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### **ASX Announcement**

# HLEM Identifies Expansive and Deep Palaeochannels at Hirabeb – Updated

- Horizontal loop electromagnetic surveys at Hirabeb (Namibia) identifies expansive and deep palaeochannels
- HLEM has been successful in identifying palaeochannels at Koppies with follow up drilling demonstrating significant mineralisation
- Hirabeb is Marenica's largest tenement in the Namib area, 15 times larger than Koppies

Marenica Energy Limited ("Marenica", the "Company") (ASX:MEY) provides an update to its announcement of 27 April 2020, in which it announced results of a Horizontal Loop Electromagnetic ("HLEM") survey on exclusive prospecting license ("EPL") 7278 (known as Hirabeb), with results identifying expansive and deep palaeochannels.

Following the success of HLEM surveys at the Koppies prospect in identifying palaeochannels that drilling has subsequently shown to be mineralised, Marenica trialled the technique on EPL 7278. Hirabeb, the largest of Marenica's tenements in the Namib Area, has extensive historical exploration mapping, and is located upstream of the known Aussinanis deposit.

Historical documentation produced by General Mining Corporation ("Gencor") indicates the presence of a potentially significant palaeochannel system within the area covered by EPL 7278 (Figure 1). As a result of this information, a number of HLEM survey lines were undertaken in order to investigate and confirm the location of palaeochannels within the Hirabeb license.

To date, four lines have been completed with an additional line partially completed prior to the COVID-19 lockdown within Namibia. In all cases, HLEM has confirmed the presence of both calcrete valley fill and deeper, incised, palaeochannels within the area. In general, the depth of the calcrete material is greater than 10 metres, with the identified palaeochannels reaching depths of greater than 30 metres in a number of places. In comparison, palaeochannels with maximum depths of between 15 and 18 metres were recorded in the Koppies palaeochannel system.

**Marenica Managing Director, Murray Hill, commented:** "The uncovering of historical exploration information produced by Gencor has been instrumental in identifying key exploration targets, Koppies was an exploration target identified by Gencor. We are excited about the Hirabeb HLEM results which confirm the palaeochannels are at least the width indicated by Gencor, with potentially over half the tenement covered in prospective palaeochannels, presenting the rare opportunity of having an abundance of exploration targets.

Much like Koppies, the Hirabeb exploration target is upstream of a known uranium deposit, increasing the probability of finding uranium, and this tenement is 15 times larger than Koppies."

The HLEM surveys indicate continuous calcrete valley fill varying from 2.0 km to 4.7 km wide, as evident in Figure 1. The HLEM detail from Line 5, presented in Figure 4, shows three palaeochannels in excess of 30 metres deep ranging in width from 450 to 620 metres. HLEM Line 5 is the partially complete survey line, which has a further 6.3 km of HLEM planned to the north of this line.

Analysis of the HLEM sections has identified a number of prospective areas for follow-up reverse circulation (RC) drilling. In the main, these areas are in locations where the HLEM identified palaeochannel base has a depth of at least 20 metres and are concentrated around the locations where the palaeochannel depth is greater than 30 metres.

With an area of 730 km², Hirabeb extends 42 km east to west at its widest point, and 22 km north to south, and is 15 times the area of the Koppies EPL. Gencor's work indicates that approximately 44% of the tenement area is covered by recent sediments. The Company's HLEM surveys have confirmed the presence of palaeochannels and provides an indication on depth and widths of palaeochannels. The HLEM work suggests that at least 50% of the tenement area could be covered by calcrete and palaeochannels.

The palaeochannels appear to flow in a south west direction towards the adjoining tenement which contains the Aussinanis Uranium deposit. As per Koppies, Hirabeb is a highly prospective area that is upstream of a known deposit and has previously been explored by Gencor who identified exploration targets.

