

# **LANDORE RESOURCES LIMITED**

(AIM Ticker: LND.L)

## **MINERAL RESOURCE ESTIMATE UPDATE BAM GOLD DEPOSIT JUNIOR LAKE PROPERTY**

**London, United Kingdom - 7 January 2020 - Landore Resources Limited (AIM:LND)** ("Landore Resources" or "the Company") is pleased to confirm that Cube Consulting Pty Ltd has now completed an updated, National Instrument 43-101 ("NI 43-101") compliant, Mineral Resource Estimate on the BAM Gold Project, Junior Lake Property, Ontario, Canada ("BAM Gold Deposit").

### **Highlights:**

- **The new Mineral Resource Estimate (MRE) modelling has increased the BAM Gold resource to: 31,083,000 tonnes (t) at 1.02 grams/tonne (g/t) for 1,015,000 ounces of gold including 21,930,000t at 1.06g/t for 747,000 ounces gold in the Indicated Category.**
- **The February 2019 Preliminary Economic Assessment (PEA) for the BAM Gold project provided a price sensitivity analysis of the 'Extended case' which, at a gold price of US\$1,300, would produce a Post Tax, Net Present value (NPV) of US\$123.71m. At the current gold price of US\$1,560 that Post tax NPV would be elevated to US\$227.37m.**
- **The BAM Gold Deposit now extends for 3,700 metres from 400E to 4100E and remains open down dip and along strike to the east and the west. In addition the recently completed Soil sampling program has identified widespread gold mineralisation along strike to the west for a further 7 kilometres.**
- **The BAM Gold Deposit is located approximately mid-way along a highly prospective Archean greenstone belt which traverses the**

**Junior Lake Property from east to west for approximately 31 kilometres. The favourable greenstone belt ranges from 0.5 to 1.5 kilometres wide and hosts multiple known gold occurrences including the Lamaune Gold Prospect.**

Commenting on this report, Chief Executive Officer of Landore Resources, Bill Humphries, said:

*"Landore's exploration effort for 2019 concentrated on establishing the potential growth of the BAM Gold Project along strike towards the existing Lamaune Gold project through the highly successful Soil Sampling campaign together with exploration drilling. Whilst the above infill drilling campaign continued to convert Inferred mineralisation into Indicated resource ounces.*

*The directors believe that the continued growth of the BAM Gold Deposit together with the possible future development of new discoveries along this highly prospective 31 kilometre long Archean greenstone belt has further enhanced the likelihood of the Junior Lake Property hosting a multi-million ounce gold deposit."*

#### **Summer Drilling Campaign 2019:**

An infill drilling campaign, consisting of 24 holes HQ diamond core for a total of 3,966 metres, was completed on the BAM Gold Deposit aimed at advancing the inferred portion of the existing resource to the Indicated category for inclusion into the upgraded Mineral Resource Estimate.

Up to November 2019, a total of 251 diamond drill holes for approximately 45,686 metres have been completed in the BAM Gold Project area, with a total of 207 holes for a total of 37,540 metres being used for the current Mineral Resource Estimate.

The results of the above drilling campaign have been incorporated into the following Mineral Resource update.

#### **"CUBE Mineral Resource Estimate (MRE) Executive Summary:**

Cube Consulting Pty Ltd ("**Cube**") was engaged by Landore Resources Canada Inc. (**Landore**) to update the Mineral Resource estimate ("**MRE**") of the gold mineralisation for the BAM Gold Project. The estimation work was completed in December 2019 following completion of the 2019 diamond drilling campaign at the project in August 2019.

Landore is a fully-owned subsidiary of Landore Resources Ltd., which is based in Guernsey, UK, and listed on the AIM market of the London Stock Exchange. The BAM Gold Project is located within Landore's Junior Lake Project, located approximately 235 km north-northeast of Thunder Bay, Ontario, and approximately 75 km east-northeast of the village of Armstrong Ontario, Canada.

The BAM Gold Project Mineral Resources have been classified in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves ("**JORC Code**"). Table 1 is a summary of the Indicated and Inferred Mineral Resources, effective as of 30<sup>th</sup> November 2019. A JORC Code Table 1 checklist of assessment and reporting criteria has been completed for the BAM January 2019 MRE.

