31 July 2019



# **Drilling Extends Manganese at Brumby Creek**

Latest drilling identifies significant manganese mineralisation approximately 1 kilometre along strike to the south at Brumby Creek Prospect.

### **HIGHLIGHTS:**

- Assay results received from Phase 2 RC drilling programme completed at Brumby Creek.
- Further significant manganese mineralisation intersected from surface.
- Best intervals at **Brumby Creek** (using a 18% Mn cut-off grade) include:
  - BRRC074 23 metres (0-23m) @ 25.8% Mn, including 3 metres (2-5m) @ 31.2% Mn, 2 metres (6-8m) @ 30.4% Mn and 2 metres (10-12m) @ 32.8% Mn
  - > BRRC044 7 metres (2-9m) @ **26.5% Mn** and 9 metres (15-24m) @ **18.6% Mn**
  - BRRC036 14 metres (5-19m) @ 22.8% Mn
  - > BRRC041 8 metres (5-13m) @ 21.4% Mn
- Reconnaissance drilling along strike to the south of the main areas of drilling confirm the
  potential for significant manganese mineralisation within the Brumby Creek prospect
- Drilling was funded by manganese specialist OM Holdings Limited (ASX:OMH) under a recently announced \$7.3 million Manganese Farm-In and Joint Venture agreement<sup>1</sup>
- Phase 2 drilling results from other areas will be reported as they become available.

Bryah Resources Limited ("Bryah" or "the Company") is pleased to report successful results from the second phase of exploration drilling within the Bryah Basin in central Western Australia. The drilling programme was funded by OM (Manganese) Limited ("OMM"), a wholly owned subsidiary of ASX-listed OM Holdings Limited (ASX:OMH) under a \$7.3 million agreement ("Agreement") signed in April 2019<sup>2</sup>.

Managing Director Neil Marston said "These latest results from Brumby Creek are extremely encouraging, with significant extensions to manganese mineralisation identified in phase 1. We have extended the zones of manganese mineralisation, to the west of the prospect as well as identifying new manganese areas up to 1 kilometre along strike to the south. This drilling further demonstrates the potential to discover new manganese deposits from surface and under shallow cover over a wide project area."

A total of 83 holes for 2,081 metres of reverse circulation (RC) drilling was completed in this second programme at four sites; the Brumby Creek, Black Hill and Black Caviar Prospects and the historic Horseshoe South Manganese mine (see Figure 1).

**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: 63,790,505

Latest Share Price: \$0.084 Market Capitalisation: \$5.4M **Projects** 

Bryah Basin – Copper, Gold,

Manganese
Gabanintha – Gold, Copper

bryah.com.au

<sup>&</sup>lt;sup>1</sup> Refer Appendix 1 for Key Terms of Farm-In and Joint Venture Agreement

<sup>&</sup>lt;sup>2</sup> See ASX announcement dated 23 April 2019



#### **Brumby Creek Drilling**

The Brumby Creek Prospect was identified during ground reconnaissance and rock chip sampling in 2018 and has not been drilled by previous explorers. Drilling initially targeted areas of outcropping manganese either side of an interpreted syncline.

A total of 35 holes were drilled for 1,092 metres in the first phase. In the second phase of drilling a further 41 holes for 1,199 metres were completed as shown in Figures 2 and 3 below.

Best assay results received to date from the second phase of drilling at Brumby Creek are set out in Table 1 below.

Table 1 – Brumby Creek - Best Drill Results			
Hole No	Manganese Intersection (using 18% Mn cut-off grade)		
BRRC074	23 metres (0-23m) @ 25.8% Mn, including 3 metres (2-5m) @ <b>31.2% Mn</b> ,		
	2 metres (6-8m) @ <b>30.4% Mn</b> and 2 metres (10-12m) @ <b>32.8% Mn</b>		
BRRC044	7 metres (2-9m) @ 26.5% Mn, including 2 metres (5-6m) @ <b>32.0% Mn</b> , and		
	9 metres (15-24m) @ 18.6% Mn		
BRRC036	14 metres (5-19m) @ 22.8% Mn		
BRRC041	8 metres (5-13m) @ 21.4% Mn		
BRRC061	5 metres (1-6m) @ 26.7% Mn, including 2 metres (2-4m) @ <b>30.6% Mn</b>		
BRRC049	5 metres (12-17m) @ 18.9% Mn		
BRRC063	2 metres (3-5m) @ 25.6% Mn		
BRRC066	3 metres (0-3m) @ 27.0% Mn		

Table 2 details significant assay results received to date for all the drill holes completed at Brumby Creek. Two updated drill sections through the central portion of the eastern area drilled are shown in Figures 4 and 5 below.

