



## About Legacy Iron Ore

Legacy Iron Ore Limited ("Legacy Iron" or the "Company") is a Western Australian based Company, focused on iron ore, base metals, tungsten and gold development and mineral discovery.

Legacy Iron's mission is to increase shareholder wealth through capital growth, created via the discovery, development and operation of profitable mining assets.

The Company was listed on the Australian Securities Exchange on 8 July 2008. Since then, Legacy Iron has had a number of iron ore, manganese and gold discoveries which are now undergoing drilling and resource definition.

## Board

**Sumit Deb**, Non-Executive Chairman

**Amitava Mukherjee**, Non-Executive Director

**Mr Somnath Nandi**, Non-Executive Director

**Devanathan Ramachandran**, Non-Executive Director

**Rakesh Gupta**, Director and Chief Executive Officer

**Ben Donovan**, Company Secretary

## Key Projects

Mt Bevan Iron Ore Project

South Laverton Gold Project

East Kimberley Gold, Base Metals and REE Project

## Enquiries

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31<sup>st</sup> December 2021

The Company Announcements Office  
ASX Limited

Via E Lodgement

## REPORT FOR THE QUARTER ENDED 31<sup>st</sup> December 2021

Please find attached the Company's Quarterly Activities Report for the quarter ended 31<sup>st</sup> Dec 2021.

Yours faithfully

**LEGACY IRON ORE LIMITED**

Rakesh Gupta  
Chief Executive Officer

## HIGHLIGHTS

### EXPLORATION AND DEVELOPMENT

#### *Mt Celia:*

- Assay results received for the June 2022 drilling campaign (33 holes for 2640M) with 20 out of 33 holes intercepted gold mineralization (Refer ASX announcement dated 20.12.2021). The best assay received is 3 m at 7.30 g/t Au from 38 m in BKR114 including, 2 m at 10.65 g/t Au from 38 m.
- The results demonstrate the continuity of mineralisation and highlights additional mineralisation beyond the modelled ore body. Resource revision is ongoing after incorporating these results.
- The waste rock characterisation studies are ongoing under the supervision of MBS Environmental. JT Metallurgical Services are carrying out the work on toll treatment option analysis.
- Talks for a heritage and mining agreement are underway with Native Title group representatives.

#### *Yilgangi:*

- Assays from drilling completed in June 2021 have returned positive results (Refer ASX announcement dated 14.12.2021). From 25 RC holes were drilled for 1335 m, a total of 6 holes intercepted gold mineralisation (>0.5ppm Au). The results provide increased confidence in the known mineralisation and extends known mineralisation along strike at certain places.
- The best assay received is 3m @ 4.52 g/t Au (incl 1m @ 9.98 g/t) from 11 m in YGRC037.

#### *Mt Bevan:*

- The assay results received for June 2021 (13 holes drilled for 1378m) drilling program drilling did not reveal any significant mineralisation. However, thin bands of hematite in shallow depth were intersected in two holes.
- Out of three holes drilled for nickel sulphide exploration, none returned any anomalous values. Ultramafic intrusive were logged in two holes.
- During the month of December 2021, an area continuing along strike from Red Dirt's Mt Ida lithium discovery and the eastern flank of Mt Bevan was traversed to locate potential lithium-bearing pegmatite veins. A total of 15 rock chip samples were collected from the area and analysed for lithium and other elements through ICPAES at the SGS lab. None of the samples returned any anomalous assay values.
- Non-binding agreement executed with Hancock Magnetite Holdings Pty Ltd (HMPL), a wholly owned subsidiary of Hancock Prospecting Pty Ltd (HPPL) granting HMPL the exclusive right to earn-in to the Mt Bevan iron ore project and form a new joint venture agreement.

#### *Corporate:*

- During the quarter, Mr Mehta resigned upon reaching superannuation, and Mr Nandi was appointed as a non-executive director.

## **EXPLORATION**

### **Project Overview**

Legacy Iron Ore has a committed objective of developing gold, iron ore, and base metal deposits in the Western Australia through exploration. The Company has 10 promising projects encompassing 22 tenements (19 as holder and 3 with specified mineral rights) in known Western Australian mineralised belts. The Company is advancing a number of these projects into higher stages of exploration and development through systematic exploration activities.

During the last three months the Company has formulated future exploration plan for all projects. Based on the exploration maturity and feasibility of each project, the Company has devised an exploration schedule with a focussed agenda of developing the Mt Celia gold project and advancing the other projects through continued exploration.

### **South Laverton Gold Projects**

Legacy Iron Ore's South Laverton gold hub includes the projects; Mt Celia, Yerilla, Yilgangi, Sunrise Bore and Patricia North shown in (Figure 2).

