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ASX Announcement

Marenica Executes its Strategy to Acquire Surficial Uranium Deposits in Namibia

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- **Marenica identified highly prospective exploration targets and has applied to secure the underlying tenements**
- **Marenica will have the largest uranium land holding in Namibia, if all tenements are granted**
- **Exploration commenced during the March Quarter 2019**

Marenica Energy Limited (ASX: MEY) ("Marenica" or "the Company") is pleased to outline its strategy for building a portfolio of tenements that are highly prospective for surficial uranium mineralisation in the Erongo region of Namibia.

Immediate Plans

Nine exclusive prospecting licence ("EPL") applications were lodged with the Ministry of Mines and Energy in Namibia over the past year; these applications are currently undergoing due process.

As each EPL is granted, Marenica intends to commence exploration for uranium.

Mile 72 is a granted EPL and exploration has commenced.

Murray Hill, Managing Director commented, "This is a very exciting time for the Company with excellent uranium exploration occurrences identified. We have commenced exploration activities in Namibia and we look forward to the initial results from these programmes in the near term."

"Marenica's acquisition strategy is already beginning to bear fruit, with Deep Yellow Limited's ("DYL") most eastern drill line, at Tumas on EPL 3497, being within 100 metres of Marenica's EPL applications. Tumas is located on a palaeochannel that passes through Marenica's EPL applications."

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Technical Background to the Strategy

Surficial uranium deposits are broadly defined as near-surface (usually less than 20 metres deep) uranium concentrations in sediments or soils. The largest and most common style of surficial deposit worldwide are calcrete hosted uranium deposits and Namibia contains the majority of the known deposits. These deposits include Langer Heinrich, Tumas, Trekkopje, Marenica and Aussinanis. The higher-grade deposits of Langer Heinrich and Tumas occur south of the Swakop River. The formation of these calcrete deposits has been explained by Carlisle[1] and summarised herein.

Calcrete deposits form in semi-arid to arid climatic regions and contain uranium dominantly as the mineral carnotite, which is composed of uranium, vanadium and potassium ($K_2(UO_2)_2V_2O_8.3H_2O$).

The formation of surficial uranium deposits requires:

1. Sources of uranium, vanadium and potassium.
2. A means of transport of the weathered and dissolved metals.
3. Suitable climatic and physical conditions for deposition of carnotite.

The Erongo region of Namibia fits this model with suitable source rocks and an ideal climate. South of the Swakop River, the Namib Desert stretches west from the Khomas Highlands for about 120 kilometres to the Atlantic Ocean. The rock types in the plains at the foot of the Highlands are predominantly granite, with some pegmatite and schist, which are sources of uranium, vanadium and potassium. These elements have been dissolved by weathering of the rocks over millions of years and concentrated by evaporation as they flow downslope in groundwater, to precipitate as carnotite in calcrete and associated sediments.

Carlisle describes in his paper[1] "…numerous examples support the conclusion that lateral transport of uranium in groundwater is essential to ore deposition and that bedrock barriers or constrictions which narrow the channel of subsurface flow, and thus force the water closer to the evaporative surface, greatly favour the formation of uraniferous calcretes."

Marenica Model

South of the Swakop River, the uraniferous calcrete deposition model proposed by Carlisle and others has proven to be accurate, with the deposits of Langer Heinrich, Tumas and Aussinanis testimony to the model. These deposits were identified from radiometric surveys, but not all uranium occurrences provide a surface radiometric footprint due to a cover of sand, calcrete/gypcrete and other sediment. As such, concealed deposits may yet be discovered.

Figure 1 is a reproduction of Carlisle's model applied to the Namib Desert in the south of the Erongo region of Namibia. The source rocks of uranium and vanadium underlie the plains at the foot of the Khomas Highlands, and the groundwater containing the dissolved metals moves laterally down slope to where the deposits of Langer Heinrich, Tumas and Aussinanis have been found. The groundwater has clearly had to move through the Namib Desert covered by Marenica's tenements and these known deposits to the west.