On the western area, hole BRRC036 (see Figure 2) was drilled in an area with no outcrop and confirmed the continuation of manganese mineralisation under shallow cover. This area remains open and requires additional drill testing.

On the eastern area, holes BRRC061 and BRRC063 intersected extensions to manganese mineralisation intersected in BRRC022 and BRRC023 during phase 1 of drilling. The results recorded in BRRC066 and BRRC074 also confirm that manganese mineralisation occurs along strike to the south of the main areas of drilling on both the western and eastern sides of the interpreted syncline (see Figure 3).

BRRC074 has recorded the best drilling intersection to date with three zones exceeding 30% manganese recorded in the upper 12 metres of the drill hole. This area also warrants additional drilling to fully test the extent of manganese mineralisation in this area.



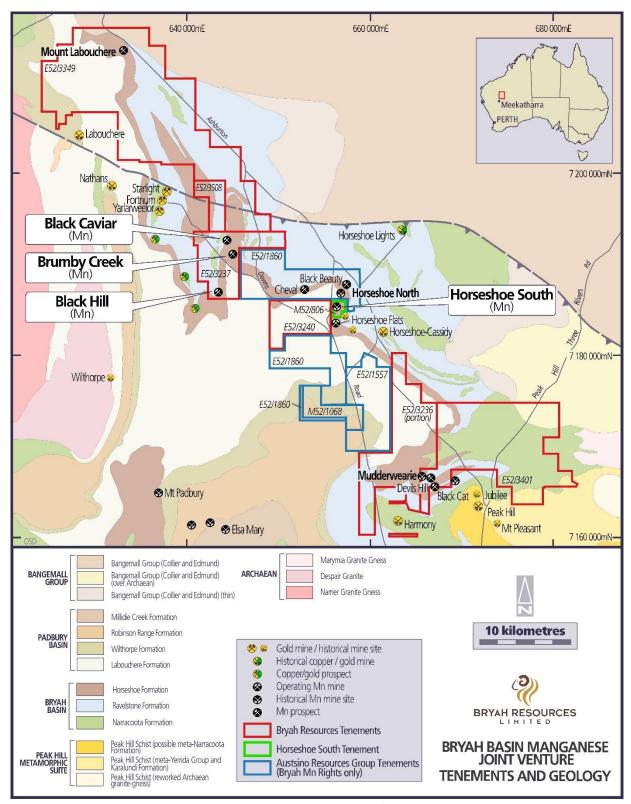


Figure 1 – Bryah Basin Tenements and Geology Plan



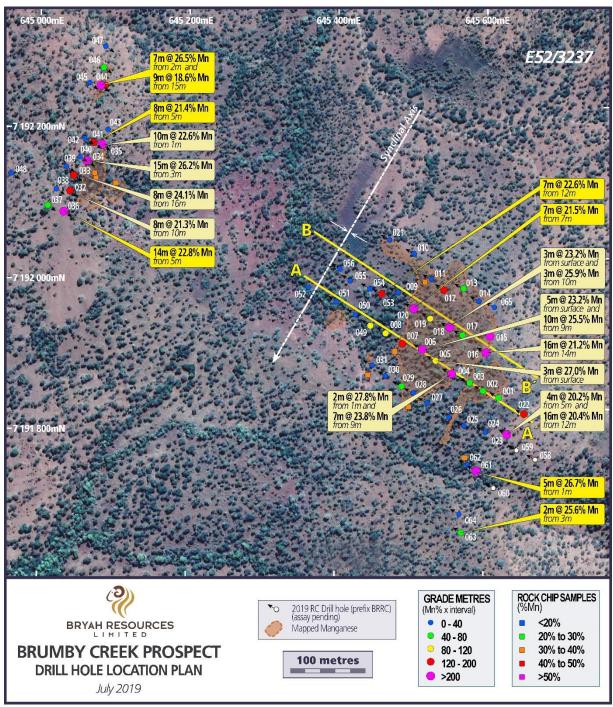


Figure 2 – Drill hole Location Plan – Brumby Creek.



