

30 March 2023

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## BIDAMINNA PROJECT PRE-FEASIBILITY STUDY

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Image Resources NL (ASX: IMA) (**Image** or the **Company**) advises that the pre-feasibility study (**PFS**) being conducted by IHC Robbins on the Company's 100%-owned Bidamina mineral sands project is progressing positively and nearing completion. Finalisation of the study continues to be plagued by labour shortages within the consulting and engineering ranks. Importantly, the unforeseen delays have provided the opportunity to consider the economic impact of incorporating a mineral separation plant (**MSP**), in addition to only producing a heavy mineral concentrate (**HMC**).

While early indicators in the study are pointing towards positive economics with an HMC only case, preliminary analysis on the inclusion of an MSP, to separate Bidamina HMC into final products of zircon, rutile, ilmenite, leucoxene and monazite (a rare earth by-product), indicate the potential to further improve overall project economics, and to provide important operational and strategic advantages.

Economic advantages of incorporating an MSP include 1) lower logistics costs by eliminating transport costs for moisture, silica and non-valuable heavy minerals which are removed in the MSP; and 2) the recovery of monazite as a valuable by-product.

Operational and strategic advantages of an MSP include 1) the opportunity to sell individual products to multiple potential buyers domestically and globally; and 2) producing a high-quality ilmenite as potential feedstock for upgrading to synthetic rutile (**SR**). Producing an SR feedstock opens a new market as an SR feedstock supplier to current SR producers (domestic and international) and provides the opportunity for Image to consider constructing its own SR production facilities and using hydrogen to potentially produce 'green' SR.

SR production testing and study work are planned for CY2023 using ilmenite from Bidamina and later from McCalls, and will involve the use of hydrogen (instead of coal) to reduce the iron component of the ilmenite in a fluidised bed reactor. The goal is to demonstrate near-zero greenhouse gas emission removal of the iron, and production of 'green' SR for international markets. Preliminary evaluation of the ilmenite from both Bidamina and McCalls indicates the TiO<sub>2</sub> grades and overall quality make both suitable as SR feedstock, and with the McCalls project having the potential for multi-decade supply of consistent SR feedstock.

### **Bidamina Background**

The Bidamina project is located approximately 25km northwest of Image's current Boonanning operations. Bidamina is being evaluated as a standalone, greenfield mineral sands project amenable to low-cost dredge mining with a floating wet concentration plant to recover HMC for sale as a concentrate (as at Boonanning), or separation into final products.

The Bidaminna deposit has estimated Mineral Resources of 109 million tonnes at 2.5% total heavy minerals (HM), with **86 million tonnes at 2.8% HM in the JORC Measured category**. The HM contains **93% valuable heavy minerals** including 12% leucoxene, 72% ilmenite, 5% zircon and 4% rutile. The deposit contains very low slimes (3.9%) and very low oversize (3.0%), with mineralisation below the water table and amenable to low-cost dredge mining technology. (See Table 1 below and 28 February 2023 ASX announcement: “Mineral Resources Update – Bidaminna Project”).

**Table 1 - Bidaminna 2023 Mineral Resources reported above a cut-off grade of 0.5% total HM**

Deposit	Mineral Resource Category	Cut-off (total HM%)	Tonnes (million)	In-situ HM Tonnes (million)	Total HM grade (%)	HM Assemblage (% of total HM)					Slimes (%)	Oversize (%)
						Zircon	Rutile	Leuc.	Ilmenite	Monazite		
Bidaminna	Measured	0.5	86	2.4	2.8	4.9	4.0	12	72	0.34	3.9	3.2
	Indicated	0.5	13	0.3	2.1	4.9	4.2	13	71	0.33	4.7	2.3
	Inferred	0.5	10	0.1	0.7	4.6	5.6	17	66	0.19	3.2	1.8
	<b>Total</b>	<b>0.5</b>	<b>109</b>	<b>2.7</b>	<b>2.5</b>	<b>4.9</b>	<b>4.0</b>	<b>12</b>	<b>72</b>	<b>0.33</b>	<b>3.9</b>	<b>3.0</b>

**Notes:**

- Reported above a cut-off grade of 0.5% total HM.
- Mineral Resource estimate has been classified and reported in accordance with the guidelines of JORC Code (2012).
- Estimates of the mineral assemblage (zircon, ilmenite, rutile, leucoxene and monazite) are presented as percentages of the total HM component of the deposit, as determined by QEMSCAN analysis. The break points used for definition of titania minerals are: ilmenite 45–70% TiO<sub>2</sub>; leucoxene 70–95% TiO<sub>2</sub>; rutile >95% TiO<sub>2</sub>.
- All tonnages and grades have been rounded to reflect the relative uncertainty of the estimate, thus sum of columns may not equal.

This document is authorised for release to the market by the Managing Director on behalf of the Board of Image Resources NL.

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**PREVIOUSLY REPORTED INFORMATION**

*The information in this report that relates to the Bidaminna Mineral Resource estimate is extracted from the Company’s ASX announcement dated 28 February 2023, which is available on the Company’s website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of mineral resources or ore reserves, that all material assumptions and technical parameters underpinning the estimates in the original market announcement 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.*

## **FORWARD LOOKING STATEMENTS**

*Certain statements made during or in connection with this communication, including, without limitation, those concerning the economic outlook for the mining industry, expectations regarding prices, exploration or development costs and other operating results, growth prospects and the outlook of Image's operations contain or comprise certain forward-looking statements regarding Image's operations, economic performance and financial condition. Although Image believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct.*

*Accordingly, results could differ materially from those set out in the forward looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes that could result from future acquisitions of new exploration properties, the risks and hazards inherent in the mining business (including industrial accidents, environmental hazards or geologically related conditions), changes in the regulatory environment and other government actions, risks inherent in the ownership, exploration and operation of or investment in mining properties, fluctuations in prices and exchange rates and business and operations risks management, as well as generally those additional factors set forth in our periodic filings with ASX. Image undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.*