

## 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

**Alok Kumar Mehta**, 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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The Company Announcements Office  
ASX Limited

Via E Lodgement

## REPORT FOR THE QUARTER ENDED 30<sup>th</sup> September 2020

Please find attached the Company's Quarterly Activities Report for the quarter ended 30<sup>th</sup> September 2020.

Yours faithfully

**LEGACY IRON ORE LIMITED**

Rakesh Gupta

Chief Executive Officer

## HIGHLIGHTS

### EXPLORATION AND DEVELOPMENT

#### South Laverton:

##### Mt Celia:

- PQ size diamond drilling for metallurgical studies completed at Kangaroo Bore and Blue Peter gold deposits of Mt Celia. In this quarter total 460 m were drilled in 5 drillholes. Metallurgical studies are ongoing on mineralized core samples obtained from the drilling.
- In order to complete Geotech studies to assist in pit slope designing, 2 HQ size diamond holes (150m) were completed in this quarter. Following completion of the quarter, drilling commenced for another 5 diamond HQ holes (550m) for supporting Geotech studies.
- RC drilling of 3324 m was completed in this quarter to increase the resource size and to upgrade the JORC resource category.
- Mining Lease application for 1400 Ha covering Kangaroo bore and Blue peter deposit lodged.
- Second phase Environmental Flora survey completed. First phase Fauna survey will be completed by October 2020.

##### Yilgangi:

- Initial site preparation work has been completed in the project area to commence drilling.
- Application for Programme of Work has been lodged to incorporate additional holes.

##### Patricia North:

- Patricia North is an important asset to the company where the company previously delineated promising targets in the tenement by RAB and rock chip sampling. In this quarter, geological traversing and rock chip sampling was undertaken to fully evaluate surface signatures of gold mineralisation and to finalize drill plan.

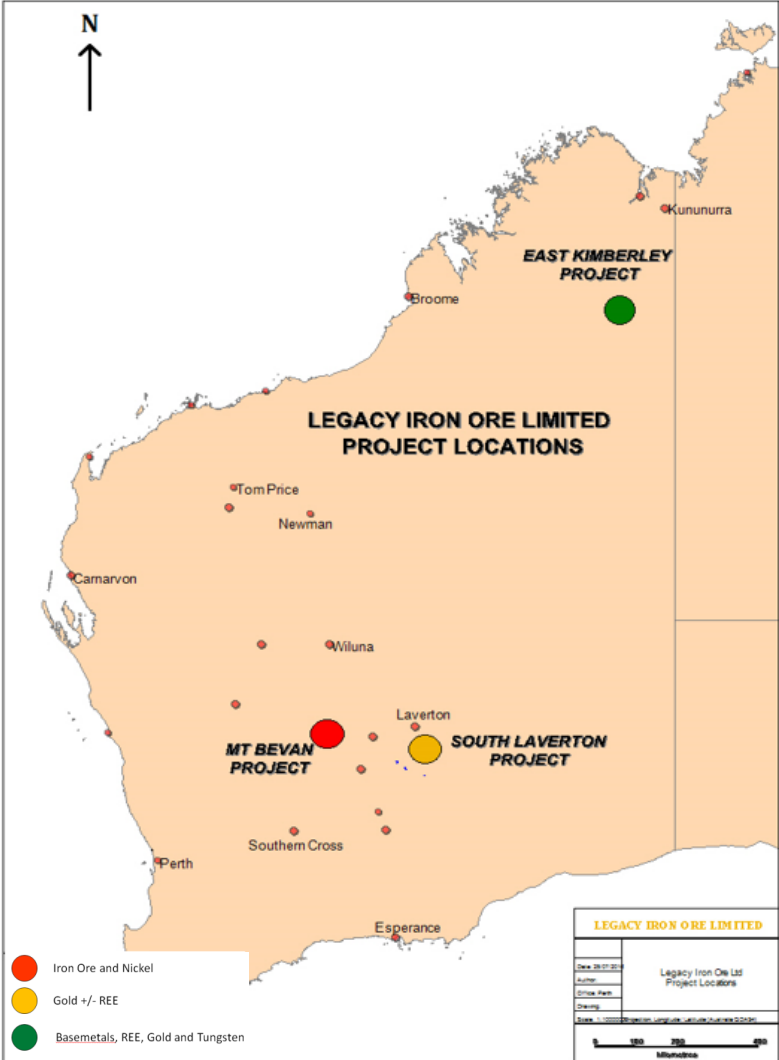
## EXPLORATION

Legacy Iron is an active exploration company with a diverse portfolio of assets spanning iron ore, gold, base metals and tungsten (Figure 1).

The Company has a significant landholding in the Eastern Goldfields (Yillgran) and East Kimberley districts of WA. In the Eastern Goldfields, the company holds tenements with a number of gold prospects/resources, whilst the East Kimberley Project has excellent potential to host base metal – gold, tungsten and rare earth elements (REE) mineralisation.

The Company is also in a Joint Venture with Hawthorn Resources Limited (Hawthorn) on the Mt Bevan Project, north of Kalgoorlie in Western Australia, where the Company aims to progress a potentially world class magnetite project and is exploring for nickel-copper mineralisation at an early stage.

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**Figure 1 Legacy Iron – Project Locations**

The major focus of the Company’s activity at present is delivering a resource upgrade at Mt Celia and carrying out the project feasibility evaluation with an aim to develop the Mt Celia gold project.

**GOLD**

**South Laverton Gold Project**

The South Laverton Project includes the Mt Celia, Yerilla, Yilgangi, Sunrise Bore and Patricia North tenements (Figure 2). The Mt Celia, Yerilla and Yilgangi tenements contain a number of gold occurrences with known gold resource estimates from years prior to the change in JORC code

reporting in 2012. The Company upgraded the resource estimates for Mt Celia (Kangaroo Bore and Blue Peter orebodies), with upgrades at the remaining tenements to occur.

The company is progressing the Mt Celia project with a view to develop a mine. The initial scoping/pit optimisation study completed in 2018 (ASX announcement 15 Oct 2018) showed a positive result towards that objective.