Table 1: BAM Gold Project November 2019 MRE - In-situ Gold Resources at Selected Cut-Offs (as at 30th November 2019)

| <b>Resource Category</b> | <b>Min. Domain</b> | <b>Au g/t cut off</b> | <b>Tonnes (kT)</b> | <b>Grade (g/t Au)</b> | <b>Contained Metal (kOz Au)</b> |
|--------------------------|--------------------|-----------------------|--------------------|-----------------------|---------------------------------|
| <b>Indicated</b>         | <b>ALL</b>         | >0.0                  | 25,537             | 0.94                  | 772                             |
|                          |                    | >0.3                  | 21,930             | 1.06                  | 747                             |
|                          |                    |                       |                    |                       |                                 |
| <b>Inferred</b>          | <b>ALL</b>         | >0.0                  | 10,757             | 0.81                  | 280                             |
|                          |                    | >0.3                  | 9,153              | 0.91                  | 268                             |
|                          |                    |                       |                    |                       |                                 |
| <b>Total</b>             | <b>ALL</b>         | <b>&gt;0.0</b>        | 36,293             | 0.90                  | 1,052                           |
|                          |                    | <b>&gt;0.3</b>        | 31,083             | 1.02                  | 1,015                           |

The objectives of the November MRE were to quantify the global in-situ gold resource, provide models suitable for pit optimisation, mine planning, and MRE reporting with assigned Mineral Resource classification categories, after incorporating all available drilling data and geological interpretations provided by Landore.

### **Geology and Mineralisation**

A highly prospective Archean greenstone belt traverses the Junior Lake Property from east to west for approximately 31 kilometres. The greenstone belt ranges from 0.5 to 1.5 kilometres wide and contains all of Landore Resources' stated mineral resources and prospects. However, the greater proportion of this belt remains unexplored. The BAM Gold Deposit is located in the south-central area of the Junior Lake property and is interpreted as an Archean mesothermal gold deposit in which gold mineralization is hosted by sheared and altered rocks of the Grassy Pond Sill and the BAM volcano-sedimentary sequence. The host rock units strike in an east-southeast direction dip steeply to moderately to the south.

Mineralised structures appear to strike at approximately parallel to lithology's, averaging at 280° strike and steeply dipping to the south between -65 to -80°. Gold mineralisation remains open along strike to the east and west, and down dip.

The gold mineralization is interpreted to reside within a series of tabular shaped zones that are oriented in a roughly en-echelon configuration and are generally parallel to the overall strike of the host rock units. The gold mineralization is commonly observed in drill core to exist as visible gold that is hosted by very thin, foliation-parallel quartz-rich veinlets, hosted by highly fissile ultramafic sediments of the BAM Sequence, or by foliated rocks of the Grassy Pond Sill (GPS). A preliminary petrographic study carried out on a number of samples has identified the presence of coarse native gold that is present in association with either tourmaline, ankerite, or scheelite assemblages that occur within calcite replacement patches and veinlets.

### **Drilling**

From 2015 to 2019, Landore has completed several diamond drilling campaigns at the BAM Gold Project. In 2019, Landore completed a drill programme consisting of 38 HQ diamond drill holes (0419-687 to 0419-724) for 5,946m. The aim of this programme was to extend the existing BAM Gold Resource to the west (14 HQ holes) and infill to nominal 50m E x 25m N spacing within the BAM pit design areas (24 HQ holes).

The 2019 drilling has confirmed the continuity of the gold mineralisation within the pit design areas resulting in conversion of Mineral Resources from Inferred to Indicated, and also demonstrated the continuation of the main BAM mineralisation to the west to local grid line 400E.

The drilling has continued to show the close association between gold mineralisation and the VTEM geophysical anomaly trend. The BAM gold mineralisation trend has now been confirmed by diamond drilling over a strike length 3.9km, extending from the local grid line 400E and passed line 4000E. Drill testing has confirmed gold mineralisation within the main BAM zone extends from below the glacial till overburden (~10m average depth) surface to a maximum vertical depth of approximately 380m. The maximum width of the gold mineralisation envelope being approximately 50m, down to minimum mining width of 3m.

The 2019 drilling results also intersected additional narrow, poddy gold mineralisation zones with the hanging wall GPS unit within the West Pit design area.

Gold mineralisation hosted within the BAM sequence remains open to the east and west and down dip.

