

29 April 2019

## Company Announcements

Australian Securities Exchange Limited  
Level 40, Central Park,  
152-158 St Georges Terrace  
PERTH WA 6000

# QUARTERLY ACTIVITIES REPORT PERIOD ENDING 31 MARCH 2019

Ironbark Zinc Limited ("**Ironbark, the Company**") (ASX: IBG) hereby provides a report on its activities for the period ending 31 March 2019.

Ironbark is currently focused on securing a financing solution for the Citronen base metal project, one of the largest global zinc development projects. Ironbark is working with the assistance of Cutfild Freeman & Co. in discussions with relevant groups. These discussions remain ongoing and subject to confidentiality agreements. In addition, some of the proposals are subject to the completion of other parts of the total financing package which make it difficult to disclose conditional and incomplete arrangements or accurately predict timing. We recognise this is frustrating however Ironbark has, thus far, achieved everything that it has sought to complete in the development of the project and is striving to achieve this next financing step in its aspiration to become a major mine operator.

The Citronen project is:

- One of the largest zinc resources in the world and remains open ended to further mineralisation
- Permitted under a 30 year Mining Licence and 100% owned
- Low Sovereign Risk
- Completed Feasibility Study
- Simple processing/quality product
- The zinc market and price remain strong and is supported by exceptionally low levels of zinc warehouse levels

The zinc price is strong and with a granted Mining Permit over one of the largest zinc deposits in the world and current Feasibility Study – the current resource stands at 70.8Mt @ 5.7% zinc + lead using a 3.5% zinc cut-off (Measured 25Mt, Indicated 26.5Mt and Inferred 19.3Mt) which compares favourably against a global average underground primary zinc mine head grade of 4.9% zinc (S&P Global, October 2018). This places the Citronen project as a globally significant,

open ended in terms of actual size, unmined asset that is uniquely well-placed moving forward to achieve long life and large-scale production.

The Company is now working hard to secure finance in order to develop the large scale Citronen zinc project. The indicative financing structure and plan continues to target long term debt to be provided by major international banks, Private Equity financing and Export Credit Agencies with a debt target of US\$300 million. Ironbark is working with several groups who are interested in forming part of the financing package with the possibility of additional streaming financing. In addition, equipment financing has the potential to provide another ~US\$150 million towards the total financing package. The residual equity will need to include financing costs and working capital facilities.

The equity requirement, with respect to the current relatively low market capitalisation, remains the largest challenge and Ironbark is aggressively seeking a strategic investment/joint venture partner at the project level. Ironbark has recently been advised that the appointment of a lead bank will require further clarity around the equity financing pathway or support regarding a joint venture/equity component. The overall equity number is considered reasonable in the context of the project.

Our hope and our expectation is that forming a strategic partnership or financing package will also support a stronger share price to assist in acquiring the equity component and the team is working hard on this strategy. Ironbark is unable to provide certainty around the timing or outcome around a strategic partner but recognises that this would provide a strong catalyst towards achieving Ironbark's objectives.

## Other Updates

Ironbark has strongly reduced its operating costs, and this will assist in preserving the funds held. This necessary course has not reduced the work and effort being employed to deliver a financing solution.

## Board Nominee Resignation and Update

Ironbark provided further disclosure regarding the resignation of David Kelly, a Glencore International AG (**Glencore**) nominee, as a director of the Company. Concurrent with the notification of Mr Kelly's resignation (which was announced to ASX on 8 October 2018), Ironbark received from Glencore a request for Ironbark to appoint a replacement Glencore nominee director.

As previously reported, the Board of Ironbark decided not to appoint a replacement Glencore nominee director to the Board of Ironbark and Ironbark informed Glencore of that decision. Glencore provided notice to Ironbark that it:

- considers it has a contractual right to appoint a nominee director to the Ironbark board;
- requests the immediate reinstatement of a nominee director; and
- reserves its rights in relation to the matter.

Ironbark disputes that Glencore has a contractual right to an ongoing Board position. Glencore has referred the matter to arbitration which is underway. Ironbark intends to defend the claim.



## Captains Flat Project Update

Ironbark announced that the Heli-SAM electromagnetic survey was successfully completed at the Jerangle Prospect within the Captains Flat base metals project.

