

# QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 30 SEPTEMBER 2021

## HIGHLIGHTS:

## Bryah Basin Copper-Gold Project (100%)

- Diamond drilling program confirms a significant Volcanogenic Massive Sulphide (VMS) system with copper-gold potential at Windalah Prospect
- Initial logging of drill core has identified styles of mineralisation typical of VMS deposits
- Down Hole Electromagnetic Survey at Windalah about to commence, completion in November 2021
- Aircore drilling program at Mount Labouchere Prospect returns anomalous Copper-Cobalt-Nickel results

## Bryah Basin Manganese Joint Venture (60% JV Interest)

- RC drilling program (69 holes for 2,271 metres) completed assays pending
- Beneficiation testwork and mineral resource estimates ongoing
- OM (Manganese) Limited funding exploration to earn a 51% JV Interest

## Gabanintha Project (100%)

- Aircore drill program (113 holes for 5,539 metres) completed at Gabanintha to investigate extent and zonation of the Lady Alma Layered Igneous Complex, which has significant potential to host nickel-copper-gold and Platinum Group Elements (PGE) mineralisation
- Initial results from program identified gold mineralisation in a new fault structure:
  21GAC013 9 metres @ 1.43 g/t Au from 24m, including

4 metres @ 2.48 g/t Au from 24m, including 4 metres @ 2.48 g/t Au and 0.064% Cu from 29m

• Follow-up reverse circulation drilling at New Hope and in the vicinity of 21GAC013 is planned for November 2021

## Corporate

- \$1.0 million Tranche 2 of the \$3.95 Million placement completed in July 2021
- Sale of Tumblegum South Deposit to Star Minerals Limited completed In October 2021
- Cash in bank at 30 September 2021 was \$2.93 Million, with subsequent \$0.5 million from the sale of Tumblegum South Deposit received in October 2021

Address Level 1, 85 Havelock Street West Perth WA 6005 Tel: +61 8 9321 0001 Email: info@bryah.com.au ASX Code: BYH ABN: 59 616 795 245 Shares on issue: 224,207,175 Latest Share Price: \$0.053 Market Capitalisation: \$11.9M Projects

Bryah Basin – Copper, Gold, Manganese Gabanintha – Gold, Copper bryah.com.au



This report summarises the exploration and corporate activities of Bryah Resources Limited ("Bryah" or "the Company") during the quarter ended 30 September 2021.

## Management Comments

Commenting on the recent activities of the Company, Managing Director Neil Marston said,

"The Company has been very active during the last quarter with drilling campaigns completed at Gabanintha and in the Bryah Basin.

"At the Windalah copper-gold prospect in the Bryah Basin we have been diamond drilling, testing a large geochemical anomaly, indicative of a Volcanogenic Massive Sulphide copper-gold deposit at depth. The program was expanded from five to six diamond drill holes based on field observations and these holes have provided us with the first core samples of this extensive, sulphide-rich zone.

"Another drilling program under our manganese joint venture was completed during the quarter with assay results pending. This drilling was funded by our joint venture partner, OM (Manganese) Limited which is earning a 51% JV interest in the project. Beneficiation testwork on manganiferous diamond core is ongoing, with our mineral resource estimate close to completion.

"At Gabanintha an aircore program has been completed, yielding gold in a new area from early results received. This latest gold intersection appears to confirm that gold occurs in major fault zones within the 11 kilometres long vanadium-titanium-magnetite deposit. We now have 9 targets to investigate along the length of the deposit with shallow drilling, starting at the New Hope gold prospect in November 2021."

Subsequent to the quarter Successful monetarization of Tumblegum south?

## **Exploration Activities**

### Bryah Basin Copper-Gold Project (BYH – 100%)

The Bryah Basin project covers approximately 1,048 km<sup>2</sup> in central Western Australia. The project is located close to several mining operations including the high-grade Volcanogenic Massive Sulphide (VMS) DeGrussa copper-gold mine operated by Sandfire Resources NL (ASX:SFR) and the Fortnum gold mine operated by Westgold Resources Limited (ASX:WGX).

