

# Exploration to Target High-Grade Gold

## Strategic Review of Gold Assets Underway

### HIGHLIGHTS

- Strategic review of Bryah's gold assets
- Gold assets are held in the Bryah Basin, West Bryah Basin and Gabanintha Projects.
- Gabanintha gold highlights: **10m @ 27.5 g/t Au**, including **4m @ 64.3 g/t Au** (including **1m @ 182.0 g/t Au**)<sup>1</sup>
- Bryah Basin gold highlights: BBRC019: **5m** (79m – 84m) @ **6.62g/t Au**, BBRC020: **3m** (145m – 148m) @ **6.69g/t Au**, and BBRD072: **2m** (from 437m) @ **3.88 g/t Au**<sup>2</sup>

Bryah Resources Limited (“Bryah” or “the Company”) has commenced a strategic review of its gold assets in Western Australia. Bryah also has a 7.25% holding plus performance shares in Star Minerals Limited (ASX: SMS) which is bringing its high-grade Tumblegum South Gold Project into production. Bryah holds mineral rights of gold, copper and nickel over tenements at the Australian Vanadium Limited (ASX: AVL) Gabanintha Project.

Bryah's Chair, Ian Stuart commented:

*“With the gold price currently sitting at around A\$5,000 per ounce, it's timely that Bryah reviews its gold assets and assesses exploration opportunities. Previous work across our project areas with gold potential has been mainly focused on copper, which remains highly prospective. After a desktop review the Company will have a clearer understanding of the areas to focus on and will plan further gold drilling. We have had some exciting results previously and our geologists are keen to explore areas where they can see great potential.”*

<sup>1</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 30 March 2021 ‘Bryah delivers Bonanza Gold Grades at Gabanintha’

<sup>2</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 22 November 2018 ‘High-Grade Gold at Windalah Prospect’



