

# Further High-Grade Manganese at Horseshoe South

## *Latest results consolidate near-term production strategy*

### **Highlights:**

- **Significant manganese** intersected in latest RC drilling at the Main and Extended Pits at Horseshoe South Manganese Mine
- **Shallow high-grade manganese** recorded beneath the Main Pit. Best results:
  - HSRC038 - **4 metres (9-13m) @ 40.9% Mn, including 2 metres @ 46.0% Mn from 10 m**
  - HSRC035 - **3 metres (5-8m) @ 30.9% Mn, including 1 metre @ 42.9% Mn from 6 m**
  - HSRC026 - **3 metres (8-11m) @ 28.4% Mn, including 1 metre @ 35.0% Mn from 9 m**
- **Significant manganese mineralisation** recorded in and around Extended Pit. Best results:
  - HERC044 - **19 metres (17-36m) @ 24.6% Mn, including 3 metres @ 37.1% Mn from 26m**
  - HERC056 - **14 metres (1-15m) @ 22.5% Mn, and 7 metres (18-25m) @ 22.5% Mn**
  - HERC049 - **5 metres (1-6m) @ 23.2 % Mn, and 11 metres (9-20m) @ 24.8% Mn**
  - HERC047 - **17 metres (4-21m) @ 21.5% Mn**
  - HERC048 - **14 metres (7-21m) @ 23.7% Mn**
- Drilling program was **fully funded by OM (Manganese) Limited** under Bryah Basin Joint Venture Agreement, with Bryah managing the project
- **Horseshoe South located on granted Mining Lease, allowing quick re-permitting for mining**
- Further drilling results from Horseshoe South Main Pit **expected in two weeks**
- Assay results from drilling at the **Windalah gold prospect expected next week**

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Bryah Resources Limited ("Bryah" or "the Company") is pleased to advise the second set of results from its recent reverse circulation (RC) drilling program at its Bryah Basin Manganese Joint Venture project (90% Bryah/10% OM (Manganese) Limited ("OMM")), which is located approximately 150 km north of the town of Meekatharra in central Western Australia (see Figure 1).

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#### ASX Code: BYH

ABN: 59 616 795 245  
Shares on issue: 100,873,840  
Latest Share Price: \$0.06  
Market Capitalisation: \$6.0M

#### Projects

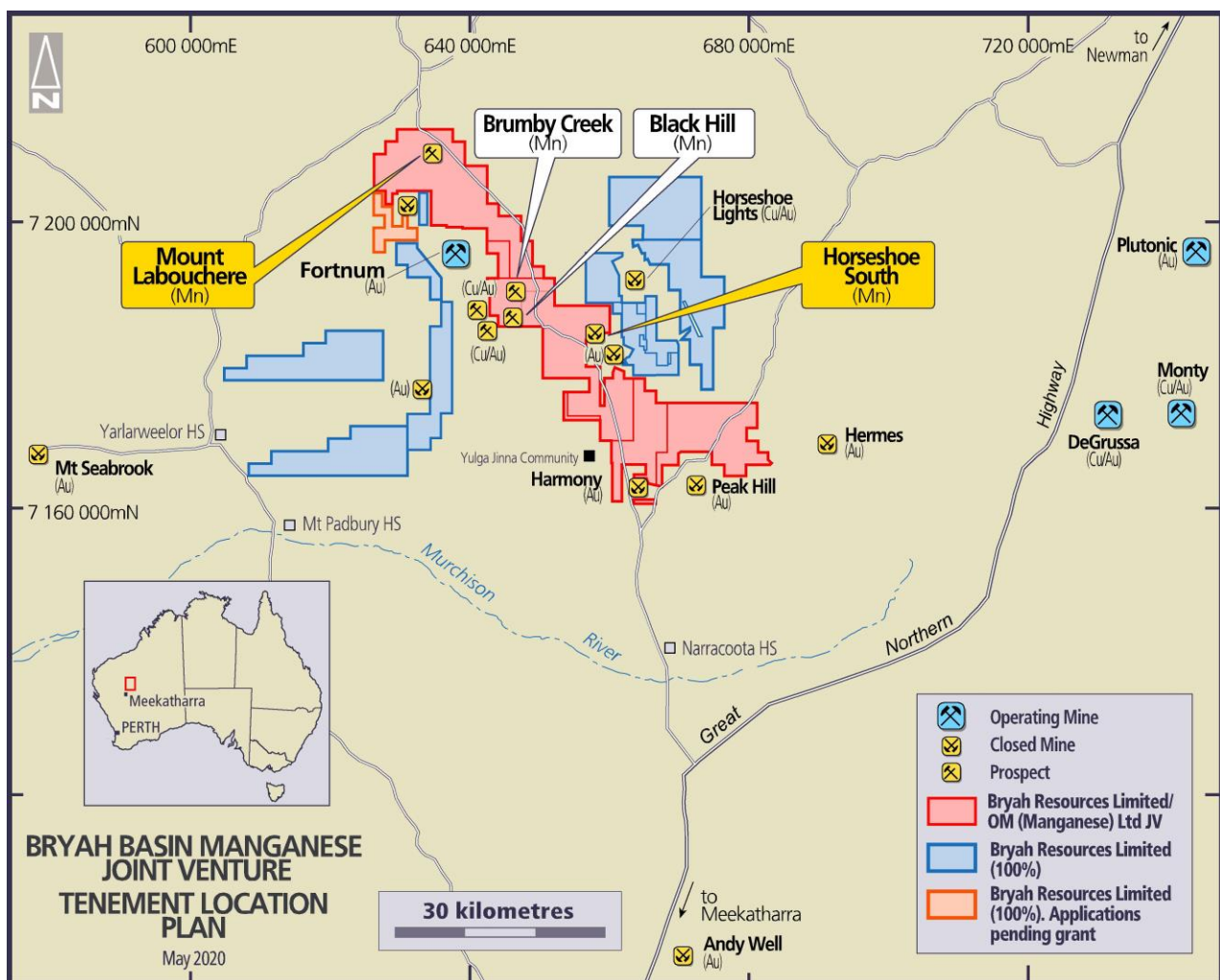
Bryah Basin – Copper, Gold  
Manganese  
Gabanintha – Gold, Copper  
[bryah.com.au](http://bryah.com.au)

Commenting on the latest results Managing Director, Neil Marston said:

“The latest drilling at the historic Horseshoe South Mine has yielded some significant manganese results within the Main and Extended Pit areas. The grades and thickness of mineralisation at the Extended Pit confirms our view that the site has potential for economic tonnes and grades of manganese. We have commenced a program of beneficiation testwork on bulk samples recently collected to see how this mineralisation can be upgraded through simple processing.

