Investor Presentation: Advancing Citronen Zn-Pb Project

August 2021





### Disclaimer



#### 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 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.

#### JORC CODE COMPLIANCE AND COMPETENT PERSON STATEMENT & DISCLOSURE

#### **Competent Person Statement**

The information included in this report relates to Exploration Targets, Exploration Results & Mineral Resources based on information compiled or reviewed by Ms Elizabeth Clare Laursen (B. ESc (Hons.), MAIG, MSEG, GradDipAppFin), 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 is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Targets, Exploration Results, Mineral Resources. 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.

The mining-specific information in this report, which relates to Ore Reserves, is based on information compiled by Mr Andrew Gasmier CP (Mining), who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Gasmier is employed full time by Mining Plus. He 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 Gasmier consents to the inclusion in the report of the matters based on his 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.

#### **Cautionary Statement**

Ironbark has concluded it has reasonable basis for providing the forward-looking statements included in this presentation. The detailed reasons for that conclusion are outlined throughout this presentation. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules. The Company believes there is a reasonable basis for the production targets and the forecast financial information and income-based valuation derived from those production targets provided in this document based on the detailed reasons and material assumptions which are outlined throughout the ASX announcement dated 19 July 2021 titled 2021 Bankable Feasibility Study Confirms Citronen as World Class Zinc Project. Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, including the production targets and forecast financial information, 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.

### **Exploration Target: Disclaimer to Slide 10**



### Supporting Information

The Exploration Target listed on Slide 8 of 40-90Mt @ 5-7% Zn+Pb combined is formed on the basis of historic exploration work at Citronen, including over 60,000m of diamond drilling and subsequent work sufficient to declare the Mineral Resource and Ore Reserve also listed on Slide 8. The potential quantity and grade of the Exploration Target on Slide 8 is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Ironbark plans to test the Exploration Targets as part of a phased exploration and resource development program. This multi-year program is planned to commence concurrently with mine development and construction, and is aimed at further improving the current Citronen mine plan through some potential combination of mine life extensions, grade uplift and/or the deferral of major lateral mine development in the current schedule. At present, Ironbark intends to undertake this work will take place within two years of construction beginning at Citronen.

A systematic drilling program is planned to test extensions to the known mineralisation at the newly identified conceptual target areas. IBG already has four drill rigs at Citronen that are available for any future exploration program, and any further exploration equipment will be mobilised in conjunction with the site construction activities as required.

The Exploration Target is based upon review of project drilling, rock chip samples and the limited geophysical data available. A 3D geological model of the project was used to assist in identifying prospective areas. Each area was systematically reviewed with tonnage ranges based on conceptual target sizes and area prospectivity. Exploration Target zinc and lead grade ranges and rock densities are based upon typical grades observed from the current Citronen Resource (refer to ASX announcement 12th March 2020). The Exploration Target calculation has been based on a combination of actual exploration results as discussed in this report and proposed exploration programmes.

A competent person's statement in respect of the exploration target is set out on slide 2.

### 2021: Progress Continues



### Milestones continue to be executed



### **Citronen: Geopolitically Strategic Location**





"Reaffirm the importance of further developing sustainable economic growth in the Arctic, acknowledge the role of responsible resource management and sustainable economic development for livelihoods in the region..."

- Arctic Council, Reykjavik, May 2021

Region continues to see rising competition as trade routes open up year round

- Russian energy exports now being shipped via Northern Sea Route during winter
- Increased investment in ice class shipping fleets seen from US, Russia and China

Source: https://www.arcticcentre.org/EN/arcticregion/Maps/Administrative-areas

### **Corporate Overview**



#### **Capital Structure** Price/Vol(M) - Last 12 months **Register Analysis** Danny Segman \$0.04 125 Shares on Issue 1.2 Billion 12% 100 Bennelong Resource \$0.03 Capital Pty Ltd \$0.020 Share price (TBC) 75 ■ Trafigura \$0.02 8% 50 ■ Glencore \$AUD Mkt Cap \$24m \$0.01 25 Board & Management 2% and have a little for the state of the state \$0.00 Cash (30 June 2021) \$2.5m Balance 24/08/2020 24/12/2020 24/04/2021 24/08/2021

#### **Board of Directors**

#### Dr. Fred Hess Non-Executive Chairman

Most recently the Managing Director of PanAust Ltd, Dr. Hess' diverse background includes roles where he managed construction, ramp up & operation of major mines in challenging environments.

