500g charge for analysis. Historically RC and diamond drilling samples were analysed by various laboratories by either fire assay or Aqua Regia digest, detection by atomic absorption spectrometry (AAS) or a Pulverise and Leach (PAL) process. 1 m RC or diamond samples were generally collected.
Drilling techniques	Drill type (e.g. core, RC, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The RC drilling program by Barton Gold used a face-sampling 5 ¾" RC drilling techniques undertaken by Bullion Drilling using a Schramm T685WS with auxiliary compressor. *Historic drilling has taken place over numerous periods since the mid- 1980s as follows:* ☐ *1987–1989 BHP Gold/Aberfoyle JV (RC and HQ3 DD)* ☐ *1991–1994 Queens Road Mines/Grenfell Resources(RC)* ☐ *1996–1998 Grenfell Resources (RC, RCD, HQ3 DD)* ☐ *2001–2002 AngloGold/Gravity Capital (RC/RCD)* ☐ *2008 LIDDS (NQ DD)* ☐ *2012 Tunkillia Gold (RC and HQ3 DD)* ☐ *2016–2018 Tarcoola Gold (RC).*

Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Drilling recoveries were qualitatively described for each drilled interval in the field database along with an estimation of moisture content. In general recoveries were good in the order of 30-40kg for each one-metre interval and less than 1% of intervals noted any moisture content. Samples submitted to the laboratory were weighed on a dry, as-received basis and reported along with assay results. Drilling recoveries prior to 2012 were not recorded for both RC chips and diamond core. Some earlier reports noted difficult drilling. Grenfell noted that care was taken to maximise recoveries and minimise contamination and wet drilling conditions were not often encountered. AngloGold noted no major problems with drilling conditions. TGL RC drilling programmes noted good recoveries, with weights of 30–40kg achieved in fresh material. Within the weathered zone, sample weights were more variable. Holes collared in the Quaternary overburden yielded poor or no recovery from the upper unconsolidated cover sequence, which does not host gold mineralisation. Diamond core recoveries were recorded by TGL. Local zones of core loss were noted in the oxide zone however core recoveries were generally good.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The RC drilling was closely monitored by the site geologist to ensure optimal recovery and that samples were considered representative. Historically, HQ triple tube (HQ3) drilling was used for some holes to maximise core recovery. Re-entry holes were not triple-tubed as they were drilled straight into fresh bedrock. Drilling rates were controlled, and short drill runs were often used through the oxide zone to maximise core recovery.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship between grade and recovery has been identified.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	The RC drilling program electronically logged a number of parameters direct into a database including: Stratigraphy, lithology, weathering, primary and secondary colour, texture, grainsize, alteration type-style-intensity and mineralisation type-style-percentage. Logging practices varied over the project's history, however AngloGold attempted to standardize the logging by relogging holes in 2002. Approximately 17,000m of diamond and RC drilling and conversion of historical data into a consistent coding system. Some inconsistency in the logging is evident in the current database, however significant mapping has been completed in the pit which, in conjunction with the logging, provides a sound geological basis to prepare a Mineral Resource estimate.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is generally qualitative in nature.
	The total length and percentage of the relevant intersections logged.	All diamond core and RC drilling has been geologically logged.