## West Bryah and Bryah Basin

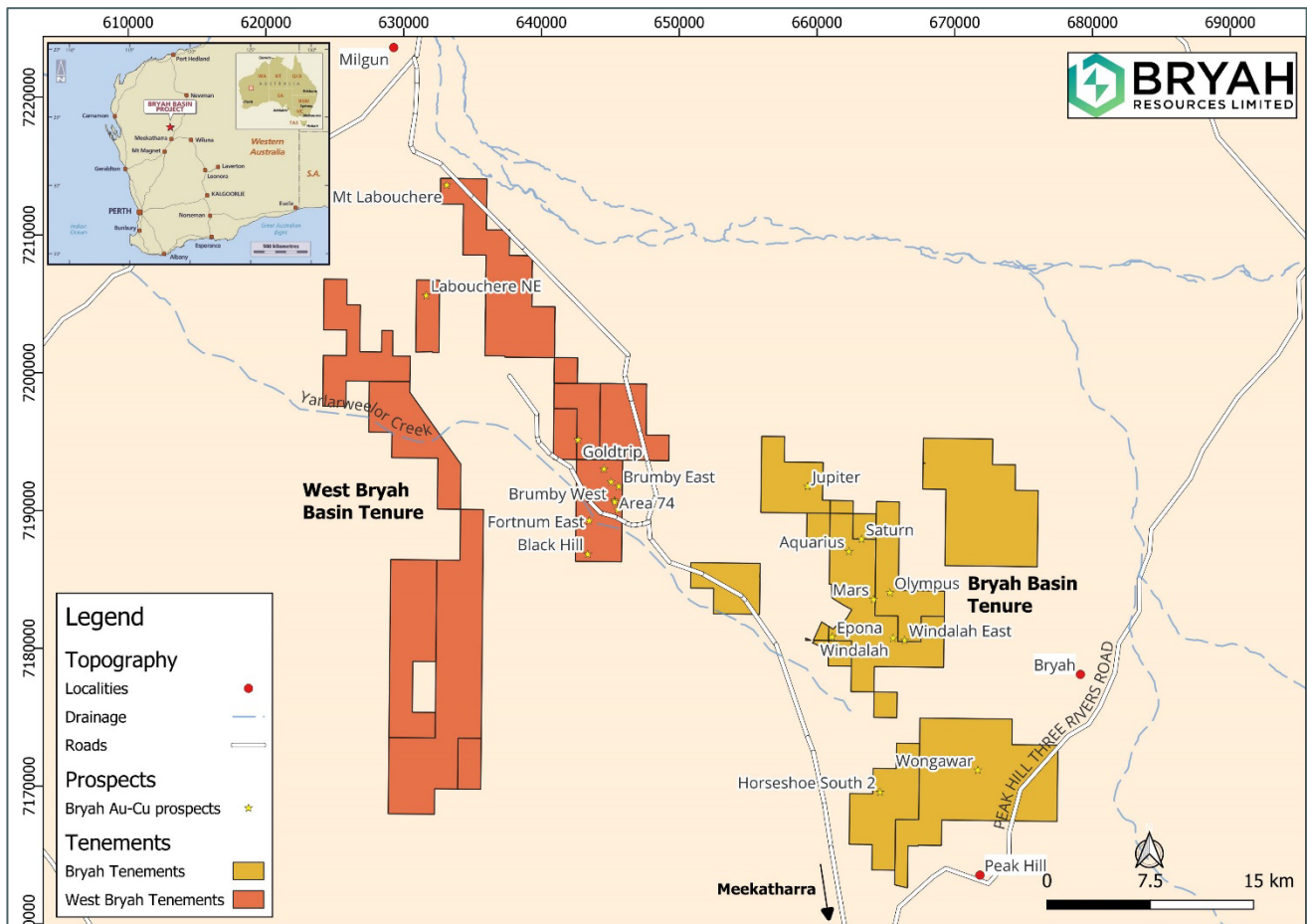


Figure 1: West Bryah Basin and Bryah Basin Tenements and associated prospects

The Bryah Basin and West Bryah Basin Projects are located approximately 100-150km north of the town of Meekatharra in Western Australia. The Bryah Basin was first identified with gold potential during the 1897 and 1911 gold rush periods when Mt Magnet, Cue and Meekatharra were the focus of many mining and prospecting activities.

Modern exploration in the region began in the 1960's with active exploring for gold. During the 1980's and 1990's the gold mines at Peak Hill, Harmony, Fortnum, Labouchere, Wilthorpe, Nathans, Horseshoe Lights and Horseshoe-Cassidy were actively being mined for gold, and the surrounding areas were partly covered by soil sampling and reconnaissance Rotary Air Blast (RAB) drilling programs.

The Company's tenements cover approximately 580 km<sup>2</sup>. Active and historic mines located close to these tenements include the Westgold Resources Limited (ASX: WGX) Fortnum, Labouchere, Horseshoe and Peak Hill gold mines, Hermes and Harmony gold mines and the Horseshoe Lights gold-copper mine.

Bryah's tenements cover large areas of under-explored ground adjacent to the gold-copper deposit at Horseshoe Lights, hosted in similar aged volcanic and sedimentary rocks to the Sandfire Resources (ASX: SFR) DeGrussa copper-gold mine.

Opportunities exist to follow-up anomalous gold and copper mineralisation identified, particularly within the Narracoota Formation and along associated geological contacts, focusing on several surface gold anomalies, identified during previous RAB drilling programs (between 1980's and 1990's).

### Bryah Basin - Aquarius Project

Historic anomalies at the Saturn prospect, initiated interest in an area locally referred to as the Aquarius Project.