An internationally recognised authority on calcrete uranium deposits, Dr Charles Butt, formerly a Chief Research Scientist with the Commonwealth Scientific and Industrial

Research Organisation ("CSIRO"), reviewed Marenica's model and commented, "The rocks in the region seem to be entirely suitable as sources for uranium and vanadium and, accordingly, there is potential for uranium and vanadium mobility in groundwater and the presence of trap sites that will determine the prospectivity of ground overlying and downstream from these sources."

Marenica Strategy

Marenica has sourced historical General Mining Union Corporation Limited ("General Mining") maps and reports from exploration activities in the 1970s in which extensive fieldwork identified exploration targets. The vast majority of these exploration targets are located east of the known deposits. Ground proofing work completed by Marenica over the past year has confirmed the potential of General Mining's exploration targets and has identified additional targets. In the late 1970s, following the discovery of Langer Heinrich, General Mining moved all exploration activities to Langer Heinrich and later exited the country without completing follow up exploration on the identified targets.

The identification of exploration targets has led Marenica to apply for EPLs between the known deposits and the foot of the Khomas Highlands. The yellow areas of the map in Figure 1 are EPLs that have been applied for by Marenica, or local entities with which Marenica has contracted to acquire the rights to a 90% interest, over the past year.

Marenica acquired the Mile 72 uranium project in 2018, based on its exploration potential. Whilst studying the exploration activities of General Mining, it became apparent that General Mining's exploration was not confined to the southern area of the Erongo region. Extensive analysis of General Mining exploration data has identified areas of exploration potential adjacent to Mile 72. Two EPL applications were recently lodged covering these exploration targets (refer to Figure 2). The model shown in Figure 1 and described by Carlisle also applies to the north Erongo region with the Brandberg and the Erongo Mountains the source of uranium for the Mile 72, Marenica and Trekkopje deposits, and potentially other deposits yet to be discovered.