### **Mineral Resource Estimation**

The Mineral Resources for the BAM Gold Project were estimated by Cube based on drill hole and assay data available up to 2<sup>nd</sup> November 2019. The following key points summarise the modelling process and key parameters used by Cube for the estimation work:

- Up to November 2019, a total of 251 diamond drill holes for approximately 45,686m have been completed with the BAM Gold

Project area, with a total of 207 holes used the current MRE (37,540m).

- Geological and mineralisation interpretations in plan and cross sections were followed up with 3D wireframe models based on analysis of all the recent information collated. A total of 28 mineralised domains were modelled for the November 2019 MRE.
- After assessment of all grade distribution and statistical data analysis, it was decided that no grade capping would be used for any of the domains as there was either no material difference when applying suitable top cut values, or there were no significant grade outliers within the compositing data inside the estimation domains. Instead a cut-off threshold was applied beyond a set distance away from the higher grade composites was applied (half drill hole spacing or 25m).
- Samples were composited to 2m within the main BAM estimation domain in order to reduce the variability inherent in raw samples or a smaller composite length relative to estimation resource model block dimensions. The 2m composite length is also closer to mining SMU for a large bulk mining open pit scenario. Narrower and less continuous domains were composited to a 1m length.
- Variogram modelling conducted to provide parameters for OK estimation method - nugget, sill and range for 3 directions.
- Kriging Neighbourhood Analysis ("**KNA**") was used to assist with assessing the most appropriate block sizes and other estimation parameters such as minimum and maximum samples, discretisation, to be used for the estimation.
- Parent block size of 20m x 5m x 5m in the X, Y, Z directions respectively was used and they were sub-blocked to 5m x 2.5m x 2.5m. This was deemed to be appropriate for block estimation and modelling the selectivity for an open pit operation.
- Ordinary Kriging ("**OK**") estimation method was used to estimate gold into the 3D block model using spatial data analysis parameters informed from the variogram and KNA analyses.
- Au estimated in 2 passes - 1st pass using optimum search distances for each domain (max 100m) as determined through the KNA process, with a 2nd pass set at longer distances in order to populate all blocks (2nd = max >200m,).
- Blocks have been classified as Indicated Mineral Resources or Inferred Mineral Resources. The resource classification is based on the quality of information for the geological domaining, as well as the drill spacing and geostatistical measures to provide confidence in the tonnage and grade estimates. At lower depths and along strike, with limited to no composite data, projected mean grades were applied in the interpolation search - these areas were assigned as unclassified material.
- The estimation domaining, MRE parameters, classification and block model report replication have all been internally peer reviewed by qualified professionals at Cube.

The 2019 drilling resulted in the increase in Indicated and Inferred Resource of 7% (contained metal) above a cut-off of 0.3g/t Au compared with the Cube

MRE reported in January 2019.

### **Pit Optimisation and Mine Design**

Given the shallow nature of the mineralization and the initial metallurgical test results, material could be extracted by means of open pit mining methods and processed using conventional milling techniques. 3DM modelling and block construction were created with aim of preparing a suitable model for open pit mine design and pit optimisation.

3DM modelling and block construction have been created with aim of preparing a suitable model for open pit mine design and pit optimisation, with a minimum mining width of 3m. Internal dilution has been considered by re-blocking the resource block model, with a maximum downhole width of 3m (2.5m true width) of sub-grade material (<0.3g/t Au). The minimum block dimensions were selected based on a mining SMU of 5mE x 2.5mN x 2.5mRL. An information effect was applied to the model and as such, the model was presented as a recoverable resource, implying that the practicalities of the mining operations are accounted for in the estimation process. As a result, Cube has not applied any further mining dilution or ore loss factors to the model.

### **Metallurgy**

A series of metallurgical test programs have been carried out on samples from the BAM Gold Deposit. ALS Metallurgy Americas was engaged by LND in December 2016 to carry out a preliminary assessment of the metallurgical response of two composite samples from the BAM East Gold Project. Between 98% and 99% of the feed gold was recovered through combined gravity concentration and cyanidation leaching of gravity tails for the two composites tested. Gold leach kinetics were fast, with most of the gold extraction taking place within the first six hours. Gold head grades were calculated at 2.0 g/t for both composites based on combined gravity and cyanidation leach test results (Sloan and Roulston, 2016).

