

## 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

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30<sup>th</sup> July 2021

The Company Announcements Office  
ASX Limited

Via E Lodgement

## REPORT FOR THE QUARTER ENDED 30<sup>th</sup> June 2021

Please find attached the Company's Quarterly Activities Report for the quarter ended 30<sup>th</sup> June 2021.

Yours faithfully  
**LEGACY IRON ORE LIMITED**

Rakesh Gupta  
Chief Executive Officer

## HIGHLIGHTS

### EXPLORATION AND DEVELOPMENT

#### **South Laverton:**

##### *Mt Celia:*

- Additional resource definition drilling was completed at the Kangaroo Bore and Blue Peter deposits of Mt Celia in June 2021. The RC drilling tested the strike extension and continuity of the two deposits and tested 4 IP anomalies. A programme of RC drilling was completed for a total of 2640m in 33 holes.
- In addition, construction of 4 monitoring water bores and 1 production water bore was also completed in the month of April 2021 to support ongoing hydrogeological studies. The hydrogeological studies and supervision of works was carried out by AMC Consultants.
- First phase Geophysical Induced Polarisation (IP) survey over the Blue Peter and the adjoining area was completed and it defined 4 promising anomalies. This survey is helping to delineate new targets for gold exploration, with potential successful drill testing of anomalies/targets having the ability to add to the current resources of the project.
- Resource revision was undertaken by incorporating additional drilling (March 2021, 1080m RC drilling) and including mineralisation at depth. Mr Andrew Hawker Principal Geologist HGS Australia was appointed as consultant for the resource revision work.
- The ongoing mining study began on track with initial pit shells optimised, final conclusions are expected by the next quarter.
- Kangaroo Bore RC drill testing for QAQC Resource modelling and Geological modelling purposes was undertaken in March 21 and assay results were received during this quarter.

##### *Yilgangi:*

An RC drilling programme was completed at Yilgangi in June for a total 1335m in 25 holes. Drilling at Yilgangi was undertaken to test the continuity of known mineralization at the Rainbow and Golden Rainbow prospects. A MMI soil anomaly located south of the known resources was also drill tested.

- The project is approaching a resource ready state with a further 1500m of follow-up RC drilling scheduled for the next quarter. This will test the known mineralized strike that is open at depth to define further resources.

##### *Sunrise Bore*

In June a RC drilling programme was completed at one of the high priority gold anomalies with 17 RC holes for 1133m drilled.

**Mt Bevan:**

During the month of June, a RC drilling programme was completed at the Mt Bevan project, with a total 13 holes drilled for 1378m. The drilling aimed to explore DSO mineralization by 10 RC holes and to drill test remaining Nickel sulphide targets by 3 RC holes.

**East Kimberley tenements** (Koongie Park, Ruby Plains, Taylor Lookout and Sophie downs)

Geological reconnaissance work and rock chip sampling was conducted during the quarter to redefine and test priority targets before drill testing.

At the Sophie Downs project, Ground Moving Loop Electromagnetic Survey (MLEM) was completed in one of the high priority copper anomaly where approx 100m strike of a malachite mineralisation is exposed.

**EXPLORATION****Project Overview**

Legacy Iron Ore has a committed focus on the company's objective of development of gold, iron ore, and base metal deposits in the Western Australia through exploration. The company has 10 promising projects encompassing 21 tenements in the Western Australian known mineralised belts. The Company is advancing the projects into higher stages of exploration and development through systematic exploration activities.

During the last three months the Company has formulated an annual exploration plan for all projects. Based on the exploration maturity and feasibility it has devised an aggressive exploration schedule with a continued agenda of development of the Mt Celia gold project and advance other projects through continued exploration.

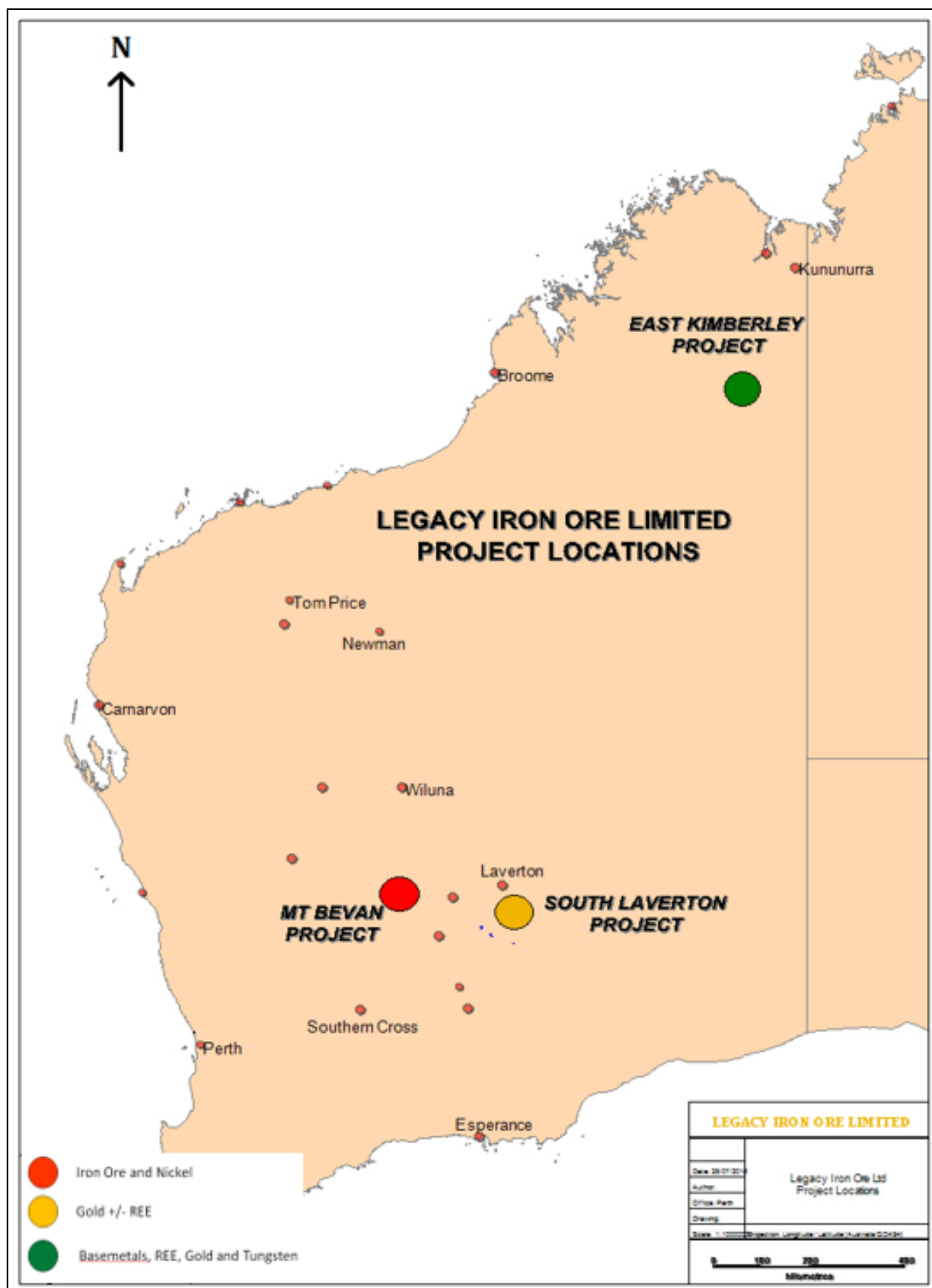


Figure 1 Legacy Iron – Project Locations

## GOLD

### South Laverton Gold Hub

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

The Company is working towards development of the Mt Celia projects including the Kangaroo Bore and Blue Peter deposits, and for further pre-feasibility work. Studies are progressing well and expected to finish in the next quarter.

The Yerilla and Yilgangi 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.