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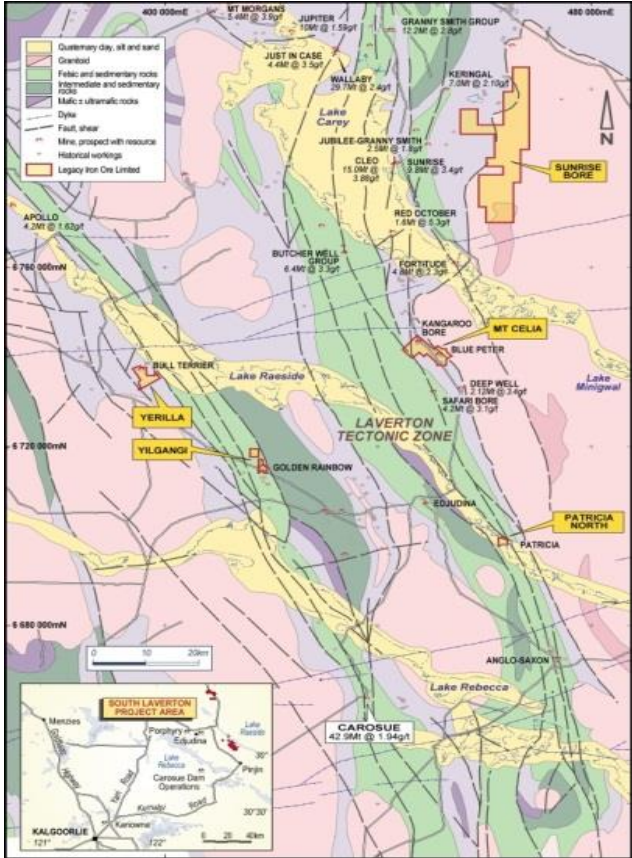


Figure 2 Legacy Iron’s South Laverton Gold Projects on regional geology

**Mt Celia Project**

The Mt Celia Project lies within the Laverton Tectonic Zone, some 40km south of the Sunrise Dam gold mine (approximately 8Moz gold resource), as shown in Figure 2. The Project currently contains several known gold occurrences including *Kangaroo Bore and Blue Peter* prospects (Figure 3).

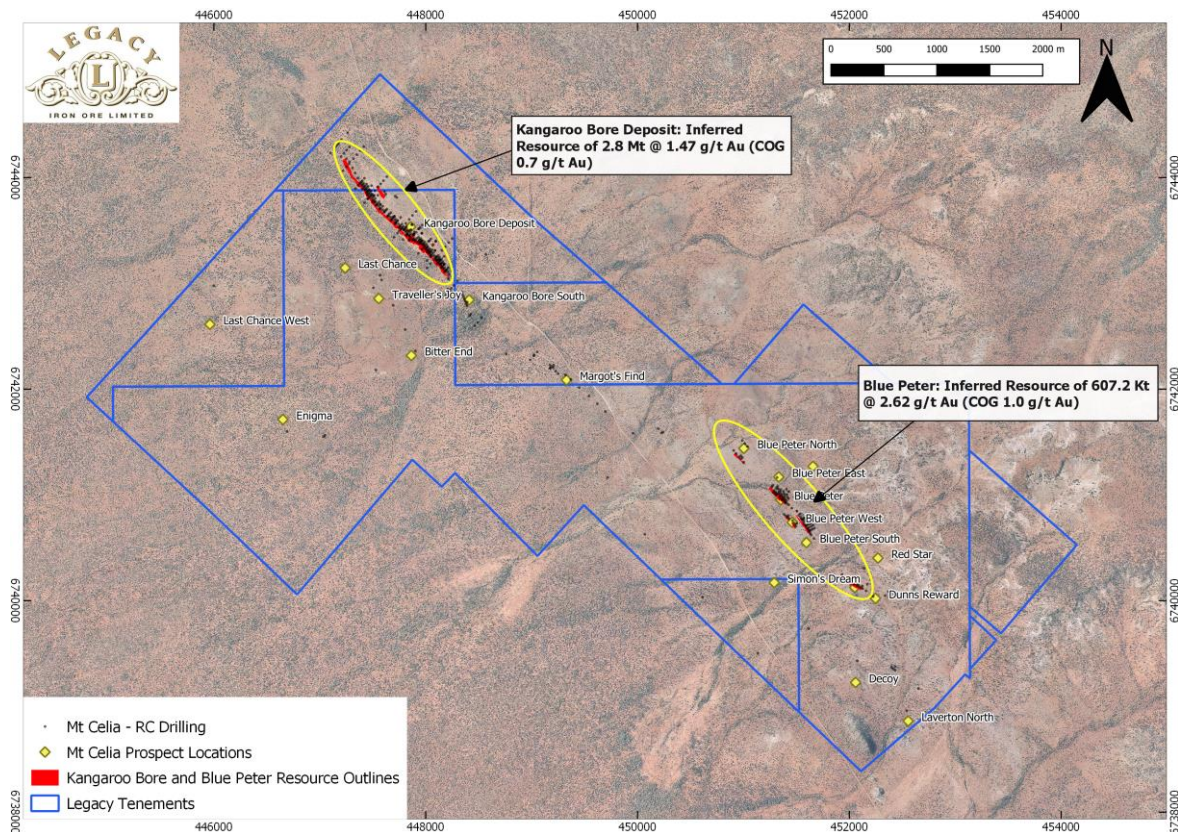
Total resource at Mt Celia stands as below as of March 2018 (Table 1) –



Deposit	Classification	Cut-off (g/t)	Tonnage (t)	Grade (g/t)	Metal (OZ)
Kangaroo Bore	Inferred	0.7	2,800,000	1.48	133,000
Blue peter	Inferred	1	607200	2.62	51,100
<b>Total (Mt Celia)</b>	Inferred		3,407,200	1.68	184,100

**Table 1 Mt Celia Project - Mineral Resource estimate as at March 2018**

(Note: Please refer to ASX announcement made on 17 Nov 2017 and 22 Mar 2018 for the complete statement about the above Kangaroo bore and Blue Peter resource estimates. Additional rounds of RC drilling been completed at Kangaroo Bore after these estimates and announced on 31 July 2019 and 22<sup>nd</sup> July 2020; however, these are mainly aimed to test the continuity and depth extensions of the ore body and will be considered in the next round of the resource upgrade for the project)



**Figure 3 Mt Celia Project - Aerial image showing various prospect locations**

As mentioned previously, an Initial Scoping Study/pit optimisation study completed in 2018 confirms that the Mt Celia project has the potential to be a technically and economically viable project (ASX announcement 15 Oct 2018).