LND completed additional metallurgical testing on the BAM Gold Project in September of 2017 using samples collected from a drill hole completed in the 2017 drilling program (Sloan and Roulston, 2017). This additional test work was designed to assess the metallurgical response of two additional mineralized samples from the BAM East gold mineralisation, and to provide a determination of the gold feed grade using gravity and cyanidation leach techniques, identical to those employed for the 2016 metallurgical test work. The metallurgical performance was excellent for both tested composites. Leach kinetics were rapid with most of the gold extraction completed within two to six hours, the combined gold recovery and cyanidation leach gold extractions for both composite samples measured between 97% to 99%, and the sodium cyanide and lime consumption was very low (<0.1 kg/tonne and 0.3 kg/tonne, respectively). Results indicate that a combination of gravity concentration followed by cyanidation leaching of the gravity tails would be an effective flowsheet for the composites tested.

## **Exploration Potential**

The step out drilling conducted for the 2019 drilling program further confirmed the correlation of an IP anomaly from geophysics conducted in 2004 with the main BAM gold mineralisation trend to the west, which remains open and un-tested.

Future drill testing recommendations to target gold mineralisation still open along strike and down dip and further targets identified and based on the following data are listed as follows:

- Highly prospective soil geochemistry results based on sampling in 2019.
- IP anomaly targets have been identified by LND previously in 2004 and related to FW massive to disseminated sulphides zones within the main BAM Au mineralised units. In addition there are 3 to 4 WNW trending anomalies that are possible targets for exploration drilling (northern anomalies), and step-out drilling along strike from the BAM sequence;
- Regional Prospectivity - other gold mineralisation targets along the 31km strike length of the Junior Lake Shear (Lamaune) and historic discovery at Toronto Lake.

Cube is an Australian owned geological and mining engineering consulting services company located in Perth, Western Australia. Brian. Fitzpatrick, BSc (Geology) MAusIMM CP, is a Principal Geologist with Cube and has worked as a geologist for more than 34 years since graduation from the University of Tasmania. Mr Fitzpatrick has sufficient experience in Archaean greenstone gold hosted mineralisation and the type of resource under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code, 2012 Edition. Mr Fitzpatrick has assumed the responsibility of the Competent Person for the data, the interpretation of gold mineralisation domains and for the grade estimation. He conducted a site visit to the Junior Lake property from 23rd to 28th June 2018.

*End of CUBE Mineral Resource Estimate (MRE) Executive Summary"*

## **Planning:**

A drilling programme is under consideration to further extend the known BAM Gold Zone to the east and west and to test any potential mineralisation identified in the recently completed Soil Sampling Exploration program (as reported 9<sup>th</sup> December 2019).

In addition, several deep holes are planned to test the continuity of high grade mineralisation below the existing BAM Gold Deposit.

## **BAM Gold Deposit:**

The BAM Gold Deposit, discovered in December 2015, is located in the south-central area of the Junior Lake property and is interpreted as an Archean-aged

mesothermal gold deposit in which gold mineralisation is hosted by sheared and altered rocks of the Grassy Pond (Gabbro) Sill and the BAM Sequence. The host rock units strike in an east-southeast direction (average of azimuth 105°) and dip steeply to moderately to the south at 70 to 80 degrees. The gold mineralisation is interpreted to reside within a series of tabular shaped zones that are oriented in a roughly en-echelon configuration and are generally parallel to the overall strike of the host rock units.

**BAM Gold Resource and PEA:**

A Technical Report and Preliminary Economic Assessment ("PEA") of the BAM Gold Project was reported 20<sup>th</sup> February 2019. The report is in compliance with the requirements of the Canadian National Instruments 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101").

**The Junior Lake Property:**

The Junior Lake Property, 100% owned by Landore Resources, together with the contiguous Lamaune Iron property (90.2% owned) (jointly the "Junior Lake Property"), consisting of 30,507 hectares, is located in the province of Ontario, Canada, approximately 235 kilometres north-northeast of Thunder Bay and is host to: The BAM Gold Deposit; the B4-7 Nickel-copper-cobalt-Platinum-Palladium-gold Deposit; the VW Nickel-Copper-cobalt Deposit; Lamaune Gold Prospect and numerous other precious and base metal occurrences.