Geophysical group, Gap Geophysics completed a HeliSAM electromagnetic (EM) survey over the proven large-scale Jerangle Prospect at Captains Flat (Figure 1). Preliminary interpretations show anomalies in several adjacent loops indicating the presence of a large, broad bed rock anomaly. Results from Loop 5 are shown in Figure 2 where there is a clear broader bedrock anomaly apparent on the north east section, at approximately 713,500mE and at depth. The broadening wavelength on the northern side of the anomalism would suggest some degree of plunge/deepening in the northerly direction.

The interpretation of the data is ongoing with a final report with drill targets expected shortly.

The Captains Flat project hosts the historic and significant Lake George Mine as well as numerous highly prospective exploration targets.

Ironbark and NSW Base Metals, the joint venture partner, have already enjoyed historic exploration success with significant base metal intercepts returned from the Jerangle Prospect earlier drilling and look forward to continuing their work on this significant and underexplored proven high-grade base metals province. The geophysical survey is hoped to better identify and detail the location, scale and geometry of the identified mineralisation.



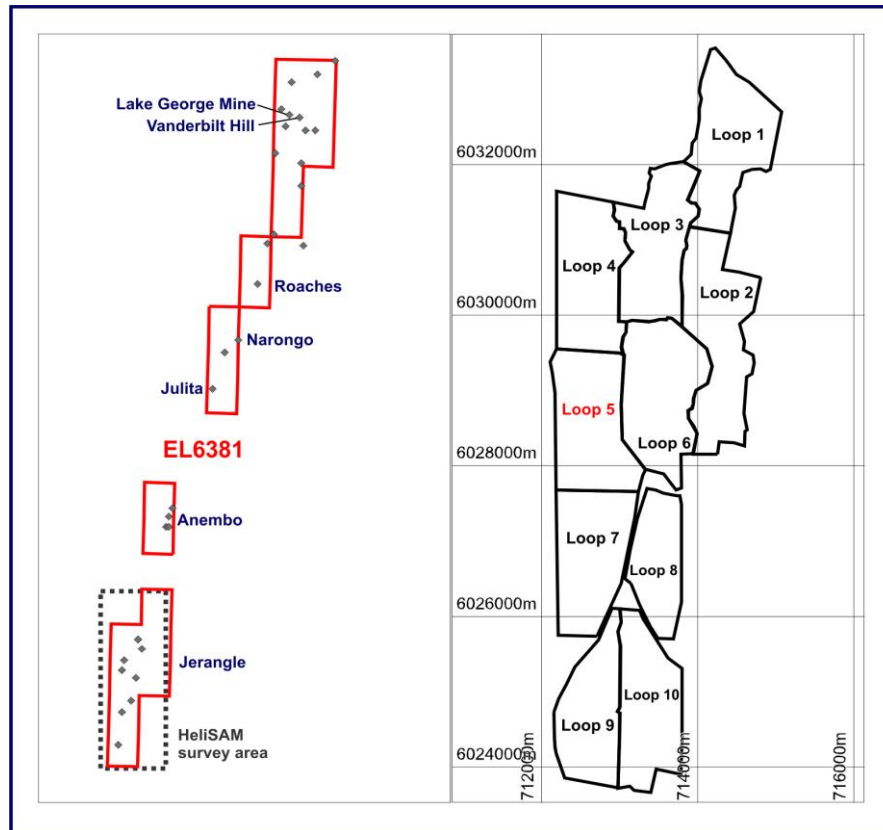


Figure 1: Exploration Licence 6381 showing prospect locations and the location of the HeliSAM survey at the Jerangle Prospect (left) and individual loop locations (right).