#### Michael Jardine Managing Director

Mr. Jardine has a background in Corporate Finance, Strategy Development & Minerals Marketing. His previous experience includes Board & Executive roles at several ASX-listed resource companies.

#### Maciej Sciazko Non-Executive Director

Mr. Sciazko is the Vice President (Operations) and General Manager for mining operations at Trafigura, having previously held the role of VP for mining operations at Nyrstar in Canada.

#### Jonathan Whyte Company Secretary

Mr. Whyte is a Chartered Accountant with extensive corporate, company secretarial and financial accounting experience, predominantly for listed resource sector companies.

### **Investment Highlights**



A positive EXIM decision in Q4 2021 presents a huge opportunity to IBG shareholders (current and future)



\*See sensitivity analysis, as per announcement of 19 July 2021

### 2021 BFS Results



Pragmatic set of assumptions underpins robust financial case; significant leverage to Zinc price

### Production

- 20 year mine life @ 3.3Mtpa
- 65Mt processed @ 4.7% Zn & 0.5% Pb
- 2.5Mt Zn metal produced LOM

#### Resource

- Ore Reserve: 49Mt @ 4.8% Zn & 0.5% Pb
- Mineral Resource: 85Mt @ 4.7% Zn & 0.5% Pb
- Exploration Target: 40-90Mt @ 5-7% Zn & Pb combined (additional to known Resource)

### Financial (@ \$1.30/lb Zn)



- NPV<sub>8</sub>\$363m; IRR 15.2%; LOM post tax free cashflow (fcf) \$1.46bn
- Capex \$654m; C1+Sustaining Capex / lb payable Zn \$0.68/lb years 1-5, \$0.76/lb LOM

### Upside Case



- Conservative assumptions capex, opex, contingency all up; lower Zn price
- Leverage every \$0.10 movement (vs. 1.30/lb) +/-\$150m to NPV and \$360m to post tax fcf
- Exposure to multiple price future price cycles

All dollar figures are in US\$

### EXIM Bank Update (Debt Strategy)



Initial credit decision expected Q4 2021; positive outcome will provide IBG with change opportunity

#### About EXIM

US Government's official Export Credit Agency (ECA) with total financing of US\$135bn

- Mission: To support American jobs by facilitating US exports of goods <u>and</u> services.
- US\$27bn of total financing (20%) directed to Program on China and Transformational Exports.

### **Financing Strategy**

IBG is seeking EXIM Bank to cornerstone development

- Initially, confirm debt funding.
- Secondly, raise required equity once terms are known.

### Process & Timing

#### **Target decision Q4 2021**

- ~3-month process for deep dive due diligence.
- If successful, EXIM will issue IBG with a "Preliminary Project Letter" and details of debt funding. This is IBG's key deliverable for 2021.
- The letter will clearly outline the conditions to debt drawdown.

#### Examples

EXIM backed HPPL/Roy Hill with \$700m in 2013 for US capital equipment

- EXIM interest in IBG/Citronen reflects:
  - Project's potential scale;
  - Impact to US exporters; and
  - Greenland and Zn end users.
- Other EXIM energy and industrial major clients:
  - Boeing;
  - Exxon Mobil;
  - Chevron Phillips;
  - Saudi Aramco; and
  - Dow Chemical.

### **Undervalued Compared to ASX Zinc Peers**



Underlying asset quality, and de-risking steps already achieved, not being fully recognised by the market

	Ironbark Zinc (ASX:IBG)	Apollo Minerals Limited (ASX:AON)	Rumble Resources (ASX:RTR)		
Flagship Project & Location#	Citronen, Greenland	Krousso, Gabon	Earaheedy, Western Australia		
Deposit Type	SEDEX	MVT or Lennard Shelf Type	SEDEX		
Market Capitalisation (as at 24/8/21)	<u>AUD 24m</u>	<u>AUD 37m</u>	AUD 279m		
Ore Reserve (JORC)	49Mt @ 4.8% Zn & 0.5% Pb	N/A	N/A		
Mineral Resource (JORC)	85Mt @ 4.7% Zn & 0.5% Pb	N/A	N/A		
Exploration Target (JORC)	40-90Mt @ 5-7% Zn+Pb combined*	N/A	100-120Mt @ 3.5% to 4.5% Zn+Pb^		
Granted Mining Lease / Project Share	Yes / 100%	No (Prospecting licence) / 80% earn in target	No (E69/3464) / 75%		
Offtake agreed	Yes – 70% to Glencore & Trafigura	No	No		
BFS complete	Yes	No	No		
Project Finance	Underway	No	No		

"SEDEX deposits are set to remain a dominant source of mined Zinc concentrate.