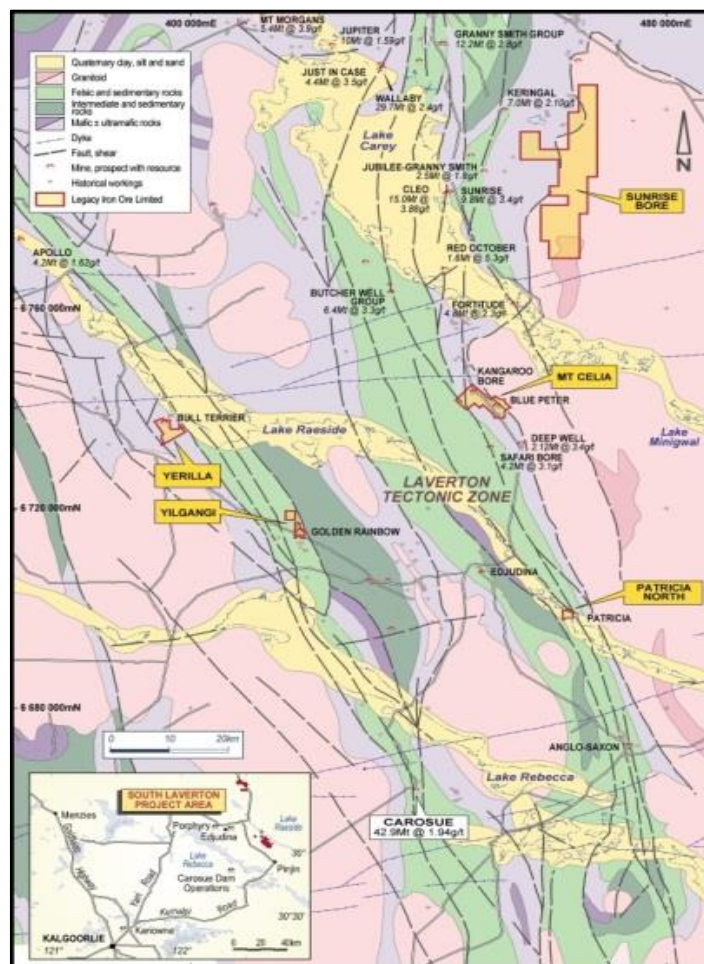


Figure 2 Legacy Iron's South Laverton Gold Projects on regional geology

### RC Drilling at Mt Celia (E39/1443 and M39/1128)

During this quarter an RC drilling programme has tested the strike extension of the Blue Peter and Kangaroo Bore mineralisation. A programme of RC drilling completed for a total of 2640 m in 33 holes. The programme aimed at testing the strike continuation of the known ore body. Assays are expected to be received by next month.



In addition, construction of 4 monitoring water bores and 1 production water bore to support ongoing hydrogeological studies has been completed in the month of April 2021. The hydrogeological studies and supervision of works was carried out by AMC Consultants. The outcome of the study has been received and it defined hydrogeological parameters of the project.

A total of 4 IP anomaly targets were also drill tested by single drill holes in the June 21 RC programme.

The locations of RC holes and water bores drilled in the last quarter are given in Fig.3.

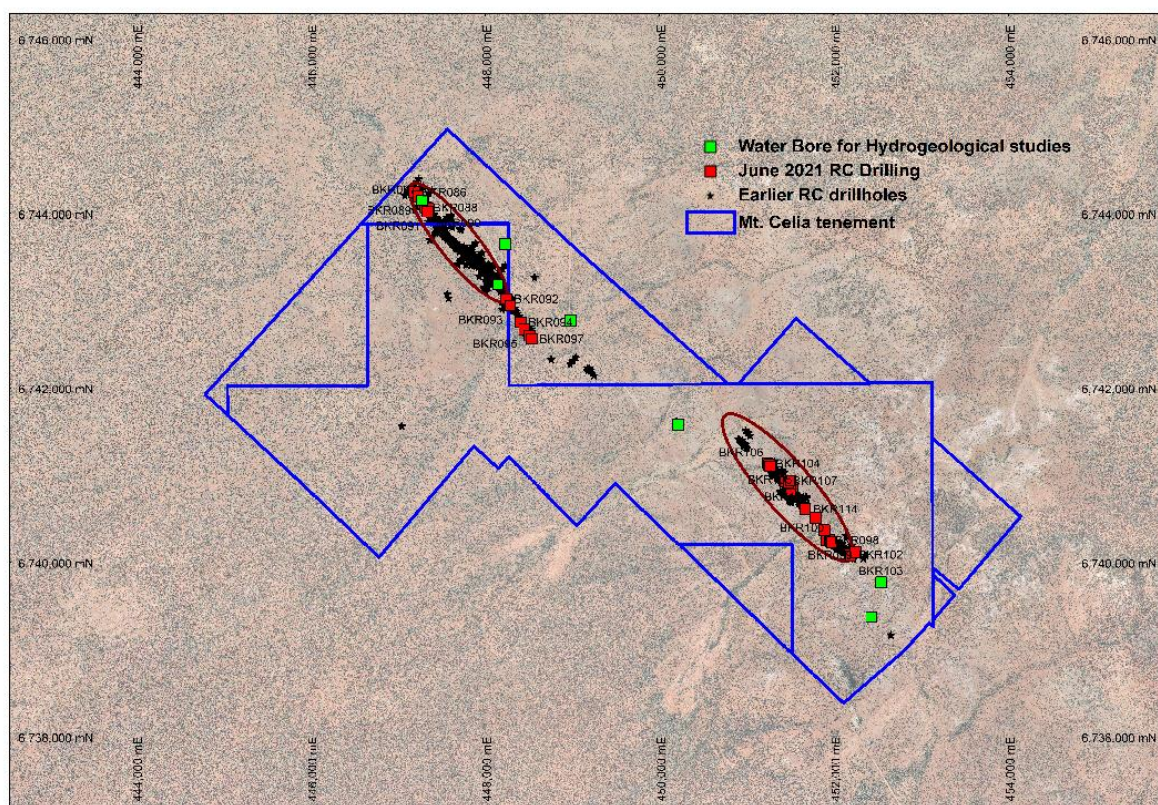


Figure 3 RC hole locations at Mt Celia project drilled in this quarter

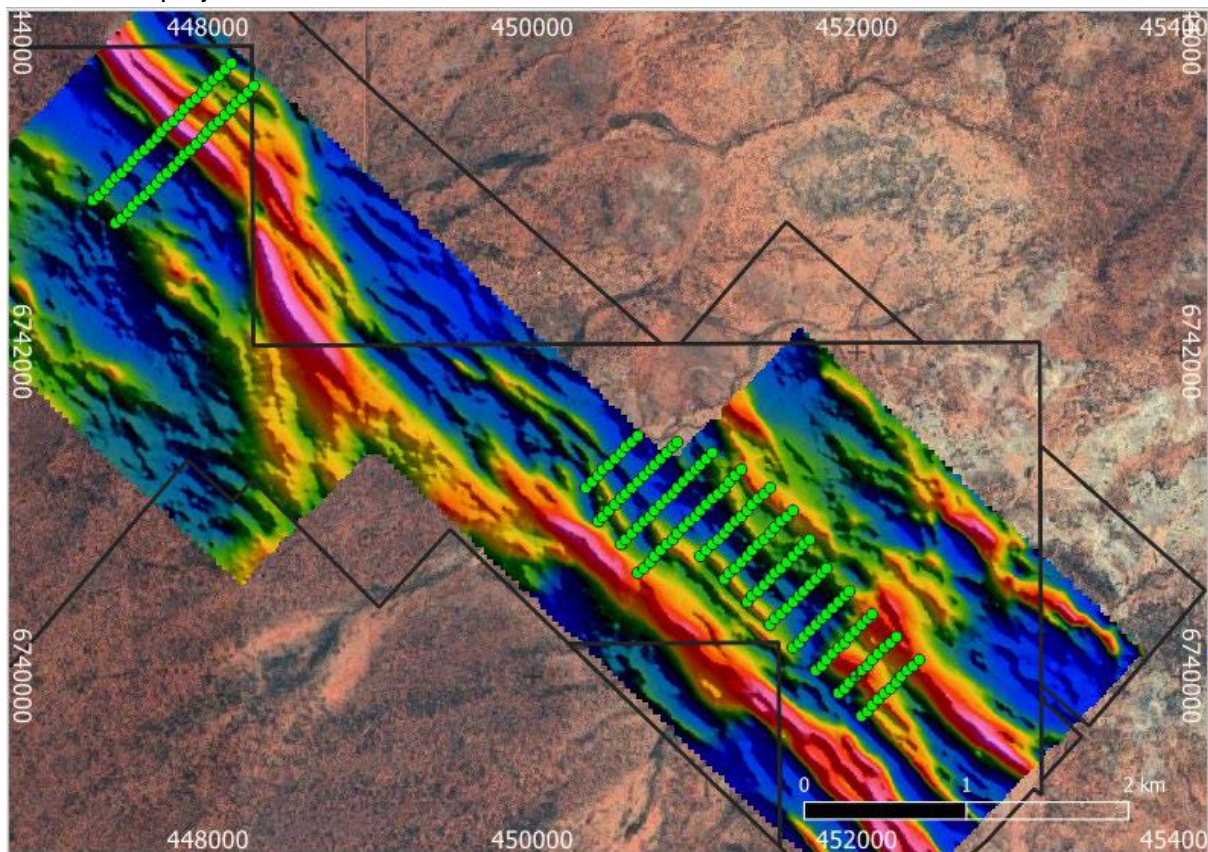
Additional assays received for the March 21 drilling were incorporated in the ore body model and a revision of current resource estimates was taken up by consultant Mr Andrew Hawker of HGS Australia, Perth. Since the end of the quarter, the revision work has been completed and the mining studies resumed on track. The final results of mining studies are expected by the next quarter.