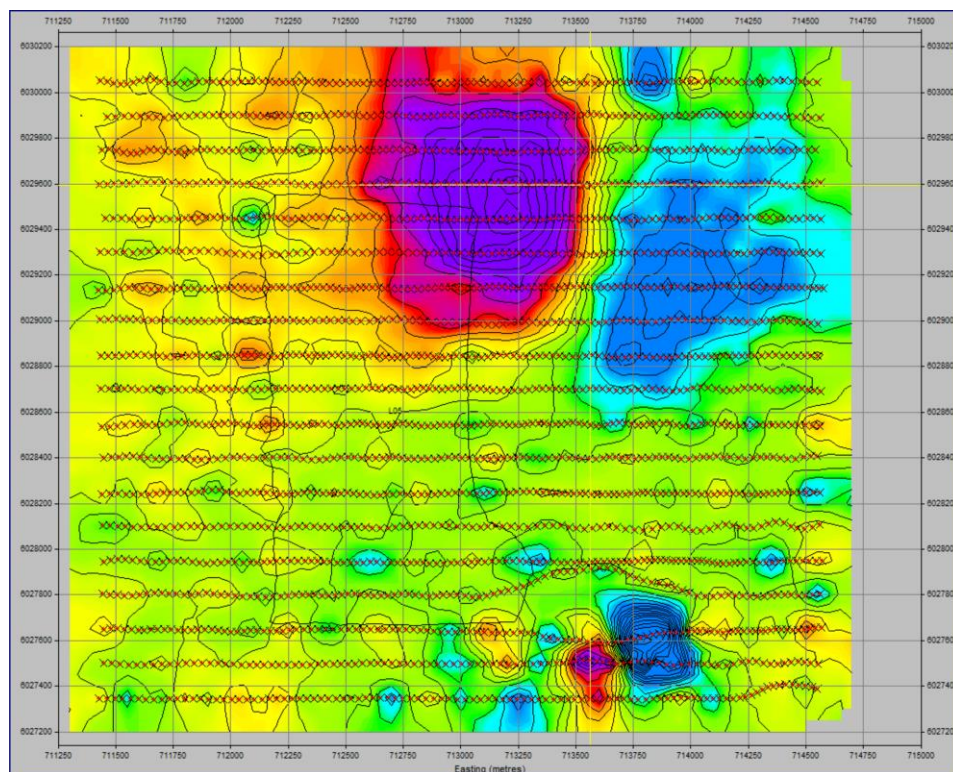


Figure 2: Preliminary results from Loop 5 of the HeliSAM survey showing broad bedrock anomalism.

## ABOUT THE CAPTAINS FLAT BASE METAL PROJECT

The Captains Flat Base Metal Project is located 45km south east of Canberra in New South Wales. The Project covers a strike length of 49 kilometres of a highly prospective volcanics which host the historic Lake George Mine.

Historic drilling has returned high grade copper and zinc drill intercepts over numerous prospects. Drilling by Ironbark also returned high-grade base metal results that warrant follow-up. Some of the identified targets that warrant follow up include:

- **Lake George Mine**

The high-grade Lake George Mine produced approximately 4Mt of ore at 10% zinc, 6% lead, 0.7% copper, 1.8 g/t gold and 55 g/t silver and remains prospective for remnant ore at current base metal prices as well as at depth where results such as 1.22m @ 12.4% zinc, 5.4% lead were returned beneath historical workings over a strike length of at least 300 metres from diamond drilling. Mineralisation is open at depth and may represent possible repeats of the historically mined areas.

- **Vanderbilt Hill**

The Vanderbilt Hill prospect is located to the east of the Lake George Mine and drilling has returned results such as 3.9m @ 10% zinc, 5.3% lead. The prospect is considered to be highly prospective with open ended historic high-grade drill results yet to be followed up.

- **Anembo Prospect**

The Anembo Prospect is located 12km north of the Jerangle prospect. Historic drilling returned 3m @ 6.9% Zn, 5.5% Pb, 21g/t Ag & 2g/t Au which has not been followed up.

## Citronen Project Expansion

Ironbark expanded the project region held under licence application to dominate the district (Figure 3). The Licence was granted on 18<sup>th</sup> February 2019.