At the Main Pit, drilling was targeted at locating buried channels and layers of manganese missed by earlier operators. These results demonstrate the existence of very high-grade manganese at shallow depths beneath the existing pit, so additional drilling is warranted in future programs.

These pits lie on a granted mining lease which can be quickly re-permitted for manganese mining operations. The Company has also engaged with the adjoining lease holder about a potential collaboration across the common lease boundary in the Extended Pit area so that these significant manganese zones near our southern boundary can be effectively developed.”



## Drilling Program

The Horseshoe South Manganese Mine and Mount Labouchere prospect locations are shown in Figure 1 and Figure 8. The drilling program at Horseshoe South was focused on testing for extensions of manganese mineralisation intersected in drilling programs completed in 2019, as well as from previous exploration.

A first pass drilling program was undertaken at the Mount Labouchere prospect to test around an area of outcropping manganese.

The latest results from the drilling highlight significant manganese at the Horseshoe South mine. The best results from the drilling are in Table 1 and all information is shown in Table 2 and Table 3.

**Table 1 - Best Drill Results**

Hole No	Manganese Intersection (using 18% Mn cut-off grade)
<b>Horseshoe South – Main Pit</b>	
HSRC038	4 metres (9-13m) @ 40.9% Mn, including 2 metres @ 46.0% Mn from 10 m
HSRC035	3 metres (5-8m) @ 30.9% Mn, including 1 metre @ 42.9% Mn from 6 m
HSRC026	3 metres (8-11m) @ 28.4% Mn, including 1 metre @ 35.0% Mn from 9 m
HSRC027	6 metres (5-11m) @ 22.7% Mn
HSRC028	5 metres (6-11m) @ 25.9% Mn
<b>Horseshoe South – Extending Pit Area</b>	
HERC044	19 metres (17-36m) @ 24.6% Mn, including 3 metres @ 37.1% Mn from 26m
HERC056	14 metres (1-15m) @ 22.5% Mn, and 7 metres (18-25m) @ 22.5% Mn
HERC049	5 metres (1-6m) @ 23.2 % Mn, and 11 metres (9-20m) @ 24.8% Mn
HERC047	17 metres (4-21m) @ 21.5% Mn
HERC048	14 metres (7-21m) @ 23.7% Mn

### Horseshoe South - Main Pit

At the Main Pit, 60 drill holes for 454 metres were drilled. Results for the first 19 holes have been received and included in this report. For holes HSRC045 onwards, assay results are pending, with receipt expected in two weeks.

The drill hole locations are shown in Figure 2 below. The drilling program was designed to test for shallow high-grade zones and channels of manganese mineralisation below the floor of the existing pit.



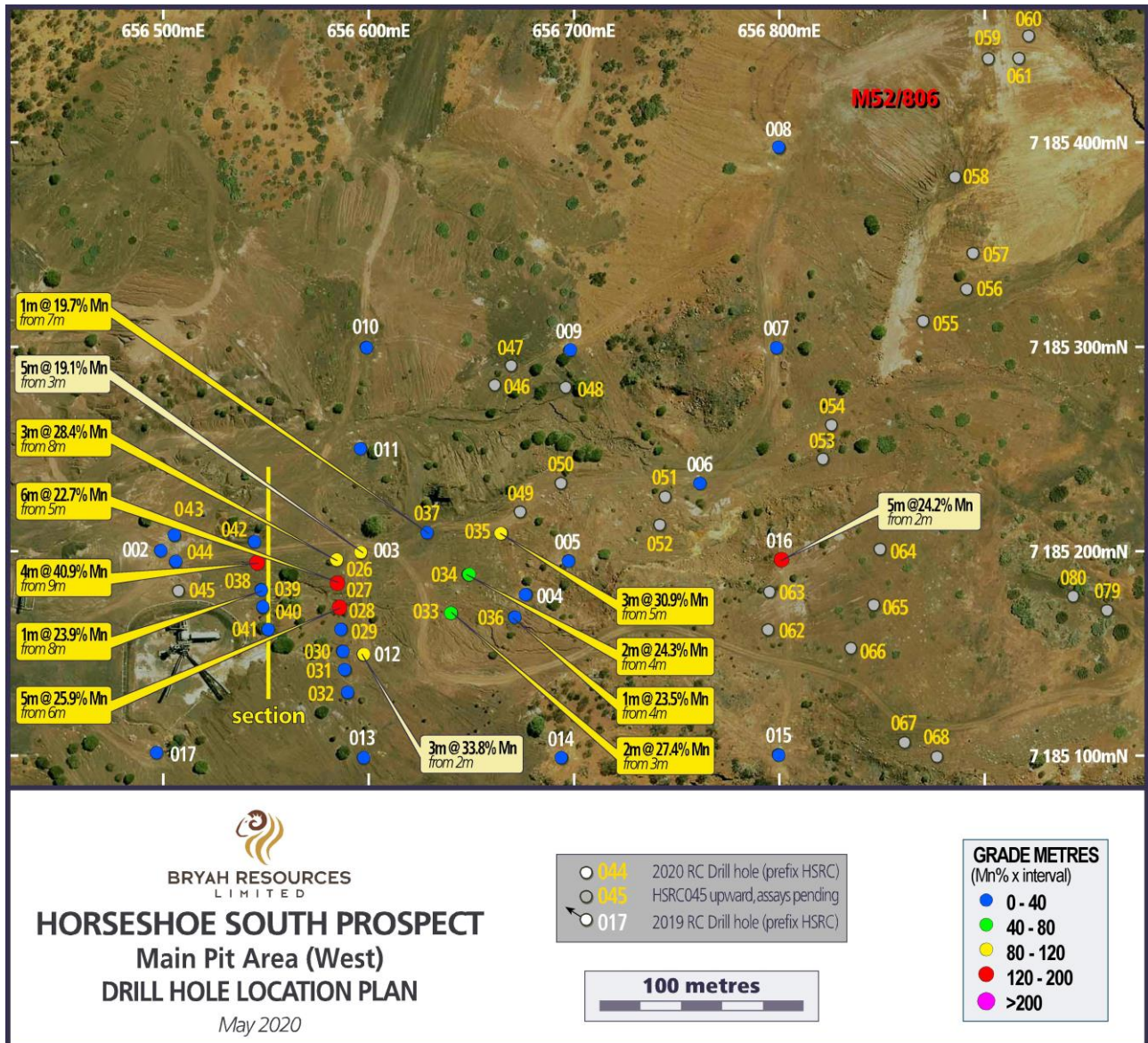


Figure 2 - Horseshoe South Main Pit - Drill Hole Location Plan

It is interpreted that a high-grade manganese channel beneath the open pit floor was intersected by hole HSRC038, as shown in Figure 3. This intersection of 4 metres @ 40.9% Mn from 9 metres depth confirms the potential for shallow high-grade manganese to exist within the mining lease, and more broadly within the project area.