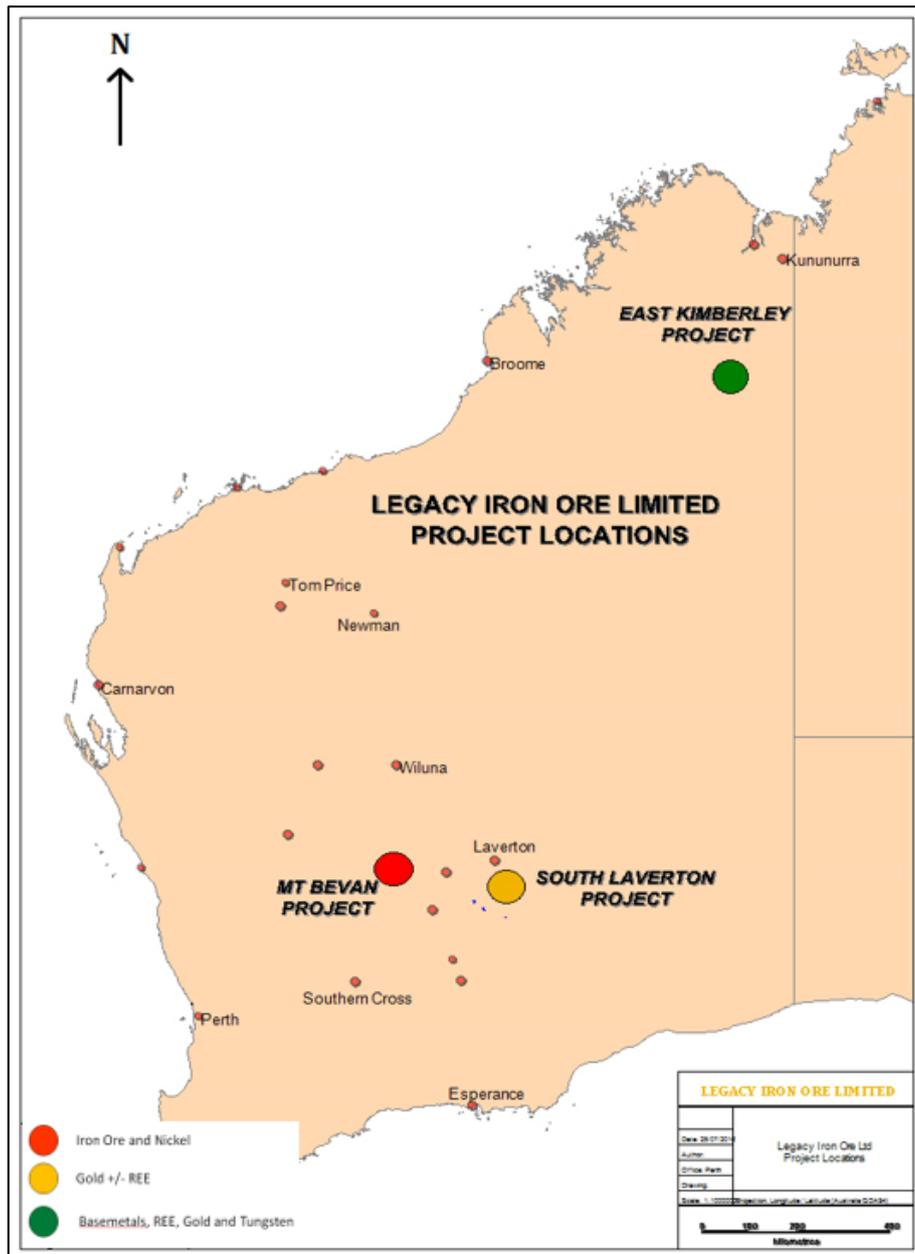


Figure 1 Legacy Iron – Project Location

The Company is working towards the completion of a pre-feasibility study and the development of the Mt Celia projects including the Kangaroo Bore and Blue Peter deposits.

The Yerilla and Wangi tenements contain several known gold occurrences with estimated gold resources established from years prior to the change in JORC code reporting in 2012. These are planned to be upgraded in due course.

DIRECTORS' REPORT (continued)