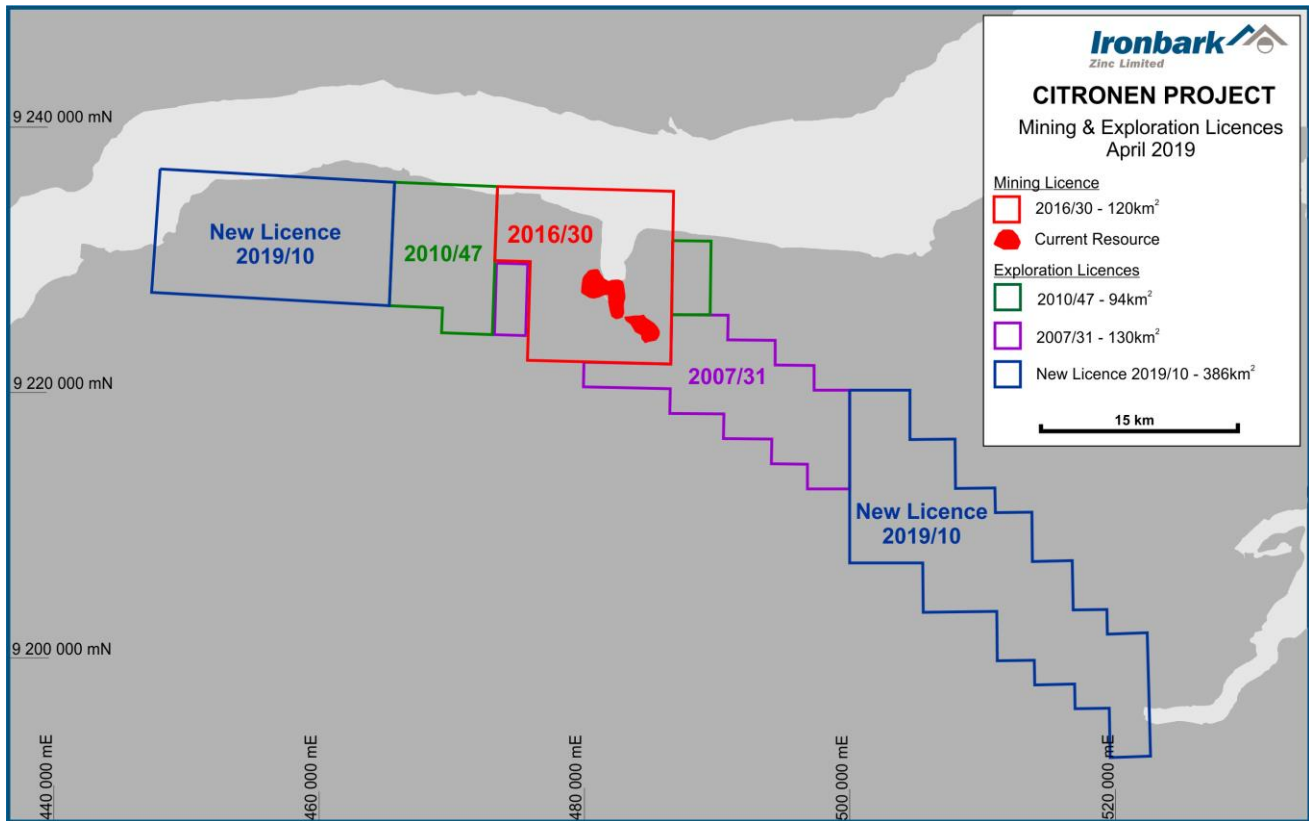


Figure 3: Citronen Expanded Licence Application.

The Citronen project remains open ended at depth (repeat lodes), laterally and on strike. Mineralised outcropping gossans identified in the far North West ("The Western Gossans") occur over an extensive region overlying the interpreted source fault that follows the trend of the licence. This new licence application covers the identified areas that are considered prospective and the trend of the Western Gossans (Figure 4).