Further drilling to extend this channel and to identify additional channels is warranted in follow-up programs.

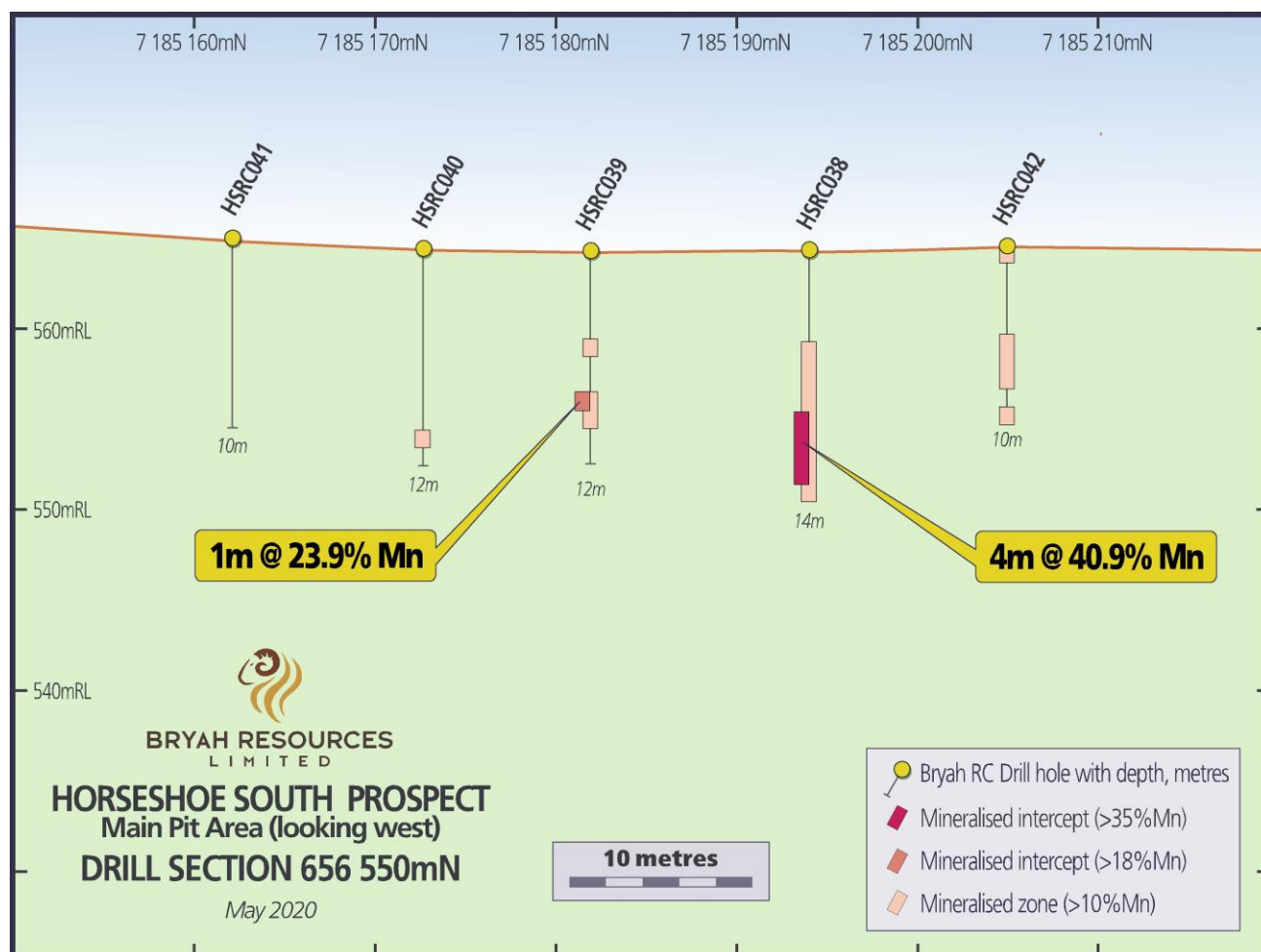


Figure 3 - Horseshoe South Main Pit - Drill Section 656550mE

### Horseshoe South – Extended Pit

At the Extended Pit area, 17 drill holes for 598 metres were drilled to test for extensions of the manganese mineralisation intersected in 2019<sup>1</sup> and by previous exploration.

The drill hole locations at the Extended Pit area are shown in Figure 4 and in the drill sections in Figure 5 and Figure 6 below.