A highly prospective Archean greenstone belt traverses the Junior Lake Property from east to west for approximately 31 kilometres. The greenstone belt ranges from 0.5 to 1.5 kilometres wide and contains all of Landore Resources' stated mineral resources and prospects. However, the greater proportion of this belt remains unexplored.

**Brian Fitzpatrick, (MAusIMM CP.), Principal Geologist of Cube Consulting Pty Ltd., Perth, Western Australia, a Qualified Person as defined in JORC Code, 2012 Edition, and responsible for the preparation of the BAM Gold Project Resource Estimate, has reviewed and verified all scientific or technical disclosure relating to the Mineral Resource Estimate**

**Michele Tuomi, (P.Geo., BSc. Geology), Director/VP Exploration of Landore Resources Canada Inc. and a Qualified Person as defined in the Canadian National Instrument 43-101 and the AIM Rules for Companies, has reviewed and verified all scientific or technical mining disclosure contained in this announcement.**

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**About Landore Resources**

Landore Resources is an exploration company that seeks to grow shareholder value through the acquisition, exploration and development of precious and base metal projects in eastern Canada. The Company is primarily focused on the development of the Junior Lake Project. Landore Resources has mineral

rights to 5 properties in eastern Canada. The Company is headquartered in Guernsey, with an exploration office located in Thunder Bay, Ontario, Canada.

*For more information, please contact:*

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*This announcement contains inside information as defined in Article 7 of the Market Abuse Regulation No 596/2014.*

## **Glossary of Key Terms**

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>"assay"</b>              | The chemical analysis of rock or ore samples to determine the proportions of metals                                                                                                                                                                                                                                                                                                                                        |
| <b>"Au"</b>                 | chemical symbol for gold                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>"diamond drilling"</b>   | drilling method which obtains a cylindrical core of rock by drilling with an annular bit impregnated with diamonds                                                                                                                                                                                                                                                                                                         |
| <b>"drill core"</b>         | The cylindrical rock samples obtained by means of annular-shaped rock-cutting bits rotated by a borehole-drilling machines                                                                                                                                                                                                                                                                                                 |
| <b>"g/t"</b>                | grams per tonne, equivalent to parts per million                                                                                                                                                                                                                                                                                                                                                                           |
| <b>"grade"</b>              | relative quantity or the percentage of ore mineral or metal content in an ore body                                                                                                                                                                                                                                                                                                                                         |
| <b>"greenstone"</b>         | green, chlorite rich, generally metavolcanic rocks resulting from low temperature and pressure metamorphism                                                                                                                                                                                                                                                                                                                |
| <b>"indicated resource"</b> | that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to |

confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed

**"inferred resource"**

that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability

**"IP"**

an electromagnetic geophysical method that uses electrodes with time-varying currents and voltages to map the variation of electrical permittivity (dielectric constant) in the earth at low frequencies

**"Kriging"**

A method of interpolation which predicts unknown values from data observed at known locations. It uses the variogram to express spatial variation, and minimizes the error of predicted values that are estimated by spatial distribution of the predicted values

**"mineral resource"**

a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral resources are sub-divided, in order of increasing confidence, into Inferred and Indicated categories

**"mineralisation"**

process of formation and concentration of elements and their chemical compounds within a mass or body of rock

**"NI 43-101"**

The reporting standard adopted for the reporting of the Mineral Resources is that defined by the terms and definitions given in the terminology, definitions and guidelines given in the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Mineral Reserves (December 2005) as required by NI 43-101. The CIM Code is an internationally recognised reporting code as defined by the Combined Reserves International Reporting Standards Committee

|                        |                                                                                                        |
|------------------------|--------------------------------------------------------------------------------------------------------|
| <b>"reserve"</b>       | the economically mineable part of a Measured and/or Indicated Mineral Resource                         |
| <b>"SMU"</b>           | selective mining unit-sized blocks                                                                     |
| <b>"strike length"</b> | the longest horizontal dimension of an orebody or zone of mineralisation                               |
| <b>"strike"</b>        | The direction, or bearing from true north, of a vein or rock formation measure on a horizontal surface |
| <b>"veinlets"</b>      | a deposit of non-sedimentary origin, which may or may not contain valuable minerals                    |

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