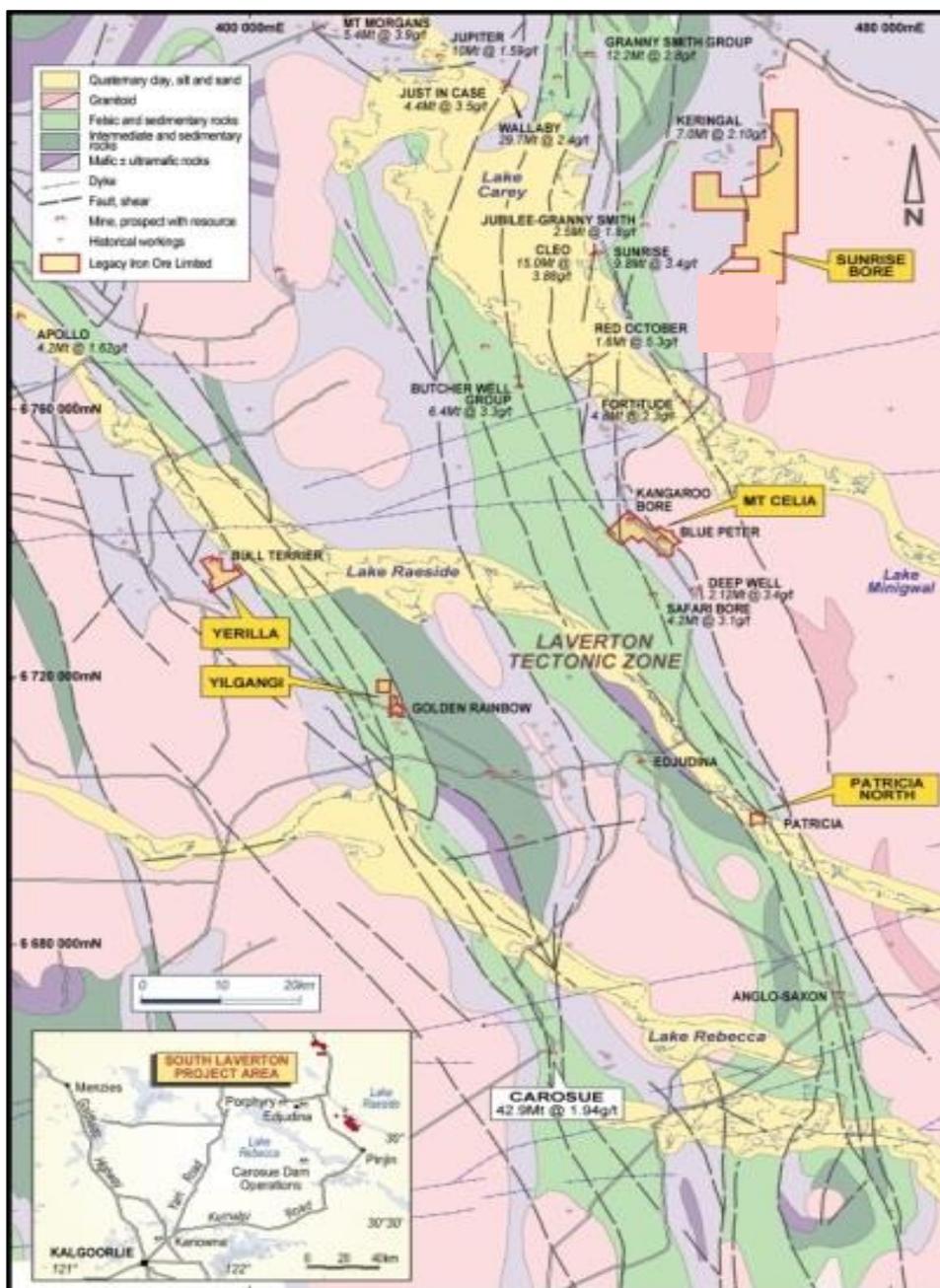
