

## Quarterly Report

March 2022 Quarter

28 April 2022

Burley Minerals Ltd (ASX: BUR, 'Burley' or 'the Company') is pleased to provide the following update on its business activities during the March quarter.

### HIGHLIGHTS

#### Yerecoin Ni-Cu-Co-PGE Project

- Infill and extension Moving Loop Time Domain Electromagnetic (MLTEM) surveys have been planned across the key EM targets identified from the helicopter VTEM MAX<sup>TM</sup> survey
- Follow-up Reverse Circulation (RC) and/or Diamond Core drilling programs have been developed for the EM target(s), and pending the MLTEM survey results, will be modified accordingly.
- Historical drilling at Yerecoin South intercepted abundant serpentinised ultramafic rocks adjacent to the BIF over a strike length of ~3km. This is the priority 1 target for the Company.
- Land access compensation arrangements for access to the potential Ni-Cu-Co-PGE mineralisation zones are being advanced.

#### Yerecoin Iron Project

- Mineral Resources of 247 Mt @ 29.9% Fe (68.1% Fe concentrate grade)
- Burley has relocated the historical Diamond Core samples from previous drilling campaigns to a new location, and re-logging of drill core commenced.
- A strategic review of the optimal early mining/production rate verses long-term production rate, based upon logistics optionality and CAPEX/OPEX trade-offs is being advanced.
- An economic trade-off on the various mineralised deposits/domains based upon stripping ratios, access to infrastructure, ore body width/depth and in-situ head grade verses final concentrate grade has been completed.
- Drilling PoW's have been granted by DMIRS for two of the predominant iron ore domains located within the Yerecoin Main Deposits.
- Landholder engagement discussions are ongoing around priority mineralisation areas.
- Burley has received legal advice confirming both surface and access rights to for most of the Yerecoin Iron Resource for the purpose of undertaking Exploration Programs of Work, in accordance with Section 29 of the *Mining Act 1978* (WA).
- The location of the future metallurgical drill holes for PFS testwork and flowsheet development have been considered and incorporated into the PoW's.
- Currently large price premiums are being paid for high quality iron concentrates, with the CFR pricing of 62% Fe being US\$160/t – as of 08 April 2022. Burley's final product will attract a premium equivalent to 6 x Fe units, as compared with the 62% Fe Indices.
- A review of the Marketing opportunities and potential export/sales strategy for the high-grade magnetite product was conducted during the quarter
- The Project framework for the Preliminary Feasibility Study (PFS) was completed and a Gap analysis conducted.

### **Hamersley Iron Ore Prospects**

- The advancement of the three exploration licence applications (ELAs) for Broad Flat Well, Hardey West and Cane Bore – all 100% owned by Burley, have progressed well.
- A Conservation Management Plan (CMP) for the Cane Bore Tenement (ELA) was submitted to the Department of Biodiversity, Conservation and Attractions (DBCA).
- A Land Access Agreement with the pastoralist for the eastern portion of the Cane Bore Tenement was signed during the Quarter. Native Title Process is underway. A preliminary Exploration Program for Cane Bore has been developed.
- Land Access Agreements with Hamersley Iron and Robe River Mining were signed on 26 April 2022.

### **Corporate**

- Cash \$4.35M as of 31 March 2022:
- Tight capital structure (61M Shares only) and Market Capitalisation of \$7.6M as of 26 April 2022
- Wayne Richards was appointed Managing Director on 9 February 2022.
- Gary Powell resigned as a director of Burley Minerals Ltd 9 February 2022. Gary continues to provide geological and technical consultancy support to the Group.

## Yerecoin Ni-Cu-Co-PGE Project – 70% Burley

During the March 2022 quarter, Burley developed a Program of Works for a ground-based geophysics survey involving Moving Loop Time Domain Electromagnetic (MLEM) technology.

The survey and subsequent exploration activities will include follow-up RC and/or Diamond Core drilling of the anomalies.