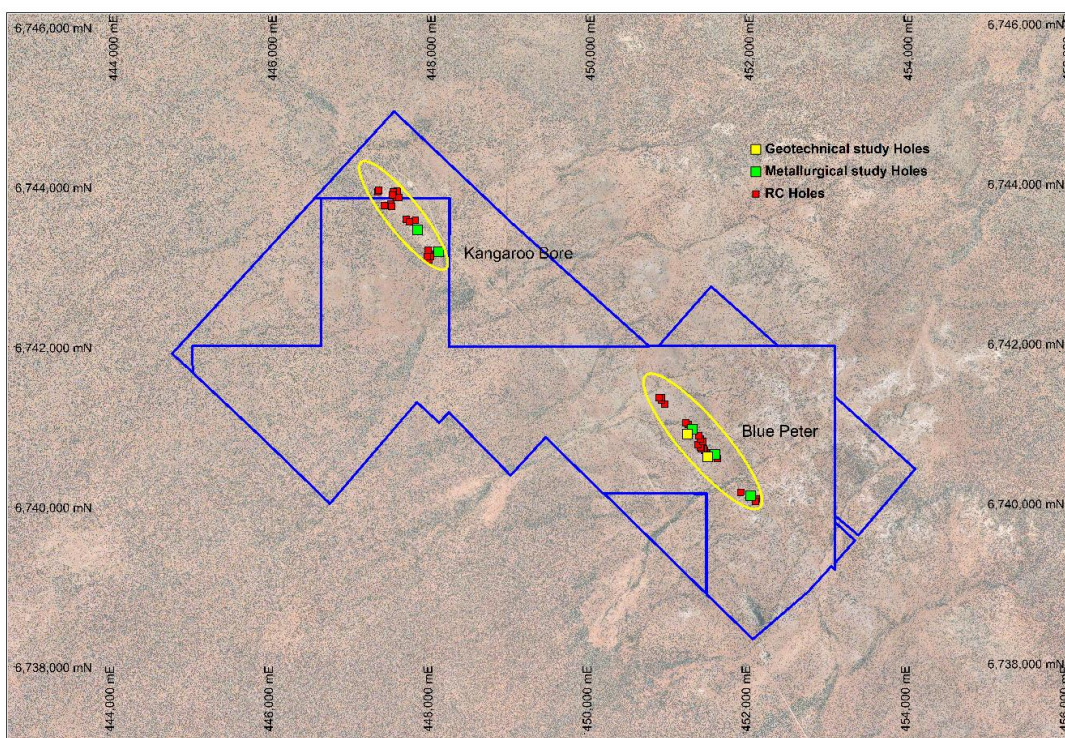
During the quarter, a total of 3324 m of RC drilling was done in 39 RC inclined holes during the month of September 2020. These holes were planned to support a resource upgrade and test the depth continuity of the known mineralized zones. Assay results have been received partially and the company has started validating and interpretation of the results. The results are to be used for additional resource definition and resource upgrade. It is expected that results will be published to the market by the second week of November 2020.



In this quarter a programme was undertaken for the PQ size (85mm) diamond drilling to generate samples for metallurgical studies. In total, 460 m were drilled in 5 drill holes. Metallurgical studies are ongoing at ALS lab, Perth on 6 composite samples generated from the core drilling and one from the RC drilling. Simon Walsh from Simulus Engineering is assisting the Company in undertaking metallurgical studies. Complete results of the study are expected in Mid December 2020.

The understanding of geotechnical parameters is important to assist any pit design. A further 2 HQ size diamond drill holes totalling 150 m were completed at the Blue Peter deposit for this purpose. In addition, a drilling programme for 5 more HQ (64mm) size drill holes (550 m) has commenced post the quarter end. SRK consulting is undertaking geotechnical studies.

The map below shows the location of the holes drilled in this quarter:



**Figure 4. Locations of the drill holes drilled in this quarter**

The company plans to achieve the following key outcomes in the next 6 months -

- Convert the Kangaroo Bore and Blue Peter resources into a JORC indicated category resource.
- Complete geotechnical, geo-metallurgical and hydrogeological studies.
- Complete revised pit optimisation and mining studies.
- Increase the overall resource size of the project.

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- Define any environmental and Heritage issues associated with the project development. Obtain the regulatory approvals for the mining.

Next steps:

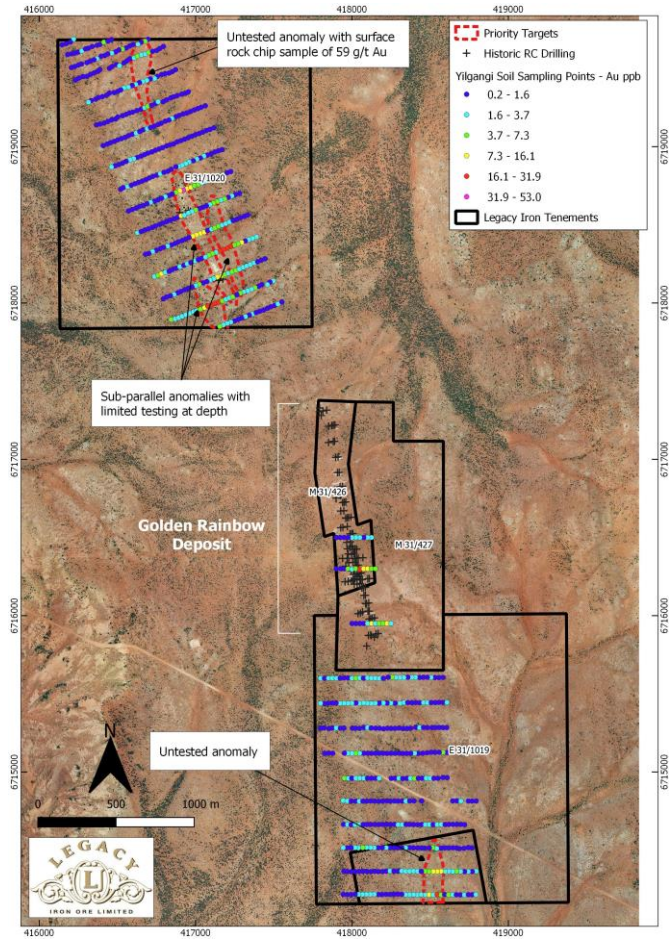
- To complete approx. 550 m of HQ size Diamond drilling in 6 drill holes to assist in Geotech test works.
- Resource modelling and pit optimization work will be undertaken once all assay results are received.
- Completing geotechnical, geo-metallurgical and hydrogeological studies of the deposits.