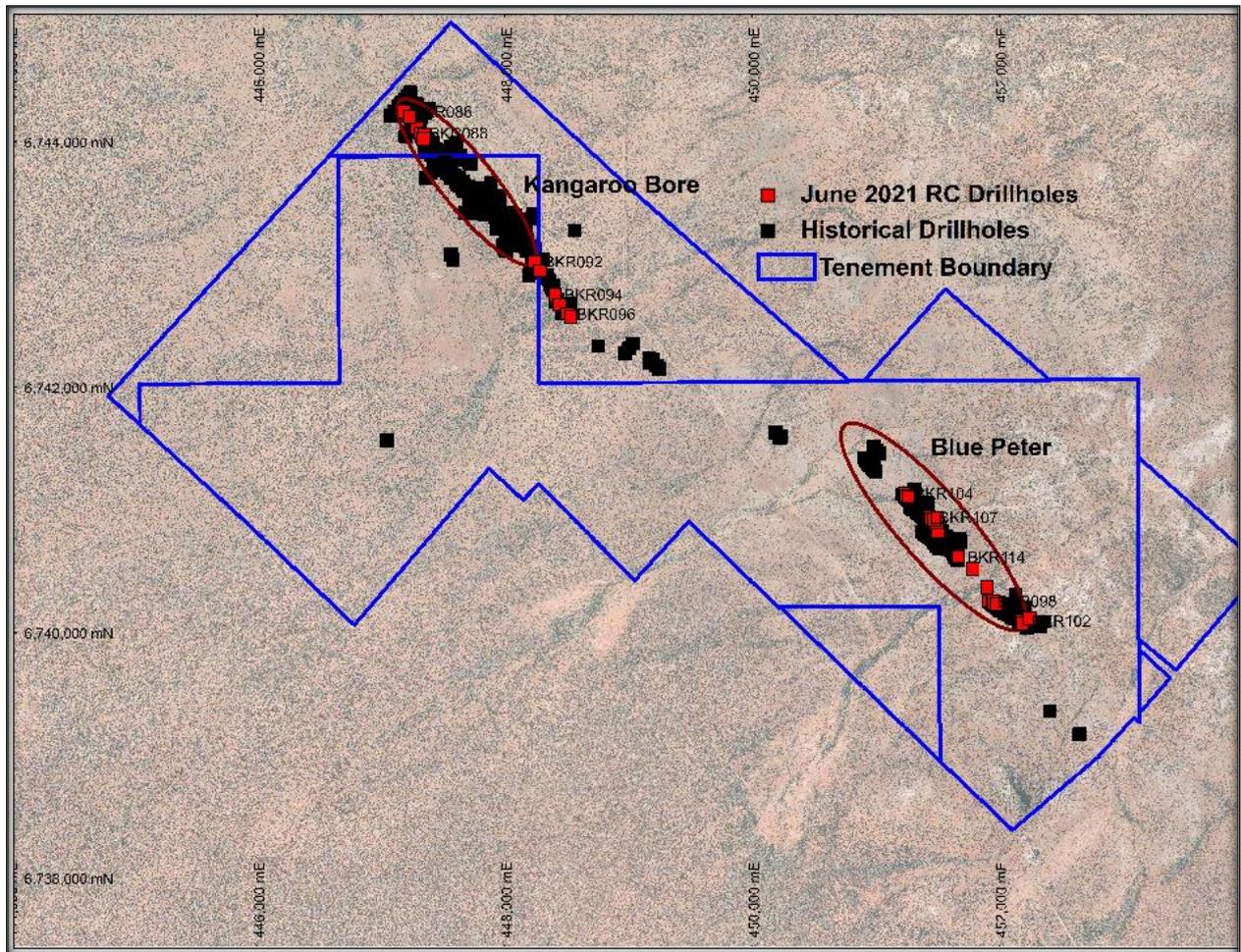