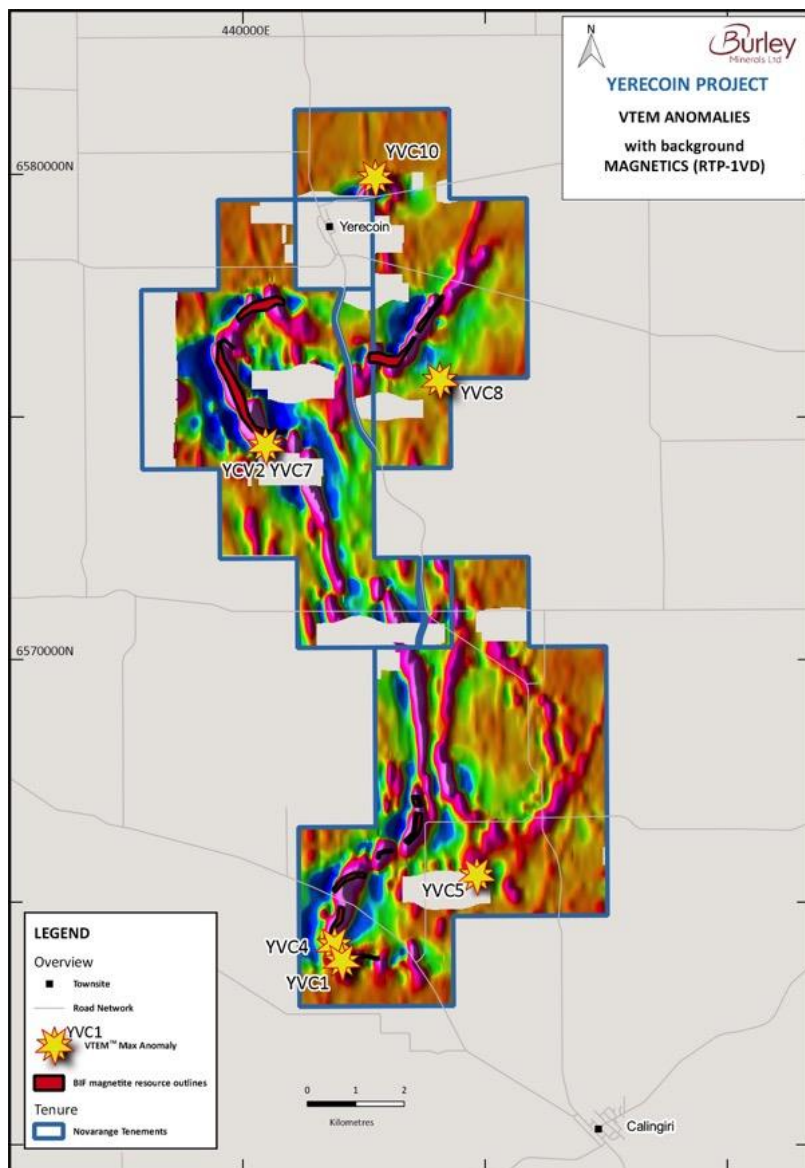
A 14-hole drilling program has been designed, pending interpretation of the detailed ground-based MLEM results. A PoW for the drilling program will be submitted to DMIRS in April 2022.

Landowner and Stakeholder engagement, discussions are ongoing.

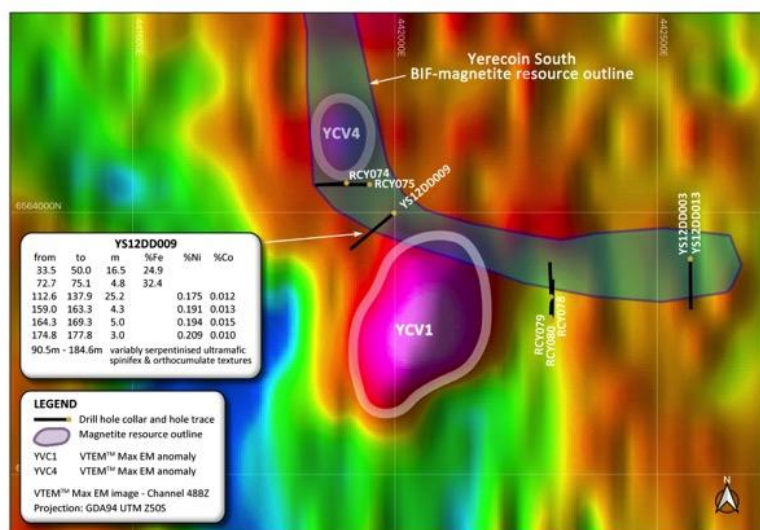
Analysis of the data from the Versatile Time Domain Electromagnetic (VTEM) survey conducted last year, identified eight significant electromagnetic (EM) conductors within Burley's tenements.

Initial priority targets for the Project will be YCV01 and YCV04 – as outlined in Figure 2.

YVC1 and YVC4 are in close proximity to the Yerecoin South BIF magnetite deposit. The closest drillhole to YVC1 (YS12DD009) drilled through the BIF sequence and intercepted ultramafic rock units beneath the BIF units. Historical assaying returned anomalous



**Figure 1. Yerecoin Project – Location of airborne VTEM geophysics conductors, prefixed 'YVC', overlying high resolution aeromagnetics image (RTP-1VD)**



nickel and cobalt values in variably serpentinised ultramafic units (Figure 2).

**Figure 2. Yerecoin South – Two VTEM<sup>TM</sup> Max EM anomalies located at Yerecoin South – historical low-grade nickel and cobalt assays from nearby diamond drillhole (YS12DD009). Not assayed for PGEs. Background image: VTEM Channel 48BZ**



Conditional approval by one of the Landowners associated with the Priority 1 Ni-Cu-Co-PGE target has been agreed.

During the quarter, the Company completed the relocation of the historical diamond drill core samples (refer Figures 3 and 4) from 33 historic holes and commenced the re-logging of the core to further evaluate the ultramafic units intersected as part of investigating the Ni-Cu-Co-PGE potential.