<sup>1</sup> See BYH ASX Announcement dated 19 August 2019 for full details



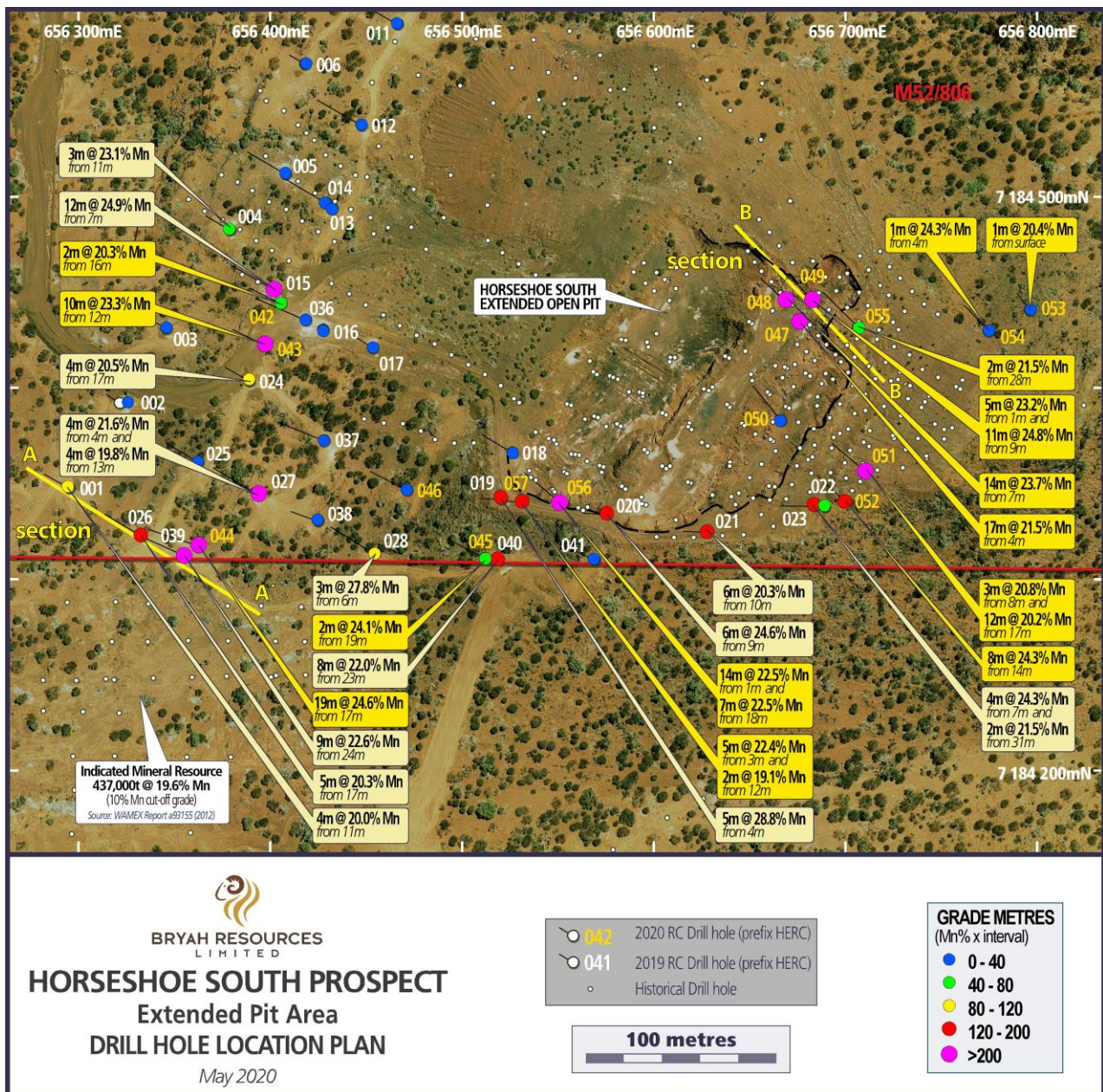


Figure 4 - Horseshoe South Extended Pit Area- Drill Hole Location Plan

Drill holes HERC042 – HERC044 were drilled on the lower western slopes of the mining lease to test for extensions of significant mineralisation identified in 2019 drilling.

HERC043 appears to have intersected a continuation of manganese mineralisation intersected by HERC015, with similar grades and widths recorded (see Figure 4).

HERC044 recorded the best results in this area, with grades exceeding 35% Mn recorded within a 19 metre wide zone of mineralisation intersected (see Figure 5).

These drill holes are located close to the southern boundary of M52/806, which adjoins M52/1048 to the south. A mineral resource up to the northern boundary of M52/1048 has been publicly reported<sup>2</sup> (see Figure 4) and the Company has been in discussions with the adjoining mining lease holder about collaborating to enable the potential development across the common boundary.

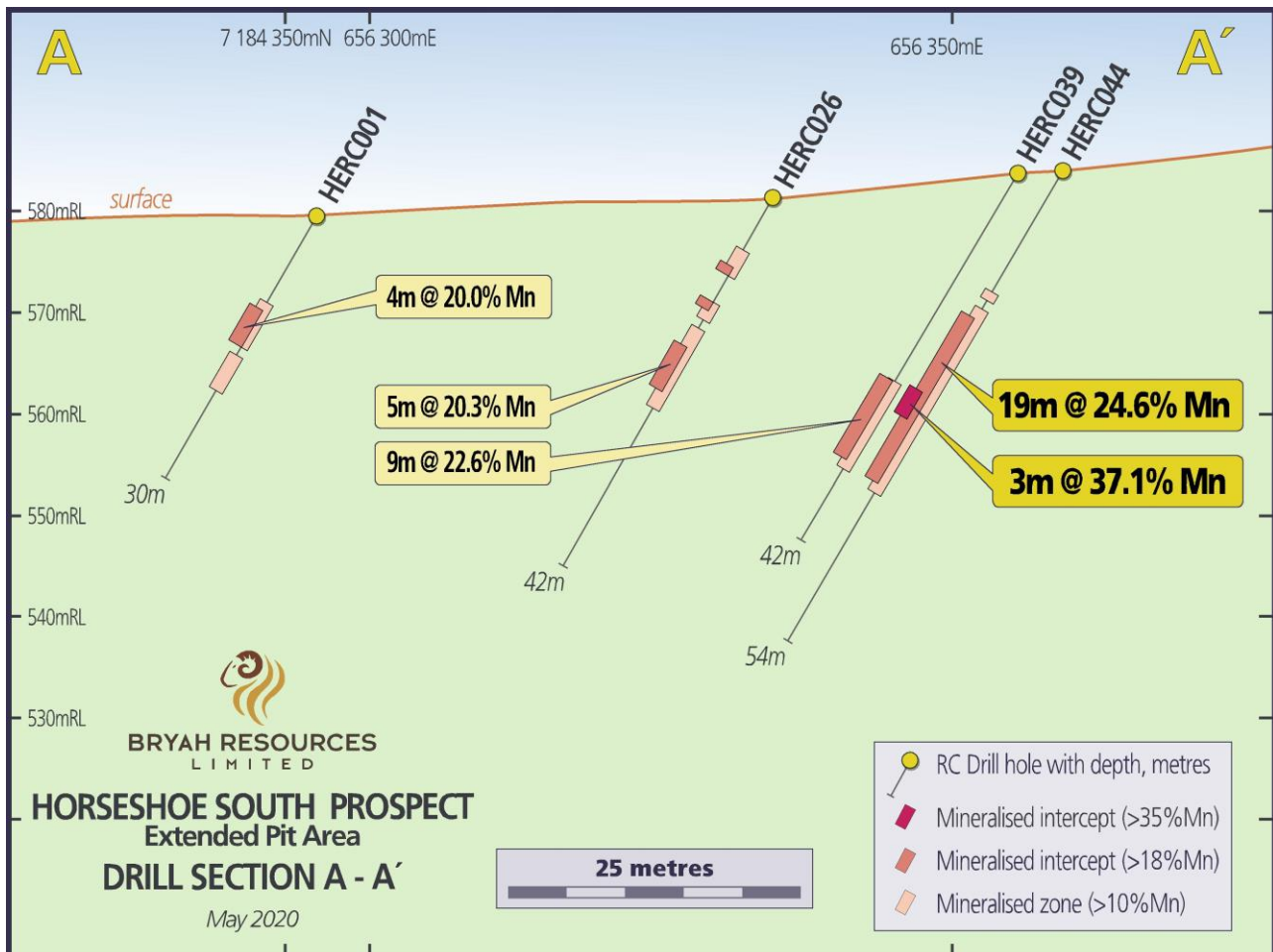


Figure 5 - Horseshoe South Extended Pit Area - Section A-A'

<sup>2</sup> Reference – WAMEX Report A93155







## Mount Labouchere

At the Mount Labouchere prospect, 16 drill holes for 256 metres were drilled to test for manganese beneath shallow cover around an area of outcropping manganese identified in 2018. The drill hole locations are shown in Figure 7 below. The drilling demonstrated that there are no significant extensions of manganese beyond the outcropping area.