Figure 1 **Calcrete Hosted Uranium Deposition Model – Erongo Region of Namibia**

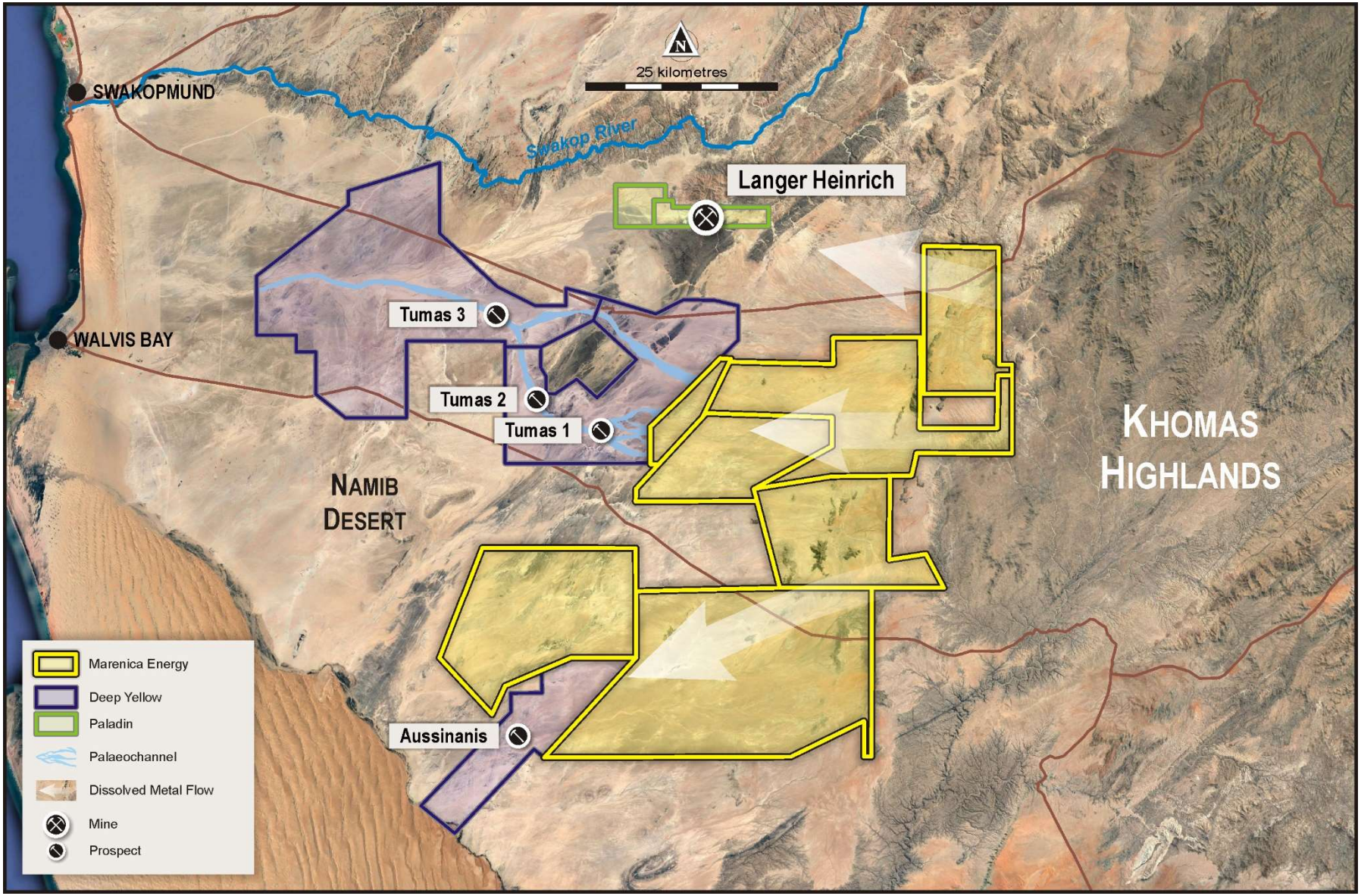