#### **Completion of Phase 1 Induced Polarisation (IP) survey at Mt Celia**

Phase 1 Geophysical IP surveys have been completed in the prospective areas of the Mt Celia project in and around Blue Peter and Kangaroo Bore prospect. Vortex Geophysics has completed the survey for Legacy Iron Ore. This survey was planned to delineate new targets for gold exploration with the view to add ounces to the current indicated and inferred resource. Geophysical consultant Newexco has supervised the survey works and interpreting the data for target generation. As per initial indications the 5 targets were identified and out of them 4 targets were drill tested each by single hole. The Company is



hopeful for getting mineralisation over IP targets. Figure 4 below shows areas of completed IP surveying over the Mt Celia project.



*Figure 4 Completed Phase I IP lines (green dots) over the SAM EQMMR\_1VD image.*

#### *Mt Celia Resource Upgrade*

The previous mineral resource estimates for Kangaroo Bore and Blue Peter were prepared by SRK in November 2017, January 2018 and December 2020, respectively. Since then, Legacy Iron Ore has conducted another RC drilling programs aimed at increasing the geological confidence of the resource quality. The data acquired from these programs have been used in conjunction with the existing data to update the mineral resource estimates. Resource revision was undertaken by incorporating additional drilling (March 2021, 1080 m drilling ) and including orebody at depth. Mr Andrew Hawker principal geologist HGS Australia was appointed as consultant for the resource revision work.

#### *Next Quarter agenda*

The September quarterly exploration plan for the Mt Celia project includes the following main objectives:

- Second phase Geophysical Induced Polarisation (IP) Survey between the Kangaroo Bore and Blue Peter deposits for target generation of gold mineralisation.
- Further exploratory drilling for Kangaroo Bore and Blue Peter deposits to increase known ounces. (The RC drilling at Kangaroo Bore strike extensions and IP anomalies will be focus).

Next steps involving Mt Celia Resource work and PFS:

- Complete Mining studies for the Mt Celia project.

- Enter into stakeholder's agreement for the grant of Mining Lease

### **Yilgangi Project**

The Yilgangi project includes a non JORC 2012 compliant resource of approximately 18,000 Oz. Its' location relative to Mt Celia is shown in Figure 2. This deposit is highly prospective and will add ounces to the Mt Celia gold project, it is to be progressed to advanced stages of resource definition.

The Yilgangi Project includes two exploration tenements (E 31/1019 and E 31/1020) and two mining leases (M 31/426 and M 31/427). They contain numerous gold occurrences/anomalies and include the Golden Rainbow prospect where several drill holes have been completed and the gold mineralization is only tested to a shallow depth.

#### ***RC Drilling at Yilgangi Project:***

An RC drilling programme was completed at Yilgangi in June 2021 totalling 1335m in 25 holes. Holes were drilled to test the continuity of known mineralization at Rainbow and Golden Rainbow prospects. A MMI soil anomaly located south of the known resources was also drill tested.

The deposit is approaching a resource ready state with a further planned 1500m follow-up RC drilling scheduled for next quarter. This will test the known mineralized strike that is open at depth to define further resources.

Previous drilling in December 2020, generated multiple encouraging drill-ready targets, which have been targeted in this drilling programme. There are currently plans for additional resource estimation work after assay results are received from this drilling programme. The locations of drilled RC holes in this quarter are given below in figure 5.



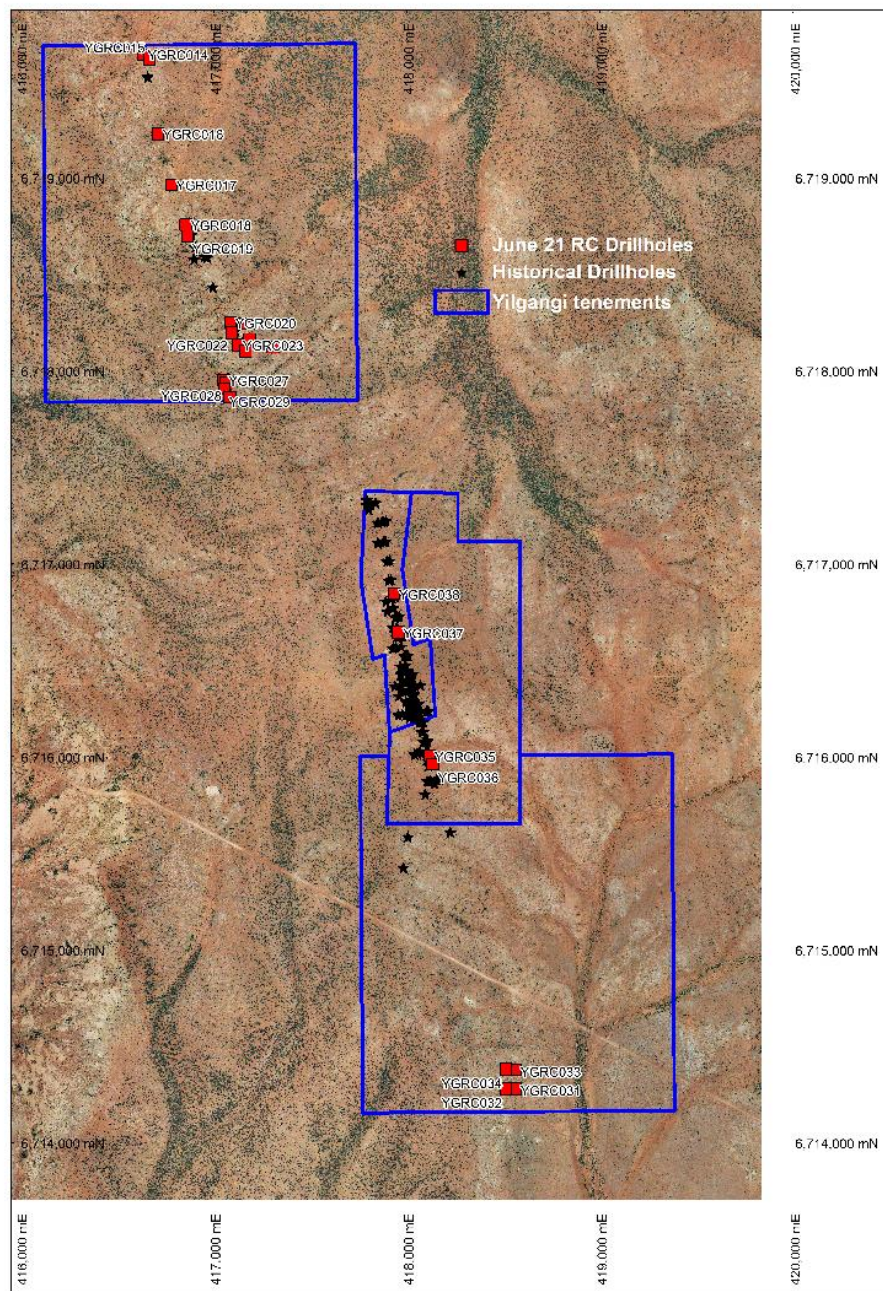


Figure 5 Locations of the RC drillholes drilled in this quarter at the Yilgarn Project

#### Next Quarter agenda

The September quarterly exploration plan for the Yilgarn project includes the following main objectives:

- Further exploratory drilling at Rainbow and Golden Rainbow prospect to increase known ounces..
- Resource estimation for the gold mineralisation.