Bryah's tenements cover large areas of under-explored ground adjacent to the copper-gold deposit at Horseshoe Lights which is hosted in similar aged volcanic and sedimentary rocks to the DeGrussa copper-gold mine. The Bryah Basin also has several historical and current manganese mines including the Company's Horseshoe South Manganese Mine (see Figure 1).





Figure 1 - Bryah Basin Project Location Plan

## **Diamond Drilling**

During and subsequent to the end of the quarter, the Company completed another phase in its major drilling program at the Windalah Prospect. A 1,000 metre diamond core drilling program was planned to include diamond tails drilled from three pre-collars (BBRC052, BBRC064 and BBRC066) and 2 step-back holes drilled from surface to a down hole depth of approximately 350 metres each.

During the program, an additional hole BRDD071 was added to the program due to very encouraging signs observed in the first two step-back drill holes, BBDD001 and BRDD070. In total 1,259 metres of diamond core was drilled in the program. The location of the diamond drill holes is shown in Figure 2.

Drilling at Windalah has so far confirmed a significant Volcanogenic Massive Sulphide (VMS) system with copper-gold potential. Initial logging of the drill core has identified numerous lithofacies, textures, mineralogy, alterations, and styles of mineralisation that are typical of Kuroko-type or felsic-siliciclastic VMS deposits. Highlight observations include:

- VMS lithofacies including silica-haematite chert horizons, volcanic breccia; amygdaloidal/vesicular basalts and volcaniclastic rocks analogous to Horseshoe Lights Mine Sequence;
- Laminated semi-massive pyrite horizon with interflow sericite-haematite volcanic rocks/entrained clasts which are visibly deformed and siliceous, and



• An exhalative sulphide horizon located at the equivalent stratigraphic position of the Horseshoe Lights Cu-Au mine, beneath the Upper Narracoota-Ravelstone Formation contact, marked by the presence of a marker silica-haematite chert unit above amygdaloidal and volcaniclastic rocks. This exhalative sulphide horizon overlies a substantial thickness of intensely sericite and chlorite altered, brecciated volcanic rocks.

All the drill core has been moved from site to premises in Perth where core cutting and sample collection for assaying are being undertaken as a high priority. The Company looks forward to reporting the full results of the diamond drilling program once the laboratory assays are received.



Figure 2 - Windalah Prospect - Drill Hole Location Plan.



### Aircore Drilling

During the previous quarter an aircore drilling program of 31 holes for 2,537 metres at the Windalah prospect and 6 holes for 279 metres at Mount Labouchere Nickel-Copper-Cobalt Prospect were completed.

The location of the aircore holes at Windalah is shown in Figure 2.

Assay results for the Windalah aircore holes returned highly anomalous results in VMS pathfinder minerals including up to 986 ppm Arsenic, 136 ppm Antimony and up to 17 ppm Molybdenum. Copper results over 1 metre intervals of 0.22% Copper and 0.13% Copper were also recorded<sup>1</sup>.

The z-score normalised down hole geochemistry for all aircore and reverse circulation drilling at Windalah for the elements of copper, arsenic and antimony has been combined with the resultant heatmap shown in Figure 2, confirming the location of the significant copper-gold target being tested by the diamond drilling program.

Six aircore drill holes were also drilled at the Mt Labouchere prospect<sup>2</sup>. Best results from the drilling:

- 21MLAC004: 33 metres (0-33m) @ **0.13% Cu, 683 ppm Co and 583 ppm Ni**, including 12m (0-12m) @ **0.22% Cu, 0.11% Co and 0.16% Ni**
- 21MLAC005: 9 metres (0-9m) @ 0.13% Cu, 742ppm Co and 804 ppm Ni

Four of the six holes drilled recorded elevated copper values (>500ppm Cu) at the bottom of the hole, which is considered a very positive sign.