### **Yilgangi Project**

The Yilgangi project forms part of Legacy Iron's South Laverton Gold Project which includes Mt Celia, Yilgangi, Yerilla, Patricia North and Sunrise Bore tenements (Figure 2).

The Yilgangi Project includes two exploration tenements (E31/1019 and E31/1020) and two mining leases (M31/426 and M31/427) and contains numerous gold occurrence/anomalies including the Golden Rainbow prospect where a number of drill holes have been completed and the gold mineralisation has been tested up to a shallow depth only.

In 2019, a comprehensive soil sampling campaign was completed on tenements E31/1019 and E31/1020 to explore for potential strike extensions to mineralisation at the Golden Rainbow deposit. The soil sampling results (by MMI analysis) have delineated several northwest-striking anomalies parallel to regional geological strike and structures (Figure 5 and ASX announcement 30 April 2019).



**Figure 5: Priority areas for follow-up exploration based on soil sampling results (MMI analysis)**

These anomalies have not been adequately drill-tested by previous explorers and are a current high priority for RC drill-testing.

During the quarter the Company also finalized a drillhole plan and applied for additional approvals for a Programme of Work from DMP. It was planned to commence the RC drilling of 10-12 drill holes (for 1000-1200m) during the quarter but the Company was unable to do that because of logistics issues. The program is planned to be undertaken in the December quarter.

**Patricia North Project**

The Patricia North tenement is part of our South Laverton gold project. The Project lies in and adjacent to a major deformation zone that hosts significant gold mineralisation. The project area flanks a small internal granitoid stock along strike of the now- abandoned Patricia open cut gold mine.

Legacy has previously undertaken two phases of RAB drilling to test surficial geochemical anomalies. This drilling produced encouraging gold intersections (Figure 2). Drilling has defined three to four zones of mineralisation over some 700m.



The mineralisation has been followed up in recent years by rock chip sampling/ geological traversing and it was confirmed that the thin quartz veins intruded in the shear zones are mineralised. In past rock chip samples yielded significant assay values.

During the quarter, geological traversing and rock chip sampling was undertaken to fully evaluate surface signatures of gold mineralisation. The assay results are awaited.

The Company plans to drill test the tenement in the near future. Based on the existing data, drillhole planning has been done. Drilling activities will be undertaken once the assay results for the rock chip samples are received and after any further modification to the drill plans.