***Figure 3: Burley Technical & Geological Team assessing Diamond Drill Core Samples***



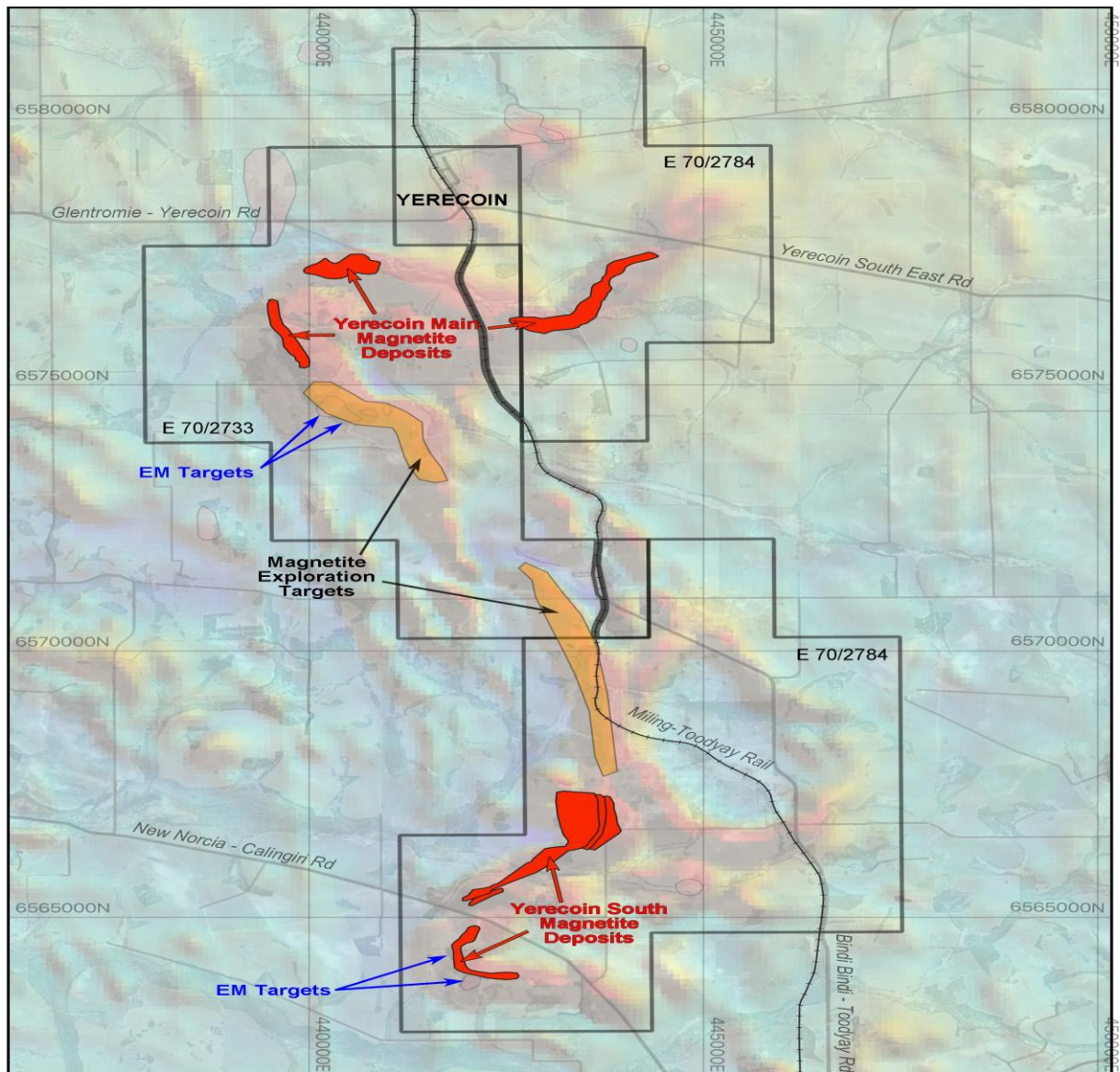
***Figure 4: Relocation of Diamond Drill Core Samples from Yerecoin Deposits***

## Yerecoin Iron Project - 70% Burley

Burley has progressed and agreed the framework design of the Pre-Feasibility Study (PFS) for the Yerecoin Iron Project, which contains an inferred magnetite resource of 247Mt, with the potential to produce a >68% Fe final Product.

Early-stage analyses of the historic data, accompanied with preliminary discussions with logistics contractors have commenced.

Exploration Programs and reflective PoW applications have been prepared and submitted to DMIRS for 3 of the 4 key Iron Ore Targets retained within the Yerecoin Main deposits. Refer highlighted sections in red in Figure 5.



**Figure 5: Yerecoin Project Magnetite Resource Area(s) and potential Ni-Co-Cu-PGE Mineralisation**



## **Metallurgical Review & Prefeasibility Study Advancement**

A review of the significant historical metallurgical testwork programs and an evaluation of the proposed process flowsheet(s) presented in earlier studies, has been completed.