#### Planned Activities

A Down Hole Electromagnetic (DHEM) surveying contractor has been engaged and the DHEM survey is expected to be completed in November 2021. The DHEM survey will test the six diamond drill holes with a transmitter loop of approximately 1,000 metres long by 600 metres wide (see Figure 2).

The transmitter loop will be positioned to the southwest of the drillholes so that the electromagnetic (EM) primary field vectors generated by the loop will provide good EM coupling with shallowly to steeply southwest dipping conductors sitting >50 metres below surface and within approximately 100 metres of the drillhole axes.

Following the cutting and sampling of diamond core, the remaining half core will be sent for XRF scanning to assist in geological modelling.

<sup>&</sup>lt;sup>1</sup> See BYH ASX Announcement dated 23 September 2021 for full details

<sup>&</sup>lt;sup>2</sup> See BYH ASX Announcement dated 24 August 2021 for full details



#### Bryah Basin Manganese Joint Venture (BYH - 60% JV Interest)

In April 2019, Bryah executed a Manganese Farm-In and Joint Venture Agreement ("JV Agreement") with OMM, a wholly owned subsidiary of ASX-listed OM Holdings Limited (ASX:OMH). The JV Agreement applies to the rights to manganese only over approximately 600 km<sup>2</sup> of the entire tenement package held by the Company in the Bryah Basin. The Manganese JV includes the Horseshoe South Manganese Mine, which is the largest historical manganese mine in the region (see Figure 3).



Figure 3 - Bryah Basin Manganese JV - Tenement Location Plan

Under Stage 1 of the JV Agreement, OMM funded \$500,000 of project expenditure which yielded highly encouraging manganese drilling results<sup>3</sup>. In August 2019, OMM secured an initial 10% interest in the Manganese Joint Venture ("JV"), following payment of a \$250,000 Exercise Fee.

Under Stage 2 of the Agreement, OMM has progressively funded \$2.0 million of exploration expenditure in four tranches, to earn up to a 51% interest in the JV by 30 June 2022. OMM has completed Tranche 3 funding of \$500,000 to earn a 40% JV interest and have committed to fund Tranche 4 of \$500,000, which will increase OMM's total JV interest to 51%.

<sup>&</sup>lt;sup>3</sup> See Quarterly Activities Report dated 31 October 2019 for full details.



Bryah is Project Manager of the JV until OMM has earned a 51% JV interest and has elected to be Project Manager. Once OMM has earned its 51% JV interest, Bryah must elect:

- a) to contribute towards manganese exploration to maintain its 49% JV interest, or
- b) for OMM to fund the next \$1.8 million of project expenditure to earn a 60% JV Interest.

#### RC Drilling

During the quarter, a 69 hole RC drilling program for 2,271 metres testing recently generated targets from a Gradient Array Induced Polarisation survey was completed. Drilling focused mainly on the southern extension of the Brumby Creek West and the new Redrum prospects<sup>4</sup>.

Drilling intersected several manganese intersections and assay results are expected to be available from the laboratory in November.

#### **Beneficiation Testwork**

During the quarter, a program of beneficiation testwork commenced. A total of 8 sighter samples, selected from representative manganese intersections cored in recent PQ diamond drilling, have been submitted for evaluation and selection of physical properties to be utilised in planned bulk sample Ore Sorter test work.

#### Mineral Resource Estimates

The Company intends finalising mineral resource estimates for the Horseshoe South, Brumby Creek and Black Hill areas once the latest drilling results for Brumby Creek West are received and included in the resource estimate.

<sup>&</sup>lt;sup>4</sup> See BYH ASX Announcement dated 23 September 2021 for full details



### Gabanintha Project (Mineral Rights – 100%)

The Gabanintha Project covers 80 km<sup>2</sup> of ground approximately 40 km south of Meekatharra in Western Australia (see Figure 4).

Bryah holds the rights to all minerals except Vanadium, Uranium, Cobalt, Chromium, Titanium, Lithium, Tantalum, Manganese & Iron Ore ("Excluded Minerals"), which are retained by Australian Vanadium Limited (ASX:AVL).