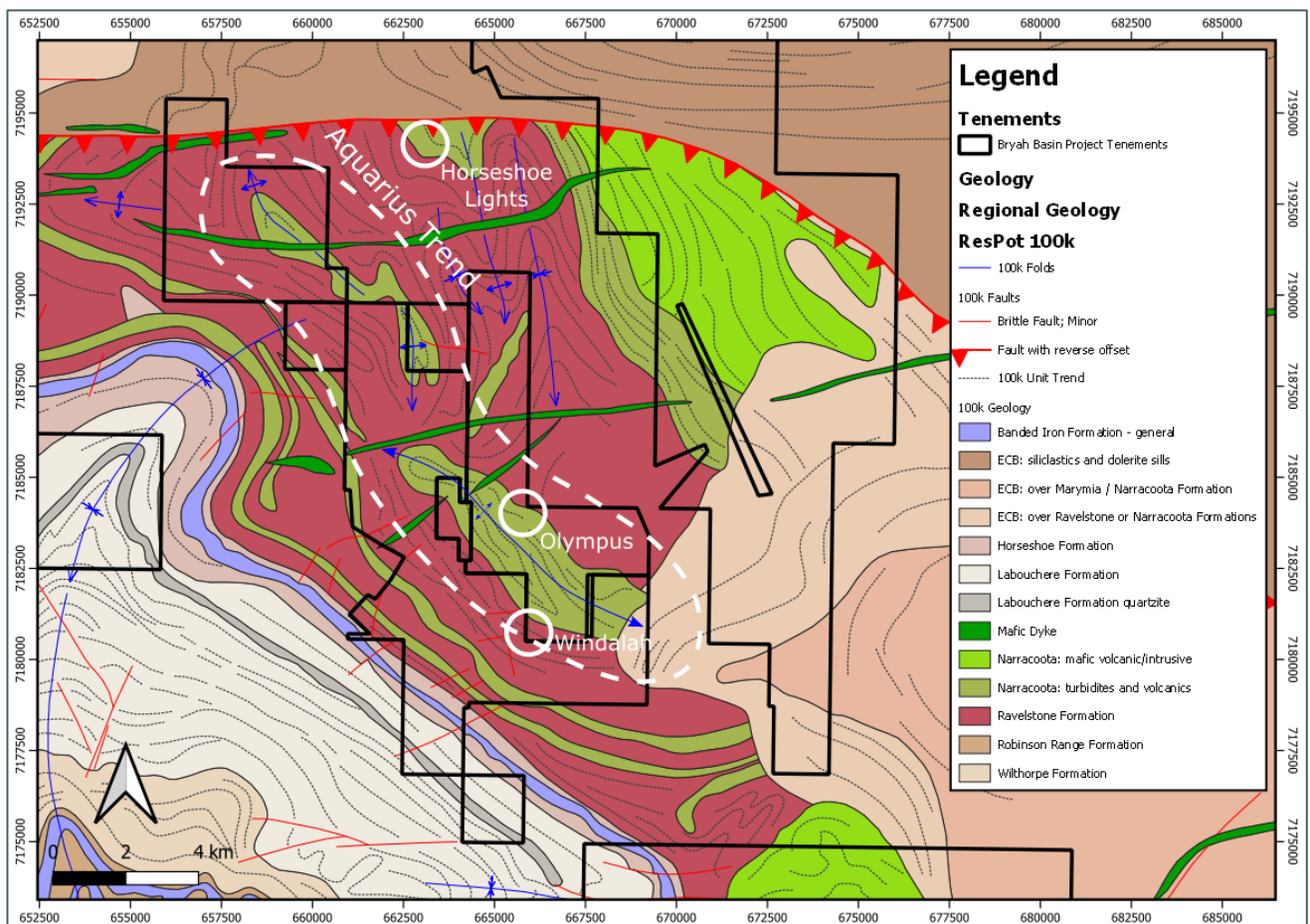


Figure 2: Location of Aquarius Project tracing the Aquarius Trend across Windalah and Olympus prospects highlighting the Horseshoe Lights mine and associated geology

Exploration programs across several Bryah tenements cover the Aquarius Trend. Exploration returned promising results at the Saturn, Jupiter, Windalah, Mars, Wongawar and Olympus prospects (refer to Figure 1).



### Saturn Prospect

Historic drilling at the Saturn prospect ranged from trace gold to **17m @ 1.24 g/t Au**, with some holes also displaying copper values exceeding 300ppm Cu and up to 618ppm Cu. Significant historic gold (Au) anomalies in the area include:<sup>3</sup>

- AQB066: **4m (0-4m) @ 2.4g/t Au**
- AQB067: **2m (22-24m) @ 1.0g/t Au**

More recently, surface samples were used to follow-up historic gold anomalies resulting in the values presented in Figure 3:

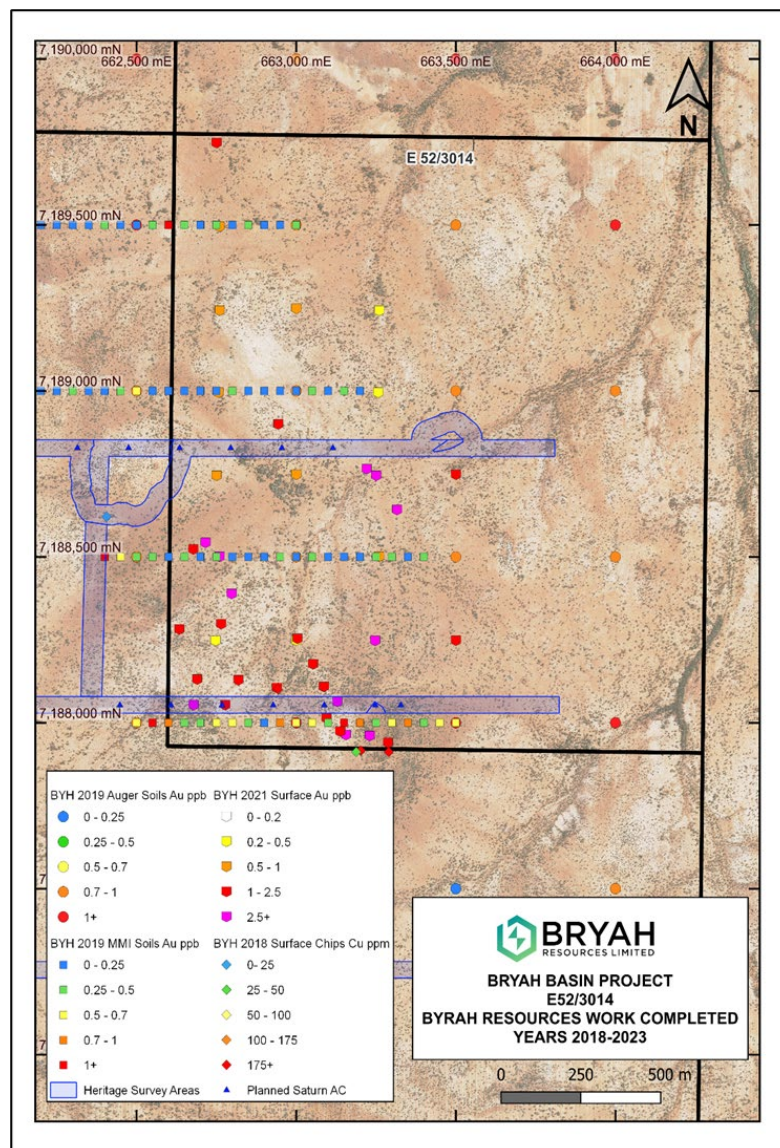


Figure 3: Saturn prospect surface sample results

<sup>3</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 16 November 2017 'Acquisition of Strategic Licences in Bryah Basin'

### Jupiter Prospect

The Jupiter prospect is interpreted as an open anticlinal dome with contiguous geology of the Aquarius Trend. An historic high-grade gold anomaly was intercepted in hole:

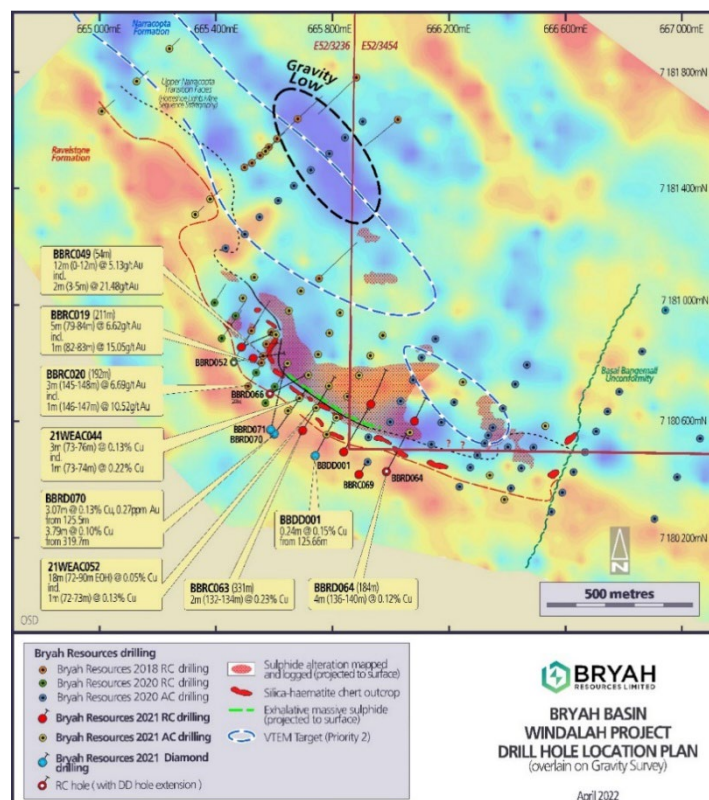
- SWRC005: **10m (19-29m) @ 9.37g/t Au<sup>4</sup>**.