## Sunrise Bore (E39/1748)

In the past, significant geochemical sampling was completed and followed up with auger drilling. The drilling resulted in the better identification of high priority gold anomalies, the best of which was the anomalism at Kingsley. RC exploration drilling has been completed in this quarter and a total of 1133m of RC drilling for 17 holes, targeting the soil anomaly was completed. The drill collars are shown in figure 6.

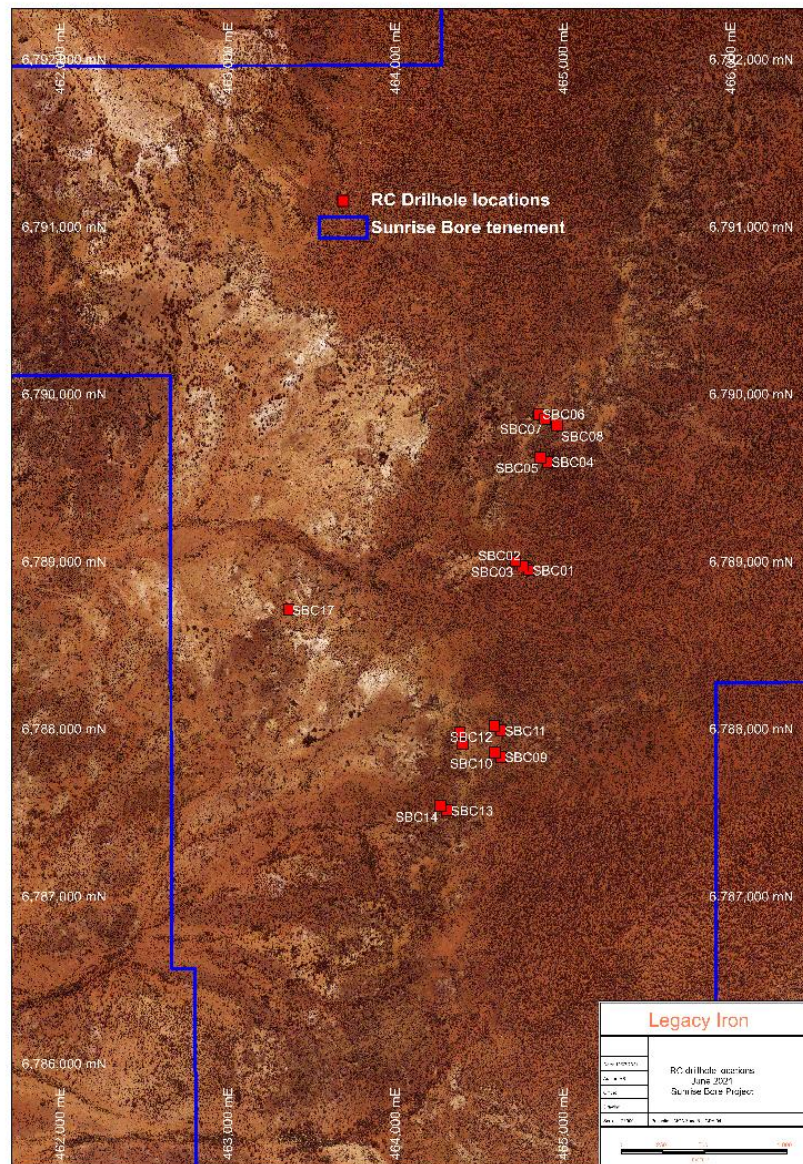


Figure 6. RC drilling for the Sunrise Bore project

### Next Quarter agenda

The September quarterly exploration plan for the Sunrise Bore project includes the following main objectives:

- Interpretation of assay results, these are expected by the end of the August 2021.
- Follow up exploration planning for the project

### Mt Bevan Project (E29/510-I)

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 (Table 1).

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.

**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) 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

The Company continues to assess the prospectively for Hematite (DSO) discovery in the southern and central portion of tenement holding, along strike from the Mt Mason deposit.

In June a RC drilling programme was completed at the Mt Bevan project, and a total of 1378 m in 13 holes were drilled. The programme aimed to explore DSO mineralisation and to drill test remaining Nickel sulphide targets in the Northern most part of the tenement. In this programme RC drilling for Nickel Sulphides was undertaken in 3 holes for 363m.

RC Drilling for Hematite Mineralisation was also undertaken for 10 holes and 1015 m in the southern part of the tenement. As per the petrological report of the RC chip samples, younger dykes have been intersected in the 2019 RC drill hole No. MBC1114.

In the downhole EM survey of the same hole some anomalous response was also observed. Thus, it was planned to drill test the area by 3 holes around MBC1114 to intersect potential younger dykes that possibly hosts Nickel sulphide mineralisation. The map showing the drillhole locations for Nickel is given below as figure 7.

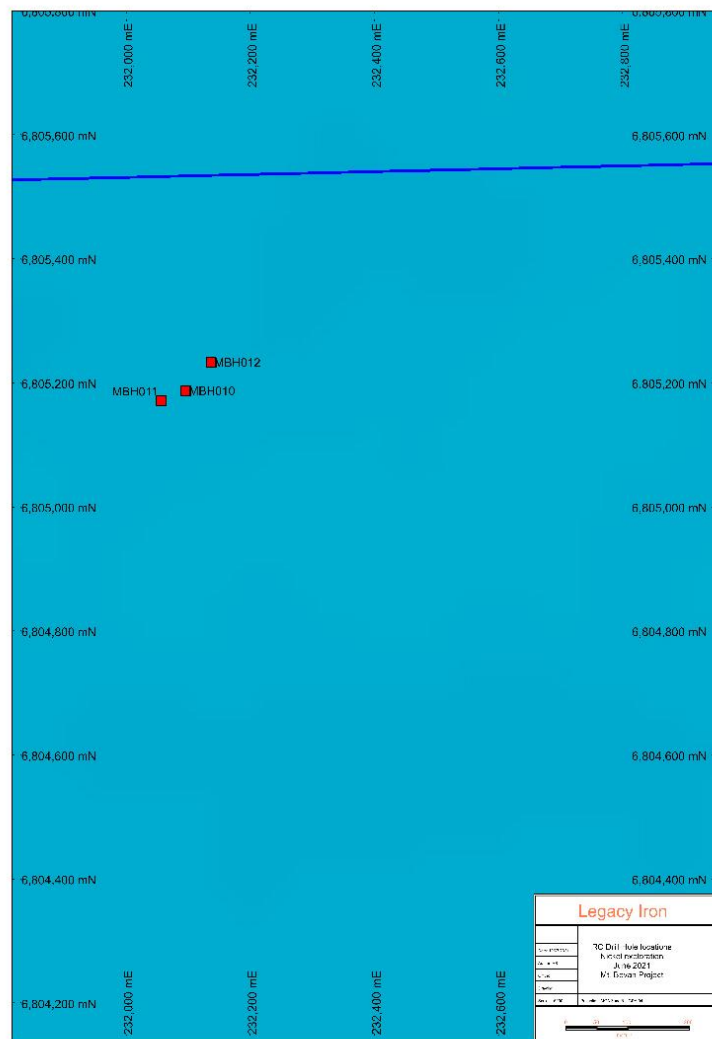


Figure 7. Map showing drillholes for Nickel Sulphide mineralisation

For DSO exploration drill holes were planned in the southern part of the tenement and in the strike continuity of the Mt Mason deposit. This area of the tenement was



traversed in the last week of April 2021. Efforts were undertaken to find outcrops of Hematite on the surface and to track the outcrop for strike continuity and estimation of possible thickness of orebody.

Rock chip samples were collected from various parts of the BIF ore body. The possible cross cutting fault planes (east – west) and streams were targeted for rock chip sampling. The map showing the rock chip locations and received Fe percentage is given below as figure 8.