However, the samples assayed did show anomalism in copper and cobalt, which will need further investigation. Bryah intends to collect the remaining 1 metre samples which have not been submitted for analysis and have these analysed for a broader suite of minerals to determine the significance of this copper and cobalt anomalism.

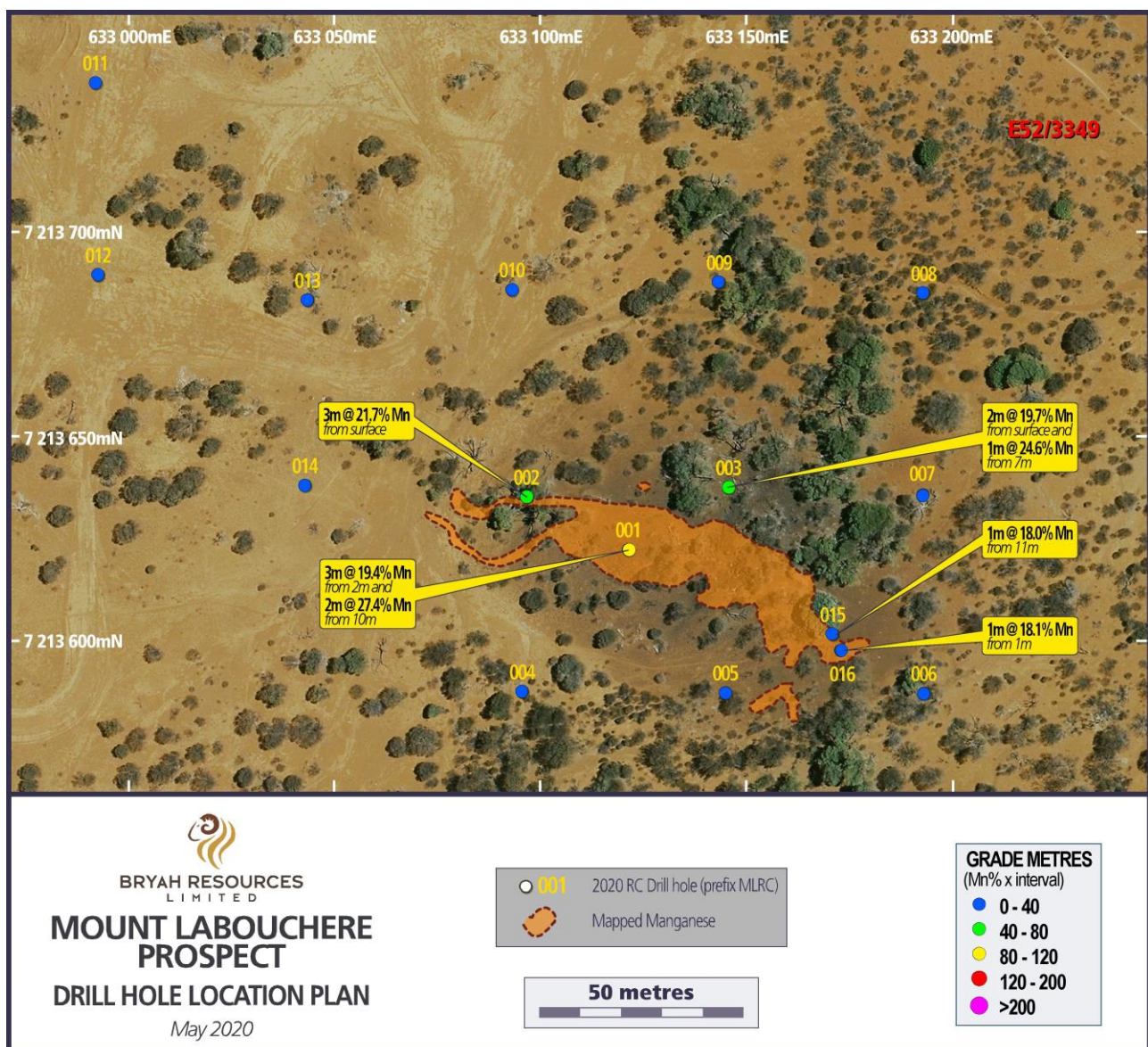


Figure 7 - Mount Labouchere Prospect Drill Hole Location Plan

## **Bryah Basin Manganese Joint Venture**

In April 2019, Bryah executed a Manganese Farm-In and Joint Venture Agreement (“Agreement”) with OMM, a wholly owned subsidiary of ASX-listed OM Holdings Limited (ASX:OMH)<sup>3</sup>. OM Holdings Limited is a vertically integrated Manganese and Silicon specialist involved in mining, smelting and trading, with operations located in Australia, China, Japan, Malaysia, Singapore and South Africa. In Australia, OMM operates the Bootu Creek manganese mine in the Northern Territory.

The Agreement applies to the rights to manganese only over approximately 660 km<sup>2</sup> in the Bryah Basin (see Figure 1).

Between April and August 2019, OMM funded \$500,000 of project expenditure which yielded highly encouraging manganese drilling results<sup>4</sup>. In August 2019, OMM elected under the Agreement to proceed and the Joint Venture was formed following payment of a \$250,000 Exercise Fee, whereby OMM secured an initial 10% interest in the Manganese Joint Venture (“JV”).

Under Stage 2 of the Agreement, OMM can elect to progressively fund the next \$2.0 million of exploration expenditure in four tranches of \$500,000 each, to earn up to a 51% interest in the Manganese JV by 30 June 2022.

OMM has completed Tranche 1 funding of \$500,000 and, once expended by Bryah, will increase the JV interest held by OMM from 10% to 20%. Bryah is Project Manager of the JV until OMM has earned a 51% JV interest and has elected to be Project Manager.