The Company followed up this anomaly and other existing drillholes in the area with Rotary Circulation (RC) drilling, downdip to historic drillholes, targeting and testing along strike extensions of known gold and copper mineralisation within the interpreted ‘Horseshoe Lights Mine Sequence’ stratigraphic horizon.

### Winalah Prospect

RC Drilling Programme – at the Winalah Prospect five Reverse Circulation (RC) holes for 986 metres were drilled at an area where historical exploration by Afmeco Pty Ltd, including shallow Rotary Air Blast (RAB) drilling, had recorded intervals of gold mineralisation in several holes. This area was considered by Afmeco Pty Ltd to have geological similarities to the nearby Horseshoe Lights copper-gold mine<sup>5</sup> located 13 kilometres to the north.

- BBRC019: **5m (79m – 84m) @ 6.62g/t Au**
- BBRC020: **3m (145m – 148m) @ 6.69g/t Au<sup>6</sup>**



<sup>4</sup> Sabminco NL, Saturn West Project P52/709-710 and P52/783-786 Peak Hill Mineral Field, WA, Report on Exploration Activity for the Period 1 July 1993-31 December 1994 (Report No 1995/19)

<sup>5</sup> Peak Hill South E52/260, Annual Report 16 March 1988 – 16 March 1989, J.C. Rippert, Afmeco Pty Ltd, March 1989 (WAMEX Report No A26830)

<sup>6</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 22 November 2018 ‘High-Grade Gold at Winalah Prospect’

Figure 4: Significant Au anomalies and location of Windalah collars.<sup>7</sup>

Continued RC drilling at Windalah prospect proved successful, with the presence of the Horseshoe Lights Mine Sequence stratigraphy for full strike length. The inferred model of gold mineralisation suggests gold enrichment within internal structures of a folded jasperoid. The best RC drilling intercepts at Windalah include:

- BBRC049: **12m** (from surface) @ **5.13 g/t Au**, including **2m** (from 3m) @ **21.48 g/t Au**
- BBRC052: **14m** (from 178m) @ **1.02 g/t Au**, including **2m** (from 184m) @ **2.37 g/t Au**
- BBRC052: **6m** (from 51m) @ **1.56 g/t Au**, including **3m** (51m) @ **2.71 g/t Au**
- BBRC054: **3m** (from 72m) @ **2.41 g/t Au**
- BBRC055: **5m** (from 22m) @ **0.94 g/t Au**<sup>8</sup>

Additional copper intercepts of interest at Windalah include:

- BBRC056: **9m** (from 87m) @ **747 ppm Cu** and **6m** (from 99m) @ **796 ppm Cu**
- BBRC057: **9m** (from 33m) @ **878 ppm Cu**<sup>9</sup>

A diamond drilling program was completed in late 2022, with the best gold intercepts:

- BBRD070: **3.07m** (from 125.5m) @ **0.13% Cu** and **0.27ppm Au**
- BBRD072: **2m** (from 437m) @ **3.88 g/t Au**.<sup>10</sup>

The drilling was focused on testing steeply plunging target windows for Au-Cu volcanogenic massive sulphide (VMS) mineralisation.

#### Wongawar

Aircore (AC) vertical holes were drilled along two lines, intended to cross the highly deformed Narracoota-Ravelstone Formation contact in the Wongawar area. This mafic-sediment contact is considered prospective for epigenetic gold in this area. The best AC drill result was:

- 20WAAC006: **3m** (from 135m) @ **0.7g g/t Au**<sup>11</sup>

This minor intersection was located at a clay altered mafic-sediment contact.

#### Olympus Prospect.

The Olympus anomaly is a strike-extensive, multi-element geochemical anomaly, which has similar geochemical characteristics to the nearby Windalah Au-Cu prospect located 3 kilometres to the south. Olympus lies on the northern limb of the Mars Dome and forms part of the Aquarius Trend.