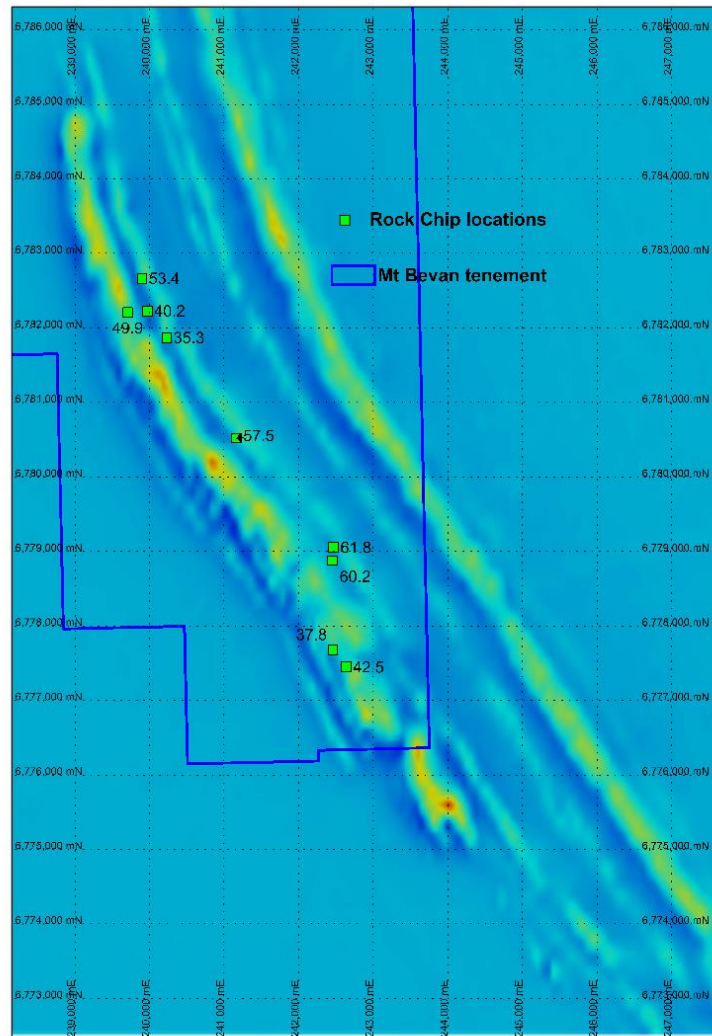


Figure 8. Map showing rock chip sample location and Fe%

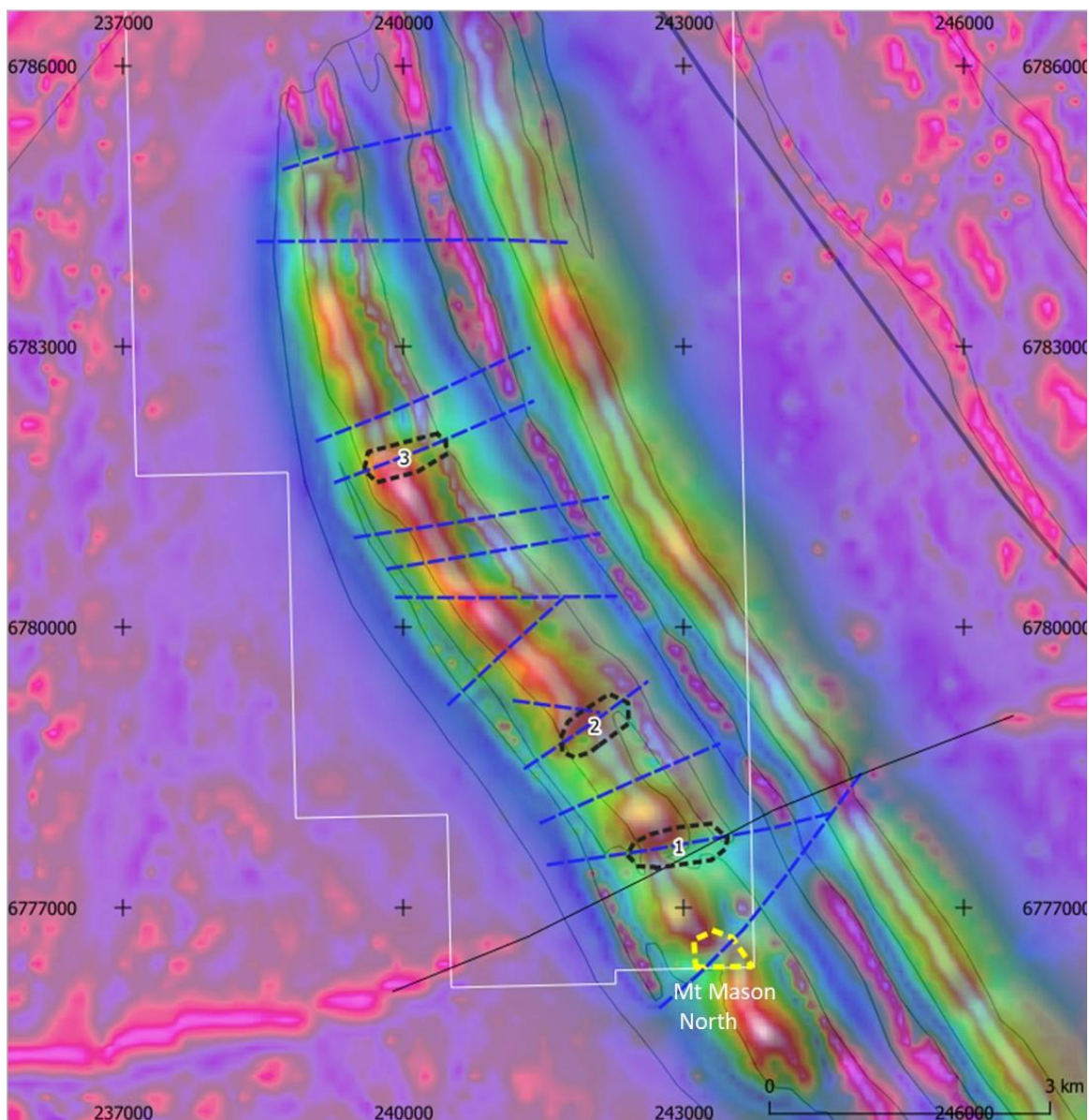
High Fe percentage was received in two of the samples (MBR503 and MBR 504) with more than 60% Fe. And the distance between the outcrops from where the two samples was collected is about 200 m and small outcrops were also seen between the two locations thus

indicating strike continuity. It was also observed the possibility of downward continuity of mineralisation and this area has been prioritised for drilling.

### **Ground magnetic data interpretation to assist in drill hole planning**

Geophysical consultant Newexco was asked to interpret the existing ground magnetic data in order to suggest possible cross cutting fault planes associated with zones of low magnetism, the most probable targets for Hematite mineralisation in the area.

Newexco has reprocessed the 200m lines spacing aeromagnetic data and used them for the interpretation. Several E-W/SW-NE faults/structures were interpreted using the 1VD and Tilt derivative and analytic signal images. Three high priority areas were selected for the targeting DSO Hematite where the possibility of cross cutting fault planes exists. The map showing the ground magnetic data interpretation is given below as figure 9.



*Figure 9. Ground Magnetic data interpretation showing interpreted fault planes.*

The drillholes for DSO were planned on the basis of rock chip sampling observations, assays and ground magnetic interpretation. Most of the drillholes are testing the possible fault planes and exposed DSO mineralisation. The location of drillholes is given below in figure 10.