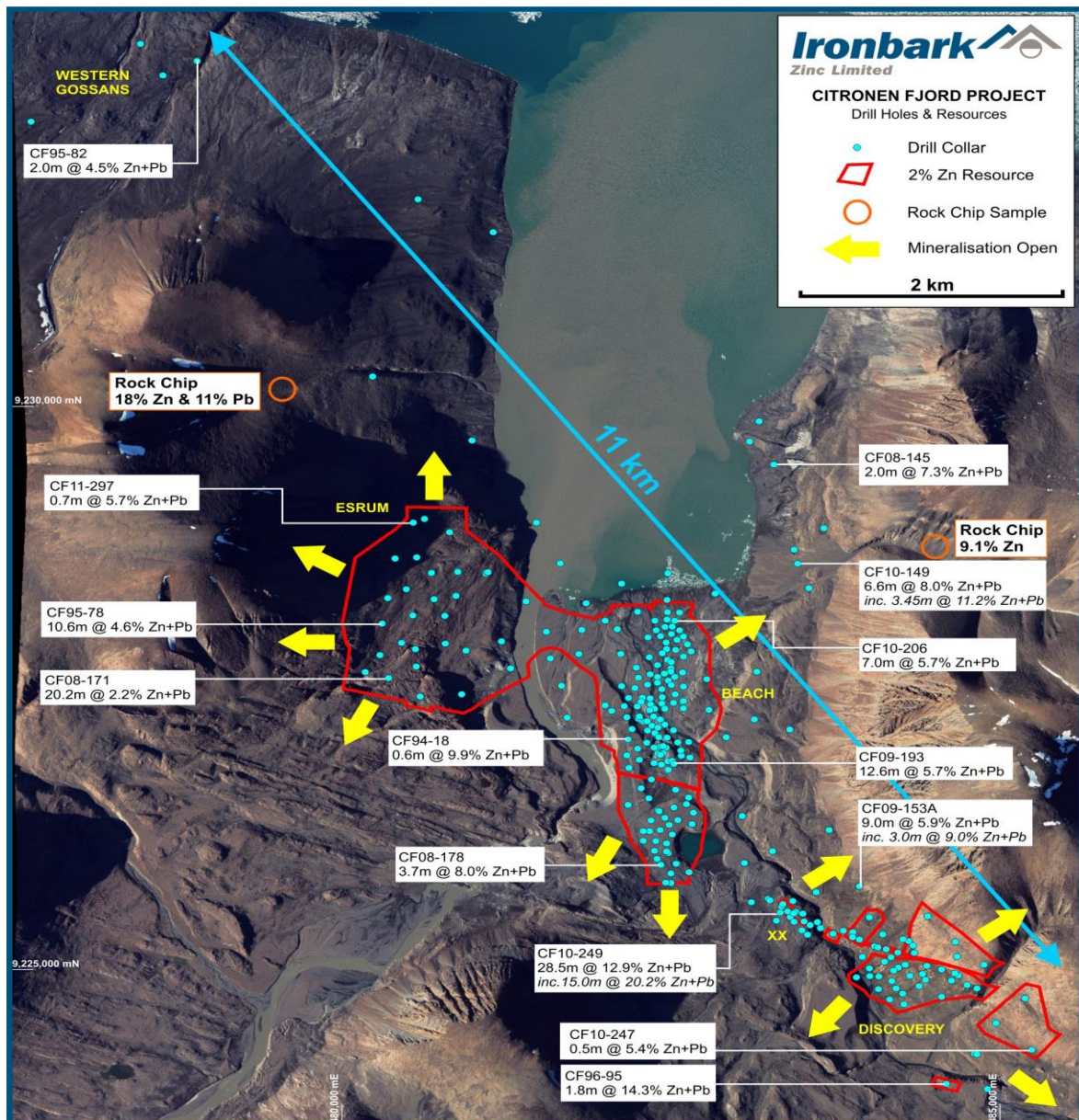


Figure 4: Plan view of the Citronen Project.

## Zinc Market Update

The zinc price remains very strong and supportive for the development of Citronen. Despite the ongoing global volatility and international trade uncertainty, the growing critical shortage of zinc held in stockpiles has reached lows not seen in nearly 20 years (Figure 5). Some very recent stockpile rises have raised questions regarding the extent of stockpiles held outside the London Metal Exchange (LME) and Shanghai Futures Exchange (SHFE). At the time of writing the zinc price (Figure 6) has shown some recent volatility (in line with most metals) and there has been speculation about growing stockpiles of unrefined zinc concentrates awaiting the restart of, mostly Chinese, idled smelter capacity. This reported increase in unrefined levels of zinc concentrates has supported a recent rise in treatment charges and it has been suggested that the deficit situation and low levels of global refined zinc may be shorter lived than previously expected. It is difficult however to gauge the accuracy of the reported levels of zinc concentrates. Since the date of the last quarter until the date of this report, the zinc stockpiles held in the London Metal Exchange (LME) have fallen to approximately 70,000 tonnes at the time

of writing, which is a reduction from the preceding quarter. The Shanghai Futures Exchange (SHFE) and LME zinc stockpiles are currently less than a week's global average consumption. This very tight market bodes well for ongoing zinc market tightness and the zinc price.