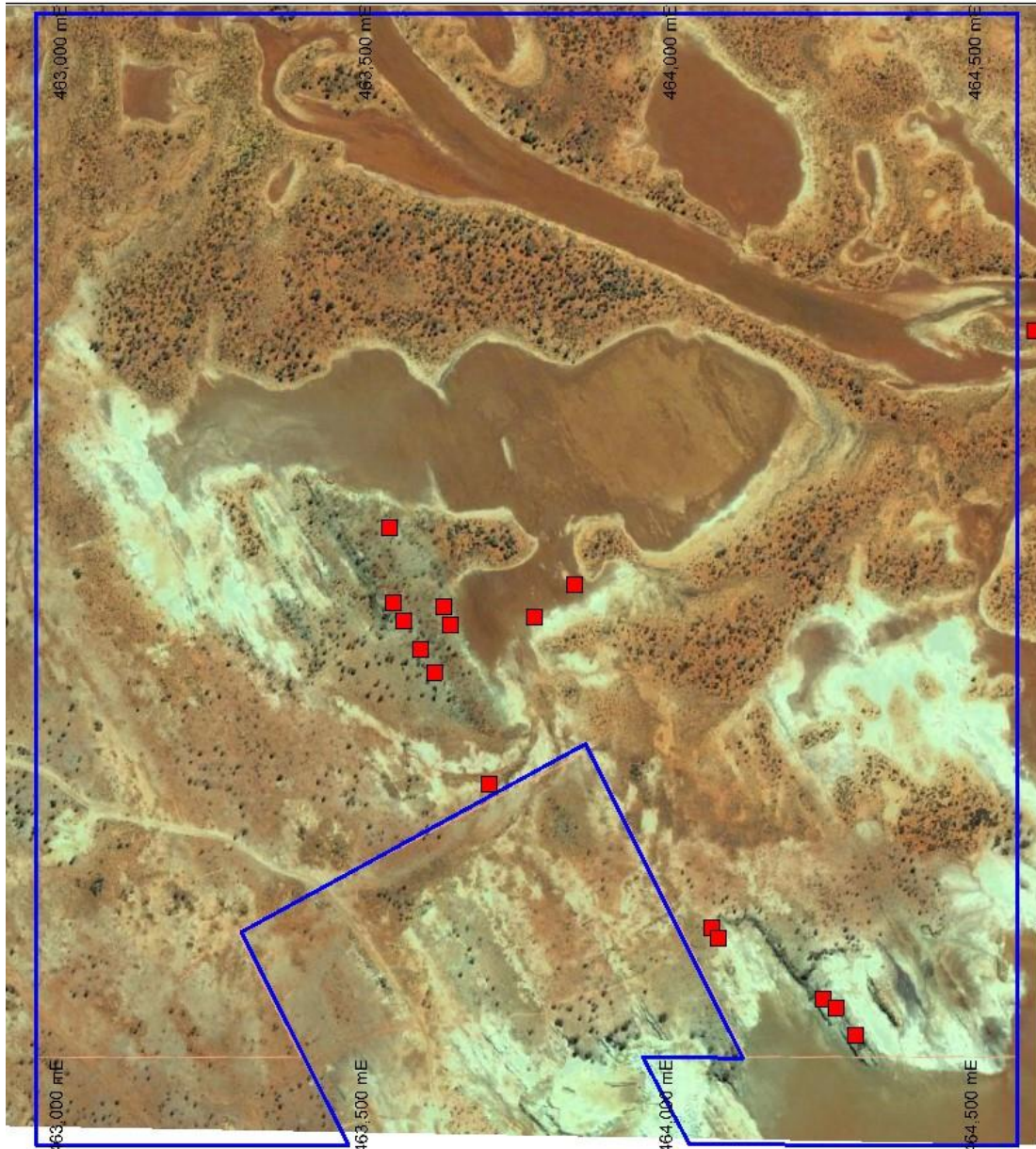


Figure 6. Patricia North rockchip samples collected in this quarter



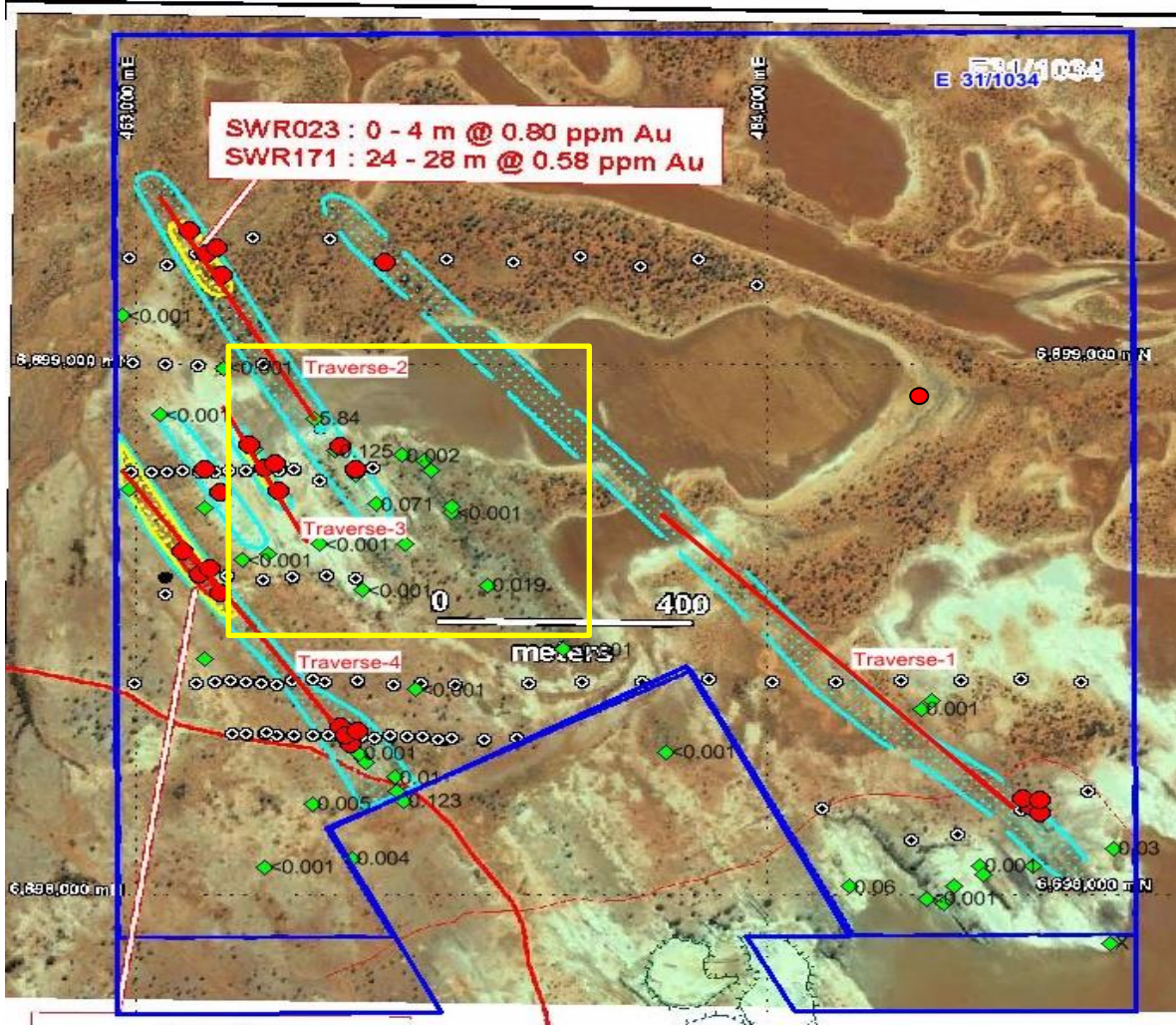


Figure 7. Patricia North planned drillholes over mineralised zones

### Mt Bevan Project

Mt Bevan Project is a joint venture between Legacy Iron (60% interest) and Hawthorn. The project is a large tenement which hosts 1,170 Mt of magnetite resource @ 34.9% Fe (refer Table 2 below) as well as a potential for discovery of nickel-copper mineralisation in northern most part of the tenement.

#### *Mt Bevan Iron Ore:*

Mt Bevan is considered to hold excellent potential for the definition of major magnetite resources located relatively close to existing road, rail and port facilities. The project also has potential for DSO hematite discoveries.

Successful exploration and resource definition program carried out now underpins the potential for a large-scale development at Mt Bevan (refer Table 2 below for the current resource estimate and Figure 5 for a representative cross section). Legacy Iron continues to work with its 40% JV partner, Hawthorn, regarding the scope, timing and funding of further phases for the project.