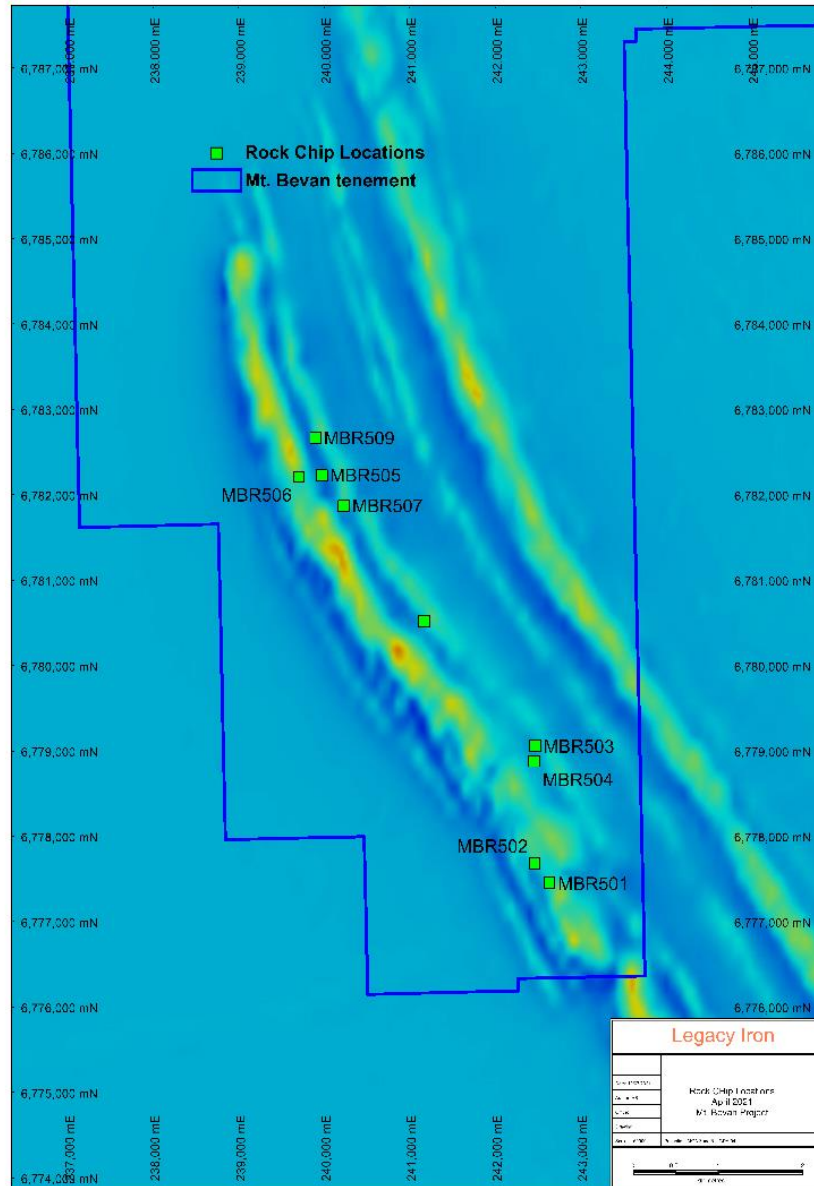


Figure10 Drillholes over interpreted fault lines



### Next Quarter agenda

The September quarterly exploration plan for the mt Bevan project includes following main objectives:

- Interpretation of assay results, these are expected by the end of August 21.
- Follow up exploration planning for the project.

### Koongie Park Project (E80/4221)

Legacy Iron Ore holds an exploration licence (E 80/4221) that is contiguous with the neighbouring ground under exploration by Anglo Australian Resources Limited (AAR). Their Koongie Park VHMS base metals deposits Onedin and Sandiego are shown as known resources in (figure 11).

Anglo Australian Resources Ltd (AAR) has defined substantial base metal (Zn, Cu) mineralisation in the two deposits, with Indicated resources of (1.2 Mt @ 7% Zinc, and 1.14 Mt @ 2.8% Copper) at the Sandiego Deposit and (1.98 Mt @ 6.25% Zinc and 2.5 Mt @ 1.1% Copper) at the Onedin deposit. They have also promising gold prospects, gossanous Quartz stockwork associated that they continue to develop closely located Legacy Iron Ore tenements.

During the quarter Moving Loop Electromagnetic survey was finalised for the identified targets. Geological reconnaissance and rock chip sampling was also conducted during this quarter to check the defined targets.

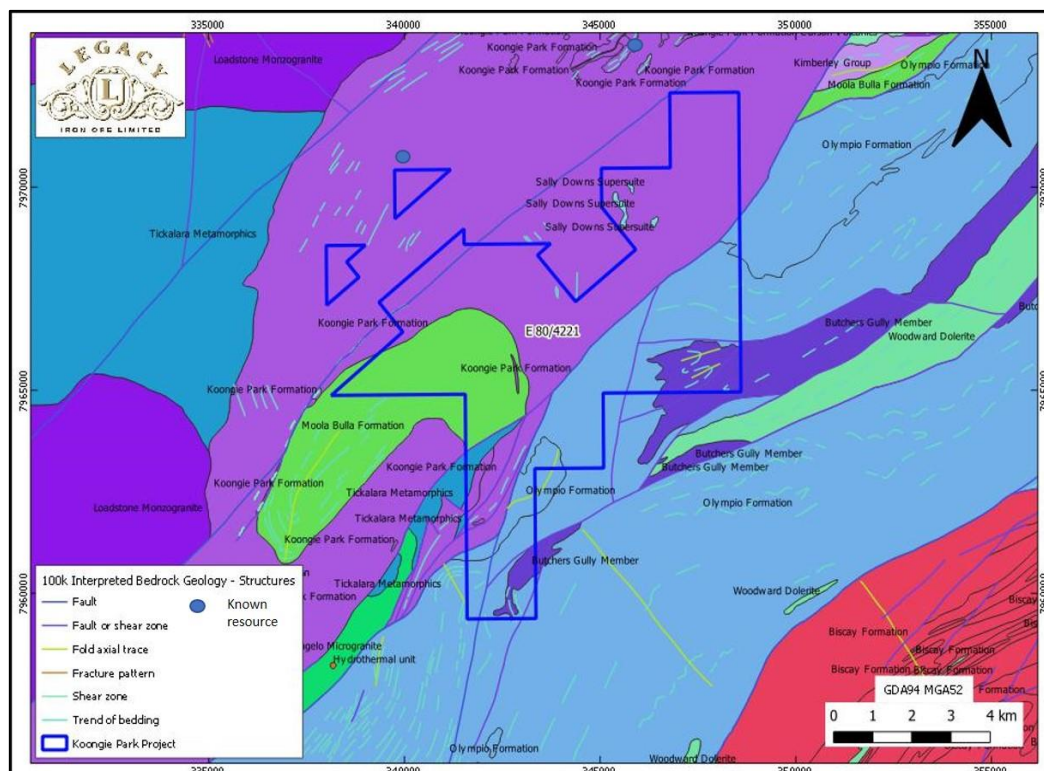


Figure 11: GSWA 100k geology and prospects at Koongie Park



A total of six target areas were identified based on the geochemical anomaly analysis and ground Electromagnetic Survey was planned over them (Fig 12).