RC drilling at Olympus has identified highly anomalous Volcanogenic Hosted Massive Sulphides (VHMS) pathfinder elements Pb-Bi-Mo-(Cu-Zn-Te-Se) associated with Au-Cu mineralisation.

<sup>7</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 12 April 2022 'Volcanogenic Massive Sulphide (VMS) system with copper-gold potential confirmed at Windalah'

<sup>8</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 18 August 2020 'Drilling highlights Gold and Copper at Windalah'

<sup>9</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 18 August 2020 'Drilling highlights Gold and Copper at Windalah'

<sup>10</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 19 May 2023 'Windalah Copper-Gold Prospect Diamond Drilling Results'

<sup>11</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 17 December 2020 'Aircore drilling update'

### **Tumblegum South Gold Project - Star Minerals Limited (ASX: SMS)**

Bryah holds 7.25% of Star Minerals Limited's shares on issue. The Company also holds 7,000,000 performance rights which vest on Star Minerals releasing a Measured Mineral Resource and commencing mining at the Tumblegum South Gold Project. The Tumblegum South Gold Project is located 40km south, southeast of Meekatharra and 1km west of the Meekatharra-Sandstone Rd.

The Tumblegum South Gold Project consists of a granted Mining Licence and hosts a gold Mineral Resource of 616,000 tonnes @ **2.28 g/t Au** for a total of **45,000 ounces (oz)** of contained gold and includes an Indicated Mineral Resource of 337,000 tonnes @ **2.52 g/t Au** for **27,000 oz** gold.<sup>12</sup>

Star Minerals is progressing the Tumblegum South Gold Project towards production, with third-party toll treatment a possibility due to the number of gold processing plants in the region.

### **Gabanintha Gold and Base Metals Project (100% BYH)**

Bryah also holds a suite of mineral rights over the Australian Vanadium Limited's (ASX: AVL) project at Gabanintha including nickel, copper and gold. Bryah holds the rights to all minerals except vanadium, uranium, cobalt, chromium, titanium, lithium, tantalum, manganese & iron ore (excluded minerals) over an 80km<sup>2</sup> project area at Gabanintha, approximately 40km south of Meekatharra, Western Australia. AVL retains 100% rights in the excluded minerals on the project.

In April 2022, AVL completed a Bankable Feasibility Study on its Australian Vanadium Project, where Bryah updated the copper, nickel and cobalt resource based on the pit designs in May 2022. The Gabanintha Project has a JORC Indicated Mineral Resource of 16.1 Mt @ 762 ppm Nickel, 212 ppm Copper and 231 ppm Cobalt, included in the high-grade vanadium zone of the Australian Vanadium Project.

The Indicated portion of the Mineral Resource, 16.1 Mt @ 762 ppm Nickel, 212 ppm copper and 231 ppm cobalt, is situated in the high-grade vanadium zone (HG10) within the 3 planned open pits of AVL's vanadium project, described in its Bankable Feasibility Study announced to the ASX in April 2022<sup>13</sup>.

### **Gold Exploration at Gabanintha**

The Company will commence a dedicated review of gold prospectivity on the Australian Vanadium Project area, noting high-grade mineralisation within the mining lease identified in 2021<sup>14</sup> and other potential targets on the tenement package.

The best results delivered from 247 samples assayed from 17 holes previously drilled at the Australian Vanadium Project at Gabanintha were:

- **10m @ 27.5 g/t Au** from 53m, including **4m @ 64.3 g/t Au** from 54m, which includes **1m (55-56m) @ 182.0 g/t Au**, and
- **1m @ 6.4 g/t Au** from 65m.

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<sup>12</sup> See Star Minerals Limited (ASX: SMS) announcement dated 20 May 2024 'Positive Updated Scoping Study for Tumblegum South Gold Project'

<sup>13</sup> See Australian Vanadium Limited (ASX: AVL) announcement dated 6 April 2022 'Bankable Feasibility Study for The Australian Vanadium Project'

<sup>14</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 30 March 2021 'Bryah delivers Bonanza Gold Grades at Gabanintha'



High-grade gold occurs in a cross-cutting fault zone within the vanadium-titanomagnetite (VTM) deposit, which holds potential for significant gold mineralisation. Major cross faults over 11 km of VTM deposit now represent untested gold targets.

Active and historical mines located close to the Gabanintha project tenements include the Gabanintha, Burnakura and Bluebird gold mine.