Firstly, SEDEX zinc mines largely have long planned mine lives and most will continue for a few decades...SEDEX deposits are also typically in the lowest half of the cost curve so they are unlikely to be forced to close during periods of low zinc and lead prices and high TCs. Secondly, exploration spending, especially from majors historically targeted SEDEX deposits for their large size. Despite most having been developed, there are several at an advanced stage."

- Wood Mackenzie, Global Zinc Long Term Outlook March 2021

\*Exploration Target is additional to known Mineral Resources; ^ see ASX:RTR release on 2nd August 2021, p.15; # Each of ASX:IBG and ASX:RTR own other projects that may impact market capitalisation however the "flagship" projects listed have been referenced in ASX releases by all three project owners as their respective primary assets

### **Recent Investments in Greenland**



Major investors including Bill Gates, Jeff Bezos and Ray Dallio – via KoBold Metals – now investing in country

- Bluejay Mining (AIM:JAY) £118m mkt cap; recently closed a capital raise with KoBold Metals to explore in Greenland
  - KoBold shareholders include entities controlled by Bill Gates, Jeff Bezos, Mike Bloomberg, Ray Dalio, Andreessen Horowitz and Norwegian state owned company Equinor
- Citronen's position as "domestic" supplier of Zinc to European market will have increasing value to ESG focused investors in region.



### **Environment, Social and Governance**



Inherently high ESG performance standards will be embedded into Citronen operations

### Greenland an EU "OCT"

Greenlandic nationals are EU citizens and Greenland can export, tariff free, to the EU common market

- OCT = Overseas Countries & Territories
- Affiliation via Kingdom of Denmark

### Carbon Taxes @ EU Border

Carbon Border Adjustment Mechanism (CBAM) announced July 2021

- Currently focused on imports of iron and steel, aluminium, cement, organic basic chemicals and fertilisers
- If expanded to base metals in the future, Ironbark will sit side inside the tariff wall

#### **Import Replacement**

Europe will import average 1.3Mt Zn metal p.a. 2017 to 2023(est)

- Imported Zn metal will often come from markets with lower overall ESG standards
- Supply chain security of ever increasing concern to governments post Covid-19

### The "S" AND "G"

Greenland and Denmark are high Social/Governance performance countries

• Labour laws, tax and royalty structures, supply chain verification and emissions reporting will be to highest possible standards

### **In Country Support**

### Government of Greenland, and citizenry, fully behind development of Citronen

- Citronen was approved for development by every single Greenlandic municipality; first large proposed mining project to reach final permitting stage
- Direct and strong advocacy from Government of Greenland in support of Citronen moving to construction

### Citronen: Indicative Timeline 2021/22\*



EXIM decision in December Quarter 2021 pivotal to meeting indicative timeline

	2021		2022								
		Q3		Q4			Q1			Q2	
BFS Completed											
EXIM Loan Application submitted											
EXIM Loan Application decision											
Finalise supporting financial arrangements											
Target FID (EXIM financing decision + additional debt/equity)											
FEED and early works planning											

\*The above dates are based on the current intentions of the Company. The dates are indicative and are subject to change.

## Appendix A

Citronen Project Overview





#### Table 1 – Ore Reserves

Category	Tonnes (Mt)	ZnEq Grade (%)*	Zn Grade (%)	Pb Grade (%)	ZnEq Metal (Mt)	Zn Metal (Mt)	Pb Metal (Mt)
Proved	24.6	5.1	4.6	0.5	1.2	1.2	0.1
Probable	24.2	5.1	5.0	0.4	1.2	1.1	0.1
Total (P&P)	48.8	5.1	4.8	0.5	2.5	2.3	0.2

The Ore Reserve is based on Measured and Indicated Resources only and does not include any Inferred Mineral Resources. The Mineral Resources for the Citronen Project, on which these Ore Reserves are based, are summarised below in Table 2.

The Ore Reserve is based on Measured and Indicated Resources only and does not include any Inferred Mineral Resources. The Reserve and Resource information was disclosed an announcement to the ASX released on 19th July 2021: "2021 Bankable Feasibility Study Confirms Citronen as World Class Zinc Project" Ironbark confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement

### Table 2 – Mineral Resource Estimate\*

Category	Tonnes (Mt)	Zn (%)	Pb (%)
Measured	34.3	4.4	0.5
Indicated	28.4	5.3	0.5
Inferred	22.0	4.6	0.4
Total	84.7	4.7	0.5

\*Calculated using Ordinary Kriging interpolation.