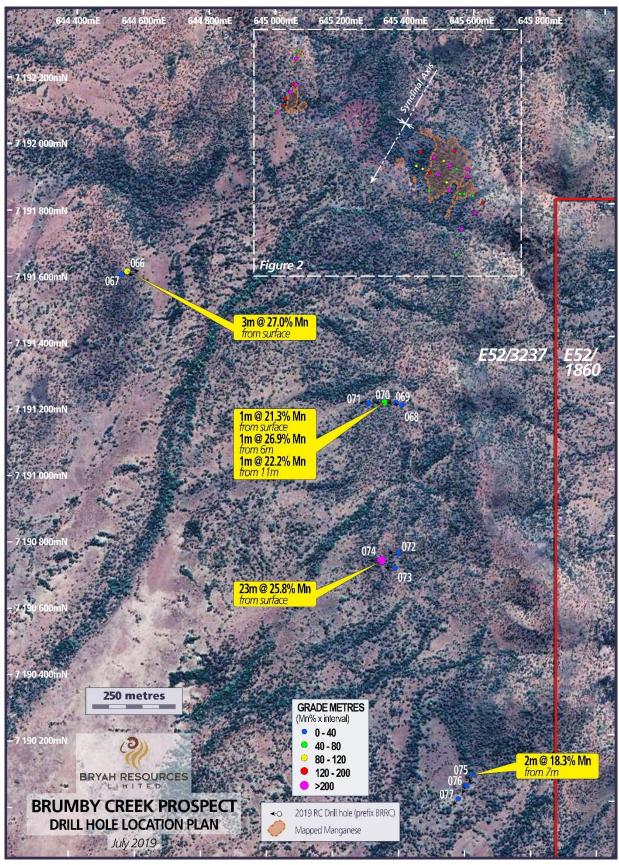


Figure 3 - Drill hole Location Plan – Brumby Creek.



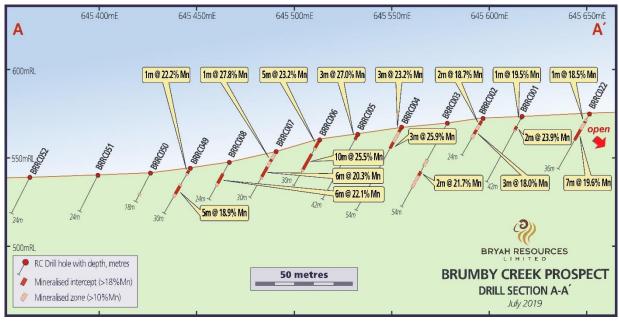


Figure 4 - Drill hole Section AA' - Brumby Creek.

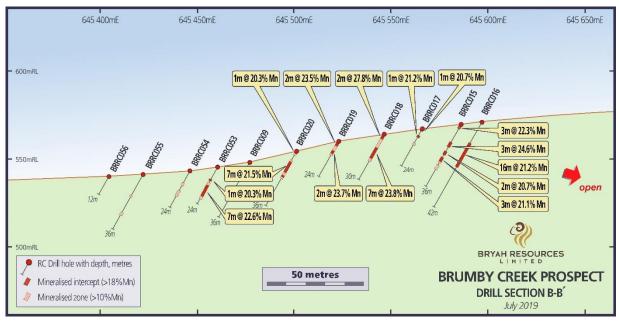


Figure 5 - Drill hole Section BB' - Brumby Creek.

#### Follow-up Activities

Final drilling results from the remaining sites will be reported as they become available.

The Company is also preparing a technical report and budget for OMM to consider ahead of OMM electing in August to commit to next the stage of on-ground exploration pursuant to the terms of the Agreement.

For further Information, please contact:

Neil Marston Managing Director

Tel: +61 9321 0001



Table 2

Drilling Results – Brumby Creek (using a cut-off grade of 18% Mn)