Open pit mining by Dominion Mining Limited at Gabanintha between 1987 and 1991 reported production of approximately 150,000oz of gold from six pits mined to a maximum depth of about 65 metres.

Monument Mining Limited currently owns the Burnakura gold mine, the Gabanintha gold mine and surrounding tenements which hold JORC compliant resources within several previously operated open pits and an underground mine.

Proposed production at the Gabanintha project by AVL, following completion of metallurgical test work indicates the presence of copper and nickel, as well as gold and cobalt, in the non-magnetic tails after separation of the vanadium-titanium-magnetite concentrate. Sulphide concentrates from flotation contained:

- **6.3% base metals** including **2.58% Nickel**, **1.70% Copper** and **2.02% Cobalt**, inclusive **Gold (Au) shows**.

The project has been defined by the drilling efforts of AVL in the development of its vanadium project and enabled Bryah to define a base metal resource inventor. Gold mineralisation was targeted by Aircore (AC) and Reverse Circulation (RC) drilling programs completed at various prospects at the Gabanintha Project.

### ***Copper Hills South***

Prior to AVL, Dominion Mining Limited undertook a series of Reverse Air Blast (RAB) drilling within the Company's tenements' interest. A review of historic exploration and drilling identified significant copper anomalism (>500ppm Cu) and significant gold (Au) shows.

The best results included:

- 91HAR143: **6m** (33-39m) @ **1.52% Cu** (WAMEX A - 34732)

Significant assay results from the AVL AC drilling are:

- 21GAC042: **1m** (from 12m) @ **0.22% Cu** and **0.38 g/t Au**<sup>15</sup>
- 21GAC058: **4m** (from 64m) @ **0.34 g/t Au**

Significant RC drill results included:

- GRC1152: **18m** (7-25m) @ **0.42% Cu**, including **2m** (20-22m) @ **2.19%, Cu**

Additional intervals within the hole include:

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<sup>15</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 8 December 2021 'Gold target drilling completed at Gabanintha'



- GRC1152: **6m (34-40m) @ 0.27% Cu, 7m (45-52m) @ 0.20% Cu, 4m (149-153m) @ 0.22% Cu**<sup>16</sup>

### New Hope prospect

The New Hope prospect is located within the Gabanintha Project approximately 500m to the east of a gold bearing fault zone.

Aircore drilling delivered three new potential gold (Au) targets areas, with best intervals:

- 21GAC013: **9m (from 24m) @ 1.43 g/t Au**, including **4m (from 29m) @ 2.48 g/t Au** and **0.064% Cu**.<sup>17</sup>
- 21GAC113: **4m (from 88m) @ 0.54 g/t Au**

RC drilling intercepted large-scale regional cross faults which returned results:

- 19RRC006: **10m @ 27.5 g/t Au** (from 53m (including **1m (55-56m) @ 182 g/t Au**, and **1m @ 6.4 g/t Au** (from 65m).
- 19RRC011 - **2m (from 125m) @ 1.1 g/t Au, 1m (from 132m) @ 8.2 g/t Au** and **2m (from 136m) @ 1.6 g/t Au**<sup>18</sup>