A future metallurgical sampling and analysis program was developed and costed with a metallurgical consultancy and testing group (IMO - Everything Metallurgy).

Based upon the availability and quantum of previous core sample and further domain interpretation drilling required, the metallurgical program will commence once both representative samples (old and new) of early production can be sourced. The program will acknowledge previous studies and look at both a dry and wet processing plant, to determine the optimal Project economics, preferred logistical solution(s) and CAPEX/OPEX trade-offs.

The process design criteria will be utilised to determine the optimal Flowsheet design, reflective of the best overall Project economics based upon feed grade (Fe%) at the ROM, Fe throughput and net material recoveries, simplicity of flowsheet/upgradability of the ore, and final Product Fe Grade, including deleterious impurity levels. The final product Fe Grade will be economically modelled against Project Capital expenditure and Operating (C1) costs and the distribution and marketability of the superior final product. A component of this analysis will be the determination of the optimal final product particle size, and whether the product could/should be suitable for future value-enhancing and increased marketability, palletisation. Currently, the coarse grain nature of the Yerecoin magnetite deposit(s), result in a coarser grind size final product associated with the production of a >68% Fe product – without the energy and capital intensity of other magnetite deposits/Projects.

The PFS Resource development work associated with the recent DMIRs' approved PoW's, is aimed at increasing the geological understanding and interpretation of the ore bodies, improve geotechnical and geochemical understanding of the resource, and to expand the resource from the Inferred to the Indicated categorisation.

An initial Marketing Strategy was considered with a Consultancy group familiar with the shipping and pricing structure for magnetite products. The Group has also recently assisted with other, smaller iron ore start-ups. The final product Fe Grade, particle sizing and export quantities will determine the ultimate marketing strategy and potential markets where the final product will attract the best economic sale price and sustainability of revenue.

A review of the timeline and processes associated with Mining and Environmental approvals, has been completed and scheduled.

A forward-looking Fiscal Year Budget (2022/2023) for Exploration activities has been developed.

## **Geological Resource**

A re-evaluation of the Mineral Resource Estimates developed by Cliffs (2012) and Radar Iron (2015) was finalised during the quarter.

Enhanced mapping and relogging of the historical diamond drill cores to assist in the geological interpretation and domaining of the stratigraphy and mineralisation, commenced in the quarter to identify key parameters for future domaining and resource estimation work. This work has already contributed to a better understanding of the nature of the mineralisation and strategic planning of future drilling to upgrade the resource base to Indicate status.

The historical drilling data has been unarchived and imported into an Expedio database – for future database management, providing QA/QC control for future interpretations and resource estimations. Expedio had previously maintained the Yerecoin database for both Giralia and Cliff's

## Stakeholder Engagement

Burley continued to engage with key landowners' and community stakeholders during the quarter. Several field trips to the properties and landowners' homesteads or premises were undertaken.

Burley has continued to seek the finalisation of additional Land Access and Compensation Agreements (LACA's) with Landowners'. Burley has received legal advice confirming both surface and access rights to most of the Yerecoin Iron Resource for the purpose of undertaking Exploration Programs of Work, in accordance with Section 29 of the Mining Act 1978 (WA).

## Schedule and Path Forward

The Company has planned a series of drill programs and has lodged three Program of Work (PoW) applications, with The Department of Mines, Industry Regulation and Safety (DMIRS) for the Yerecoin Main deposits located within E70/2733 and E70/2784. Two of the three PoW applications have been approved and the third application was submitted on 20 April 2022.

One PoW has been approved by DMIRS for a 33-hole RC ( $\pm$ diamond (DD)) drilling program over one of the Yerecoin Main deposits located within E70/2733. A second PoW has been approved by DMIRS for a 52-hole RC ( $\pm$ DD) drilling program over one of the Yerecoin Main Iron Ore deposits, located within E70/2784 and E70/2733.

The third PoW application is pending approval by DMIRS for a RC ( $\pm$ DD) drilling program over the remaining high-priority deposit of the Yerecoin Main deposit area, located within E70/2733.