Hole ID	Easting mE	Northing mN	RL(m)	Azimuth & Dip (planned)	Total Depth	Depth From (m)	Depth To (m)	Interval Width (m)	Mn %	Fe %
BRRC001	645617.6	7191824.9	573.7	290º/-60º	42	6	8	2	23.9	22.9
BRRC002	645596.2	7191834.7	572.0	290°/-60°	24	1	3	2	18.7	21.2
						7	10	3	18.0	19.8
BRRC003	645577.9	7191845.3	569.8	290º/-60º	54	31	33	2	21.7	18.5
BRRC004	645553.5	7191857.8	567.3	290º/-60º	54	0	3	3	23.2	15.8
						10	13	3	25.9	15.0
BRRC005	645533.7	7191875.4	563.9	290º/-60º	42	0	3	3	27.0	12.6
BRRC006	645515.7	7191889.4	560.5	290°/-60°	30	0	5	5	23.2	13.2
						9	19	10	25.5	13.6
BRRC007	645489.4	7191897.0	553.8	290°/-60°	30	5	6	1	27.8	10.0
						10	16	6	20.3	9.9
BRRC008	645467.1	7191913.0	547.3	290°/-60°	24	7	13	6	22.1	7.8
BRRC009	645485.1	7191965.4	548.8	290°/-60°	36					
BRRC010	645506.7	7192017.0	548.4	290º/-60º	36		No S	ignificant Re	sults	
BRRC011	645529.1	7191982.5	557.7	290º/-60º	24					
BRRC012	645545.3	7191968.7	560.6	290º/-60º	30	0	3	3	24.6	18.1
						7	11	4	19.5	22.5
BRRC013	645570.5	7191969.8	561.8	290º/-60º	24	12	14	2	24.5	27.7
BRRC014	645591.3	7191952.6	564.1	290º/-60º	24		No S	ignificant Re	sults	r
BRRC015	645605.4	7191907.3	570.4	290º/-60º	42	0	3	3	22.3	23.1
						12	15	3	24.6	20.5
						18	19	1	26.2	16.0
						22	25	3	21.1	22.7
BRRC016	645599.0	7191885.0	571.6	290º/-60º	36	14	30	16	21.2	22.7
BRRC017	645570.6	7191906.9	567.5	290º/-60º	24	0	1	1	20.7	21.3
						4	5	1	21.2	14.0
BRRC018	645552.3	7191920.3	564.6	290°/-60°	30	1	3	2	27.8	19.6
						9	16	7	23.8	12.7
BRRC019	645526.9	7191931.4	560.5	290º/-60º	24	1	3	2	23.5	17.5
						6	8	2	23.7	16.7
BRRC020	645504.1	7191943.4	554.7	290°/-60°	36	0	1	1	20.3	16.4
						7	14	7	21.5	14.8
						16	17	1	19.1	10.7
BRRC021	645473.7	7192035.4	544.9	290°/-60°	24	13	14	1 -	18.7	20.9
BRRC022	645650.1	7191801.7	575.7	290°/-60°	36	10	17	7	19.6	22.1
BRRC023	645625.9	7191777.3	574.0	290°/-60°	42	5	9	4	20.2	22.6
DDDC024	C45500.1	7101770 4	F70.0	2000/ 600	20	12	28	16	20.3	22.6
BRRC024	645598.1	7191779.4	570.9	2900/-600	30	5	7	2	22.1	22.8
BRRC025	645570.3	7191788.4	567.9	2900/-600	30		NI- C	ianificant D	sculte	
BRRC026	645550.7	7191798.9	565.3	290°/-60°	12		NO S	ignificant Re	เรนเเร	
BRRC027	645521.3	7191819.7 7191832.1	562.0 559.7	290°/-60°	36 42	1	2	1	21.0	22.4
BRRC028	645503.6 645488.0	7191832.1	556.7	2900/-600	42	0	3	3	21.0	22.4
BRRC029 BRRC030	645467.0	7191841.6	552.2	290°/-60° 290°/-60°	24	U	<u> </u>	3	22.0	13.3
BRRC030	645448.3	7191833.7	547.4	290°/-60° 290°/-60°	12 24	}	No S	ignificant Re	sults	
BRRC032	645043.3	<b>7191870.0 7192103.7</b>	555.3	115°/-60°	36	10	18	9	21.3	22.9
BRRC033	645049.1	7192103.7	555.8	115°/-60°	30	16	24	8	24.1	19.3
	645066.7	7192123.5	557.7	115°/-60°	30	3	18	15	26.2	19.8
RRRC034			JJ1.1	1 113 / -00	30			1 23	20.2	10.0
BRRC034 BRRC035	645086.0	7192163.1	557.2	115°/-60°	18	1	11	10	22.6	18.6