Figure 2 Legacy Iron's South Laverton Gold Projects on regional geology

*Mt Celia June 2021 RC Drilling Results*

During the quarter, assay results of the June 2021 drilling program were received. The program comprises 33 inclined RC drill holes for 2,640 m across the Kangaroo Bore and Blue Peter deposit. Drilling was designed to increase the confidence of mineralisation to support a resource upgrade and test the strike and depth extension of the Kangaroo Bore and Blue Peter prospects. The program also tested the IP anomalies in the Blue Peter prospect (Figure 3).

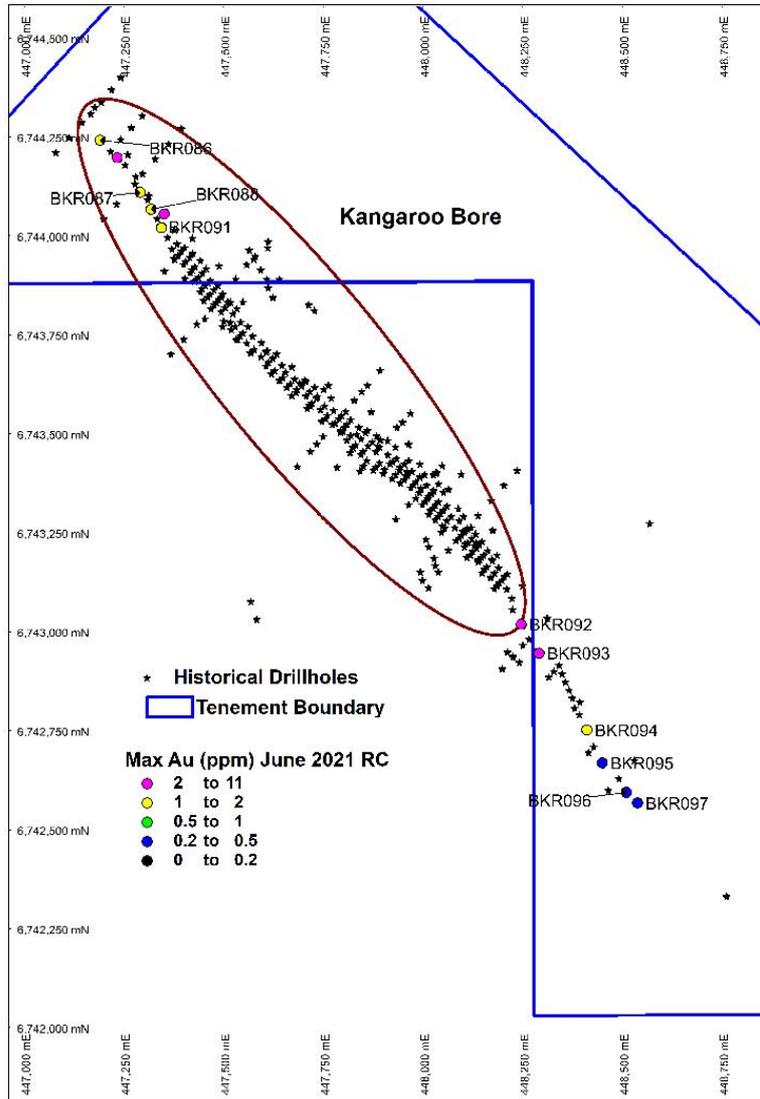
**DIRECTORS' REPORT (continued)**



*Figure 3. Map Showing Completed RC Drill Holes at Mt. Celia in June 2021*

A total of 20 holes returned mineralisation, providing increased confidence in the known mineralisation and establishing potential strike and depth extensions (Refer ASX announcement dated 20.12.2021). The results demonstrate the continuity of mineralisation and highlights additional mineralisation beyond the modelled ore body, particularly in the northern part of Kangaroo Bore, where earlier drilling was sparse (Figure 4). The drilling results provide increased confidence in delineating additional resources, ultimately leading to a resource estimate revision and redesigned optimised pit work to support the economics of the Mt Celia project.

**DIRECTORS' REPORT (continued)**



*Figure 4. Map Showing June 2021 RC Drill Holes at Kangaroo Bore*

The most exciting result of the program was received from drill testing of geophysical targets. These geophysical targets were delineated on the basis of an Induced Polarisation (IP) survey completed in June 2021. In this drilling program four targets at Blue Peter prospect drilled each by a single hole. The Company is pleased to get mineralisation over three targets, particularly two holes BKR116 and BKR 118 which were drilled over the subtle IP anomaly between Coronation and Blue Peter South pits of Blue Peter prospect. These intercepts indicate the possibility of continuation of mineralisation (Figure 5).



## DIRECTORS' REPORT (continued)

### Next Quarter Agenda

The plans for the next quarter at the Mt Celia project include the following main objectives:

- For growing resources, the second phase of the Ground Geophysical Induced Polarisation (IP) Survey will be planned between and around the Kangaroo Bore and Blue Peter deposits for new target generation.
- Further explorative drilling at the Kangaroo Bore and Blue Peter deposits to increase known resources will be planned.
- The Company continues to work through the required regulatory approvals, including heritage studies, and enter into agreements.

### *Yilgangi:*

During this quarter, assays from drilling completed in June 2021 have been returned. A total of 25 RC holes were drilled for 1335 m with 6 holes intercepting gold mineralization (>0.5ppm Au). The results provide increased confidence in the known mineralization and extends known mineralization along strike at certain places. The best assay received is 3m @ 4.52 g/t Au (incl 1m @ 9.98 g/t) from 11 m in YGRC037 (Refer ASX announcement dated 14.12.2021.)

Analysis of the drill results confirmed growing confidence in the known mineralization, particularly drill hole YGRC037 which was drilled at the Golden Rainbow prospect for quality assurance purposes and yielded a maximum Au assay value of 9.8 g/t from 11m (3m @ 4.52 g/t Au). The drillhole highlights potential of shallow and significant grade mineralization. The Company aims to estimate the mineral resources at Golden Rainbow prospect.

A key objective of the June 21 drilling program was to establish the continuity of strike of the mineralization, at the northernmost tenement E31/1020, following mineralization which was intercepted in the northern and southern parts during the December 2020 drilling program. In this June 2021 drilling program while mineralization was intercepted at the north and southern parts, the strike continuity could not be established at the central part of the tenement. The four drillholes testing the southernmost soil anomaly didn't return any significant Au assay value. The results from the June 2021 program are shown in figures 6 and 7.