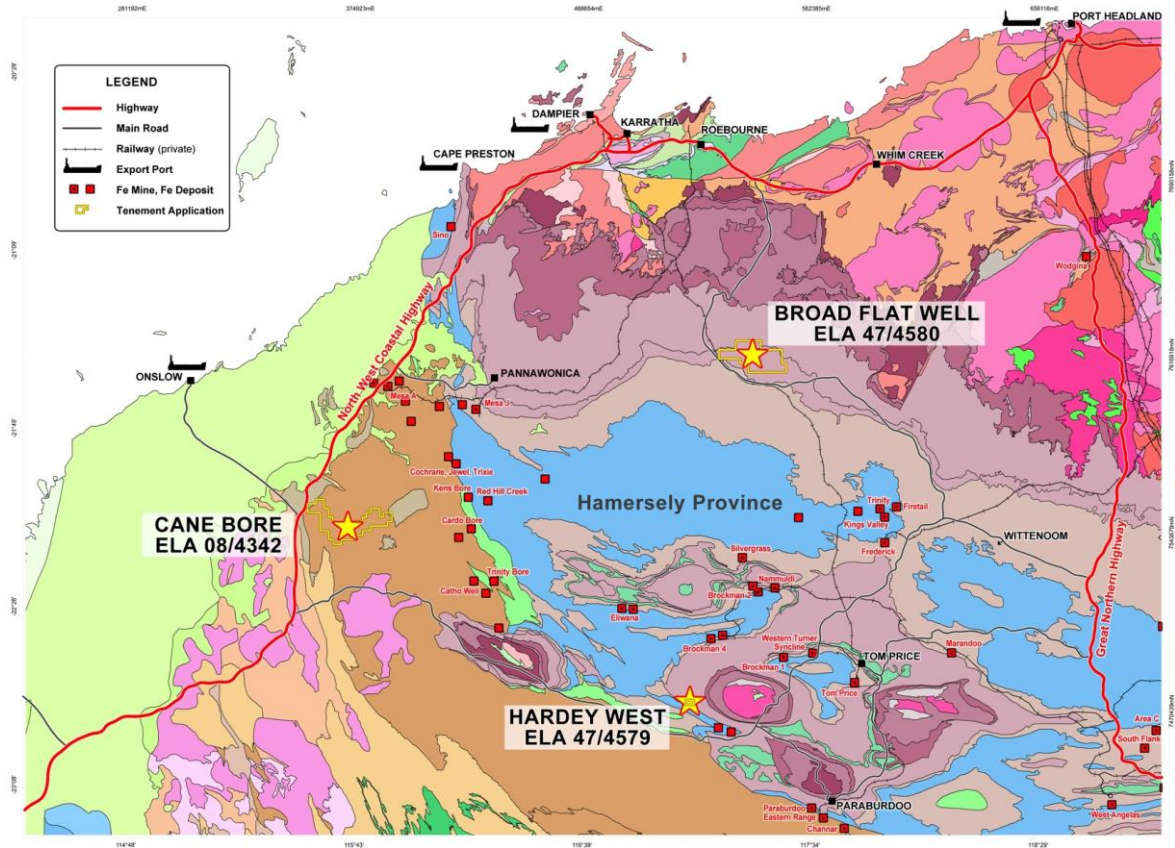
Collectively the three key magnetite resource areas are targeted for infill drilling to provide sufficient metallurgical samples, geological/morphological/physical characterisation data and upgraded Resource categorisation.

## YERECOIN MAGNETITE IRON PROJECT SUMMARY:

- JORC 2012 compliant magnetite resources of 247 Mt @ 29.9% Fe (68.1% Fe concentrate grade)
- Highly favourable coarse grind size of 106 micron significantly reduces plant size and energy costs
- Premium iron concentrate product suitable for sinter feed with low impurity level
- Currently large premiums for high quality iron concentrates of 68% Fe
- Potential mining and processing options evaluated by significant historical studies
- Multiple infrastructure options for exporting iron product being reviewed and reassessed based upon current port and rail/road logistics opportunities

## Hamersley Iron Ore Prospects – 100% Burley

During the quarter, Burley advanced varying approvals, applications and Management Plans associated with the three current Exploration Licence Applications (ELA's) in the Hamersley Iron Ore Province of Western Australia, being the world's largest iron ore production province.



**Figure 6: Location plan – Exploration Licence Applications Cane Bore, Broad Flat Well and Hardey West Prospects in relation to operating iron mines, major iron deposits, road, and port infrastructure**

The Broad Flat Well and Cane Bore ELA's cover outcropping Channel Iron Deposit (CID) mineralisation and the Hardey West ELA contains prospective stratigraphy for Bedded Iron Deposit (BID) mineralisation and is also prospective for base metal mineralisation.

All applications are near significant infrastructure, such as main roads, townsites and port facilities. The ELA's were lodged as part of the Company's ongoing project generation strategy of developing a pipeline of projects by reviewing and acquiring projects that have the potential for early resource definition and development.