## Table 2 (Continued)

## Drilling Results – Brumby Creek (using a cut-off grade of 18% Mn)

Hole ID	Easting mE	Northing mN	RL(m)	Azimuth & Dip (planned)	Total Depth	Depth From (m)	Depth To (m)	Interval Width (m)	Mn %	Fe %
BRRC036	645036.1	7192074.6	555.4	115°/-60°	30	5	19	14	22.8	21.0
BRRC037	645014.5	7192085.1	556.9	115º/-60º	42	29	31	2	20.4	26.4
BRRC038	645025.7	7192107.3	556.8	115º/-60º	42					
BRRC039	645039.6	7192135.9	557.4	115°/-60°	48		No Sign	ificant Resu	ılts	
BRRC040	645057.9	7192148.1	558.3	115º/-60º	36					
BRRC041	645076.9	7192168.0	558.7	115º/-60º	24	5	13	8	21.4	24.4
BRRC042	645064.8	7192173.5	560.3	115º/-60º	36		No Sign	ificant Resu	ılts	
BRRC043	645096.2	7192183.8	558.7	115º/-60º	18	7	8	1	24.8	22.1
BRRC044	645086.0	7192242.7	564.5	115º/-60º	30	2	9	7	26.5	18.6
						15	24	9	18.6	20.0
BRRC045	645072.6	7192246.4	566.2	115º/-60º	30		No Sign	ificant Resu	ılts	•
BRRC046	645090.6	7192266.7	563.6	115º/-60º	24	5	9	4	17.7	24.0
BRRC047	645094.0	7192293.7	562.5	115º/-60º	12		N. C.	.c 5	1.	•
BRRC048	644965.3	7192127.8	563.5	115º/-60º	18		No Sign	ificant Resu	IITS	
BRRC049	645447.3	7191924.1	544.0	290°/-60°	30	2	3	1	22.2	11.3
						12	17	5	18.9	12.8
BRRC050	645426.9	7191937.0	541.9	290º/-60º	18		ı	I	ı	ı
BRRC051	645402.1	7191955.1	540.6	290°/-60°	24		No Sign	nificant Resu	ılts	
BRRC052	645365.9	7191974.0	539.0	290°/-60°	24		J			
BRRC053	645461.8	7191964.1	545.6	290°/-60°	24	8	9	1	20.3	10.7
						12	19	7	22.6	14.4
BRRC054	645447.0	7191971.3	544.0	290°/-60°	24					l
BRRC055	645420.9	7191982.3	541.8	290°/-60°	36		No Sign	nificant Resu	ılts	
BRRC056	645406.8	7191998.1	540.8	290°/-60°	12		J			
BRRC058	645664.3	7191741.8	576.5	290°/-60°	54					
BRRC059	645639.8	7191754.3	574.7	290°/-60°	30	Assays Pending				
BRRC060	645609.5	7191705.1	568.0	290°/-60°	30			,		
BRRC061	645583.7	7191728.9	566.6	290°/-60°	30	1	6	5	26.7	16.0
BRRC062	645572.6	7191736.8	565.8	290°/-60°	30	2	3	1	19.8	20.2
BRRC063	645563.9	7191646.9	568.7	290°/-60°	30	3	5	2	25.6	16.3
BRRC064	645561.8	7191671.8	566.7	290°/-60°	30			I.		
BRRC065	645611.9	7191945.2	563.5	290°/-60°	30		No Sign	ificant Resu	ılts	
BRRC066	644563.1	7191603.9	546.2	90°/-60°	30	0	3	3	27.0	15.2
BRRC067	644547.5	7191596.3	545.3	90º/-60º	30		_	nificant Resu		
BRRC068	645395.3	7191185.4	556.8	270°/-60°	30	1	2	1	25.0	19.7
BRRC069	645378.3	7191191.7	555.3	270°/-60°	30		No Sign	ificant Resu		13.7
BRRC070	645343.6	7191193.3	552.7	270°/-60°	30	0	1	1	21.3	16.9
DIMICO70	043343.0	7131133.3	332.7	270 7 00	30	6	7	1	26.9	15.8
						11	12	1	22.2	18.2
BRRC071	645297.6	7191192.1	549.9	270°/-60°	30	0	1	1	18.6	19.0
BRRC071	645380.2	7191192.1	556.5	270°/-60°	30			т	10.0	13.0
BRRC073	645369.7	7190743.3	553.7	270°/-60°	30	No Significant Results				
BRRC074	645329.2	<b>7190701.9 7190722.1</b>	550.3	270°/-60°	42	0	23	23	25.8	23.0
BRRC074 BRRC075	645597.5	7190722.1	541.4	40°/-60°	30	7	8	2	18.3	27.0
BRRC076	645578.2	7190083.0	538.8	40°/-60° 40°/-60°	30	/	0		10.5	27.0
				-		-	No Sign	ificant Resu	ılts	
BRRC077	645551.8	7190011.5	536.3	40°/-60°	11					
				Subtotal	1,199					

#### Notes:

- 1. Intervals may include up to 2 metres of internal waste.
- 2. Due to the broad spaced nature of this drilling true thickness of mineralisation is uncertain.