Criteria	JORC Code explanation	Commentary
Subsampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond samples are generally half-cored, with core sawn in half using a core-saw. Occasionally quarter-core samples are taken.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	The RC drilling program used a Metzke cone splitter mounted on the cyclone with one-metre splits constrained by chute and butterfly valves to derive a 2-4kg split on the cyclone. >99% of samples were recorded as received dry from the cyclone. Historically, almost all RC samples were collected using a riffle or cone splitter at 1m intervals consistent with industry good practice. Early Grenfell RC holes were spear sampled. Samples were collected in full in plastic bags, and the plastic bags were rolled several times to help ensure mixing prior to collecting a 1– 2kg sample using a short plastic tube inserted diagonally several times into the material.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	SADME (1964) – Diamond holes were quarter-cored by Grenfell. Aberfoyle (1979–1985) – Samples of open holes TP001–021 were collected in a PVC bag via a cyclone, and then split down to approximately 1.5kg. Newmex Exploration Limited/Tarcoola Gold Ltd (1987–1988) – RC samples from TRC001–TRC025 were collected over 1m intervals via a cyclone with an incorporated splitter. Approximately 3kg was collected for analysis. RC samples from TRC026–TRC138 were collected over 1m intervals and riffle split to collect a sample. The weight of the sample was approximately 2kg. BHP (1987–1989) – RC holes were sampled at 1m intervals with rock chips homogenized via a cyclone before being split and sampled. A 4m composite sample weighing approximately 2.5kg was initially submitted for analysis. The 1m samples were only submitted if the original 4m sample returned a value of >0.5 g/t Au. Diamond core was apparently half-cored, with samples generally taken at 1m intervals. Grenfell (1991–1993) – RC holes were sampled at 1m intervals were collected in full in plastic bags. The plastic bags were rolled several times to help ensure mixing prior to collecting a 1–2kg sample using a short plastic tube inserted diagonally several times into the material. A 4 m composite was initially submitted for analysis. 1m samples were only submitted if the original 4m sample returned a value of >0.3 g/t Au. Diamond core was apparently half-cored, with samples generally taken at 1m intervals. Grenfell (1995–1997) – RC holes were sampled at 1m intervals were collected in full in a plastic bucket, and then poured through a three-tier riffle splitter. Buckets were emptied through the splitter at 0.5m intervals. A 3kg sample was collected in a calico bag for assay, and the remaining sample collected in a large plastic bag. Poor sample recovery was apparently only noted within a small number of drillholes. Diamond core was apparently half-cored, with samples generally taken at 1m intervals. AngloGold (2001–2002) – RC holes were sampled at 1m intervals. Detail surrounding the RC subsampling techniques was not provided to CSA Global. Diamond core was apparently half- cored, with samples generally taken at 1m intervals.

		Tunkillia Gold (2012) – Diamond core was generally half cored, samples taken at 1m intervals or to geological contacts. Tarcoola Gold (2016–2017) – Grade control drilling is undertaken by RC methods. The rig is track mounted and fitted with a compressor and a cone sampling tower with a cone splitter. Holes are drilled with a 127 mm face sampling hammer. Samples are taken at measured (and marked) 1 m rod intervals with a 12.5% sample spilt collected off the sample chute via a cone splitter. Barton Gold (2020 and 2021) – RC samples were collected using a Metzke cone splitter mounted on the cyclone with one-metre splits constrained by chute and butterfly valves to derive a 2-4kg split on the cyclone.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Subsampling is performed during the preparation stage according to the assay laboratories' internal protocols.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	During the RC drilling program a field duplicate was collected off a second chute on the cyclone splitter at a frequency of 1 for each 15-original sample intervals. *To the best of the Competent Persons knowledge, no RC field duplicates were taken prior to 1995. After 1995, field duplicates have generally been inserted in the sample stream at a rate of one in every 20 samples. No data was provided for the AngloGold drilling program however (2001–2002). Results generally give confidence in sampling procedures.*
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to the grain size of the material being sampled.