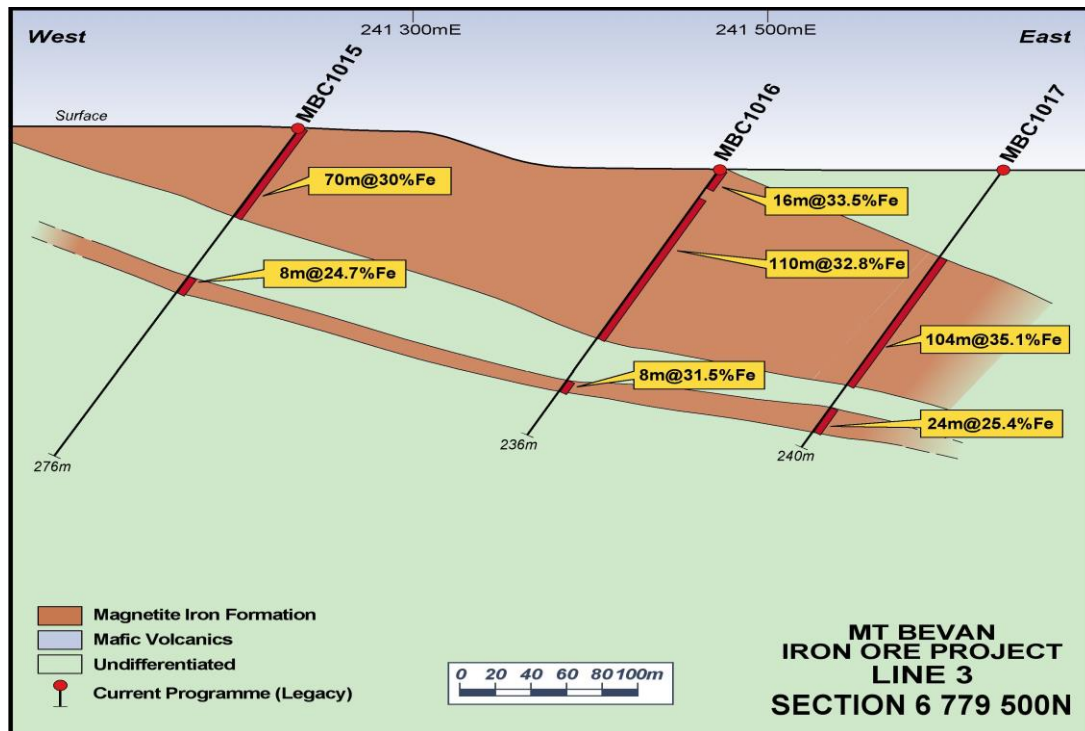


Figure 8: Drilling Cross Section - Lines 3

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



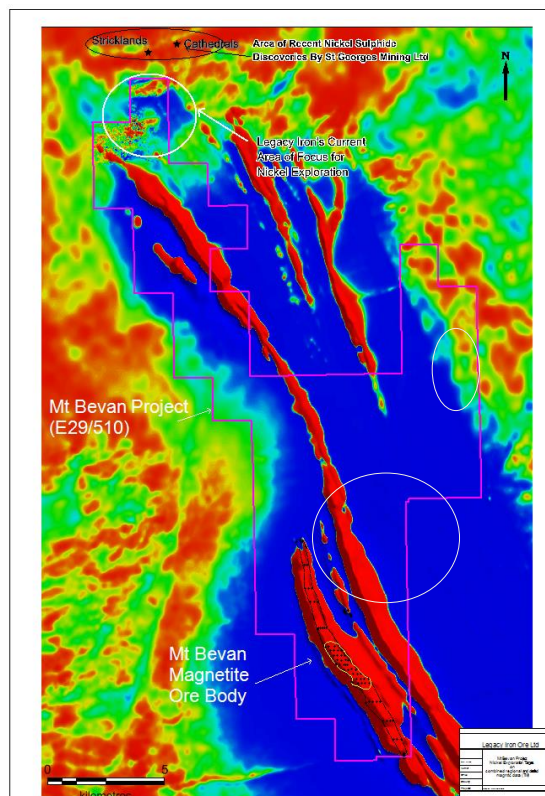
## Table 2 Mt Bevan Resource Estimate

\*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) Also, no additional work has been done on these deposits which warrants revision of the above estimates at this stage. - See Announcements from 2014 and 2015

(Full details of the project are available at the Company website [www.legacyiron.com.au](http://www.legacyiron.com.au))

### *Mt Bevan Nickel – Copper:*

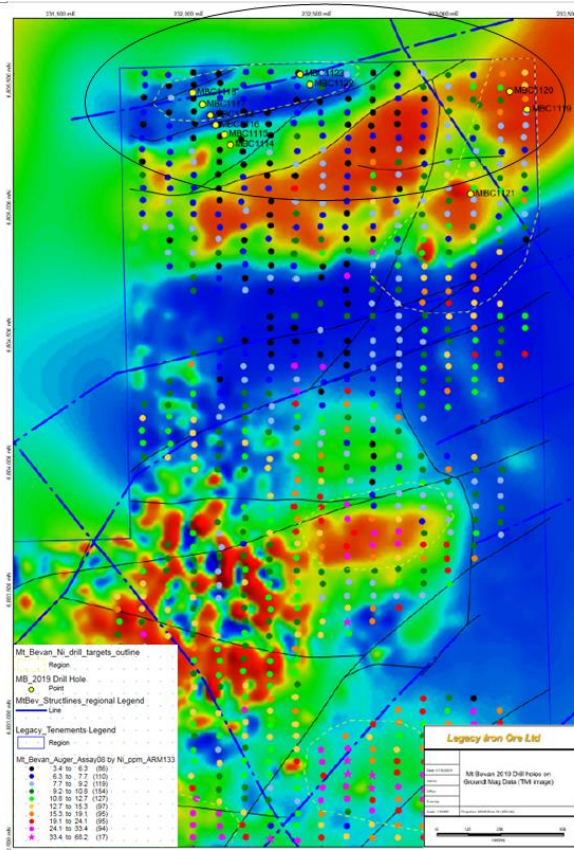
The Mt Bevan Project is located immediately south of St George Mining Limited's (ASX: SGQ) Mt Alexander Project (Figure 6). St George Mining has had significant success identifying nickel-copper sulphide mineralisation at Cathedrals, Stricklands and Investigators along the Cathedrals Shear zone (refer to St George Mining Limited ASX announcements).