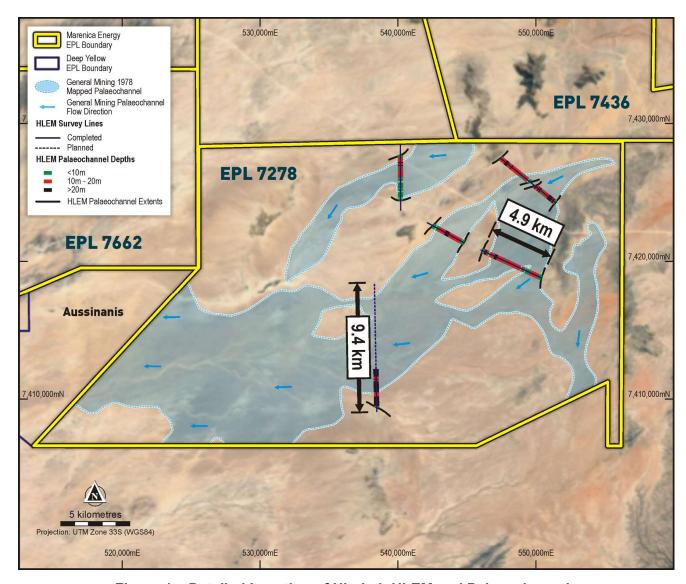


Figure 1 – Detailed Location of Hirabeb HLEM and Palaeochannels

### Location of Hirabeb within the greater Namib Area

The location of Hirabeb (EPL 7278) relative to Marenica's other EPL's and nearby known calcrete deposits, is shown in Figure 2.

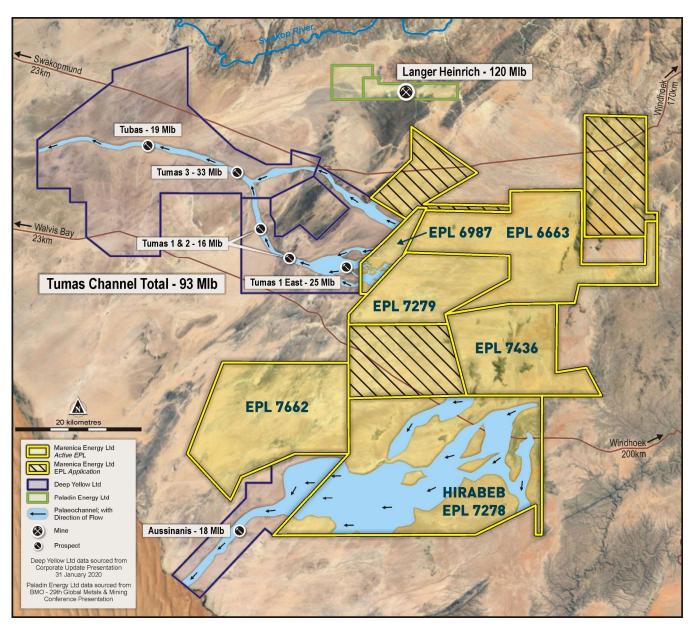


Figure 2 - Location of Hirabeb in the Namib Desert, Namibia

A photo of a HLEM survey being conducted at Hirabeb is shown in Figure 3 on the following page.



Figure 3 - HLEM Survey in Progress at Hirabeb.

Due to the restrictions imposed as a result of the COVID-19 pandemic, Namibia is currently in lockdown with restricted travel and work movements limiting any exploration activities. It is expected that the remaining HLEM survey lines, along with follow-up drilling, will be completed once the restrictions have been lifted and normal exploration activities resume.

Authorised for release by: The Board of Marenica Energy Ltd

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#### Competent Persons Statement – General Exploration Sign-Off

The information in this announcement as it relates to drilling results, exploration results, interpretations and conclusions was compiled by Mr Herbert Roesener, a Competent Person who is a Member of the South African Council for Natural Scientific Professions (SACNASP). Mr Roesener, who is an independent consultant to the Company, 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 Roesener consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.