New mine production forecasts have typically exceeded actual production and this may continue which Chinese production remaining under environmental permitting pressure.



Figure 5: LME Zinc Stockpiles

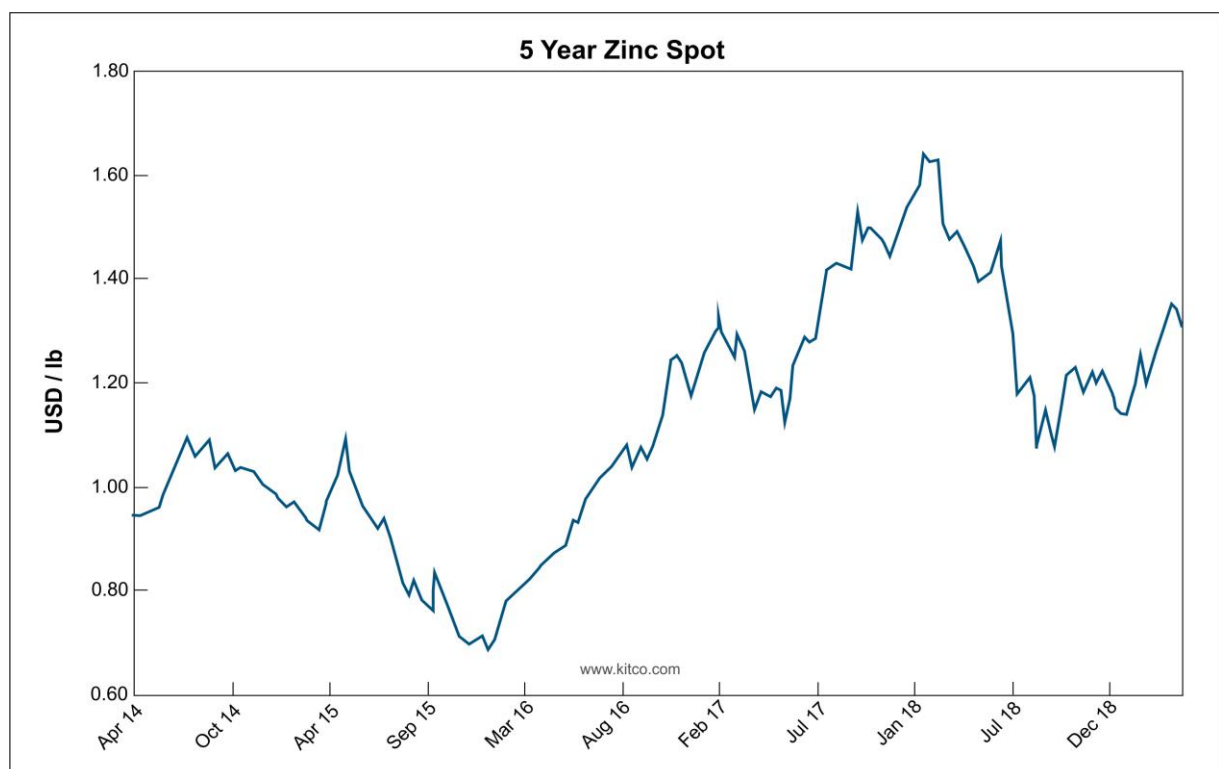


Figure 6: LME Zinc Prices



The zinc market has seen the depletion of several of the world's larger zinc mines over the past few years with little in the way of new discoveries. In addition, China has historically produced almost half of the world's zinc and consumes approximately this amount. Since 2014, the Chinese authorities have taken a strict stance regarding the protection of the environment. Several Chinese miners, particularly the smaller to medium swing producers, have historically had a substantial and negative impact on the environment. The new Chinese environmental focus has resulted in the suspension of a large number of smaller operations. This has had a strong and likely lasting effect on the supply and demand fundamentals surrounding zinc production. Existing operations around the world have expanded where possible. Wood Mackenzie forecast that despite this, the global zinc stocks will remain at critically low levels.

Zinc oxide batteries are now starting to be commercialised and have hit manufacturing costs of below US\$100 kw/h, substantially lower than a typical lithium battery storage solution, see NantEnergy. In addition the zinc oxide batteries have the potential to have a substantially longer cycle life and do not overheat, reducing the risk of fire and have up to five times the energy density (stored energy per unit of weight) than lithium based batteries. NantEnergy claim that over 200,000 people are now dependent on zinc air batteries. While at an early stage, the broader adoption of zinc oxide batteries could result in an unexpected but significant increase in the consumption of zinc.