Figure 4 - Gabanintha Project Location Map



### Aircore Drilling

Aircore drilling was completed on five traverses, crossing the extent of the Lady Alma Layered Igneous Complex (LALIC) within Mining Lease 51/878. The holes were planned to extend out into the rocks both east and west of the intrusion, to define its boundaries.

The Lady Alma Layered Igneous Complex is an under-explored, yet highly prospective environment with significant potential to host copper-gold-nickel and Platinum Group Elements (PGE) mineralisation.

The joint Bryah/Australian Vanadium Limited program was undertaken with Exploration Incentive Scheme grant funding of up to \$53,000 from the Department of Mines, Industry Regulation and Safety (DMIRS) as a contribution towards drilling costs.

113 holes were completed with a total of 5,539 metres drilled. Vertical holes were generally spaced at intervals of 100 metres along each traverse line and drilled to blade refusal. Figure 5 shows the location of the completed aircore traverses on a geology interpretation by lvanic, 2019.

Results have been received for 31 holes (21GAC001-21GAC031, 455 samples) with gold mineralisation identified in a new fault structure in hole 21GAC013 with **9 metres** @ **1.43 g/t Au** from 24 metres, including **4 metres** @ **2.48 g/t Au** and **0.064% Cu** from 29 metres reported<sup>5</sup>.

Hole 21GAC013 is located 1.7 kilometres south-east of the New Hope prospect where previous sampling of drilling completed in 2019 recorded significant gold mineralisation including an outstanding **10 metres @ 27.5 g/t Au from 53 metres**, including 4m @ 64.3 g/t Au from 54m, which included 1m (55-56m) @ 182.0 g/t Au in 19RRC006 within a cross-cutting fault zone<sup>6</sup>.

The remaining assay results from the aircore drilling will be reported when they become available.

### Flotation Testwork

During the quarter, 2 samples of unweathered vanadium-rich magnetite from Australian Vanadium's mineralised HG10 zone were collected from storage and magnetically separated. The non-magnetic portion of these samples represents the tails from AVL's proposed beneficiation plant, which is currently completing a Bankable Feasibility Study on the project.

The non-magnetic portion has been shown from past flotation test work<sup>7</sup> to yield a sulphide-rich concentrate containing Nickel, Copper and Cobalt. Flotation test work and assaying of the 2 samples aims to confirm that beneficiation of a sulphide concentrate with Nickel, Copper and Cobalt can be achieved. Gold has also shown to be concentrated in the sulphide concentrate in earlier test work so these tests will also aim to confirm this.

The test work is expected to be completed in the December quarter.

<sup>&</sup>lt;sup>5</sup> See BYH ASX Announcement dated 19 October 2021 for full details

<sup>&</sup>lt;sup>6</sup> See BYH ASX Announcement dated 30 March 2021 for full details

<sup>&</sup>lt;sup>7</sup> See AVL ASX announcement dated 22 May 2018 for full details of testwork results and JORC 2012 Table 1 disclosure





Figure 5 – Geology and Drill Hole Locations



## **Planned Activities**

The area between New Hope Prospect and hole 21GAC013 will be the subject of a detailed ground magnetic survey to assist in better defining the potentially gold-bearing cross-cutting fault zones within the vanadium-titanium-magnetite deposit.

Follow-up reverse circulation drilling at New Hope and in the vicinity of 21GAC013 is planned for November 2021.

Bryah will also select further archived drilling pulps from the project to submit for Au, Pt and Pd analysis. Sample selection criteria remains:

- a) proximity to known faults;
- b) elevated copper, barium, arsenic and/or sulphur;
- c) within or close to the high-grade vanadium domain, and/or
- d) testing continuity along strike or along fault planes around the significant intercepts recently identified.



## **Corporate Activities**

## Sale of Tumblegum South Gold Deposit

Subsequent to the end of the quarter, the Company was able to successful complete its sale of the Tumblegum South gold deposit ("Deposit") located within the Gabanintha Project (see Figure 4)<sup>8</sup>.