## **Other Activities**

The Company recently collected a bulk sample of between 1-2 tonnes from the lowest bench of the Extended Pit which is being processed in a Perth laboratory before a series of beneficiation tests.

Planning for the next manganese drilling program in the Bryah Basin is currently underway and is expected to include a round of diamond drilling to collect samples for further metallurgical testwork.

Bryah completed 3 RC drill holes<sup>5</sup> at its Windalah gold prospect at the end of the recent manganese drilling. The results of this drilling are expected next week.

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

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<sup>3</sup> See BYH ASX Announcement dated 23 April 2019 for full details

<sup>4</sup> See BYH Quarterly Activities Report dated 31 October 2019 for full details

<sup>5</sup> See BYH ASX Announcement dated 12 May 2020

**Table 2 - Drilling Results (using a cut-off grade of 18% Mn)**

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)	Mn %	Fe %	Co %	P %	Cu %
HSRC026	8	11	3	28.4	20.8	0.04	0.04	0.00
<i>including</i>	<b>9</b>	<b>10</b>	<b>1</b>	<b>35.0</b>	<b>16.9</b>	<b>0.05</b>	<b>0.05</b>	<b>0.01</b>
HSRC027	5	11	6	22.7	28.2	0.03	0.04	0.00
HSRC028	6	11	5	25.9	26.0	0.03	0.05	0.00
HSRC029	No Significant Assays >18% Mn							
HSRC030	No Significant Assays >18% Mn							
HSRC031	No Significant Assays >18% Mn							
HSRC032	No Significant Assays >18% Mn							
HSRC033	3	5	2	27.4	24.0	0.03	0.08	0.00
HSRC034	4	6	2	24.3	30.2	0.02	0.07	0.00
HSRC035	5	8	3	30.9	25.6	0.03	0.08	0.00
<i>including</i>	<b>6</b>	<b>7</b>	<b>1</b>	<b>42.9</b>	<b>14.8</b>	<b>0.04</b>	<b>0.04</b>	<b>0.00</b>
HSRC036	4	5	1	23.5	27.9	0.03	0.11	0.01
HSRC037	7	8	1	19.7	22.8	0.04	0.02	0.00
HSRC038	9	13	4	40.9	13.0	0.07	0.02	0.01
<i>including</i>	<b>10</b>	<b>12</b>	<b>2</b>	<b>46.0</b>	<b>9.8</b>	<b>0.07</b>	<b>0.01</b>	<b>0.01</b>
HSRC039	8	9	1	23.9	28.3	0.06	0.03	0.00
HSRC040	No Significant Assays >18% Mn							
HSRC041	No Significant Assays >18% Mn							
HSRC042	No Significant Assays >18% Mn							
HSRC043	No Significant Assays >18% Mn							
HSRC044	No Significant Assays >18% Mn							
HERC042	16	18	2	20.3	25.8	0.08	0.23	0.02
HERC043	12	22	10	23.3	23.3	0.08	0.23	0.02
HERC044	17	36	19	24.6	10.4	0.06	0.08	0.01
<i>including</i>	<b>26</b>	<b>29</b>	<b>3</b>	<b>37.1</b>	<b>8.2</b>	<b>0.07</b>	<b>0.10</b>	<b>0.01</b>
HERC045	19	21	2	24.1	26.2	0.02	0.17	0.01
HERC046	No Significant Assays >18% Mn							
HERC047	4	21	17	21.5	17.3	0.03	0.21	0.01
HERC048	7	21	14	23.7	23.6	0.03	0.23	0.01
HERC049	1	6	5	23.2	24.2	0.03	0.30	0.01
HERC049	9	20	11	24.8	22.5	0.02	0.30	0.01
HERC050	No Significant Assays >18% Mn							



**Table 2 - Drilling Results (using a cut-off grade of 18% Mn) (Continued)**

Hole ID	Depth From (m)	Depth To (m)	Interval Width (m)	Mn %	Fe %	Co %	P %	Cu %
HERC051	8	11	3	20.8	28.3	0.03	0.25	0.01
	17	29	12	20.2	32.6	0.03	0.26	0.01
HERC052	14	22	8	24.3	22.2	0.03	0.14	0.01
HERC053	0	1	1	20.4	24.6	0.04	0.30	0.01
HERC054	4	5	1	24.3	26.4	0.05	0.21	0.01
HERC055	28	30	2	21.5	23.9	0.02	0.20	0.01
HERC056	1	15	14	22.5	21.7	0.02	0.13	0.01
HERC056	18	25	7	22.5	21.4	0.03	0.17	0.01
HERC057	3	8	5	22.5	23.5	0.02	0.18	0.01
	12	14	2	19.1	32.6	0.01	0.20	0.01
HERC058	7	8	1	20.0	24.1	0.04	0.11	0.01
HERC059	10	11	1	21.1	22.5	0.05	0.13	0.01
MLRC001	2	5	3	19.4	36.0	0.04	0.47	0.06
	10	12	2	27.5	14.8	0.06	0.34	0.09
MLRC002	0	3	3	21.7	30.0	0.05	0.55	0.11
MLRC003	0	2	2	19.7	18.6	0.04	0.32	0.04
	7	8	1	24.6	17.2	0.04	0.29	0.09
MLRC004	No Significant Assays >18% Mn							
MLRC005	No Significant Assays >18% Mn							
MLRC006	No Significant Assays >18% Mn							
MLRC007	No Significant Assays >18% Mn							
MLRC008	No Significant Assays >18% Mn							
MLRC009	No Significant Assays >18% Mn							
MLRC010	No Significant Assays >18% Mn							
MLRC011	No Significant Assays >18% Mn							
MLRC012	No Significant Assays >18% Mn							
MLRC013	No Significant Assays >18% Mn							
MLRC014	No Significant Assays >18% Mn							
MLRC015	11	12	1	18.0	6.3	0.34	0.10	0.35
MLRC016	1	2	1	18.1	37.9	0.04	0.28	0.07

Note: Intervals are down hole and may not be true thickness  
Results may include up to 2 metres of <18% Mn material