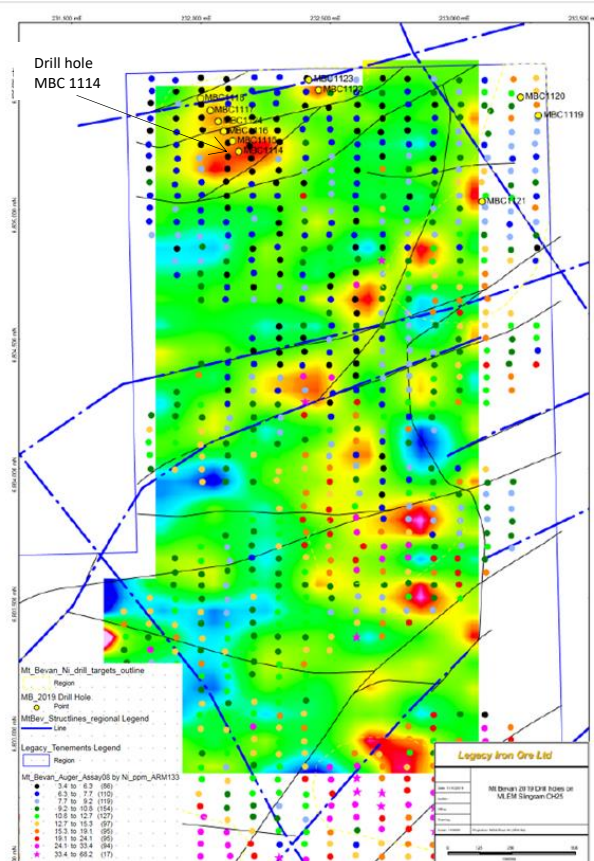
**Figure 9: Mt Bevan Project – airborne magnetics data (TMI) showing area of interest for nickel sulphide mineralisation**

No major field activities were carried out at the project during the quarter however target evaluation for nickel sulphide mineralization has continued and the Company still believes that the geology of the northern part of the tenement can host Ni sulphide mineralization. The Company is evaluating existing targets to finalise the next course of action.

Location of the drill holes drilled in 2019 have been shown on the figure 10 and 11 below –



**Figure 10: 2019 drill hole locations on Merged ground and regional TMI magnetics with structural interpretations and auger geochemistry Ni ppm**



**Figure 11: 2019 Drill hole locations on MLEM Slingram CH25 with structural interpretation lines and auger geochemistry (Ni ppm)**

This area is almost completely concealed by Quaternary alluvium and colluvium cover. The petrographic study of drill chips revealed younger mafic dikes in the area planning is underway to explore these younger dikes.

### Koongie Park Project

Legacy Iron holds exploration licence E80/4221 that is contiguous with ground under exploration by Anglo Australian Resources Limited (AAR) at its Koongie Park VHMS base metals deposit (Figure 9). AAR has defined substantial base metal/gold/silver mineralisation in two deposits to date, with a total JORC resource (Indicated and Inferred) of 8Mt at 3.3% zinc, 1.2% copper, 0.3g/t gold and 23g/t silver. AAR has also outlined a shallow supergene high grade copper resource.

The style of mineralisation (VHMS) is similar to that found at Sandfire Resources' Doolgunna and Monty discoveries and at the Teutonic Bore/Jaguar/Bentley deposits of Independence Group. This style of deposit is known worldwide to occur in clusters and often the early discoveries in these camps are not the largest. Work completed by Legacy at Koongie Park revealed a number of base



metals and rare earth elements (REE) anomalies mainly in the west of the Angelo Fault and gold targets (early stage targets) in the East of the Angelo Fault (Figure 12).

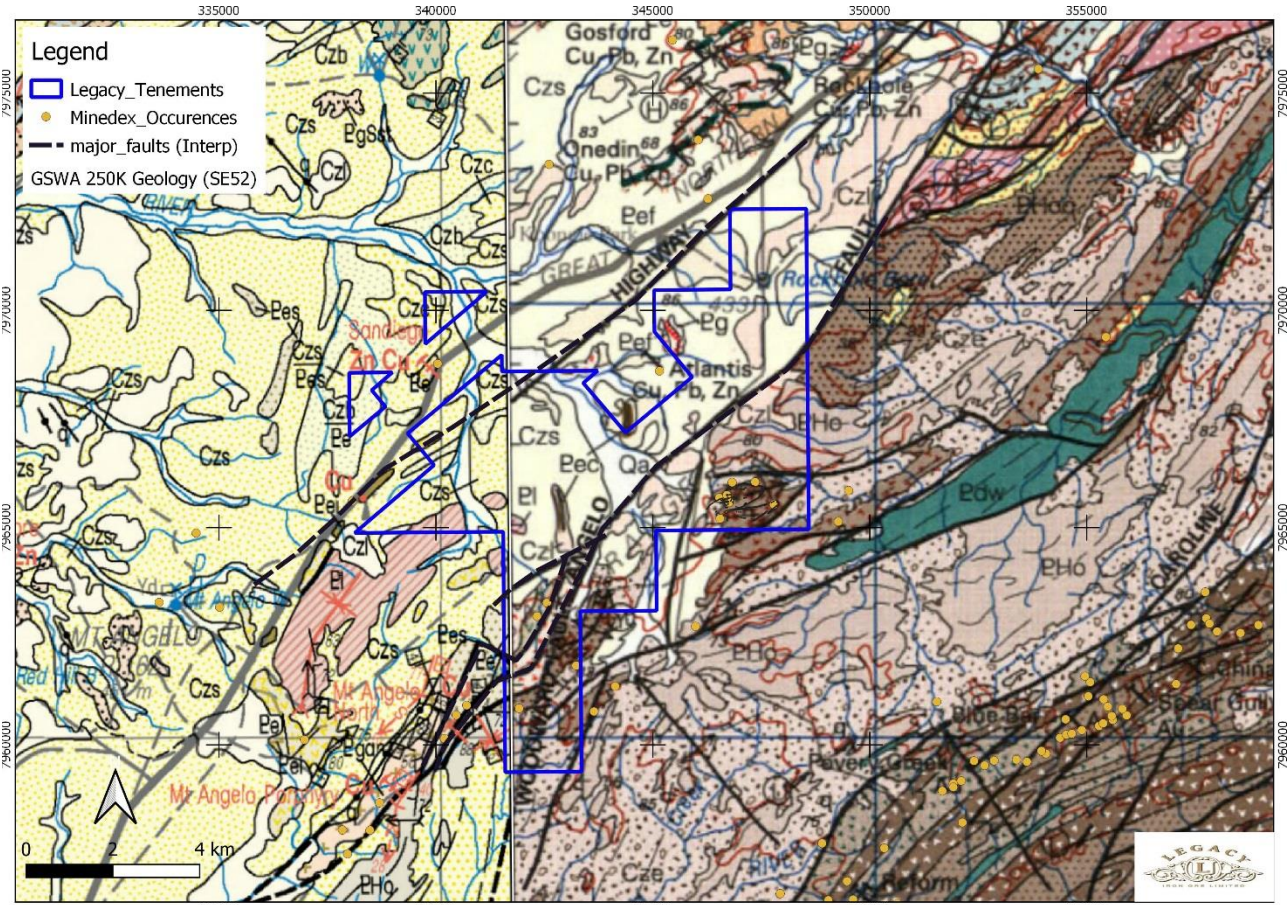


Figure 12: GSWA 250k geology and Minedex occurrences and prospects at Koongie Park

In 2013 Legacy flew an airborne EM survey across the project. Interpretation of the data revealed a number of anomalies that were targeted in 2015 RC drilling. No anomalous base metals values were intersected but nor were the sources of the EM anomalies identified.