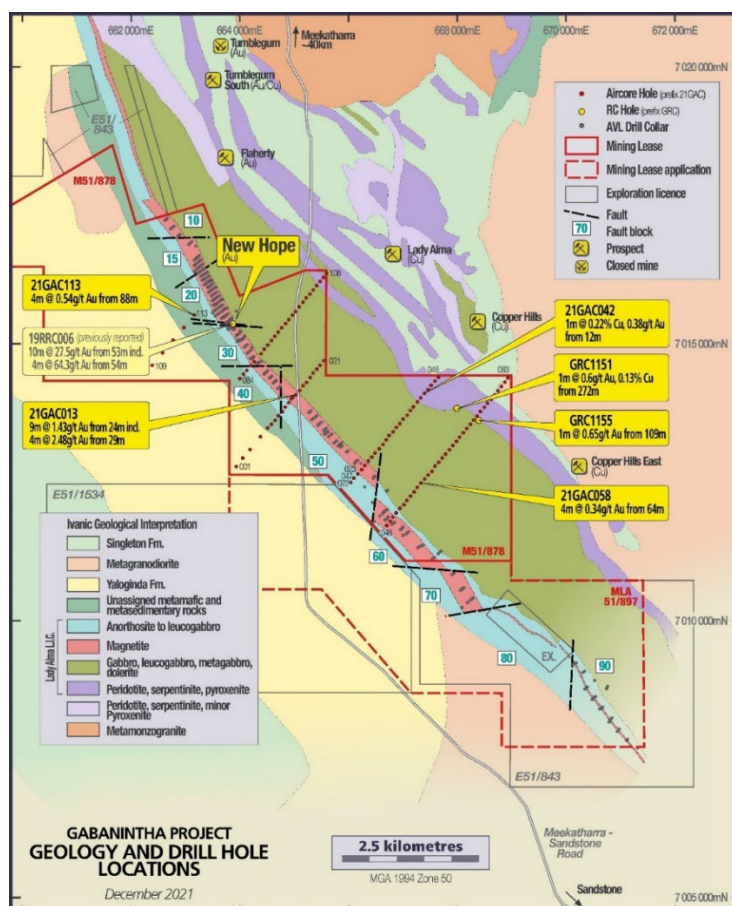


Figure 5: Gabanintha Project Significant Drill Hole Locations

<sup>16</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 28 February 2023 'Further data puts copper potential at Copper Hills South into focus'

<sup>17</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 19 October 2021 'Drilling Confirms Multiple Structural Gold Targets at Gabanintha'

<sup>18</sup> See Bryah Resources Limited (ASX: BYH) announcement dated 30 March 2021 'Bryah delivers Bonanza Gold Grades at Gabanintha'.

*For further information, please contact:*

**Ian Stuart, Chair** +61 8 9321 0001

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*This announcement has been produced in accordance with the Company's published continuous disclosure policy and has been approved by the Board.*

## **ABOUT BRYAH RESOURCES**

Bryah's assets are all located in Western Australia, a Tier One global mining and exploration jurisdiction. Strategically the Projects are energy metals focused, or able to exploit synergies of geological knowledge, locality and exploration.

The Lake Johnston tenements are prospective for battery metals lithium and nickel. The corridor near Lake Johnston contains significant mines and discoveries of nickel and lithium, including the historical Maggie Hays/Emily Ann nickel deposits and the TG Metals Burmeister Project and Charger Metals' Medcalf Prospect.

The prospective Bryah Basin licences cover 1,048km<sup>2</sup> and have a potential new Volcanogenic Massive Sulphide (VMS) 'Horseshoe Lights type' mine analogue with multiple other untested targets. The area also contains extensive outcroppings of manganese, the subject of a substantial \$7M joint venture with ASX listed OM Holdings Limited (ASX: OMH). OMH is a vertically integrated manganese producer and refiner with a market capitalisation of ~\$300m. Bryah and OMH have an excellent working relationship, with OMH having already spent over \$3.5 million to earn-in to the Manganese Rights of the Project.

Gabanintha, near Meekatharra, has a JORC 2012 Mineral Resource for Cu, Ni, Co and additional structural gold potential. The copper nickel resource and identified gold mineralisation at Gabanintha will be the subject of further drill definition and a prefeasibility study to integrate the project with the Australian Vanadium Project (ASX: AVL). The resource has been defined by the drilling efforts of AVL in the development of its vanadium project and enabled Bryah to define a base metal resources inventory.

Bryah's base metals inventory at Gabanintha and manganese JV in the Bryah Basin have a clear pathway to production.

Bryah holds 7.25% of gold focused Star Minerals (ASX:SMS). Star Minerals has a Mineral Resource at Tumblegum South Gold Project and exploration prospects in the West Bryah Basin.

## **COMPETENT PERSONS STATEMENT - EXPLORATION RESULTS**

The information in this announcement that relates to exploration results is based on information compiled by Mr Ashley Jones, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and is a director of Bryah Resources. Mr Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Jones consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Where the Company refers to Exploration Results in this announcement (referencing previous releases made to the ASX), the Company is not aware of any new information or data that materially affects the information included in the relevant market announcements.

## **FORWARD LOOKING STATEMENTS**

This announcement may contain certain "forward-looking statements" which may not have been based solely on historical facts but rather may be based on the Company's current expectations about future events and results. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publicly any revisions to any "forward looking statement" to reflect events or circumstances after the date of this report, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.