**Table 3 - Drill Hole Locations**

Hole ID	Easting mE	Northing mN	RL (m)	Azimuth & Dip (planned)	Total Depth
HSRC026	656583.39	7185194.51	567.80	Vertical	12
HSRC027	656584.17	7185183.85	567.88	Vertical	12
HSRC028	656585.03	7185171.45	568.28	Vertical	12
HSRC029	656586.28	7185160.28	568.80	Vertical	10
HSRC030	656586.52	7185150.08	569.19	Vertical	6
HSRC031	656587.67	7185140.78	570.17	Vertical	7
HSRC032	656588.84	7185129.62	571.50	Vertical	5
HSRC033	656639.29	7185168.68	573.10	Vertical	6
HSRC034	656647.66	7185187.51	574.06	Vertical	9
HSRC035	656663.96	7185207.75	576.40	Vertical	11
HSRC036	656669.97	7185166.66	578.25	Vertical	7
HSRC037	656627.82	7185207.64	572.77	Vertical	10
HSRC038	656545.29	7185192.43	564.59	Vertical	14
HSRC039	656547.05	7185180.41	564.74	Vertical	12
HSRC040	656547.83	7185170.96	564.53	Vertical	12
HSRC041	656550.44	7185160.53	564.70	Vertical	10
HSRC042	656543.26	7185203.39	564.93	Vertical	10
HSRC043	656504.89	7185206.77	562.26	Vertical	9
HSRC044	656505.29	7185193.35	562.29	Vertical	12
HERC042	656404.65	7184443.08	589.76	-60/300	35
HERC043	656396.08	7184421.27	589.15	-60/300	35
HERC044	656362.40	7184316.19	584.09	-60/290	54
HERC045	656511.53	7184309.32	605.28	-50/300	35
HERC046	656470.27	7184345.65	598.48	-50/300	35
HERC047	656674.98	7184432.65	621.62	Vertical	30
HERC048	656667.75	7184444.11	620.65	-50/300	30
HERC049	656681.90	7184444.15	622.05	-60/317	30
HERC050	656665.10	7184381.82	631.78	-50/316	35
HERC051	656709.71	7184354.83	645.98	-50/315	36
HERC052	656699.08	7184339.29	642.64	-50/315	30
HERC053	656795.38	7184439.51	649.46	-50/315	18
HERC054	656773.38	7184429.00	649.07	-50/315	30
HERC055	656705.84	7184430.25	637.61	-50/315	42
HERC056	656549.71	7184339.40	615.89	-50/315	36
HERC057	656530.80	7184339.88	612.71	-60/270	30
HERC058	656419.12	7184700.75	577.40	-50/315	30
HERC059	656482.09	7184771.48	579.18	-50/315	30

**Table 3 - Drill Hole Locations (Continued)**

Hole ID	Easting mE	Northing mN	RL (m)	Azimuth & Dip (planned)	Total Depth
MLRC001	633120.20	7213620.92	469.13	Vertical	30
MLRC002	633095.75	7213633.65	468.15	Vertical	18
MLRC003	633144.66	7213635.68	467.83	Vertical	18
MLRC004	633094.91	7213586.19	468.44	Vertical	12
MLRC005	633144.20	7213586.12	468.34	Vertical	24
MLRC006	633192.30	7213586.10	467.06	Vertical	18
MLRC007	633192.11	7213634.34	466.73	Vertical	12
MLRC008	633192.40	7213683.52	466.53	Vertical	9
MLRC009	633142.57	7213686.10	467.03	Vertical	12
MLRC010	633092.29	7213684.18	467.48	Vertical	12
MLRC011	632990.83	7213734.67	467.55	Vertical	24
MLRC012	632991.50	7213687.71	468.01	Vertical	12
MLRC013	633042.54	7213681.70	467.78	Vertical	6
MLRC014	633042.12	7213636.44	468.33	Vertical	12
MLRC015	633170.34	7213600.31	467.82	Vertical	13
MLRC016	633171.27	7213597.31	467.80	Vertical	24