For the base metal targets in the tenement, the Company is currently working with Newexco for geophysical interpretation based on the information gathered to date. Also, planning is underway to carry out geophysical ground EM and downhole EM survey in the Koongi Park project to further define VHMS mineralisation targets for drill testing.

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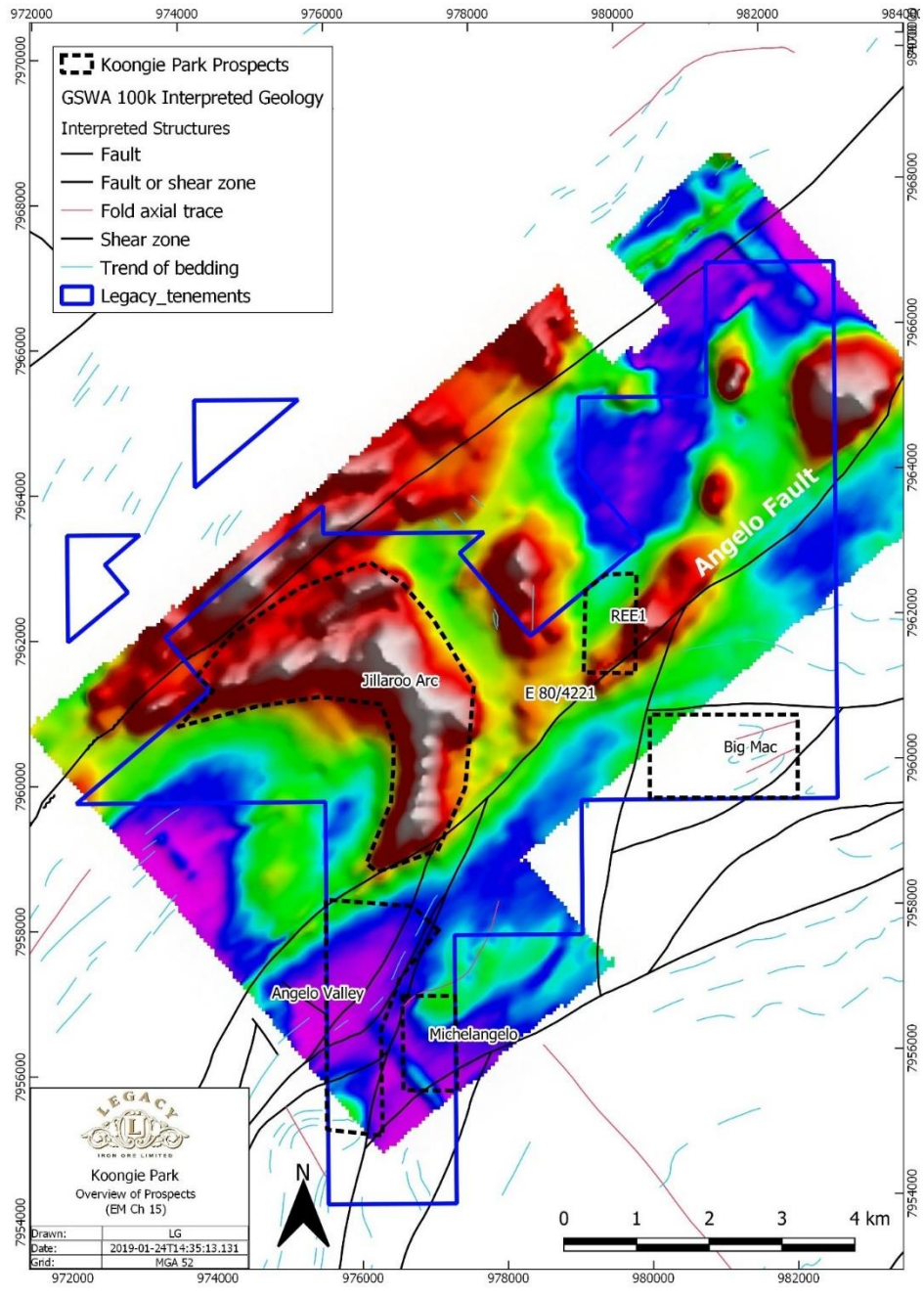


Fig 13: Prospects at Koongie Park project and EM Ch15 with GSWA interpreted structures

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## PLANNED ACTIVITIES – DECEMBER 2020 QUARTER

Main activities planned for the December 2020 quarter likely to comprise:

**South Laverton:** Mt Celia project –

- The Company is focusing on increasing the overall resource for the Mt Celia project and to convert the current JORC inferred resource into an indicated category. Upon receipt of all assay results, resource modelling and pit optimization work will be undertaken. The company aims to complete resource estimation work by December 2020.
- In addition, the Company intends to complete metallurgical and geotechnical studies also by December 2020 to support the pre-feasibility study of the project.
- Consistent with the objective of moving towards feasibility, the Company continues to work through the required regulatory approvals undertaking the necessary environmental and heritage studies. It is planned to complete the second round of Environmental surveys by October 2020.
- Work is also underway to convert current exploration licence to a mining lease.
- Planning for ore body extension drilling on the targets received in the last round drilling.

Yilgangi -

- Drill test the potential extensions of the positive results seen in the soil and surface rock geochemistry.

**Koongie park**

- Carry out geophysical ground EM and downhole EM survey in the Koongi Park project to further define VHMS mineralisation targets.

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

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**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.*