**DIRECTORS' REPORT (continued)**

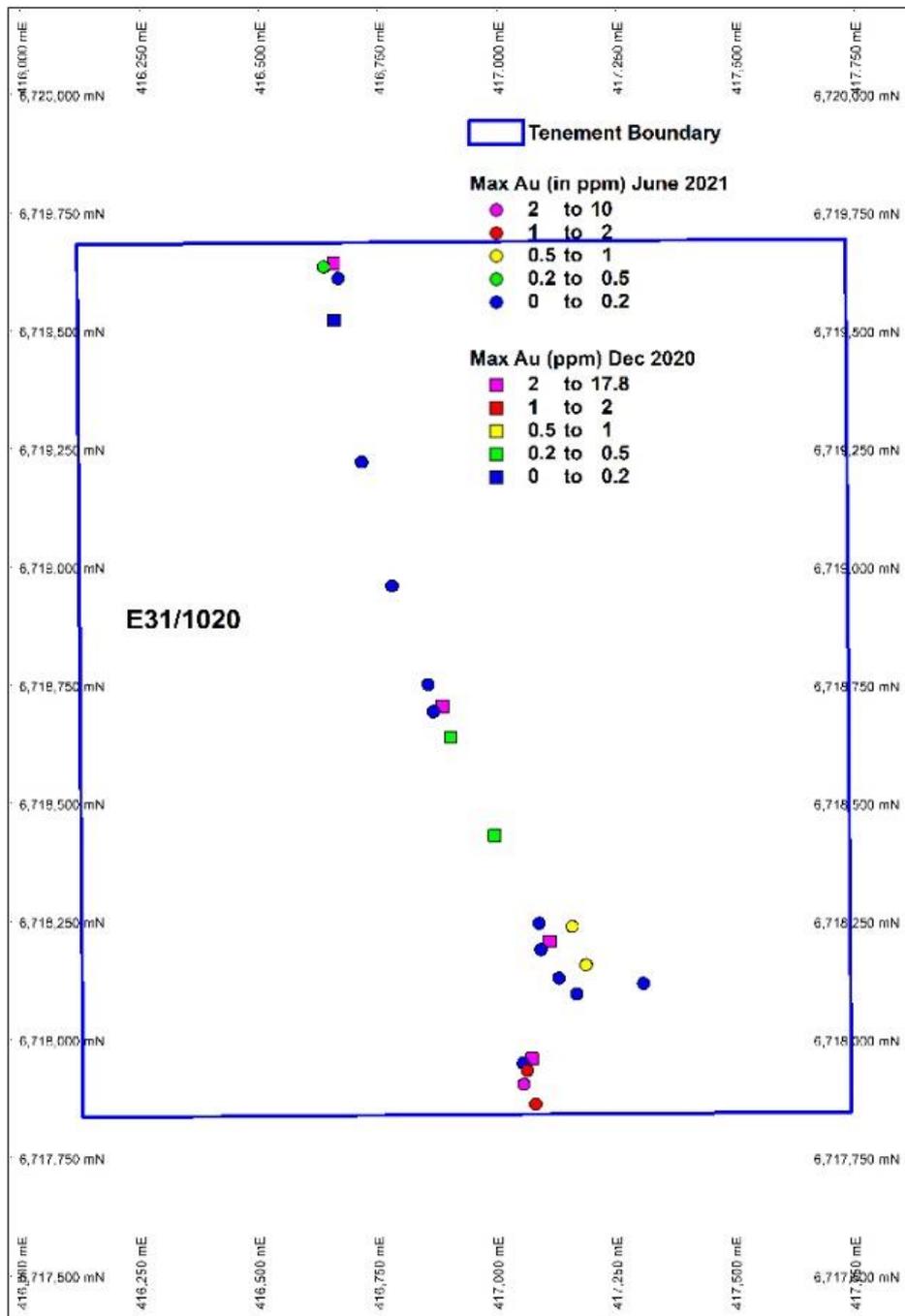


Figure 6. Max Au(ppm) plot from Yilgarni (E31/1020) RC drilling, Dec 2020 and June2021 assay results

## DIRECTORS' REPORT (continued)

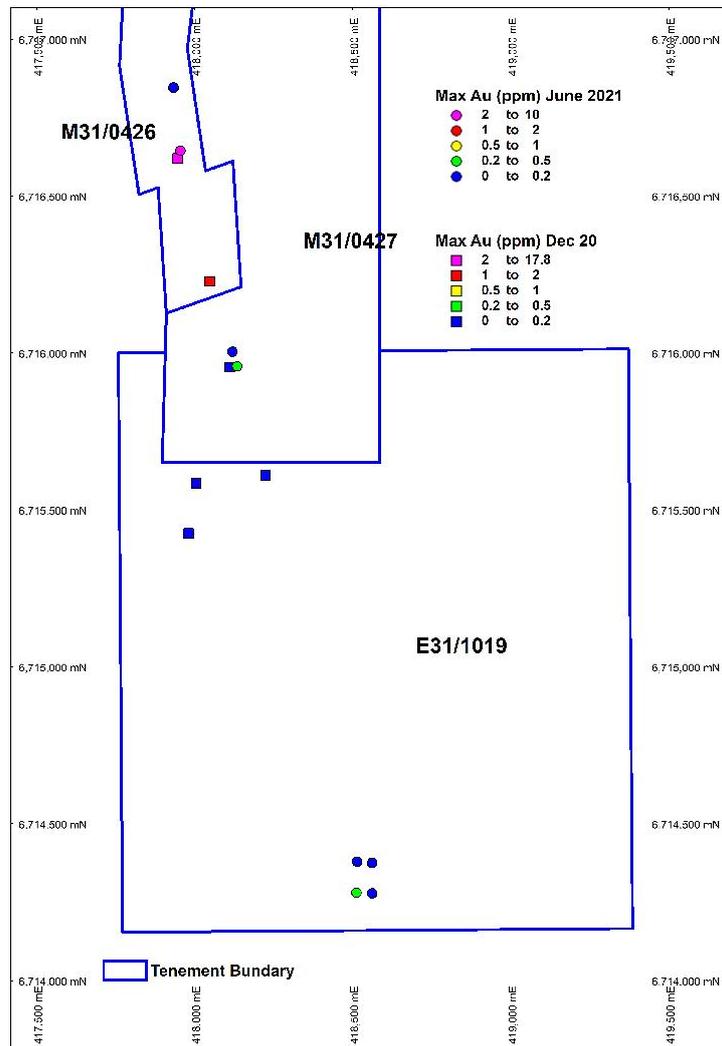


Figure 7. Max Au(ppm) plot from Yilgangi (M31/426, M31/427 and E31/1019) RC drilling, Dec 2020 and June2021 assay results

### Next Quarter Agenda

The ore body modelling and resource estimation will be taken up for the project.