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Analytical techniques have varied somewhat over the projects history and are summarised below. SADME (1964) – Diamond holes were sent to Amdel in Adelaide for analysis by Aqua Regia digest flame AAS with a 0.02 detection limit. Any samples returning grades >1 g/t Au were re-assayed by fire assay with an AAS finish. Aberfoyle Exploration (1985–1987) – Samples were submitted to Classic Laboratories in Perth for fire assay using a 50g charge. Newmex Exploration Limited, Tarcoola Gold Limited (1987– 1988) – Samples from TRC001–TRC025 were submitted to Genalysis in Perth for analysis using Aqua Regia digest and AAS finish after roasting to oxidise sulphides. Fire assay was carried out on all samples containing >1 g/t Au determined following Aqua Regia. Samples from TRC026–TRC138 were submitted to Classic Comlabs, Adelaide for analysis by fire assay. BHP Gold (1988–1991) – Samples were submitted to Amdel Laboratories in Adelaide for analysis. The analytical method is not known. Queens Road Mine/Grenfell Resources (1992–1994) – Samples were submitted to Amdel for digest by Aqua Regia (two parts hydrochloric acid to one-part nitric acid), followed by extraction into organic solvent (D.I.B.K.). A 50g subsample was then analysed by AAS with a 0.02 g/t Au detection limit. Grenfell Resources (1996–1998) – Earlier samples were submitted to Amdel for analysis by Aqua Regia digest with AAS finish. Any samples returning grades >1 g/t Au were re-assayed by fire assay with and AAS finish. Later holes were submitted to Aqua Regia digest with graphite furnace AAS. AngloGold, Gravity Capital Limited (2001–2002) – Earlier holes (up to TCRC0029) were submitted to Genalysis in Adelaide. Sample preparation was completed in Adelaide, and then sample analysis was completed in Perth via a 50g fire assaywith AAS finish (Method FA50/AAS). Later holes were submitted to Analabs in Perth for analysis by fire assay. Low Impact Diamond Drilling Services (2008) – Two core holes were submitted to Onsite Laboratory Services, Bendigo for analysis by 25g fire assay with AAS finish. Subsampling techniques are not known. Tunkillia Gold (2012) – Au analysis was completed by IntertekGenalysis in Adelaide, via a 50 g lead collection fire assay with AAS finish to a 0.005 ppm detection limit (Method FA50/AA). Tarcoola Gold (2016–2017) – Samples were dried at 90°C to eliminate the impact of moisture on sample processing. After drying samples are crushed via a Boyd Crusher to <10mm in size then split through a rotary splitter to produce a sub-sample. The crusher is cleaned regularly and has barren bricks crushed between sample groups to prevent contamination. Analysis is through the pulverising and leach (PAL) process. This process reflects the site mill extraction process where: each process is pulverised in aqueous solution with cyanide bearing assay tabs and a collection of assorted sized ball bearings. Each sample is pulverised for an hour, resulting in an Au-CN complex bearing solution and remnant pulverised sample, and the pulverised material is 95% passing 75 microns. Following PAL processing, samples are decanted, centrifuged and prepared for analysis in an AAS with a solvent separation with a DIBK and residence time of 20 minutes. The sample is then aspirated through the AAS to produce a reading

		Barton Gold (2020) – 2-4kg splits were sent to MinAnalytical in Perth for preparation and analysis using photon assay techniques for gold and ICPOES/MS for multielement geochemistry. The received samples used MinAnalytical's PAP3502R method for preparation which included weighing before drying and crushing to 3mm. A 500g charge was split for analysis using MinAnalytical's PAAU2 photon assay method for gold which is a fully automated technique designed for the analysis of ores. It uses high energy x-rays to excite the atoms so liberation from the surrounding material is not required. The ~500g single-use jars allows for bulk analysis with no chance of cross contamination between samples. Barton Gold (2021) – 2-4kg splits were sent to Intertek Genalysis in Adelaide for preparation and analysis using 50g fire assay techniques for gold and ICPOES/MS for multielement geochemistry. Whilst preparation and some fire assays were undertaken in Adelaide Intertek also sent some batches to their Perth laboratories for analysis. Intertek's FA50/OE04 method uses a 50 g lead collection fire assay with ICP-OES / MS finish to a 0.005 ppm detection limit. Multielement samples were analysed using Intertek's method 4A/MS48 which is a 4-acid digest followed by analysis using ICP-OES and MS for 48 elements. Barton Gold (2022) – 2-4kg splits were sent to Bureau Veritas in Adelaide for preparation and analysis using 40g fire assay techniques for gold. Bureau Veritas' FA1 method uses a 40 g lead collection fire assay with AAS finish to a 0.01 ppm detection limit.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical studies were used in this latest drilling program.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Barton Gold's RC drilling program included a comprehensive QAQC component with Field Duplicate samples taken at every 15th sample; Certified Standards (selection of OREAS CRM's considered most appropriate for expected grade and composition) were inserted randomly in sequence for at every 20th sample submitted; blanks were inserted in sequence at every 50th sample submitted. Additionally, the laboratories provided their internal QAQC which included check samples, CRM's, blanks and repeats. Analysis of the duplicate samples was reasonable given the majority fell below detection. Some significant variation was noted however this is considered consistent with the interpreted high nugget style of mineralization (and not as a result of analytical processes). Where the results returned from field duplicate samples are materially different, the results for both samples have been disclosed when reporting exploration results. There was some limited evidence of cross-contamination in the submitted blank samples, but considered insignificant and not material to the reported results. Bureau Veritas' analysis for gold using fire assay performed well with all batches falling within the +/-3SD test of the expected value for the given standards (3 OREAS CRM's). Historically, the amount of sampling and analytical QC data that has been collected has varied over the project's history. Limited sampling and analytical QC data is available to support drilling programs completed prior to 1992, which represents a relatively minor portion of the dataset. Between 1992 and 1994, the only meaningful QC data appears to

