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# HRONSKY REVIEW SIGNIFICANTLY UPGRADES POTENTIAL AT EMPRESS SPRINGS, LEADS TO STRATEGIC LAND ACQUISITION

Review by world-renowned geologist Dr Jon Hronsky (OAM) has significantly upgraded potential for major mineral discoveries at Empress Springs Gold Project following exceptional drill results from Moho's maiden reconnaissance drill program

- Identification of two deep trans-crustal structures potentially influencing gold mineralisation
  - Eastern structure associated with trend of known gold and tin occurrences around the exposed historic Croydon Goldfield (1.2Moz Au)
  - More significant western- structure trends through basement rocks under cover at the Empress Springs
- Recently discovered gold, silver and base metal mineralisation close to major western structure, including Arrowhead prospect discovery hole ESA023 (10m @ 1.1 g/t Au, 44 – 54m) and ESR046 (2m @ 0.94 g/t Au from 63m)
- Distinctive ring structure interpreted as caldera margin and suggests that Empress Springs area was major magmatic centre for the Croydon mineralising event
- Applications made to Department of Mines and Natural Resources to secure 2,116km<sup>2</sup> of prospective ground with an additional 70km of strike covering a total of 110km strike length of potentially mineralised structures

# Next Steps:

- Stage 1: 2000m RC drill program to follow-up Arrowhead mineralisation discovery along existing tracks at Empress Springs Project (April 2019, weather permitting)
- Stage 2: Air core drill program to follow-up Arrowhead mineralisation discovery with a more systematic drill grid, and further reconnaissance drilling across defined exploration targets (Q2 2019)
- Heritage survey prior to air core drilling (Q1 2019)
- Reprocess and interpret 2007 deep penetrating seismic data of line 07GA-IG1 from Geoscience Australia (Q1 2019)
- Interpret and integrate data sets to identify potential new exploration targets (Q1 2019)
- Await grant of EPM applications (Q4 2019) before implementing exploration programs there, including reconnaissance aircore drill programs along trans-crustal structures



Moho Resources Ltd (ASX:MOH) (Moho or Company) is pleased to announce that it has applied for an additional 2,004km<sup>2</sup> of highly prospective ground adjacent to the Company's Empress Springs Gold Project in North Queensland (Figure 1). This follows Moho's assessment of the results and a high-level review of the results of the Company's maiden drilling campaign and gold and base metal discovery by world-renowned geologist Dr Jon Hronsky.



Figure 1: Location of Moho's recent land acquisition in relation to granted tenements at Empress Springs and surrounding tenements



The Empress Springs Project is located 25 km to the south of the town of Croydon and comprises three granted adjacent exploration permits (EPM25208, EPM25209 and EPM25210), with a total area of 773 km<sup>2</sup> (Figure 1). The Croydon Goldfield, which extends from north of the town, contains over 300 gold occurrences with historical production estimated at 1.2M oz Au.

On 7<sup>th</sup> February 2019 Moho announced to the ASX that significant Au-Ag-Zn-Pb mineralisation in basement rocks had been discovered during reconnaissance air core drilling through shallow (~30 – 60m) of sediment cover conducted in October – November 2018. (Figure 2)<sup>1</sup>. There has been no previous drilling for gold and base metals in the Empress Springs area, with the nearest record of gold mineralisation being associated with workings of the historic Croydon Goldfield about 20km to the north of Moho's granted tenement boundary.



Figure 2: Location of reconnaissance drill holes at Empress Springs, including discovery hole ESA023 (10m @ 1.1 g/t Au from 44 – 54m) and ESR046 (0.94 g/t Au from 63-65m)

<sup>&</sup>lt;sup>1</sup> Refer to ASX announcement on 7<sup>th</sup> February 2019 by Moho Resources Ltd "Virgin Gold & Base Metals Discovery at Empress Springs".



Moho engaged Dr Hronsky to undertake a high-level and independent review of the exploration data generated at Empress Springs by Moho during 2018, particularly the results from the Company's highly successful maiden reconnaissance drilling program.