### Mt Bevan Project (E29/510-I) Iron and Nickel

The Company's Mt Bevan project is a joint venture with Hawthorn Resources Limited (40% interest) and is situated 250km north of Kalgoorlie in Western Australia. The project is on a large tenement E29/510 which hosts 1,170 Mt of magnetite resource @ 34.9% Fe (Table2).

The Company aims to progress the potentially world class magnetite project and is also exploring for Hematite (DSO) and nickel-copper mineralisation at an early-stages.

## DIRECTORS' REPORT (continued)

**Table 1 Mt Bevan BIF Resource Estimate**

Mt Bevan Fresh BIF Resource											
Class	Material	Tonnes x 10 <sup>6</sup>	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	CaO %	P %	S %	LOI %	MgO %	Mn %
Indicated	<i>In situ</i> Total	322	34.7	46.2	0.57	1.35	0.054	0.131	-1.05	1.91	0.31
	<i>In situ</i> Magnetic*	44.18%	30.0	2.4	0.01	0.08	0.005	0.053	-1.38	0.05	0.01
	Concentrate	142	68.0	5.5	0.02	0.18	0.012	0.130	-3.12	0.12	0.03
Inferred	<i>In situ</i> Total	847	35.0	45.6	0.77	2.00	0.063	0.39	-1.15	1.77	0.04
	<i>In situ</i> Magnetic*	45.70%	30.8	2.8	0.01	0.06	0.004	0.042	-1.37	0.03	0.01
	Concentrate	387	67.5	5.9	0.03	0.14	0.009	0.096	-3.00	0.06	0.02
Total	<i>In situ</i> Total	1,170	34.9	45.8	0.71	1.82	0.060	0.137	-1.12	1.81	0.11
	<i>In situ</i> Magnetic*	45.28%	30.6	2.7	0.01	0.07	0.004	0.045	-1.37	0.03	0.01
	Concentrate	530	67.7	5.80	0.03	0.15	0.010	0.105	-3.03	0.07	0.02

\*In situ Magnetic is the material that is expected to report to the magnetic fraction. The in situ Magnetic quantities in the Tonnes column are expressed as the percentage of the in situ Total tonnes (as estimated from Davis Tube Mass recovery) The Company confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the resource estimate in the prior announcements continue to apply and have not materially changed. - See Announcements 17<sup>th</sup> December 2013)

During this quarter, June 2021 drill programs assay results were received. In this program a total of 1378 m in 13 holes were drilled.

This drilling programme didn't return any anomalous values for nickel but confirmed the presence of DSO bands in two holes at a shallow level and also, proved the occurrence of ultramafic dykes in the northern part of the tenement. Two of the drillholes returned value of Fe greater than 50 % are as below:

MBH003 – from 9 m to 15 m @ 56.8% Fe

MBH007 – from 12 m to 15 m @ 51.2% Fe

Peridotite were logged in MBH010 at the depth of 50 to 52 m and MBH011 at depth of 41 to 43 m. The assay for nickel at these locations were not anomalous although the intersection shows anomalous rise in MgO percentage indicating possible peridotitic nature of the intrusive.

On 15 November 2021, the Company announced that it had executed a non-binding agreement with Hancock Magnetite Holdings Pty Ltd (HMPL), a wholly owned subsidiary of Hancock Prospecting Pty Ltd (HPPL) granting HMPL the exclusive right to earn-in to the Mt Bevan iron ore project and form a new joint venture agreement.

### Geological Traversing and Rock Chip Sampling for Lithium Exploration:

During the month of December 2021, the area of interest for lithium exploration was traversed and 15 rock chip samples were collected from the area. The rock chip samples taken during the visit are shown in the figure below.