Criteria	JORC Code explanation	Commentary
		Between 1996 and 1998, standard results indicate no significant bias, and blank results suggest no issue with carry-over contamination. Field duplicate results reveal a reasonable amount of scatter, which implies poor sample precision, however no bias was noted. Check (umpire laboratory) assay results also revealed considerable scatter but no significant bias which further attests to the accuracy of the analytical data. It is understood no QC samples were submitted between 2001 and 2008. Tunkillia Gold used blanks to monitor carry-over contamination and no significant issues were detected. Field duplicates were used to assess sample precision, while CRMs were used to assess analytical accuracy. Some pulps were also sent to an umpire laboratory as a further check on analytical accuracy. Field duplicate results provide some confidence sample precision. The scatter which is observed is understandable given the moderate to high nugget effect evident at Tarcoola. The CRMs reasonably demonstrated the accuracy of the laboratory. Pulp repeats were higher than the original results, which did cause some concern however, given the CRM results the Competent Person had reasonable confidence in the accuracy of the primary laboratory. Tarcoola Gold collected field duplicates to monitor sample precision and submitted one main CRM to monitor analytical accuracy. The field duplicate results give some confidence in sample precision, with the scatter which is observed likely a consequence of the high-nugget nature of the mineralisation. Although only one CRM was used, no bias was noted.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Alternative company personnel have verified significant intersections.
	The use of twinned holes.	No twinned holes were drilled in the course of this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data collected in the reported program including collar details, drilling records, sampling records and geological logs are recorded directly into spreadsheets in the field which includes comprehensive interval validation processes. Gyro downhole surveys and Assay results were provided in digital format. All relevant historical data was entered into a DataShed database where various validation checks were performed. Data was exported into an Access Database.
	Discuss any adjustment to assay data.0	no adjustments were made to any assay data in this release.

Criteria	JORC Code explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	All 2022 RC drill collars were sited using a Garmin hand-held GPS system. The RL was generated from the LiDAR survey collected at the completion of drilling. All 2020-2022RC holes were downhole surveyed using a Reflex EZ-Gyro system which provided measurements at 10m intervals up and down hole, with the exception of TBM0038- TBM0045 which used a single shot Reflex down hole camera generally at 30m increments. *Collar location and downhole survey methods have varied somewhat over the project's history. Almost all hole collars have been surveyed by GPS, DGPS or total station methods, with checks completed against the topographic DTM.* *Downhole survey methods have varied somewhat over the projects history and are summarised below.* *Aberfoyle (1979–1985) – Holes not surveyed. Set-up positions were used and are well documented.* *BHP (1987–1989) – Holes not surveyed. Set-up positions were used and are well documented.* *Grenfell (1991–1997) – A single shot Eastman camera was used, with surveys taken every 30–50m (GP, GL series). Earlygeneration holes completed by Grenfell/Queens Road were not surveyed at the time of the drilling. Grenfell conducted a campaign of Eastman surveys for open historical holes, using Fugro Survey as a contractor.* *AngloGold (2001–2002) – A single shot Eastman camera was used, with surveys taken every 30–50m (TCD, TCRC series).* *Tunkillia Gold (2012) – A reflex Ezi-shot downhole camera was used, with readings taken every 30m for diamond holes (TADD series) and end-of-hole for RC holes (TARC series). TGL completed validation checks on the downhole surveys including consistency checks on available databases, comparison of digital databases against hard copy records, and against original Eastman camera discs, cross checks on grid to magnetic conversions and visual review.* *Tarcoola Gold (2016–2017) – In February 2017, Kinetic* *Technologies was engaged to perform a downhole optics survey for a geotechnical review. A total of seven holes were downhole surveyed for deviation using a directional survey probe.* *Readings were taken at 10m downhole intervals. Results showed minor lifting in holes deeper than 28m. The majority of grade control holes are drilled to 23m; hence hole deviation is not considered to be significant.*