TOTAL

2,291



### Appendix 1

### Bryah Basin Manganese Farm-In and Joint Venture Agreement Key Terms

- The Farm-In and Joint Venture Agreement (Agreement) between Bryah and OMM includes a Signing Fee of \$0.25 million, which was paid to Bryah on 18 April 2019.
- The Joint Venture (JV) applies to Manganese Mineral Rights only, with Bryah retaining rights to all other minerals.
- In Stage 1, OMM has funded \$0.5 million on project expenditure by 31 July 2019.
- OMM may elect to proceed to Stage 2 by paying an Exercise Fee of \$0.25 million to Bryah to earn an initial 10% JV interest 30 days after Bryah supplies OMM with the results of the Stage 1 exploration.
- In Stage 2, OMM will fund a further \$2.0 million of project expenditure by 30 June 2022 to earn an additional 41% JV interest, giving OMM a total of 51% JV interest.
- Bryah is to be Project Manager for Stage 1 and Stage 2 of the Farm-In.
- Upon OMM earning its 51% JV interest, OMM may elect to be Project Manager and Bryah may elect not to contribute to project expenditure, diluting from 49% to 40% JV interest by OMM funding the next \$1.8 million of project expenditure.
- Upon OMM earning its 60% JV interest, Bryah may elect not to contribute to project expenditure, diluting from 40% to 30% JV interest by OMM funding the next \$2.5 million of project expenditure.
- OMM's right to acquire a JV interest is subject to OMM obtaining Foreign Investment Review Board approval to it acquiring a JV interest.
- The aim of the JV is to explore for commercially mineable manganese and carry out Feasibility Studies.
- If a positive Feasibility Study is supported by a Decision to Mine then OMM and Bryah may elect to participate in a Mining Joint Venture in proportion to their JV interests or convert to a Royalty.
- Bryah is to negotiate a sales agency agreement on commercial terms with OM Holdings Ltd in respect to all manganese ore production under the Mining JV.
- The JV includes an area of Mutual Interest which extends for a radius of 100 kilometres from the Horseshoe South Manganese Mine (M52/806).
- Tenements covered under the Agreement are:
  - a. E52/3236 (southern portion), E52/3237, E52/3240, E52/3349, E52/3401, and E52/3508 registered in the name of Bryah Resources Limited,
  - b. M52/806 to be registered in the name of Bryah Resources Limited, and
  - c. E52/1557, E52/1860, and M52/1068 registered in the name of Desert Resources Pty Ltd, a subsidiary of Austsino Resources Group Limited (ASX:ANS) (Manganese Mineral Rights only) (See Figure 1)



#### **About Bryah Resources Limited**

Bryah Resources Limited is a copper-gold-manganese focused explorer with 2 projects located in central Western Australia, being the 880 km<sup>2</sup> Bryah Basin Project and the 200km<sup>2</sup> Gabanintha Project.

The Bryah Basin is host to the high-grade copper-gold mines at DeGrussa, discovered by Sandfire Resources NL in 2009, and at Horseshoe Lights, which was mined until 1994. The Bryah Basin also has several historical and current manganese mines including the recently acquired Horseshoe South mine.

The Company has secured a farm-in and joint venture agreement with OM (Manganese) Limited in respect to its manganese rights only in respect to approximately 660 km<sup>2</sup> of its Bryah Basin tenement holdings (see Figure 6).

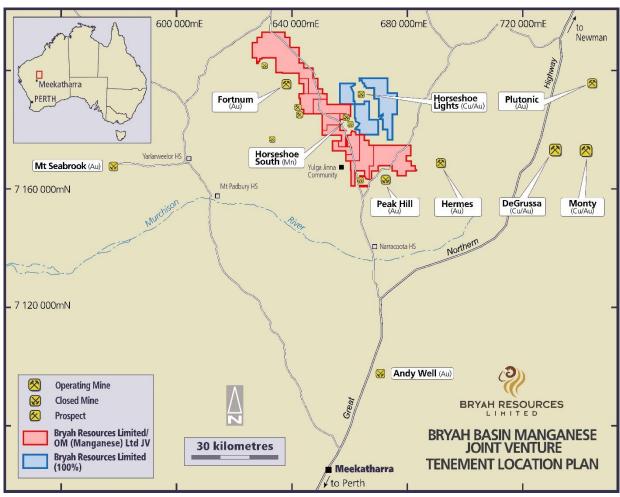


Figure 6 – Tenement Location Plan

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**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Rohan Williams, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Williams is an employee of Bryah Resources Limited ("the Company"). Rohan Williams 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'. Rohan Williams consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### **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.



