



HISTORICAL DE BEERS DATA TO ADVANCE MERLIN EXPLORATION

KEY HIGHLIGHTS

- **Historical De Beers data acquired to assist in identifying Merlin kimberlite targets**
- **Hyperspectral data covering 81km² processed with a further 290km² to be acquired**
- **Data understood to be unavailable to previous operators**
- **Feasibility study for open pit and vertical pit mine development on track for Q3 2022 completion**

Lucapa Diamond Company Limited (ASX: **LOM**) (“Lucapa” or “the Company”) has acquired De Beers’ airborne hyperspectral data for the Merlin Diamond Project in the Northern Territory (“Merlin”) to assist in identifying and mapping kimberlite targets.

Lucapa acquired the hyperspectral data from IGO Ltd and it is understood that to date it has not been available to or analysed by previous operators of Merlin.

De Beers used its proprietary Airborne Multispectral Scanner technology in 1997 to fly over an area including the Merlin Diamond Project area (Map 1). This was prior to mining commencing at Merlin by Ashton and Rio Tinto in 1999. A single flight line of data (Map 1 - line 6), covering an area of approximately 81km² which includes the 13 previously identified kimberlite pipes on the two Merlin tenements, was purchased from IGO Ltd and processed by Western Geospectral in Perth, to test the potential of the data to identify more kimberlite signatures at Merlin.

Hyperspectral remote sensing systems measure the spectral radiance of the earth’s surface to identify and map minerals. In the context of diamond exploration, the primary mineral target is magnesium (Mg) bearing clays. The Emu-1 and Emu-2 kimberlite pipe signatures stand out in the matched filter ternary image (Map 2).

Lucapa is acquiring the remaining seven flight lines of data covering ~290km² (Map 1 - lines 1 to 5, 7 and 8). This will allow interpretation of the data covering the majority of the two Merlin tenements (MLN1154 and EL26944).

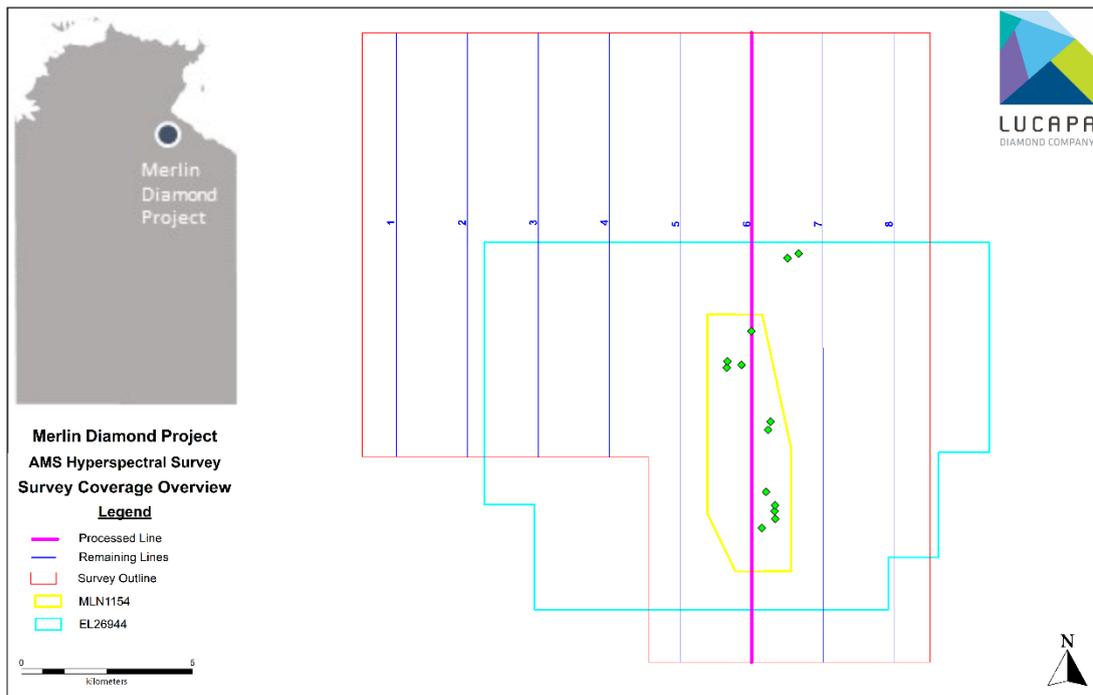
Data interpretation by Lucapa indicates that it has several applications to assist in the diamond exploration program at Merlin. This includes direct detection of the Mg-rich clays associated with kimberlite, the mapping of younger cover rocks and sediments that may obscure the presence of kimberlites and the detection of sediments infilling partially weathered kimberlite pipes. Most of the known pipes proposed to be exploited as part of the Merlin mine development (refer ASX announcement 3 March 2022) have been weathered and infilled.

The data will be integrated with existing airborne geophysics, ground geophysics, heavy mineral soil sampling and geochemical soil sampling. Further interpretation of the integrated data will assist in identifying kimberlite targets to follow-up with drilling, sampling or geophysical surveys.