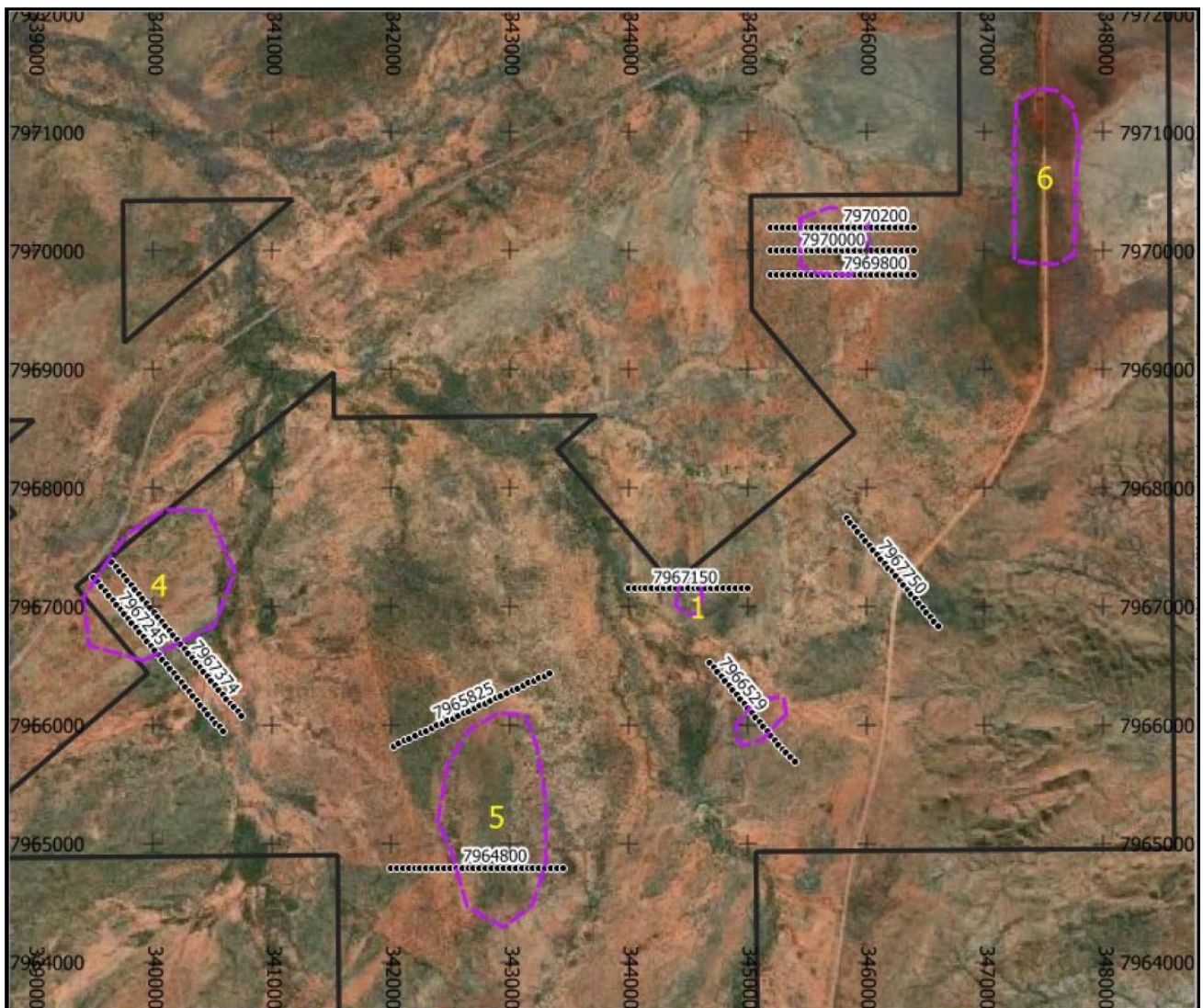


Figure 12: Finalised MLEM plan Koongie Park

#### Next Quarter agenda

The September quarterly exploration plan for the Koongie Park project includes following main objectives:

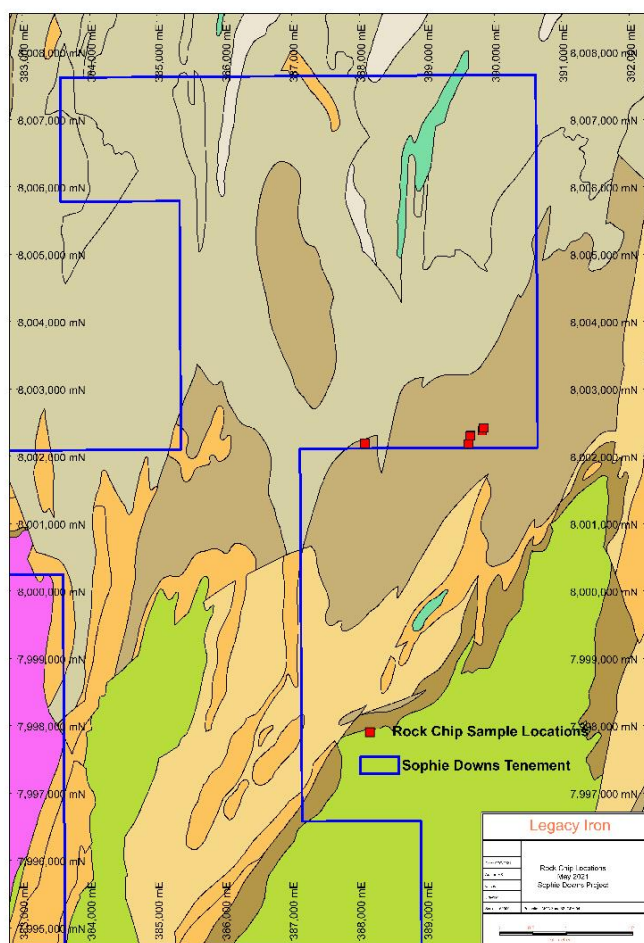
- Completion of Ground Geophysics Survey Moving Loop Electromagnetic (EM), over the six (6) geochemical anomalies for the next quarter.
- Commence Heritage survey if required for any proposed drill testing.

### **Sophie Downs (E80/5067)**

During the last quarter, the area was traversed for verification of historically reported graphite, gold, base metals, and tungsten mineralization. Rock chip samples were collected from the area and the samples were analyzed in SGS laboratory, Perth. Ground Electromagnetic survey was carried out in the part of tenement which has malachite exposure and returned good values for copper mineralisation in the area.

#### **Rock Chips sampling:**

A total of 6 rock chip samples were collected from the targeted part of the tenement, The rock chip samples were analyzed in the SGS laboratory, Perth for Gold by 40 gm fire assay and multi element suite using ICP-MS and ICPAES. The map showing the rock chip locations is given below as figure 13.



*Figure 13: Rock hip Location Sophie Downs*

Sample number SDR501 returned following assay values:

Au - 0.36 ppm, Cu - >5000 ppm, Pb- 2420 ppm, Zn - 4840 ppm

Sample number SDR502 returned following assay values:



Au - 0.26 ppm, Cu - >5000 ppm, Pb - 607 ppm, Zn - 2860 ppm

Sample number SDR503 also got assay of Cu as 2880 ppm.

The results of the rock chip sampling of the area have delineated a target for Cu-Pb-Zn in the eastern part of tenement and MLEM geophysical survey was designed and conducted during this quarter. The map below, figure 14, shows MLEM survey lines conducted during this quarter.

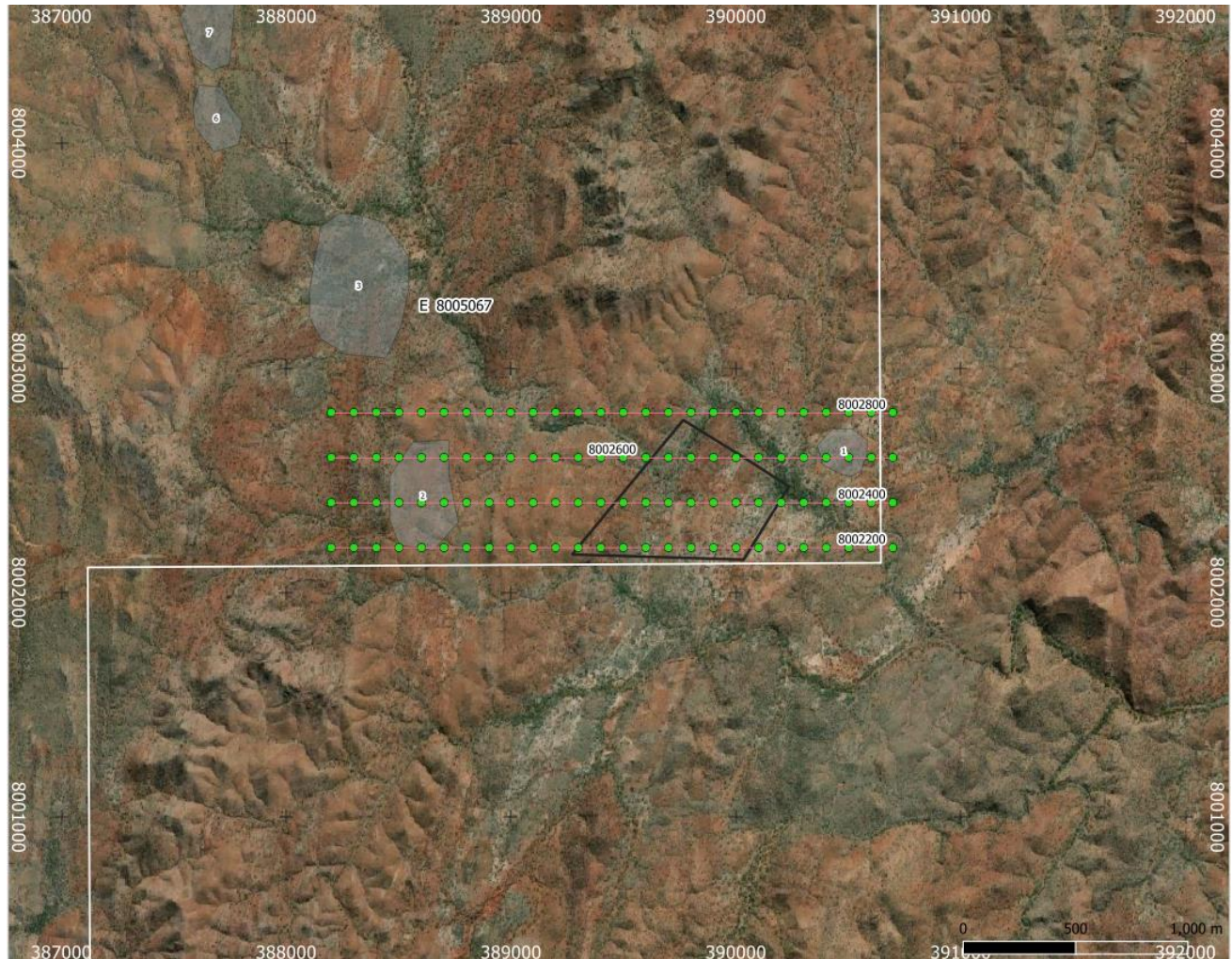


Figure 14: Geophysical survey (MLEM) lines Sophie Downs

The results of ground EM survey of the same area is awaited at the moment. The identified target would be followed up in the upcoming year.