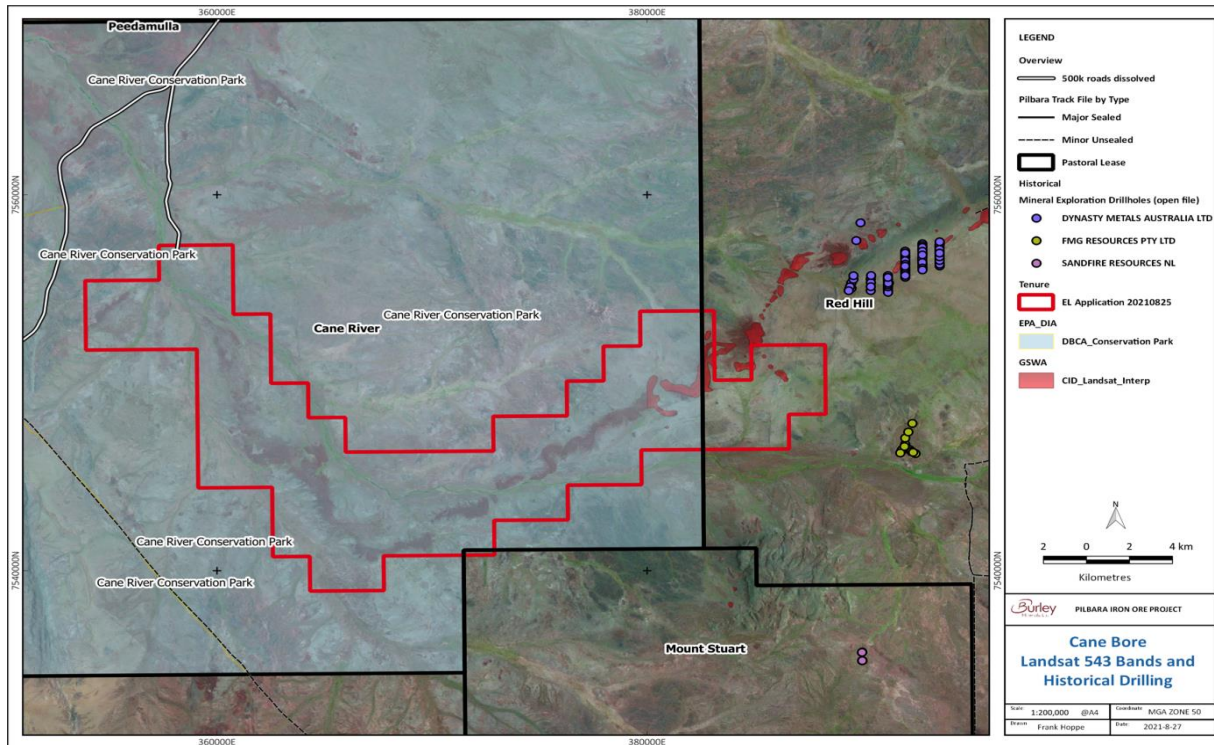
### Cane Bore - ELA 08/3424 - 100% Burley

Exploration Licence application ELA 08/3424 is located directly east of the intersection of the Onslow Main Road with the Northwest Coastal Highway, and centred some 90km south-west of Pannawonica, 90km south-east of Onslow and its port facilities and 150km and 240km via the Northwest Coastal Highway from Cape Preston and Dampier Port Facilities respectively (refer Figure 6). Landsat 8 (bands 5,4,3) highlight the remnant CID palaeochannel quite clearly, in the centralised region of the 100% - owned Burley tenement (refer Figure 7).

The ELA has been further progressed with the submission of a Conservation Management Plan (CMP) for requested exploration activities within the ELA. This CMP was submitted to Department of Biodiversity, Conservation and Attractions (DBCA) on 30 March 2022.

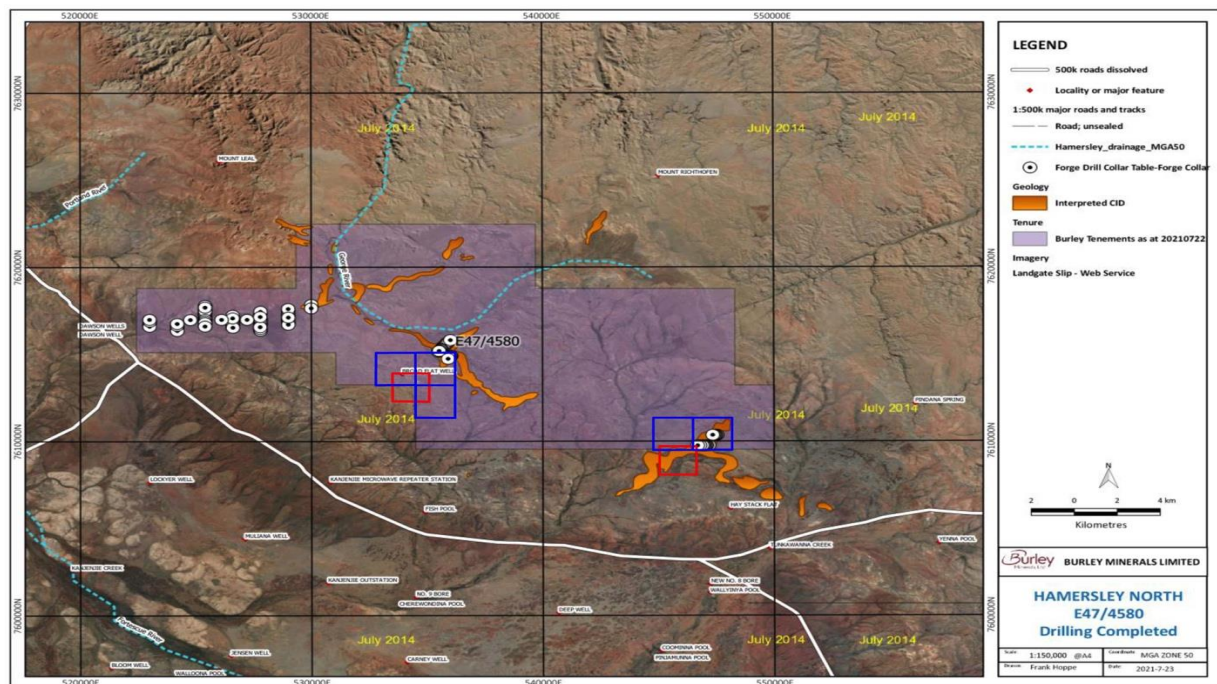


An Access Deed with the pastoralist was signed during March, thereby approving access to the tenement, subject to the CMP approval (pending). The first drilling programme will be considered, once early-stage mapping and rock-chip sampling has been completed.