The sale of the Deposit to Star Minerals Limited, and its wholly owned subsidiary ("Star Minerals") follows a successful \$5.0 Million capital raising by Star Minerals, with that company listing on ASX on 27 October 2021.

The total consideration Bryah received for the Deposit was:

- (a) \$500,000 cash;
- (b) 9,000,000 fully paid ordinary shares in Star Minerals (valued at \$1,800,000);
- (c) 3,000,000 Class A Performance Rights, vesting upon a Measured Mineral Resource report; and
- (d) 4,000,000 Class B Performance Rights, vesting upon commencement of commercial gold production.

Bryah has also completed the sale to Star Minerals of Exploration Licence E52/3739, a tenement located within the western part of the Bryah Basin. Bryah has received consideration of 2,000,000 fully-paid ordinary shares (valued at \$400,000) in Star Minerals as well as a 0.75% Net Smelter Return royalty for selling E52/3739.

Upon listing, Star Minerals (ASX:SMS) has 53,000,001 ordinary shares on issue with Bryah holding 11,000,000 shares, representing a 20.75% equity holding.

### **Capital Raising**

On 7 June 2021, the Company announced that it received binding commitments for a placement of 52,666,667 new shares at an issue price of \$0.075 per share (New Shares) with 52,666,667 free attaching options, to raise \$3.95 million (before costs) ("Placement").

The free attaching options ("Options") have an exercise price of \$0.09, will expire on 31 January 2023 and are of the same security class as existing listed options (ASX:BYHOA).

The issue of 39,333,333 New Shares under Tranche 1 of the Placement to raise \$2,950,000 was completed in the previous quarter.

The issue of 39,333,333 free attaching Options, under Tranche 1 of the Placement and the issue of 13,333,334 New Shares and 13,333,334 free attaching Options under Tranche 2 of the Placement to raise an additional \$1,000,000 was approved by shareholders at a general meeting held on 22 July 2021 and subsequently completed on 27 July 2021.

180 Markets Pty Ltd acted as Lead Manager to the Placement.

<sup>&</sup>lt;sup>8</sup> See BYH ASX Announcement dated 9 March 2021 for full details.



The Company has also entered into an At-the-Market Subscription Agreement (**ATM**) with Acuity Capital during the quarter. The ATM provides Bryah with up to \$3 million of standby equity capital over the coming 24-month period.

Importantly, Bryah retains full control of all aspects of the subscription process including having sole discretion as to whether or not to utilise the ATM, the maximum number of shares to be issued, the minimum issue price of shares and the timing of each subscription (if any).

As security for the ATM, Bryah agreed to place 10 million ordinary shares, at nil cash consideration to Acuity Capital. The Company may, however, at any time cancel the ATM as well as buy back (and cancel) those shares for no cash consideration (subject to shareholder approval).

### **Capital Structure**

As at 30 September 2021, the Company had 224,207,175 ordinary shares on issue.

#### **Cash Position**

As at the 30 September 2021, the Company had \$2.93 Million (30 June 2021: \$3.16 Million) in cash, which excluded the cash proceeds (\$500,000) from the sale of the Tumblegum South deposit and funds provided by OMM and held on behalf of the Bryah Basin Manganese JV.

#### Additional ASX Information

During the quarter, the \$548,000 of exploration and evaluation expenditure capitalised comprised of \$246,000 for aircore and diamond drilling with the balance being for geological consultants, tenement costs and general exploration expenditure.

No production and development activities were undertaken during the quarter.

The aggregate amount of payments to related parties and their associates included in Section 6.1 of the Appendix 5B cash flows from operating activities was \$111,000, comprising Directors' fees, salaries and superannuation.

The board of directors of Bryah Resources Limited has authorised this announcement to be given to the ASX.