Criteria	JORC Code explanation	Commentary
	Specification of the grid system used.	All site data is reported in Geocentric Datum of Australia 1994 (GDA94) and Vertical Datum in Australian Height Datum (AHD). The map projection is MGA Zone 53. Historic Survey Data has been converted to GDA94.
	Quality and adequacy of topographic control.	*In March 2020 Barton gold engaged Aerometrex to collect LiDAR and high-resolution ortho-imagery over the entire Tarcoola Mining Lease. All datasets are levelled to the LiDAR survey*
Data spacing and distribution	Data spacing for reporting of Exploration Results.	This RC program at Perseverance West was undertaken on nominal 25-40m spacings on infilling drill traverses which provide for a nominal spacing between lines of 20m across the drilling completed between 2020-2022. Other drilling has been close to the Perseverance Pit where there is substantial historic drilling with new holes infilling, stepping out and testing underneath the pit. The archer prospect was drilled on 2 x 40m spaced traverses (Figure 1). The high number of historical drill holes in this area (completed at 5–10m spacings increasing to 25–40m spacings at the periphery of the deposit with four main drill directions: vertical, 60° to 030°, 60° to 105° and 60° to 060) the drill spacing is considered adequate for the reporting of exploration results.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Exploration results only being reported.
	Whether sample compositing has been applied.	Sample compositing was not applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Barton's RC drill program was orientated to optimally test predicted mineralised structures and stratigraphic positions to provide where possible unbiased samples. Historic holes have been drilled at several orientations, and the orientation of relevant mineralisation-hosting geological structures varies considerably. All operators have aimed to intersect the mineralisation at a high angle to its strike, however this has not always been achieved
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.

Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	Barton Gold staff oversaw the sampling on the drill rig and maintained reasonability whilst onsite during drilling program. Split samples were inserted into pre-printed calico bags. These tied bags were, in batches of 5, ziplocked into labelled polyweave bags which were inserted into ziplocked Bulka-bags. The bulka bags were strapped onto pallets and loaded by a Barton Gold representative on to a semitrailer for transport to the laboratories in Adelaide and Perth. The trailers were not unloaded whilst in transit. Barton does not have detailed information in regard to sample security measures taken by previous owners of the Tarcoola project. However, Barton understands that these procedures have been in accordance with commonly adopted standard industry practices
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An internal peer review of the exploration data processes has been completed by Barton Gold which has included a detailed review of the assay, survey and QAQC data. MacArthur carried out a review of sampling techniques and data in 2013. Mining Plus undertook a comprehensive audit of the historical drilling database in 2020 and have in part rebuilt the database using original assay results and incorporated significant supporting metadata.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Tarcoola ML Project area lies within Mineral Lease (ML) 6455. ML6455 covers an area of 725.35 ha and is situated completely within Exploration Licence (EL) 6210 which was owned by Tarcoola 2 Pty Ltd a wholly owned subsidiary of Barton Gold Pty Ltd. The Mining Lease is covered by a registered Native Title determination held by the Antakirinja Matu-Yankunytjatjara Aboriginal Corporation (AMYAC). Tarcoola 2 has a deed of agreement with AMYAC and all work programs have been approved by AMYAC. Adjacent to the Perseverance Deposit and the Deliverance/Eclipse Target areas are registered State Heritage Places.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Tarcoola deposit is currently held under a Mining Lease which is listed as Under Care and Maintenance. There are no known impediments to obtaining future licences.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Tarcoola deposit has been subject to sporadic exploration by numerous parties since alluvial gold was first discovered in 1893. Companies who have undertaken drilling include: Newmex Exploration, BHP, Grenfell Resources, AngloGold, Stellar, Hiltaba Gold, Tunkillia Gold and Tarcoola Gold.