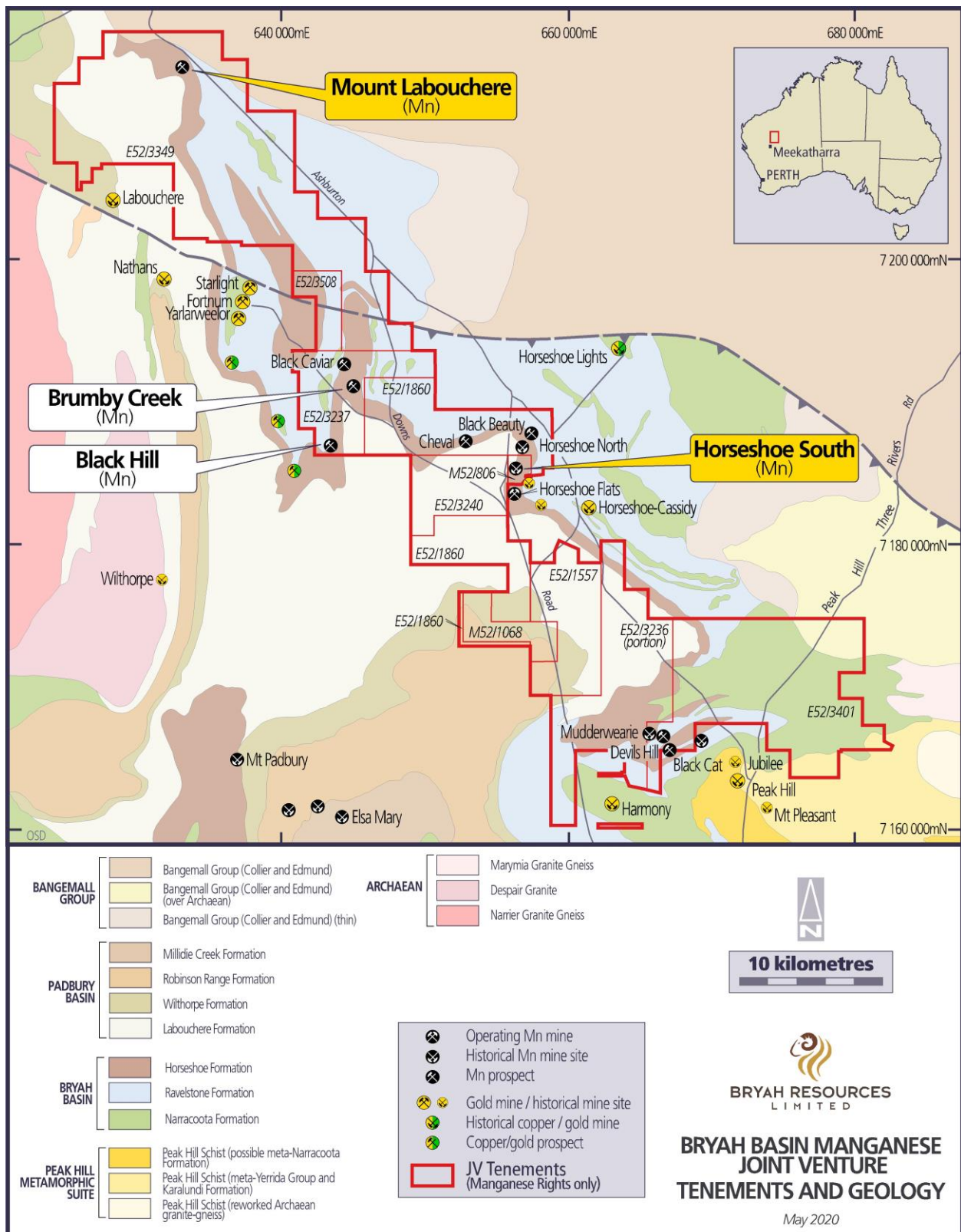


Figure 8 - Tenements and Geology Map

## About Bryah Resources Limited

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*Bryah Resources Limited is a copper-gold-manganese focused explorer with 2 projects located in central Western Australia, being the 1,135km<sup>2</sup> Bryah Basin Project and the 170km<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 in respect to approximately 660 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. Bryah has announced a maiden Inferred Mineral Resource at the Tumblegum South Prospect at Gabanintha of **600,000 tonnes @ 2.2 g/t Au for 42,500 oz Au**<sup>6</sup>.*

## Competent Persons Statement

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*The information in this announcement that relates to Exploration Results is based on information compiled by Mr Tony Standish, who is a Member of the Australian Institute of Geoscientists. Mr Standish is a consultant to Bryah Resources Limited ("the Company"). Mr Standish 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'. Tony Standish 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

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*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.*

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<sup>6</sup> See BYH ASX Announcement dated 29 January 2020 for full details

## Appendix 1 – Manganese Ore Pricing

Dry Metric Tonne Unit (dmtu) is the internationally agreed-upon unit of measure for Manganese ore pricing. It has the same mass value as a metric tonne, but the material has been notionally dried to remove the moisture level.

One dry metric tonne unit consists of 1% of Manganese (Mn) contained in a tonne of ore, excluding moisture.

Benchmark pricing (US\$) of Manganese Ore exists and is available to the market as follows:

- Manganese Ore Index 37% Mn, FOB Port Elizabeth, South Africa
- Manganese Ore Index 37% Mn, CIF Tianjin China, and
- Manganese Ore Index 44% Mn, CIF Tianjin China.

Discounts may apply to Manganese Ore which is not of benchmark grade.

### *Worked Example:*

To calculate the price of a dry metric tonne of Manganese Ore the \$ per dmtu of metal contained is multiplied by the grade of the ore.

Manganese Ore Grade (dmt): -	37% Mn
dmtu: -	$37\% \text{ Mn} / 1\% \text{ Mn} = 37 \text{ dmtu}$
Price/dmtu (US\$) -	\$5.00 FOB (free on board)
Price/dry metric tonne (US\$):	$37 \text{ dmtu} \times \$5.00 = \text{US\$}185$
Forex Rate – AUD:USD	0.65
Price/dry metric tonne (AU\$):	$\$185 / 0.65 = \text{AU\$}284$



## Appendix 2 - Manganese RC Drilling

### JORC Code, 2012 Edition – Table 1 Exploration Results

#### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>For this drilling program Bryah Resources Limited (Bryah Resources) utilised a mix of 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 rotary cone splitter mounted under the cyclone.</li> <li>The splitter reject sample was collected into green plastic bags which were numbered and laid into 10m rows, initially by the hole then removed and stored at a bag farm.</li> <li>The holes were sampled as 1m samples from the splitter and placed into pre-numbered calico bags with the draw-string 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 (based on visual logging) were collected and 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	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Bryah Resources' RC holes were drilled with a contract RC drilling rig.</li> <li>All RC holes up to HSRC028 were drilled using a 137mm face sampling drilling bit, then from HSRC029 to HSRC085 were drilled using a 127mm face sampling drilling bit to allow less clearance of the hole wall and the drill string in broken ground.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The RC samples were not weighed or measured for recovery on the rig but will be completed on a campaign basis later as required.</li> <li>To ensure maximum sample recovery and the representivity of the samples, an experienced Company 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>

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>All 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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Sampling technique:             <ul style="list-style-type: none"> <li>All RC samples were collected by the RC rig into a cyclone and then passed through the cone splitter.</li> <li>The samples were generally dry, and all attempts were made to ensure the collected samples were dry.</li> <li>The cyclone and cone splitter were cleaned with compressed air at the end of every 6m RC drill rod.</li> <li>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.</li> </ul> </li> <li>Quality Control Procedures were:             <ul style="list-style-type: none"> <li>A duplicated sample was collected at random intervals on the cyclone nominally 1 per 100 samples.</li> <li>Certified Reference Material (CRM) samples were inserted in the field every 40 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> </li> </ul>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <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> <li>All primary data related to logging and sampling are captured using laptops into LogChief 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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>All collars have currently been surveyed with a differential GPS by Bryah staff and will be independently surveyed by surveyors using a differential GPS for accurate collar location and RL. The digital data has been 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-Trac downhole as a single-shot tool to collect the surveys approximately every 30m down the hole in a stainless-steel starter rod.</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 area.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>As this program tested several locations 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. Sample compositing was not applied to this drilling; all sampling was at 1m intervals.</li> </ul>



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<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>The attitude of the lithological units varies greatly both within the prospects and between prospect to prospect. At Horseshoe South Mine, the regional stratigraphy is mapped approximately north south and dipping steeply to the east therefore the azimuth drilled was at an azimuth of 270-317°.</li> <li>No drilling orientation and sampling bias has been recognized at this time and it is not considered to have introduced a sampling bias.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <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>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <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
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The relevant tenements (E52/3349 and M52/806) are 100% owned or beneficially held by Bryah Resources Limited. OM (Manganese) Limited holds a 10% joint venture interest in respect to the manganese rights only on this tenement.</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>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <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>

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Geology	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting, and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• 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).</li> </ul>
Drill hole Information	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>○ <i>easting and northing of the drill hole collar</i></li> <li>○ <i>elevation or RL (Reduced Level – elevation above sea level in m) of the drill hole collar</i></li> <li>○ <i>dip and azimuth of the hole</i></li> <li>○ <i>down hole length and interception depth</i></li> <li>○ <i>hole length.</i></li> </ul> </li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Tables 2 and 3 of this ASX Announcement for details of sample locations, etc.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• In this program 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>

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<i>Diagrams</i>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>See attached figures within this announcement.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Tables 2 and 3 of this ASX Announcement.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No other exploration data available.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Additional drilling was completed in other locations and assays are pending</li> </ul>