### **Cash Position**

The Company holds a cash position at the end of the March 2019 quarter of approximately \$1.05 million with no debt.

For further information please visit Ironbark's website [www.ironbark.gl](http://www.ironbark.gl) or contact us:

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## **About Ironbark**

Ironbark is listed on the Australian Securities Exchange and is seeking to become a base metal mining house. Ironbark seeks to build shareholder value through exploration and development of its projects and also seeks to actively expand the project base controlled by Ironbark through acquisition. The management and board of Ironbark have extensive technical and corporate experience in the minerals sector.

The wholly owned Citronen base metal project currently hosts in excess of 13.1 Billion pounds of zinc (Zn) and lead (Pb). For full details refer to ASX announcement 25 November 2014 – Citronen Project Resource Update – JORC 2012 compliant resource. Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the resource estimates in this release continue to apply and have not materially changed.

The current JORC 2012 compliant resource for Citronen:

### **70.8 million tonnes at 5.7% Zn + Pb**

Category	Mt	Zn%	Pb%	Zn+Pb%
Measured	25.0	5.0	0.5	5.5
Indicated	26.5	5.5	0.5	6.0
Inferred	19.3	4.9	0.4	5.3

*Using Ordinary Kriging interpolation and reported at a 3.5% Zn cut-off*

Including a higher-grade resource of:

### **29.9 million tonnes at 7.1% Zn + Pb**

Category	Mt	Zn%	Pb%	Zn+Pb%
Measured	8.9	6.6	0.6	7.2
Indicated	13.7	6.8	0.5	7.3
Inferred	7.3	6.2	0.5	6.6

*Using Ordinary Kriging interpolation and reported at a 5.0% Zn cut-off*

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***“Ironbark is an emerging leader amongst Australia’s mineral resource companies, dedicated to the development of its major base metal mining operation in Greenland – the world class Citronen Project, and the acquisition of quality base metals projects.”***

## **Disclosure Statements and Important Information**

### **Forward Looking Statements**

The following information is not intended to guide any investment decisions in Ironbark Zinc Limited. This material contains certain forecasts and forward-looking information, including possible or assumed future performance, costs, production levels or rates, reserves and resources, prices and valuations and industry growth and other trends. Such forecasts and information are not a guarantee of future performance and involve many risks and uncertainties, as well as other factors. Actual results and developments may differ materially from those implied or expressed by these statements and are dependent on a variety of factors. The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, based on the information contained in this and previous ASX announcements.

The Citronen Zinc Project is considered to be at an early development stage and will require further regulatory approvals and securing of finance and there is no certainty that these will occur. Nothing in this material should be construed as either an offer to seek a solicitation or as an offer to buy or sell Ironbark securities. Consideration of the technical and financial factors requires skilled analysis and understanding of their context.

Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the estimates in this release continue to apply and have not materially changed.

### **Competent Persons Statement**

The information included in this report that relates to Exploration Results & Mineral Resources is based on information compiled by Ms Laursen (B. ESc Hons (Geol), GradDip App. Fin., MSEG, MAIG), an employee of Ironbark Zinc Limited. Ms Laursen has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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. Ms Laursen consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### **Competent Persons Disclosure**

Ms Laursen is an employee of Ironbark Zinc Limited and currently holds securities in the company.



**Schedule of Tenements (as required by ASX Listing Rule 5.3.3)**

IRONBARK ZINC LIMITED CONSOLIDATED BASIS				
SCHEDULE OF INTERESTS IN MINING TENEMENTS				
Project	Mining Licence and tenements held	Location of tenements	Beneficial % interest at end of the quarter	Change in the quarter
Captains Flat (Joint Venture with Glencore)	EL6381	New South Wales	50%	
Fiery Creek	EL6925	New South Wales	100%	
Citronen	ML2016/30 EL2007/31 EL2010/47 EL2019/10	Greenland	100%	100%
Mestersvig	EL2011/28 EL2007/32 EL2016/22	Greenland	100%	
Washington Land	EL2007/33	Greenland	100%	