### **Taylor Lookout (E80/5066)**

During the last quarter, field trip was undertaken in the tenement and the area was traversed to understand the geology of the project. Rock chip samples were also collected from the project from the identified target areas in the north and south of the tenement and they were analyzed at the SGS laboratory, Perth.

## Rock Chip Sampling:

A total of 21 rock chip samples were collected from the various parts of the tenement. The rock chip samples were analyzed in the SGS laboratory, Perth for Gold by 40 gm Fire assay and multi element suite using ICP-MS & ICP-AES. The map showing the rock chip locations is given as figure 15.

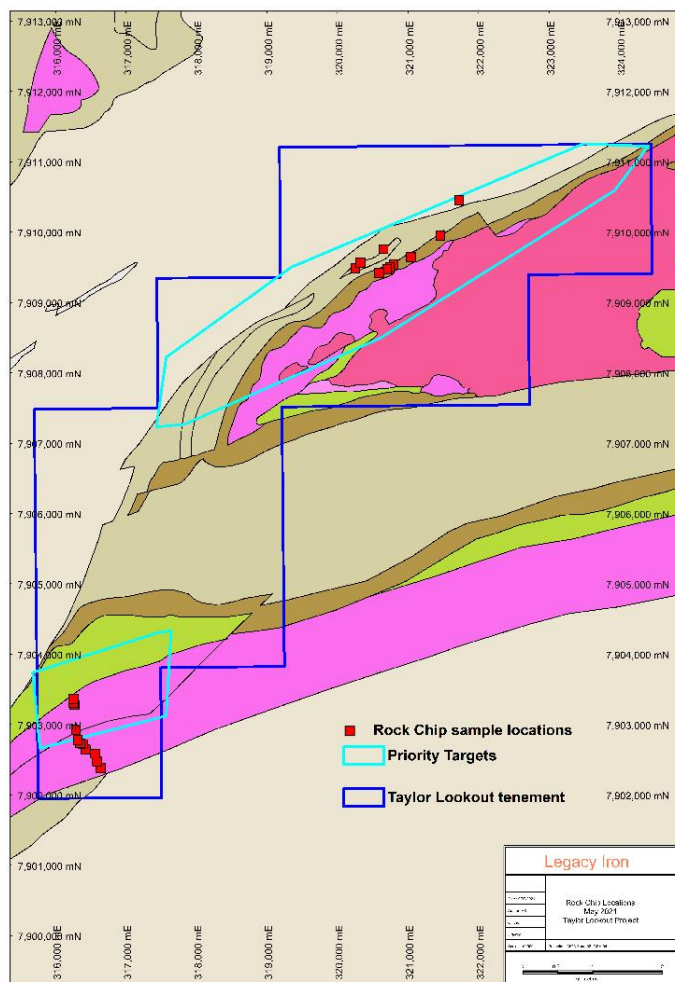


Figure 15: Map Showing Rock chip sample locations at Taylor Lookout

The assay results were not so encouraging with none of the samples returning major anomalous values for Gold, base metals, or Tungsten. There are plans for further exploration in the area for possible base metals and tungsten mineralisation by repeated surface sampling and geological traverses.

## Ruby Plains (E80/5068)

During the quarter, the area was traversed for identification and verification of historically located tungsten mineralization. Rock chip samples were collected from the tenement, and they were analyzed at the SGS laboratory, Perth.



## Rock Chip Sampling:

A total of 13 rock chip samples were collected from various parts of the tenement and the samples were analyzed at the SGS laboratory, Perth, for Gold by 40 gm Fire assay and multi elements suite by ICM-MS & ICP-AES. The map showing the rock chip locations is given below as figure 16.

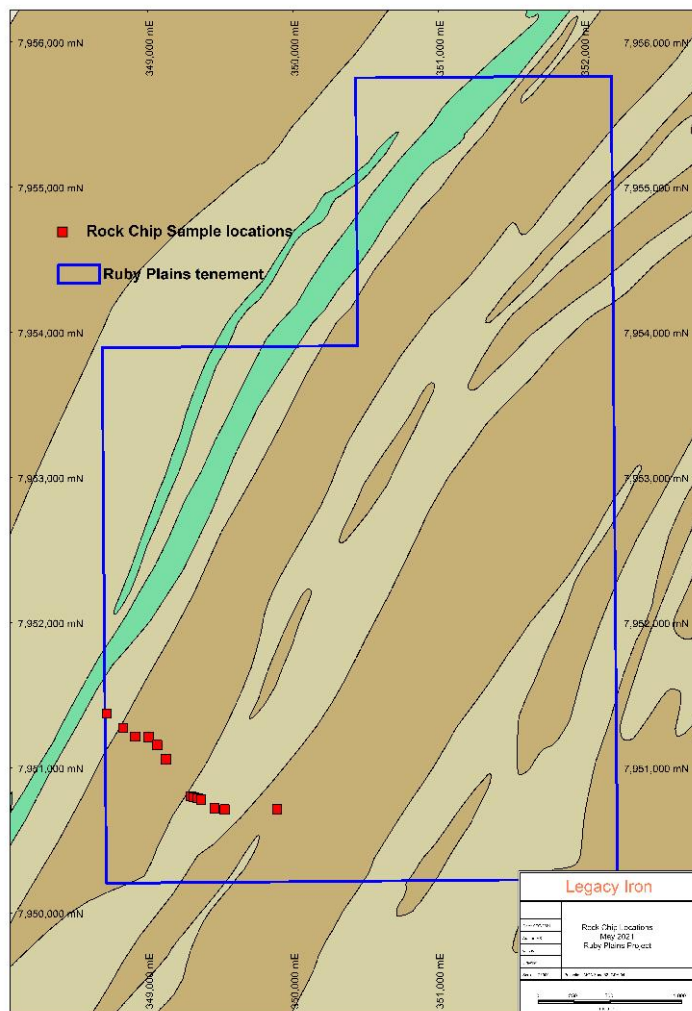


Figure 16: Map Showing Rock chip sample locations at Ruby Plains

The assay results were not so encouraging with none of the samples returning anomalous value for Tungsten mineralization.

The area is considered prospective for Tungsten mineralization based on the local geology of the area. Further works will be undertaken to narrow down the targets before drilling.

## **PLANNED ACTIVITIES – September 2021 quarterly period.**

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

### **Mt Celia project**

- Mining studies/ pit optimization work will continue during the next quarter.
- The Company continues to work through the required regulatory approvals including heritage studies and enter into agreement.
- Second phase IP Geophysics survey to be completed across Kangaroo Bore and Blue Peter deposits for new drill target generation.
- Planning of ore body extension drilling, approx. 1500m testing new targets based on results from the last round of drilling and geophysical IP survey.

### **Yilgangi**

- Follow up RC drilling is planned for September quarter, that includes 1500m RC to test known mineralisation at depth.

### **Koongie park:**

- Completion of Ground Geophysics Survey Moving Loop Electromagnetic (EM), over the six (6) geochemical anomalies for the next quarter.

### **Sunrise Bore:**

- Interpretation of assay results and follow up drilling planning.

### **Mt Bevan Project:**

- Interpretation of assay results and follow up planning.
- Potentially lodging ML application for the southern part of the tenement where Iron ore Resources exist.

### **Project Generation:**

- Continue to review new potential opportunities including Kangaroo Bore North

### **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.*