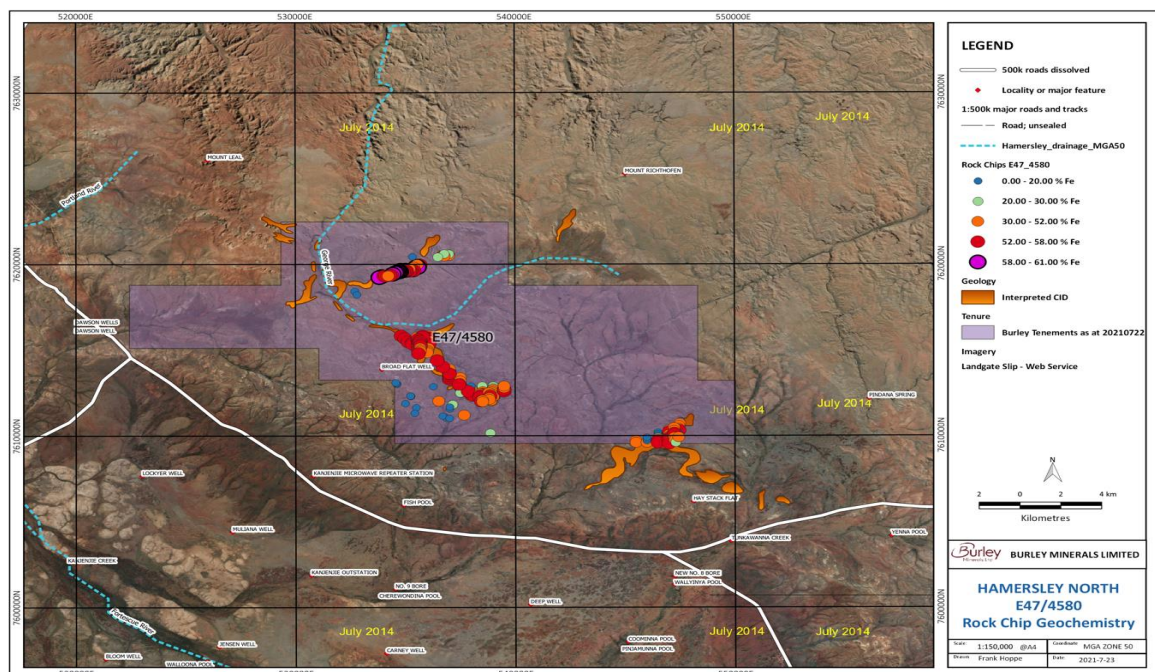
### Broad Flat Well – ELA 47/4580

Exploration Licence application 47/4580 covers an area of approximately 223km<sup>2</sup>, with the geology dominated by numerous remnants of mid-Miocene Channel Iron Deposits (CID) related to the Fortescue River palaeodrainage located within the application area.



CID mineralisation occurs as scattered, dissected outcrops along the Fortescue River valley. The eroded outcrops are remnants of an extensive network of CID deposits, which are found in tributary channels of the ancestral Fortescue River. Rock-chip sampling (refer Figure 9) conducted by API from 2006 to 2008, returned iron results typical of those from surface sampling of CID throughout the Pilbara with **results ranging up to 61.5% Fe** (refer ASX: BUR announcement “Burley applies for Exploration Licences for Iron Ore in the Hamersley Province” dated 23<sup>rd</sup> September 2021).

During the March quarter, two Deeds of Access and Indemnity with Rio Tinto Iron Ore subsidiaries, Robe River Mining Co. Pty. Ltd and Hamersley Iron Pty. Limited, were executed. A preliminary exploratory program of works will be developed in the ensuing quarter, subject to geological priorities for the Company and access to the tenement.



**Figure 9: Summary of Rock Chip Geochemistry (previous mining Groups)**

### Hardey West - ELA 47/4579

Exploration Licence application E47/4579 covers approximately 470 hectares, located some 70km west south-west of Tom Price (Refer Figure 4). Access from Paraburdoo townsite is just 72km westwards via the sealed Paraburdoo and Nanutarra Roads and a further 18km on unsealed Cheela Plains' station track.