# **Manganese Exploration and Sampling**

# JORC Code, 2012 Edition – Table 1 Exploration Results

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation 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.</li> </ul>	<ul> <li>For this drilling programme Bryah Resources Limited (Bryah Resources) utilised predominantly angled Reverse Circulation (RC) drill holes with some vertical holes included.</li> <li>RC drilling was to generally accepted industry standard producing 1m samples of approximately 3kg weight which were collected beneath a cyclone and then passed through a rotary cone splitter.</li> <li>The splitter reject sample was collected into green plastic bags which were numbered and laid into 10m rows.</li> <li>The holes were sampled as 1m samples from the splitter and placed into pre-numbered calico bags with the drawsting tied up and then placed inside the green plastic bag for later collection and despatch.</li> <li>The full length of each hole drilled was sampled.</li> <li>Selected samples collected were submitted to a contract commercial laboratory for sorting, drying, crushing, splitting and pulverising.</li> <li>A prepared sample is then fused in a lithium borate flux with lithium nitrate additive. The resultant glass bead is analysed via X-Ray Fluorescence (XRF). XRF is suitable analysis for a wide range of geological ores.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, 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).	<ul> <li>Bryah Resources' RC holes were drilled with a contract RC drilling rig.</li> <li>All RC holes were drilled using a 140mm face sampling drilling bit.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>The RC samples were not weighed or measured for recovery on the rig but will be completed on a campaign basis at a later date as required.</li> <li>To ensure maximum sample recovery and the representivity of the samples, an experienced Company</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>geologist was present during drilling to monitor the sampling process. Any issues were immediately rectified.</li> <li>Bryah Resources is satisfied that the RC holes have taken a sufficiently representative sample of the interval and minimal loss of fines has occurred in the RC drilling resulting in minimal sample bias.</li> <li>No twin RC drill holes have been completed to assess sample bias.</li> <li>At this stage no investigations have been made into whether there is a relationship between sample recovery and grade.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All of the 1m RC samples were sieved and collected into 20m chip trays for geological logging of colour, weathering, lithology, alteration and mineralisation for potential Mineral Resource estimation and mining studies.</li> <li>RC logging is both qualitative and quantitative in nature.</li> <li>The total length of the RC holes were logged. Where no sample was returned due to cavities/voids it was recorded as such.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Sampling technique:     All RC samples were collected from the RC rig and were collected beneath the cyclone and then passed through the cone splitter.     The samples were generally dry and all attempts were made to ensure the collected samples were dry.     The cyclone and cone splitter were cleaned with compressed air at the end of every 6m RC drill rod.     The sample sizes were appropriate to correctly represent the mineralisation based on the style of mineralisation, the thickness and consistency of intersections, the sampling methodology and percent value assay ranges for the primary elements.



Criteria	JORC Code explanation	Commentary
		<ul> <li>Quality Control Procedures were:         <ul> <li>A duplicated sample was collected every 50 samples.</li> </ul> </li> <li>Certified Reference Material (CRM) samples were inserted in the field every 50 samples containing a range of manganese values.</li> <li>Overall QAQC insertion rate of 1:30 samples</li> <li>Laboratory repeats taken and standards inserted at pre-determined level specified by the laboratory.</li> <li>Sample preparation at the laboratory: The samples are weighed and dried at 105°C, then coarsely crushed to -6.3mm using a jaw crusher. If the sample size is greater than 2.5kg the samples are then riffle split. Samples are then pulverised by LM5 or disc pulveriser to 80% passing -75 microns</li> <li>The sample sizes are considered appropriate to correctly represent the mineralisation based on the style of mineralisation, the thickness and consistency of intersections, the sampling methodology and the assay value ranges expected for manganese and its impurities.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>XRF is suitable for the total analysis of a range of geological ores and is appropriate for analysis of manganese and its associated impurities.</li> <li>Duplicates and samples containing standards were included in the analyses.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Significant intersections have been independently verified by alternative company personnel.</li> <li>The use of twinned holes has not been implemented and is not considered necessary at this stage of exploration.</li> <li>The Competent Person has visited the site &amp; supervised all the drilling and sampling process in the field.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>All primary data related to logging and sampling are captured using palmtops into Excel templates.</li> <li>All data is sent to Perth and stored in the centralised Access database with a Data Shed front end which is managed by company geologists.</li> <li>No adjustments or calibrations have been made to any assay data, apart from resetting below detection values to half positive detection.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All collars have been independently surveyed by surveyors using a differential GPS for accurate collar location and RL with the digital data entered directly into the company Access database.</li> <li>Downhole surveys have been completed on all the RC drill holes by the drillers. They used a Reflex EZ-Shot downhole multi-shot tool to collect the surveys every 30m down the hole.</li> <li>The grid system for the Bryah Basin prospect is MGA_GDA94 Zone 50.</li> <li>Topographic control is based upon known survey datums located within the project area.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>As this programme was a reconnaissance programme there was considerable variation in the drill spacing and drillhole orientation.</li> <li>The drill spacing is generally not sufficient to establish the degree of geological and grade continuity applied under the 2012 JORC code.</li> <li>No sample compositing was been applied to this drilling with all samples collected at 1m intervals.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	The attitude of the lithological units varies greatly both within the prospects and between prospect to prospect. At Horseshoe South Extended the strike of the stratigraphy is approximately 030° so the drilling was conducted on an azimuth of 300° to intersect the lithological units orthogonally. At Brumby Creek the regional stratigraphy is mapped at 020° and dipping to the South East therefore the azimuth