For further information, please contact:

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#### Table 1 - Tenement Information

For the Quarter Ended 30 September 2021        Location      Project      Tenements      Economic      Notes      Change in					
Location	Project	Tenements	Interest	Notes	Quarter %
Western Australia	Gabanintha	E51/843	100% <sup>1,2</sup>		Nil
	Gabannina	E51/1534	100%1,2		Nil
		M51/878	100%1,2		Nil
		M51/888	100%1,2,7		Nil
		MLA51/897	100%1,2	New application	Nil
		L51/112	100%7		Nil
Western Australia	Bryah Basin	P52/1627	100%		Nil
	Di yan Dasin	E52/3014	100%		Nil
		E52/3236	100% <sup>3,6</sup>		Nil
		E52/3237	100% <sup>3,6</sup>		Nil
		E52/3238	100%3		Nil
		E52/3240	100% <sup>3,6</sup>		Nil
		E52/3349	100% <sup>2,6</sup>		Nil
		E52/3401	100% <sup>4,6</sup>		Nil
		E52/3453	100%4		Nil
		E52/3454	100%4		Nil
		E52/3508	100% <sup>6</sup>		Nil
		E52/3700	100%		Nil
		E52/3705	100%		Nil
		E52/3726	100%		Nil
		E52/3703	100%		Nil
		E52/3739	100%7		Nil
		E52/3725	100%		Nil
		E52/3796	100%		Nil
		E52/3848	100%	Licence Purchased	100%
		E52/3865	100%		Nil
		E52/3898	100%	Licence Purchased	100%
		E52/3963	100%	Licence Purchased	100%
		M52/1068	60% <sup>5</sup>	Manganese Rights only	Nil
		E52/1557	60% <sup>5</sup>	Manganese Rights only	Nil
		E52/1860	60% <sup>5</sup>	Manganese Rights only	Nil
		M52/806	100% <sup>6</sup>		Nil

Note 1: Bryah Resources Limited holds the Mineral Rights for all minerals except V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore only. Australian Vanadium Limited retains 100% rights in V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore on the Gabanintha Project.

Note 2: Australian Vanadium Limited retains a 0.75% Net Smelter Return Royalty

Note 3: Pet FC Pty Limited retains a 0.75% Net Smelter Return Royalty

Note 4: Jalein Pty Limited retains a 0.75% Net Smelter Return Royalty

Note 5: Bryah Resources Limited holds an 60% interest in the rights to prospect, explore, mine and develop manganese ore ("Manganese Rights"). OM (Manganese) Limited has earned a 40% interest in these Manganese Rights.

Note 6: OM (Manganese) Limited has earned a 40% interest in the Manganese Mineral Rights only on these tenements (southern portion of E52/3236 only). Bryah retains 100% rights to all other minerals on these tenements.

Note 7: Subject to Sale Agreements with Star Minerals Limited



#### About Bryah Resources Limited

Bryah Resources Limited is a copper-gold-manganese focused explorer with 2 projects located in central Western Australia, being the 1,048km<sup>2</sup> Bryah Basin Project and the 80km<sup>2</sup> Gabanintha Project.

The Bryah Basin is host to the high-grade copper-gold mines at DeGrussa, discovered by Sandfire Resources Limited in 2009, and at Horseshoe Lights, which was mined until 1994. The Bryah Basin also has several historical and current manganese mines including the Company's recently acquired Horseshoe South mine. The Company has secured a joint venture agreement with OM (Manganese) Limited in respect to its manganese rights only on approximately 600 km<sup>2</sup> of its Bryah Basin tenement holdings.

At Gabanintha, Bryah holds the rights to all minerals except Vanadium, Uranium, Cobalt, Chromium, Titanium, Lithium, Tantalum, Manganese & Iron Ore (Excluded Minerals). Australian Vanadium Limited retains 100% rights in the Excluded Minerals on the Gabanintha Project.

#### Competent Persons Statement – Exploration Results

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Ashley Jones, Consultant with Kamili Geology Pty Ltd. Mr Jones is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Jones is a consultant to Bryah Resources Limited ("the Company"). 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'. Ashley 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 report 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.