## DIRECTORS' REPORT (continued)

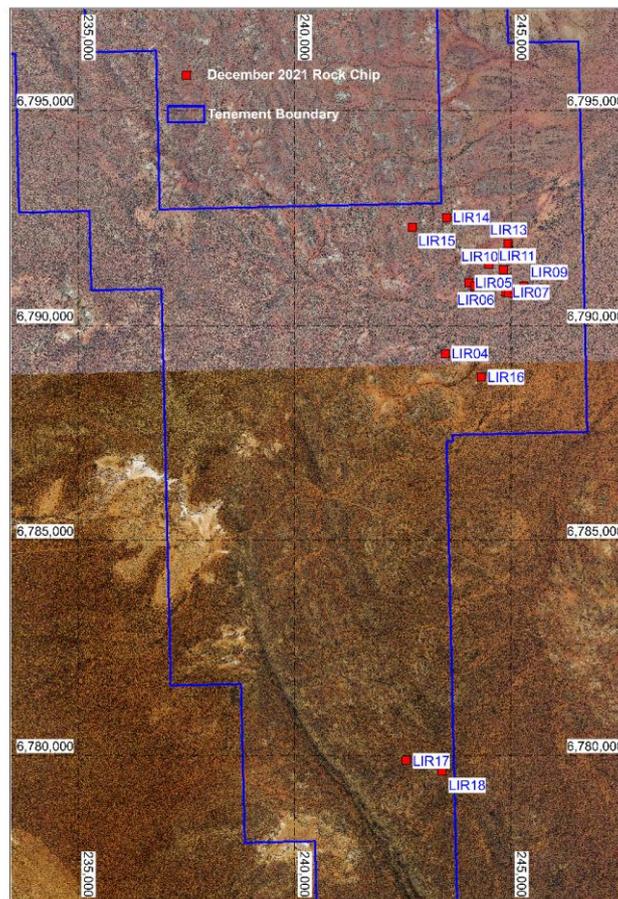


Figure 8. Rock chip samples collected December 2021

Samples were analysed for Lithium and other elements through ICPAES at the SGS lab. None of the samples returned any anomalous assay value.

### Next Quarter agenda

The next quarterly exploration plan for the Mt Bevan project includes following main objectives:

- Follow up exploration planning for the project.

### Project Generation:

During the quarter, the Company executed a Sale and Purchase Agreement with Tashmont Minerals Pty Ltd and Michael Krpez to acquire E39/2040.

E39/2040 is located in the Laverton district of Western Australia and covers an area of 4 blocks. The project lies along strike from the Company's current Mt Celia gold project's Kangaroo Bore deposit.

## DIRECTORS' REPORT (continued)

### PLANNED ACTIVITIES – March 2022 quarterly period.

Main exploration activities planned in the next three months is likely to comprise of:

#### **Mt Celia project**

- Resource revision and updating pit optimisation studies.
- Waste rock characterisation study to be finalised.
- The Company continues to work through the required regulatory approvals including heritage and native title agreements.

#### **Yilgangi**

- Geological modelling and resource estimation.

#### **Koongie park:**

- Drill hole planning and heritage survey related works if required.

#### **Sunrise Bore:**

- Follow up RC drilling for approx. 1500 m in February March 2022.

#### **Mt Bevan Project:**

- Follow up exploration planning.

For the purpose of Section 6 of the Appendix 5B, all payments made to related parties have been paid in relation to director fees.

#### **Competent Person's Statement:**

*The information in this report that relates to Exploration Results is based on information compiled by Vivek Sharma who is a member of AusIMM and employee of Legacy Iron Ore Limited. Mr Sharma has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Sharma consents to the inclusion in this report of the matters based on his information in the form and the context in which it appears.*

**Tenement Schedule in accordance with ASX Listing Rule 5.3.3**

**Tenements held at the end of the December 2021 Quarter**

<b>Location</b>	<b>Tenement</b>	<b>Project</b>	<b>Date of Grant</b>	<b>Equity (%) Held at start of Quarter</b>	<b>Equity (%) Held at end of Quarter</b>
WA	E80/4221	Koongie Park	14/12/2009	100%	100%
WA	E31/1034	Patricia North	19/09/2013	100%	100%
WA	M31/0426	Yilgangi	12/01/2009	100%	100%
WA	M31/0427	Yilgangi	12/01/2009	90%	90%
WA	E31/1019	Yilgangi	10/04/2013	90%	90%
WA	E31/1020	Yilgangi	10/04/2013	90%	90%
WA	E39/1443	Mt. Celia	10/11/2009	100%	100%
WA	M39/1125	Mt Celia	7/06/2018	100%	100%
WA	M39/1126	Mt Celia	7/06/2018	100%	100%
WA	M39/1127	Mt Celia	7/06/2018	100%	100%
WA	M39/1123	Mt Celia	7/11/2018	100%	100%
WA	M39/1124	Mt Celia	7/11/2018	100%	100%
WA	M39/1128	Mt Celia	7/11/2018	100%	100%
WA	E39/1748	Sunrise Bore	1/07/2014	100%	100%
WA	E29/0510	Mt. Bevan	7/07/2005	60%	60%
WA	E80/5066	Taylor Lookout	18/07/2018	100%	100%
WA	E80/5067	Sophie Downs	18/07/2018	100%	100%
WA	E80/5068	Ruby Plains	18/07/2018	100%	100%
WA	E39/2040	Kangaroo Bore North	18/09/2018	100%	100%