Criteria	JORC Code explanation	Commentary
		drilled there on the Main Hill is at an azimuth of 290° whilst at Brumby Creek West the structure appears overturned and is dipping to the West. The Brumby Creek West holes are therefore drilled with an azimuth of 115°. Some holes will be drilled in other orientations to intersect specific mineralised structures, but always with an attempt to drill orthogonal to the strike of the interpreted structure. Due to locally varying intersection angles between drillholes and lithological units all results are defined as downhole widths.  • No drilling orientation and sampling bias has been recognized at this time and it is not considered to have introduced a sampling bias.
Sample security	The measures taken to ensure sample security.	<ul> <li>The samples collected were placed in calico bags and transported to the relevant Perth laboratory by company personnel.</li> <li>Sample security was not considered a significant risk.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>The Company database has been compiled from primary data by independent database consultants and was based on original assay data and historical database compilations.</li> <li>A regular review of the data and sampling techniques is carried out internally.</li> </ul>

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The relevant tenement (E52/3237) is 100% owned by Bryah Resources Limited</li> <li>At the time of reporting, there are no known impediments to obtaining a licence to operate in the area and the tenements are in good standing.</li> </ul>



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The manganese deposits in the region were discovered during the gold rush period between 1897 and 1911 however were of little interest to explorers at the time.</li> <li>Mining operations between 1948 and 1967 received the focus of early exploration.</li> <li>Manganese exploration conducted by BHP Limited, King Mining Corporation Ltd, Valiant Consolidated Ltd and various others since the 1960's was concentrated mainly around the historic pits at Elsa Group, Millidie, Horseshoe South, Mudderwearie and Ravelstone.</li> <li>Tuart Resources Limited and Peak Hill Manganese Pty Ltd undertook regional exploration over a large portion of the Bryah and Padbury Basins in the period after 2000, identifying numerous manganese anomalies from satellite imagery and aerial photography. Only limited on-ground exploration of many of these anomalies was undertaken.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	These manganese occurrences are within the Lower Proterozoic Bryah and Padbury Basins. Manganese deposits are a product of prolonged weathering and oxidation of sedimentary rocks and chemical concentration and re-deposition of manganese within ancient drainage systems. Most of the manganese deposits are remnants of former drainage palaeochannels. Although detailed surveys have not been completed, the location of most manganese deposits appears to be at about the elevation of the former palaeosurface. These deposits are now left as hilltop mesas or cappings (inverted relief).
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Refer to Tables 2 of this ASX Announcement for details of sample locations, etc.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No high-grade cuts have been applied to the reporting of exploration results.</li> <li>No metal equivalent values have been used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>As this programme was a first pass programme there was some variation in the drill spacing and hole orientation.</li> <li>Due to locally varying intersection angles between drill holes and lithological units all results are defined as downhole widths.</li> <li>This drill spacing is also not sufficient to establish the degree of geological and grade continuity applied under the 2012 JORC Code.</li> </ul>
Diagrams	<ul> <li>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 drill hole collar locations and appropriate sectional views.</li> </ul>	See attached figures within 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.	Refer to Tables 2 to 5 of this ASX Announcement.
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 other exploration data available.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Additional drilling has been completed and assays are pending