Figure 2 Marenica EPL Map – Erongo Region of Namibia

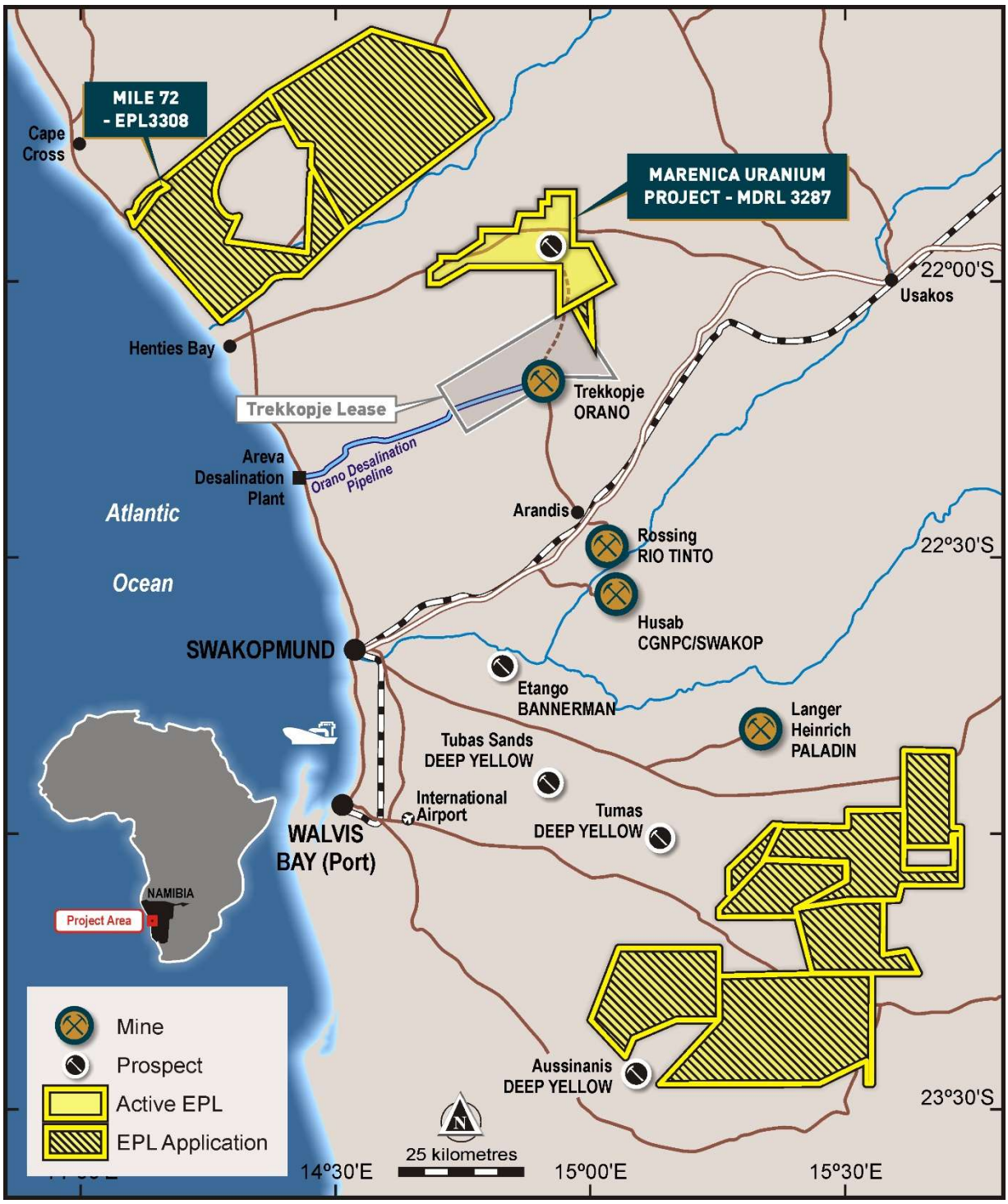
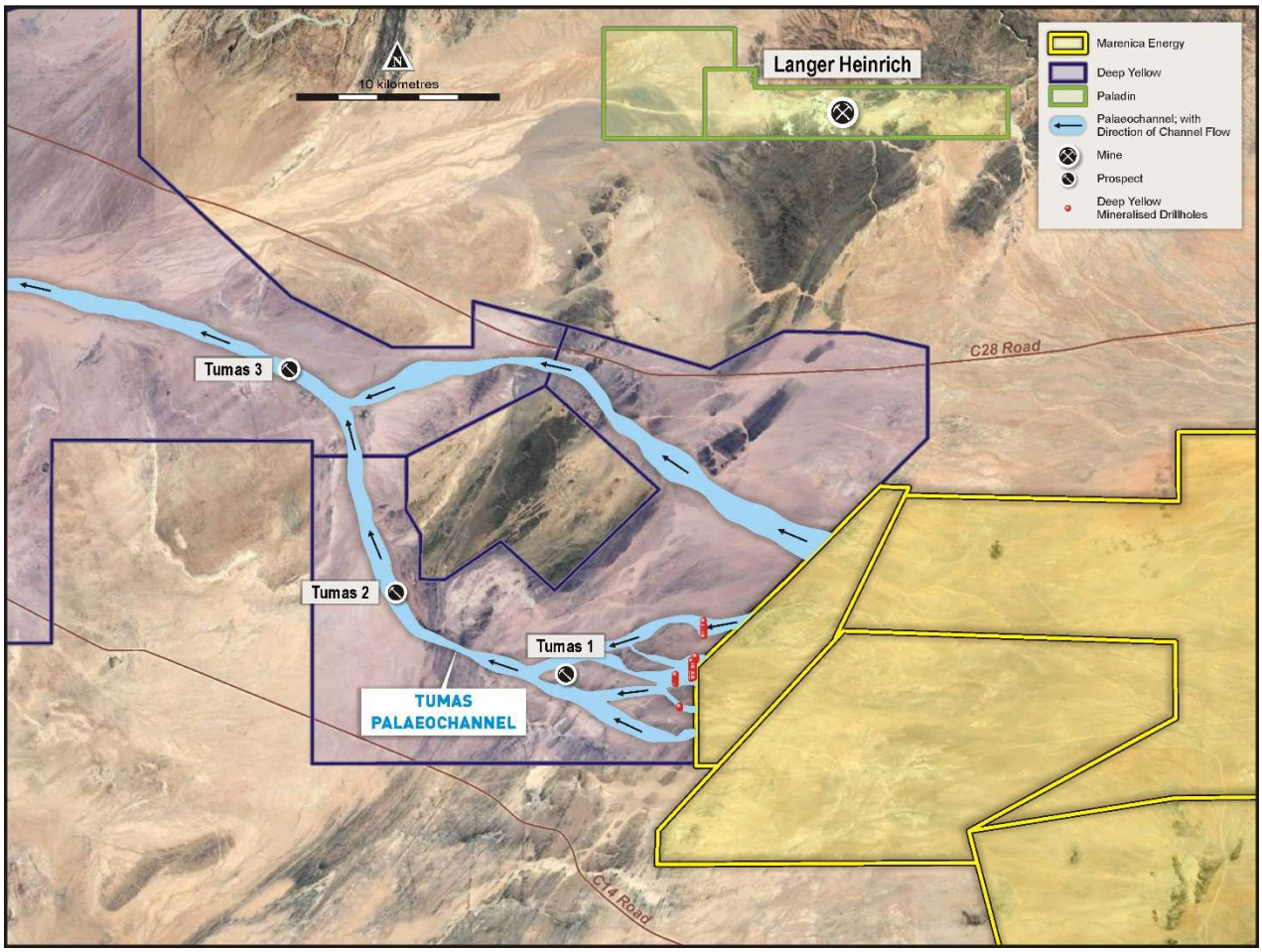