Figure 3: Regional geological overview showing key mineralising structures with inferred trans-crustal zones; background is regional gravity (after Hronsky, 2019)



# Key outcomes from Dr Hronsky's review include:

On a regional scale:

- The primary geometric control on the position of the Croydon province is the intersection of a set of WNW trending structures and NE trending structures (the latter are associated with Ernest Henry in the Isa block to the west) – refer to Figure 3.
- Two major trans-crustal structures which penetrate down through the earth's crust to the mantle imaged in the seismic line acquired by Geoscience Australia in 2007, part of which transects the southeastern corner of the Empress Springs project area (Figures 3 and 4) are now interpreted to relate to two long life WNW trending structures, the detailed magnetics and gravity data acquired by Moho in 2018 being critical to this interpretation
  - the easternmost of these is associated with the eastern margin of the Esmeralda Batholith
  - the western one (more significant) runs through the Empress Springs project area
- The Empress Springs area has a much more complex relationship between volcanics and granite intrusions than the exposed part of the Croydon province, consistent with a more dynamic setting, closer to a major magmatic centre.



Figure 4: Seismic cross-section 07GA-IG1 (After Hronsky, 2019)



#### At the Empress Springs project scale:

• A distinctive ring structure, which is evident in the detailed magnetics, is interpreted as a caldera margin structure and suggestive that the Empress Springs area was the major magmatic centre for the Croydon mineralising event (Figure 5).



Figure 5: Ring structure in detailed magnetic data (TMI 1VD): Interpreted as possible Caldera margin (after Hronsky 2019)

- The observed alteration style observed in drill samples at Empress Springs is very similar to that seen in the exposed part of the Croydon province (Figure 6).
- Both the WNW and N-S structural trends are associated with mineralisation intersected in basement rocks at Empress Springs to date
- The N-S trend has clearly had a late phase of movement on it (but this is likely to be reactivation) which has overprinted the other major structures and probably also provided the paths for mafic dyke emplacement





Figure 6: Relationship between Au anomalous holes + intense alteration from petrography (green stars) with NW and N-S trending structures, which appear to be the two most important structural sets (after Hronsky 2019)





*Figure 7: Relationship between Ag anomalous holes N-S trending structures, which appear to be the two most important structural sets (after Hronsky 2019)* 

# Conclusions and actions by Moho arising from Dr Hronsky's review:

- Moho's existing granted tenure on Exploration Permits for Minerals (EPMs) 25208-210) cover ~40km of strike length of the interpreted eastern trans-crustal structure.
- Moho has applied for 9 EPMs covering the areas of the trans-crustal structures outside of the Empress Springs tenements and within the Croydon Province, covering a total of ~110km of strike length of the interpreted trans-crustal structures.



#### **Competent Persons Statement**

The information in this announcement that relates to Exploration Results is based on information and supporting documentation compiled by Mr Robert Affleck, a Competent Person who is a RPGeo of The Australasian Institute of Geoscientists. Mr Affleck is Exploration Manager and a full-time employee of Moho Resources and holds shares in the Company.

Mr Affleck has sufficient experience relevant to the style of mineralisation 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 Affleck consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Note: Information on exploration results, including JORC Code Table 1 information, is contained in the ASX announcement on 7<sup>th</sup> February 2019 by Moho Resources Ltd "Virgin Gold & Base Metals Discovery at Empress Springs". Other than the review by Dr Jon Hronsky referred to in this announcement, Moho is not aware of any new information or data that materially affects the information included in that announcement.

#### About Dr Jon Hronsky (OAM):

Jon Hronsky (BAppSci, PhD, MAIG, FSEG, MAIMM)

Jon was also awarded the prestigious **Order of Australia Medal (OAM)** in the 2019 Australia Day Honours for services to the mining sector.

Jon has more than thirty years of experience in the global mineral exploration industry, primarily focused on project generation, technical innovation and exploration strategy development. He has worked across a diverse range of commodities and geographies, and has particular expertise in targeting for nickel sulfide and gold deposits. His targeting work led to the discovery of the West Musgrave nickel sulfide province in Western Australia.