Geology is dominated by mafic volcanics and volcanoclastic sediments of the Bunjina and Jerrinah Formations but includes **Brockman Iron Formation** stratigraphy (refer ASX: BUR announcement “Burley applies for Exploration Licences for Iron Ore in the Hamersley Province” dated 23<sup>rd</sup> September 2021). It is the **latter which hosts the major iron ore deposits in the Pilbara Region** of Western Australia.

Exploratory and interpretative programs of work need to be conducted to assess both the iron ore and base metal prospectively of this tenement.

### Corporate – Strong financial position

Burley had cash of \$4.35 M as at 31 March 2022 and currently has a tight capital structure with 61 million ordinary shares and market capitalisation \$7.6 M.



Mr Richards was appointed the Managing Director of Burley Minerals and an Executive Director of Novarange Pty Ltd on 9 February 2022.

During the Quarter, Mr Gary Powell resigned as an Executive Director of Burley Minerals. Gary continues to provide geological and technical consultancy to the Group.

#### **ASX Lifting Rules 5.3.4 and 5.3.5**

In accordance with Listing Rule 5.3.5, Burley advises that payments made to related parties as advised in the Appendix 5B for the quarter ended 31 March 2022 were as follows:

- \$100k for Director fees; and
- \$27k for company secretary and accounting services.

In accordance with Listing Rule 5.3.4, as the March 2022 quarter was in a period covered by a 'use of funds' statement in the IPO Prospectus, below is a comparison of the Company's actual expenditure to 31 March 2022 against the estimated expenditure in the 'use of funds' statement in the Prospectus (differences are primarily due the Company only being nine (9) months into its planned two-year expenditure program):

<b>Use of funds</b>	<b>Per IPO Prospectus (2-year period) \$</b>	<b>Actual expenditure up to 31 March 2022 \$</b>
Exploration of Yerecoin magnetite deposits	2,266,200	247,596
Exploration of Yerecoin Ni-Cu-PGE Project	927,350	249,758
Acquisition and stamp duty	536,815	199,000
General working capital <ul style="list-style-type: none"> <li>• Administration</li> <li>• New projects</li> </ul>	2,074,258	661,731 50,615
Estimated expenses of the Offer	664,215	483,802
<b>Total</b>	<b>6,468,838</b>	<b>1,892,502</b>

This announcement has been authorised for release by the Board of Burley Minerals Limited.

For further information, please contact:

**Bryan Dixon**  
**Non-Executive Chairman**  
**Burley Minerals Limited**  
**+61 (8) 3228 6283**  
[bryan@burleyminerals.com.au](mailto:bryan@burleyminerals.com.au)

**Wayne Richards**  
**Managing Director and Chief Executive Officer**  
**Burley Minerals Limited**  
**+61 (8) 3228 6283**  
[wayne@burleyminerals.com.au](mailto:wayne@burleyminerals.com.au)



## About Burley Minerals

Burley Minerals Ltd is an ASX-listed Iron Ore and Base Metals explorer. The Company completed a successful listing of the Company on the Australian Securities Exchange on 7th July 2021. The Company's flagship project is the Yerecoin Magnetite Project located approximately 120km northeast of Perth, Western Australian which has a JORC 2012 compliant Mineral Resource of 247Mt of magnetite iron ore, capable of producing a concentrate at >68% Fe. Various studies have been completed by previous tenement operators, including various production scenarios as well as evaluations of infrastructure solutions. Burley is now progressing a Preliminary Feasibility Study (PFS) on the magnetite mineral resources.

In addition to the development potential of the Yerecoin Magnetite deposits, there has been some recent exploration successes within the Jimperding Metamorphic Belt, including Chalice Mining's Gonneville discovery. Given these recent exploration successes, and the knowledge that Co-bearing Ni-Cu sulphides have previously been identified within Yerecoin's ultramafic rocks, Burley believes the geological setting and prospectivity of the Yerecoin Project are analogous to the Julimar-Gonneville discovery setting and represent an opportunity for the discovery of Ni-Co-Cu-PGE mineralisation.

### Tenement Schedule as of 31 March 2022:

Tenement	Project	31 Dec 2021 % interest	31 Mar 2022 % interest
E 70/2733	Yerecoin Project, Western Australia	70%	70%
E 70/2784	Yerecoin Project, Western Australia	70%	70%
ELA 08/4342*	Cane Bore, Hamersley, Western Australia	100%	100%
ELA 47/4580*	Broad Flat Well, Hamersley, Western Australia	100%	100%
ELA 47/4579*	Hardey West, Hamersley, Western Australia	100%	100%

\* Exploration Licence Applications

### Competent Person's Statement

*The information in this report that relates to exploration results is based on, and fairly represents information and supporting documentation compiled by Mr. Gary Powell, a Competent Person, who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Powell is a Geological and Technical consultant, shareholder, and former director of Burley Minerals Limited and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Powell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

*The Yerecoin Main and South Mineral Resource Estimate was reported in 2014 under the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". The Mineral Resource Estimate was detailed in refer to Prospectus dated 27 May 2021 Section 10 for the Independent Technical Assessment Report.*

*The Company is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the data in the relevant market announcements continue to apply and have not materially change.*