### A2 – Project Layout



485,000 mE 480,000 mE 481,000 mE 482,000 mE 483,000 mE 484,000 mE **Citronen Fjord** ontainer Storage Port Facilit oncentrate Storage Process Plan ROM Accommodatio imary Crushe Building Power Plant Beach Underground **Fuel Station** Truck Shop DMS Rejects Storage Facility ailings Storage Facility Esrum Undergrou Esrum River Airstri Waste Rock torage Facility ake Platinova xplosives Magazin **Discovery Open Pit** Eastern River kilometers 480,000 mE 481,000 mE 482,000 mE 483,000 mE 484,000 mE

Figure showing planned mine and surface infrastructure at the Citronen Project.

### A3 – Geology



Block Model & Exploration Targets

Citronen Project drill holes, block model extent and exploration target areas highlighting the strike length of known mineralisation and high-grade drill intercepts including outside or at the edge of the current block model extent. Current 85Mt Mineral Resource inside red envelope only.



### A4 – Examples of Deposit Type (Scale Potential)





Reference: Taylor, R.D., Leach, D.L., Bradley, D.C., and Pisarevsky, S.A., 2009, Compilation of mineral resource data for Mississippi Valley-type and clastic-dominated sediment-hosted lead-zinc deposits: U.S. Geological Survey Open-File Report 2009–1297, 42 p.

# Appendix B

Zinc Market Analysis



## B1 - Supply/Demand



Zinc's role in the coming world is underappreciated at present; new mines are a must to meet forecast



"The energy transition and de-carbonisation will create new markets for non-ferrous metals in the coming years.

Solar power will have a significant impact on demand for aluminium, copper and zinc with the usage of three metals in the sector set to double by 2040. However, as the governments fulfil their commitments to limit global warming to 2°C the need for solar power will be greater and the demand for aluminium and copper from the sector could quadruple, **whilst demand for zinc could grow five-fold by 2040**."<sup>\*\*</sup>

\*Wood Mackenzie - Harnessing the sun and opportunities for base metals demand presentation P7

### **B2 - Positive Price Support**



Lack of investment in new projects will underpin the Zinc price

### The build out of battery raw materials capacity is confirmed

Zinc faces a larger future supply gap than Copper, equal to Lithium and only behind Cobalt.



### Pricing peaking in 2021 for most metals

Zn price forecast indicative of positive underlying demand/supply dynamic.



Source: Wood Mackenzie Battery Raw Materials Service, Base Metals Markets Tool, Mining and Mining Briefing, 8th July 2021

### **B3 - Cost Curves v Price Relationship**



Over last 20 years, Zinc price heavily supported around the 90th centile cost curve position

### Zinc Price USc/lb v C1+Sustaining Costs 2000 to 2021(e)



- In the early 2000s there was some weakness in Zn price but support at 75th centile cost curve.
- Since 2004, Zn price only breached 90th centile position once (2008).
- Tested 90th percentile several times but has a strong record of bouncing off that level.
- Citronen BFS v 2021(e) cost curve:
  - Years 1 to 5 0.68/lb v 50th centile @ 0.71
  - LOM 0.76/lb v 75th centile @ 0.82

Source: Wood Mackenzie Emissions Benchmarking Too, Cost Curve Tool. Mining and Mining Briefing, 8<sup>th</sup> July 2021

### **B4 - Impact of Possible Future Carbon Pricing**

Zinc amongst least impacted metals by potential higher carbon pricing in future

#### Carbon taxes would have a variable impact on mined commodity markets, but marginal pricing levels would be elevated for all

The highest emissions aluminium producers would see cost more than twice as high as today's highest costs with carbon prices at US\$150 t/ CO2-e



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### **B5** - Renewables, Battery and Agriculture



As a key part of the base metal suite, Zinc will benefit from several macro tailwinds in the future



- Utility scale solar installations
- Offshore wind farms
- Both relatively Zn intensive

### Batteries

- Lithium embedded for mobility; but
- Other chemistries, including Zinc, may play role for grid storage

Agriculture	+++	
Agriculture		
Agriculture	$\square \square \square$	
Agriculture		
		Agriculture



- Micro nutrient in fertiliser
- Improves yield and overall food security

Authorised by the Board

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