Jon is currently Chairman of the Board of the Center for Exploration Targeting in Western Australia, Chairman of the Australian Geoscience Council (the peak body for geoscience organisations in Australia) and an Adjunct Professor at both the University of WA and Macquarie University. He was the 2009 Society of Economic Geology Distinguished Lecturer. Jon joined WMS in 2007. Prior to that, he was Manager-Strategy & Generative Services for BHP Billiton Mineral Exploration and Global Geoscience Leader for WMC Resources Ltd.



#### **Moho's Interest in Empress Springs Project**

On 27 July 2016 the Company entered into a farm-in joint venture agreement with Independence Newsearch Pty Ltd (as amended on 6 April 2018) (INPL) (a wholly owned subsidiary of Independence Group NL) pursuant to which the Company may earn up to a 70% interest in EP25208, EPM25209 and EPM25210, within the Empress Springs Project, in two stages:

- (a) (Earn-in Right): the Company may:
  - (i) earn a 51% interest in the tenements by expending \$1,000,000 on exploration activities by 27 July 2019; and
  - (ii) in the event that the 51% interest is earned, the Company has an additional right to earn a further 19% interest in the tenements by expending a further \$1,400,000 within 4 years of acquiring its 51% joint venture interest.
- (b) (Formation of Joint Venture): on and from the date on which the Company earns a 51% interest in the tenements, the parties shall form an unincorporated joint venture for the purpose of exploring, and if warranted, developing and mining the tenements.

Following formation of the joint venture, the Company is proposed to be manager of the joint venture;

- (c) (Free-carried Interest or Buy-back): In the event that the Company elects to earn the additional 19% interest, INPL's joint venture interest is free carried until completion of a pre-feasibility study.
- (d) (Buy Back on Potential Mining Area (PMA)): Upon completion of a pre-feasibility study on a PMA, INPL may elect to contribute to the joint venture to the extent of its interest, convert its interest to a 10% free-carried interest or buy-back a 21% interest in the joint venture in that PMA. The consideration payable for the buyback will be based on the market value of the tenements or otherwise the value of 3.5 times the expenditure incurred by the Company on the tenements.

In the event that the buy-back is completed, INPL will be manager of the joint venture on the PMA. Following the buy-back, the Company will be entitled to contribute to the work programme to the extent of its interest or convert to a 30% free-carried interest in respect of the PMA.

The Company will remain manager of the remaining tenements outside the PMA and it will be required to contribute to the work programmes in proportion to its interest at the time.

On 30<sup>th</sup> January 2019 Moho notified INPL that it has met the 51% Initial Earn in the Tenements at Empress Springs by having expended \$1,000,000 under the terms of the Letter Agreement. Moho also notified INPL that it has elected to proceed to continue with the exploration to earn an Additional 19% Interest in the Tenements in accordance with the Empress Springs Letter Agreement.





MAP OF MOHO'S PROJECT AREAS

and geologist, as Non-Executive Director.

# About Moho Resources Ltd

On 7<sup>th</sup> November 2018 Moho listed on the ASX, raising \$5.3 million. As a result, the Company is well funded to advance exploration on its three highly prospective projects at Empress Springs, Silver Swan North and Burracoppin.

Moho's Board is chaired by Mr Terry Streeter, a well-known and highly successful West Australian businessman with extensive experience in funding and overseeing exploration and mining companies, including Jubilee Mines NL, Western Areas NL and Midas Resources Ltd.

Moho has a strong and experienced Board lead by geoscientist Shane Sadleir as Managing Director, Commercial Director Ralph Winter and Adrian Larking, lawyer

Highly experienced geologists Bob Affleck (Exploration Manager) and Max Nind (Principal Geologist) are supported by leading industry consultant geophysicist Kim Frankcombe (ExploreGeo Pty Ltd) and experienced consultant geochemist Richard Carver (GCXplore Pty Ltd).

Moho's geophysical programs and processing and analysis of the results are supervised by Kim Frankcombe who is a geologist and geophysicist with 40 years' experience in mineral exploration. He has worked for major mining companies, service companies and for over 20 years as an independent geophysical consultant. He was a member of the discovery team for several significant deposits including one Tier 1 deposit. He manages the ExploreGeo consulting group which provides specialist geophysical advice to explorers.

#### For further information please contact:

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