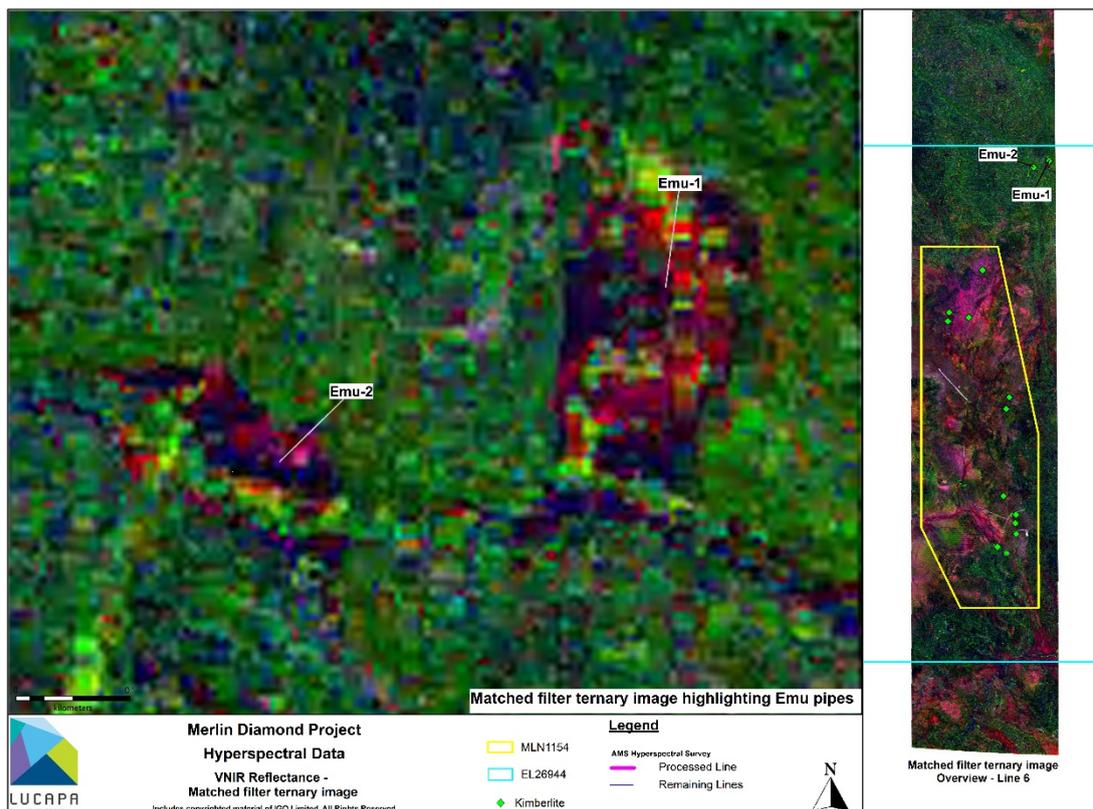
As per the ASX announcement on 3 March 2022 “Updated Merlin Scoping Study Reinforces Significant Economic Potential”, the Company is also in the process of conducting a feasibility study on the proposed mine development and is on track to deliver this in Q3 2022.

Managing Director Stephen Wetherall said, “In addition to advancing the open pit and vertical pit mine development feasibility study, which is on track for delivery in Q3 2022, our technical teams commenced our kimberlite exploration program to identify additional primary source targets across the two Merlin tenements.

We are pleased to have acquired the hyperspectral data, which we understand has been left unused for more than 25 years since its collection by De Beers. Together with our historical database, this information will allow a level of target generation not previously seen in this highly prospective kimberlite province where all 13 of the previously identified kimberlite bodies are diamondiferous.”



Map 1: Map illustrating the survey area and lines flown by De Beers (red outline) and the line 6 data acquired from IGO for processing of the hyperspectral data



Map 2: The Visible-Near-Infra-Red (“VNIR”) reflectance matched filter ternary image highlighting the signatures of the Emu-1 and Emu-2 kimberlite pipes on the Merlin exploration licence

Additional geophysical work is also planned for the large magnetic target (“Leviathan”) on the exploration licence in 2022.

Authorised by the Lucapa Board.

STEPHEN WETHERALL
MANAGING DIRECTOR

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ABOUT LUCAPA

Lucapa Diamond Company Limited is an ASX listed diamond miner and explorer with assets in Africa and Australia. It has interests in two producing diamond mines in Angola (Lulo) and Lesotho (Mothae). The large, high-value diamonds produced from these two niche African diamond mines attract some of the highest prices per carat for rough diamonds globally.

The Lulo mine has been in commercial production since 2015, while the Mothae mine commenced commercial production in 2019.

In 2021, through its wholly owned subsidiary, Australian Natural Diamonds Pty Ltd, Lucapa completed the strategic and transformative acquisition of the Merlin Diamond Project, an historic Australian mine containing a 4.4 million carat JORC (2012) compliant Mineral Resource with significant exploration potential. The Company published an Updated Scoping Study re-enforcing the significant economic potential for a long-life mine at Merlin with a production target of 2.1 million carats. A feasibility study is expected to be completed by Q3 2022.

Lucapa and its project partners are also exploring for potential primary source kimberlites or lamproites at the prolific Lulo concession in Angola, the Brooking project in Australia and the Orapa Area F project in Botswana.

The Board, management and key stakeholders in Lucapa have deep global diamond industry experience and networks all through the value chain from exploration to retail.

Competent Person's Statement

Information included in this announcement that relates to exploration results and resource estimates is based on and fairly represents information and supporting documentation prepared and compiled by Richard Price MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Price is an employee of Lucapa Diamond Company Limited. Mr Price 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 Exploration Results, Mineral Resources and Ore Reserves. Mr Price consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

No New Information

To the extent that this announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Forward-Looking Statements

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