Geology	Deposit type, geological setting and style of mineralisation.	The Tarcoola Project covers a portion of the north-western Gawler Craton centred over the historic Tarcoola goldfield, where Archaean and Proterozoic rocks form the basement to an extensive cover of Phanerozoic sediments. The Archaean basement has been extensively deformed, whereas the Proterozoic rocks have been weakly to moderately deformed. At Perseverance (current Tarcoola open pit mine), gold mineralisation is hosted within sedimentary rocks of the Tarcoola Formation and granite, both of Proterozoic age. The granite is variably in fault contact with or unconformably overlain by the sediments, which consists of conglomerate, limestone, sandstone, siltstones, and shale. A suite of later intrusions (Lady Jane Diorite) cut both the sedimentary rocks and the granite. Mafic high level intrusives associated with the 1590Ma Hiltaba Magmatic Event are considered to control the spatial setting of both gold and base metal mineralisation. Three deformation events have been recognised in the area. D1 is characterised by open folding and NNW-directed thrusting, responsibly for the southerly dip of the sedimentary package at Perseverance. Steeply dipping NW and NE trending brittle faults developed during D2. These structures host and control the gold mineralisation in the Tarcoola Ridge area. The third deformation event (D3) is represented by the late E-W trending barren quartz veins. Gold has locally been remobilised and enriched in the weathering profile. The base of complete oxidation occurs typically 10-40m below surface, and the base of partial oxidation occurs at a depth of ~20-60m.

Criteria	**JORC Code explanation**	**Commentary**
		Within the primary zone, sericite-quartz-pyrite alteration zones are spatially associated with the mineralisation and overprint earlier hematite-magnetite alteration. An outer halo of chlorite (+/-leucoxene and pyrite) is developed. Pyrite, galena and sphalerite are the main associated sulphide minerals, with subordinate amounts of chalcopyrite bornite and/or arsenopyrite noted. Veins can be discrete or form wider stockwork zones and are surrounded by broader quartz-sericite alteration envelopes which can host lower grade background halos of mineralisation. Dispersed supergene mineralisation in the oxide zone can be largely detached from veining. For more detail see: Budd, A & Skirrow, R, 2007. The Nature and Origin of Gold Deposits of the Tarcoola Goldfield and Implications for the Central Gawler Gold Province, South Australia. Economic Geology, 2007.

Drillhole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: ☐ Easting and northing of the drillhole collar ☐ Elevation or RL (Reduced Level – Elevation above sea level in metres) of the drillhole collar ☐ Dip and azimuth of the hole ☐ Downhole length and interception depth ☐ Hole length.	A tabulation of the drilling program in this Announcement is presented in Table 2
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	Reported intersections used the following criteria: • Weighted average method using MapInfo-Discover's Drillhole Grade Composite algorithm applying a 0.5g/t Au cut-off • No high-grade cut-offs were applied • Internal dilution of up to 2m was included provided > 0.1 g/t Au • No metal equivalents were calculated *Reported intersections where previously reported in the Barton Gold Prospectus (14 May 2021) used the following criteria:* *• Weighted average method* *• First pass low grade continuity: 3 m >0.3g/t Au* *• Second pass 2 m > 0.5 g/t Au* *• Third pass 1 m > 1g/t Au* *• No high-grade cut-offs were applied* *• Internal dilution of up to 2 m was included* *• No metal equivalents were calculated*

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. "downhole length, true width not known").	Drillholes have been designed to intersect the mineralisation zone as perpendicular as possible. Reported intercepts are downhole length and true width can generally be estimated because the dip of the mineralisation is known. *In general drilling was designed to be as perpendicular to the lodes as possible but true widths are not conclusively known. However, true width possibilities have been estimated in the significant intersections table. Any significant intercepts used in modelling are constrained by the resulting model, producing a defacto true width for further calculations.*
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	See Figures included the body of this Announcement
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	See Table 3
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No substantive exploration data not already mentioned in this table has been used in the preparation of this Announcement and the Perseverance Pit was successfully mined by TCG in 2017-2018. There are however extensive geological, geophysical, geochemical, geotechnical and metallurgical datasets available for this project area
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Barton Gold is planning further work which will be focused on testing for dip extensions and strike extensions and to confirm grade and geological continuity implied by the current model.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams have been included in the body of this Announcement.