Figure 3 Location of EPL Applications Relative to Tumas Channel



Outcomes to Date

In the southern region, nearest the uranium source rocks, Marenica has applied for six EPLs and has an agreement with a third party to joint venture an additional EPL.

Marenica's strategy is beginning to bear fruit with Deep Yellow Limited ("DYL") having exploration success at the eastern extension of the Tumas Deposit on EPL 3497. A palaeochannel some 60 kilometres long passes through the two DYL EPLs with the majority of the channel reportedly mineralised (refer to Figure 3). The channel originates in the plains below the Khomas Highlands and passes through Marenica's EPL applications. DYL's most eastern drill line is within 100 metres of Marenica's EPL applications, an indication that there is uranium mineralisation within these tenements.

Amenable to *U-pgrade™*

Marenica is targeting uranium mineralisation styles suitable for our proprietary ***U-pgrade™*** beneficiation process. The patented ***U-pgrade™*** beneficiation process, has been demonstrated to materially lower development and operating costs for calcrete hosted uranium projects, like those targeted on these EPL's.

Marenica has previously announced the successful results of an extensive ***U-pgrade™*** testwork program on the neighbouring Tumas deposit, testwork on samples from the Langer Heinrich uranium mine and testwork on samples from the Aussinanis deposit, which confirmed the amenability of the ***U-pgrade™*** process. Marenica has a high level of confidence that its proprietary ***U-pgrade™*** process will be effective on any calcrete deposit found in the area of its EPL applications.

References

[1] Carlisle, Donald (1980), United Nations – International Atomic Energy Agency, Handbook on Surficial Uranium Deposits, Chapter 3

Carlisle, Donald (1980), Possible Variation on the Calcrete-Gypcrete Uranium Model, Prepared for the United States Department of Energy

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Competent Persons Statement – General Exploration Sign-Off

The information in this announcement as it relates to geological interpretations and conclusions was compiled by Mr Keith Webb, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Mr Webb, 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 Webb consents to the inclusion in this announcement of the matters based on the information in the form and context in which it appears.