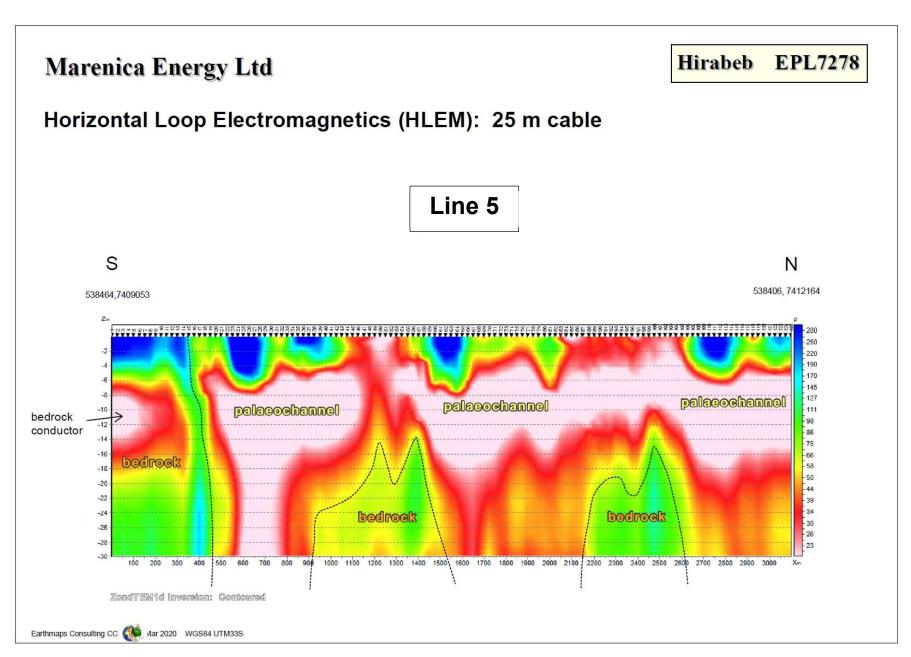


Figure 4 – Line 5 HLEM Survey Detail.

# JORC TABLE 1, SECTIONS 1 – 2

## **JORC Table 1: Section 1 Sampling Techniques and Data**

Criteria of JORC Code	Reference to the Current Report
2012	Comments / Findings
Sampling techniques	Horizontal Loop Electromagnetic Survey (HLEM) Specifications:
	- Earthmaps Consulting, Swakopmund Namibia
	- Maxmin I-8 system
	- coil spacing of 25 m and with a station spacing of 25 m, using 8 frequencies (111 Hz, 222 Hz, 444 Hz, 888 Hz, 1777 Hz, 3555 Hz, 7111 Hz and 14080 Hz).
Drilling techniques	Not applicable, no drilling conducted
Drill sample recovery	Not applicable, no drilling conducted
Logging	Not applicable, no drilling conducted
Sub-sampling techniques and sample preparation	Not applicable, no sampling or assaying conducted
Quality of assay data and laboratory tests	Not applicable, no sampling or assaying conducted
Verification of sampling and assaying	Not applicable, no sampling or assaying conducted
Location of data points	Start and end positions of the HLEM survey lines were located with handheld GPS. Station spacing was controlled by laser distance meter.
Data spacing and distribution	The overall length and positioning of each HLEM survey line was determined by Marenica's geological team as a first pass method to determine if palaeochannels were present within the licence area.
	Individual survey points were spaced 25 metres apart.
Orientation of data in relation to geological structure	All survey lines were orientated perpendicular to the direction of flow of a palaeochannel, as interpreted by Marenica's geological team.
Sample security	All field data was processed and interpreted by Earthmaps Consulting. Data was electronically transferred between the Earthmaps Consulting office in Swakopmund, Namibia and Marenica's head office in Perth, W.A.
Audits or reviews	All of the HLEM data collected during the surveys has been reviewed by the Marenica's appropriate Competent Person. No other audits have been completed.

# **JORC Table 1: Section 2 Reporting of Exploration Results**

Criteria of JORC Code	Reference to the Current Report
2012	Comments / Findings
Mineral tenement and land tenure status	The Hirabeb licence (EPL 7278) was granted on 16 May 2019 and expires on 15 May 2022.
	The tenement is in good standing and is wholly owned by Marenica, through a Namibian subsidiary.
Exploration done by other parties	The Hirabeb tenement and surrounding areas have been explored by General Mining Corporation (Gencor) during the period from 1976 to 1981.
	The exploration work conducted by Gencor included geological mapping in order to identify palaeochannels. They had planned to undertake drilling, but this did not occur.
Geology	The mineralisation targeted at Hirabeb is calcrete hosted uranium within palaeochannels.
Drill hole Information	Not applicable, no drilling conducted
Data aggregation methods	The HLEM data presented in this report provides the basis for identification of palaeochannels and hence, drill targets.
Relationship between	The HLEM survey method maps the topographic surface of the underlying basement
mineralisation widths	beneath the present-day cover, identifying depressions in the basement that are likely
and intercept lengths	to be palaeochannels. This survey technique does not provide any direct correlation to potential mineralisation. Drilling will be required to identify mineralisation.
Diagrams	All of the appropriate and relevant diagrams have been included in the announcement.
Balanced reporting	2D plans and maps have been provided in this report.
Other substantive exploration data	Existing exploration data over the Hirabeb tenement is mostly historical and consists of ground surveys and mapping.
Further work	The Company intends to recommence the HLEM survey which was suspended prior to the COVID-19 lockdown in Namibia, when the Namibian government allows such activities.
	Following completion of the HLEM survey, drill programs will be undertaken to provide samples to assess the mineralisation within palaeochannels identified by the HLEM survey lines.