Table 2: Drillhole Collar Details for Barton Gold Tarcoola Phase 3 (May 2022) RC Drilling Program

Hole ID	Easting	Northing	RL	DIP	TAZ	Total Depth (EOH)	Type	Completion	Target
TBM0075	454739	6602730	159	-60	025	84	RC	28/04/2022	Perseverance West
TBM0076	454708	6602616	15	-60	000	160	RC	29/04/2022	Perseverance West
TBM0077	454688	6602608	151	-60	000	160	RC	30/04/2022	Perseverance West
TBM0078	454653	6602650	152	-60	000	120	RC	30/04/2022	Perseverance West
TBM0079	454638	6602621	151	-60	000	140	RC	2/05/2022	Perseverance West
TBM0080	454599	6602601	147	-60	000	160	RC	2/05/2022	Perseverance West
TBM0081	454599	6602568	144	-60	000	180	RC	3/05/2022	Perseverance West
TBM0082	454598	6602542	141	-60	000	193	RC	4/05/2022	Perseverance West
TBM0083	454578	6602601	143	-60	000	160	RC	6/05/2022	Perseverance West
TBM0084	454579	6602556	141	-60	000	200	RC	7/05/2022	Perseverance West
TBM0085	454578	6602531	139	-60	000	200	RC	8/05/2022	Perseverance West
TBM0086	454521	6602620	138	-60	000	130	RC	9/05/2022	Perseverance West
TBM0087	454516	6602573	141	-60	000	162	RC	10/05/2022	Perseverance West
TBM0088	454527	6602537	140	-60	000	162	RC	11/05/2022	Perseverance West
TBM0089	457219	6603214	135	-60	45	90	RC	11/05/2022	School
TBM0090	457496	6603320	132	-60	215	102	RC	12/05/2022	School
TBM0091	465798	6626312	136	-60	230	240	RC	14/05/2022	Ealbara
TBM0092	457496	6603320	135	-60	230	276	RC	15/05/2022	Ealbara
TBM0093	466798	6625472	125	-60	230	348	RC	16/05/2022	Ealbara

Table 3: Significant Intersections for Barton Gold Tarcoola (May 2022) RC Drilling Program reported in this Announcement[2]

Hole ID	From	To	Metres[1]	Au (g/t)	Including
TBM0088	6	7	1	1.58	
TBM0088	9	10	1	0.75	
TBM0088	28	33	5	0.99	Including 1m @ 2.05g/t Au from 32m
TBM0087	41	44	3	1.4	
TBM0087	50	51	1	0.56	
TBM0088	52	54	2	7.07	Including 1m @ 11.8g/t[3] Au from 52m
TBM0088	62	64	2	1.6	
TBM0087	69	70	1	1.25	
TBM0087	79	80	1	0.5	
TBM0086	82	85	3	1.95	
TBM0087	94	96	2	1.99	Including 1m @ 3.28g/t Au from 94m
TBM0088	151	155	4	1.85	Including 1m @ 4.80g/t[4] Au from 151m

[1] Note - Not true widths.

[2] Note – Calculated using a 0.5g/t Au cut-off and allowing up to 2m internal dilution provided dilution is >0.1g/t Au.

[3] Note – An average of (field) duplicate samples which assayed separately at 22.4g/t Au and 1.19g/t Au.

[4] Note – An average of (field) duplicate samples which assayed separately at 2.30g/t Au and 7.30g/t Au.

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 quality 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 (until 15 Nov 2021)	Mr Colin Skidmore	AIG	Member
Tarcoola Exploration Results (after 15 Nov 2021)	Mr Marc Twining	AusIMM	Member
Tunkillia 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 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 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 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 14 October 2021.