# ASX Announcement



10 March 2022

## REPORT ON MAJOR PORPHYRY COPPER/GOLD SYSTEM IN CUBA TO BE **EXPLORED BY ANTILLES GOLD**

Antilles Gold Limited (ASX Code: AAU, OTCOB: ANTMF) ("Antilles Gold" or the "Company") is pleased to provide a copy of a Report by the Company's Exploration Director, Dr Chris Grainger, on his review of the potential of a cluster of outcropping, large porphyry copper-gold deposits near Ciego de Avila in central Cuba.

Following this positive review, Antilles Gold recommended they be included in its Los Llanos Exploration Agreement with the Cuban Government's mining company, GeoMinera SA. (refer ASX Announcement 1 March 2022). The Company has also recommended that these previously explored and highly prospective properties be prioritised for early exploration, and should be drill-ready in a few months.

#### HIGHLIGHTS FROM THE REPORT

- The surface exposures of the group of deposits, El Pilar, San Nicholas, and Gapar, are the leached phyllic caps of copper/gold porphyry cores. Copper is widespread with the gold mineralisation, and generally located at the saprolite/saprock contact where the copper has leached downwards in the weathering profile above fresh rock.
- Given the size of the phyllic alteration zones at surface, the potential size of the mineralised copper/gold porphyry ore bodies indicate it is a very large open pit prospect, and an excellent exploration opportunity.

The Report has been submitted to GeoMinera SA, together with the proposed work program and budget through to end 2023. If as expected, exploration, and studies during this period confirm the development potential for a major open pit mine, the 212km<sup>2</sup> Mining Concession holding the porphyry system will be transferred to the existing joint venture mining company, Minera La Victoria SA, for further exploration and possible development.



#### **LOS LLANOS PROJECT**

The Los Llanos Project encompasses the concept of Antilles Gold undertaking preliminary exploration activities and studies of a number of previously explored gold and copper/gold deposits controlled by GeoMinera, to determine those with development potential.

The deposits listed in a formal International Economic Assessment ("IEA"), which is effectively a 'global' Exploration Agreement between subsidiaries of Antilles Gold and GeoMinera, may be explored and studied by the Company prior to recommending their transfer to the joint mining venture with GeoMinera for further exploration and possible future development.

Properties can be added to the list or deleted on Antilles Gold's recommendation.

The Los Llanos Project will effectively be an "incubator" for determining the potential of properties offered by GeoMinera to the Company for its assessment.

In addition to the Ciego de Avilo project, the Company will conduct preliminary exploration on a large VMS deposit at Golden Hills in south east Cuba, and two nearby sulphide gold deposits, Florencia and Maclama.

Detailed work programs and budgets for the activities to be carried out under the Los Llanos Project through to December 2023 will be determined in consultation with GeoMinera later this month but will include reinterpretation of existing data, geological mapping, geophysical surveys including ground magnetics, and induced polarisation (I.P.) programs, and a drilling program on those properties indicating development potential.

#### **POTENTIAL COMPANY MAKER**

Mr Brian Johnson, Executive Chairman of Antilles Gold, said that Dr Grainger, who has been a highly successful explorationist in Colombia and other Latin American countries before joining the Company, believes the porphyry deposits could collectively become a company maker, and potentially the next project to follow Minera La Victoria's near-term development of the La Demajagua open pit mine.

END

#### **ABOUT ANTILLES GOLD LIMITED:**

• Antilles Gold's strategy is to participate in the successive development of previously explored gold and copper/gold deposits in mineral rich Cuba, and on realising the value of assets it holds in the Dominican Republic.

The Company is at the forefront of the emerging gold mining sector in Cuba and expects to be involved in the development of a number of projects through its 49:51 joint venture with the Cuban Government's mining company, GeoMinera SA.

The near-term project of the joint venture company, Minera La Victoria SA, is the proposed development of the La Demajagua gold/silver open pit mine on the Isle of Youth in southwest Cuba to produce gold and silver concentrate.

Minera La Victoria has access to a pipeline of additional projects with development potential including a cluster of highly prospective copper-gold porphyry deposits near Ciego de Avila in central Cuba, a large VMS deposit at Golden Hills, in south east Cuba, and the adjacent Florencia and Maclama sulphide gold deposits.

The objective of the joint venture is to invest part of the surplus cash expected to be generated by the La Demajagua mine to fund projects that follow in order to achieve organic growth with minimal additional equity contributions, and with the aim of ultimately establishing a substantial mining company in Cuba.

This announcement has been authorised by the Chairman of Antilles Gold Limited.

For further information, please contact:

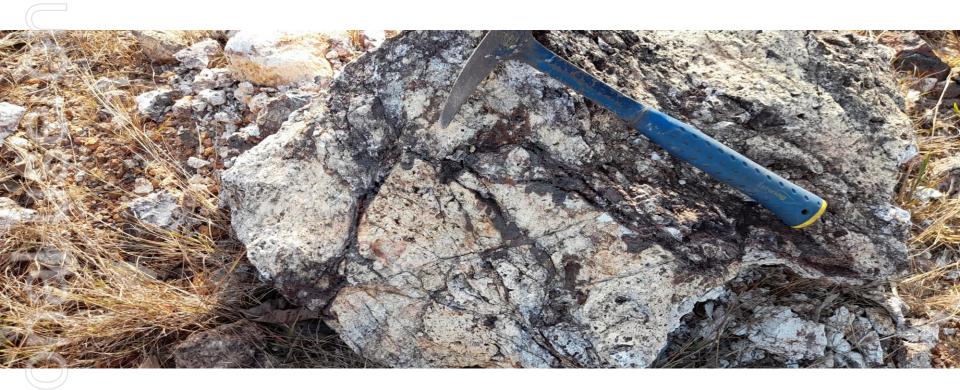
#### **Brian Johnson**,

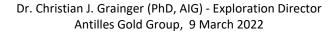
Executive Chairman Antilles Gold Limited **T:** +61 (02) 4861 1740

E: brianjohnson@antillesgold.net



# Ciego de Avila Project El Pilar, San Nicholas & Gaspar Porphyry Copper-Gold Deposits Republic of Cuba





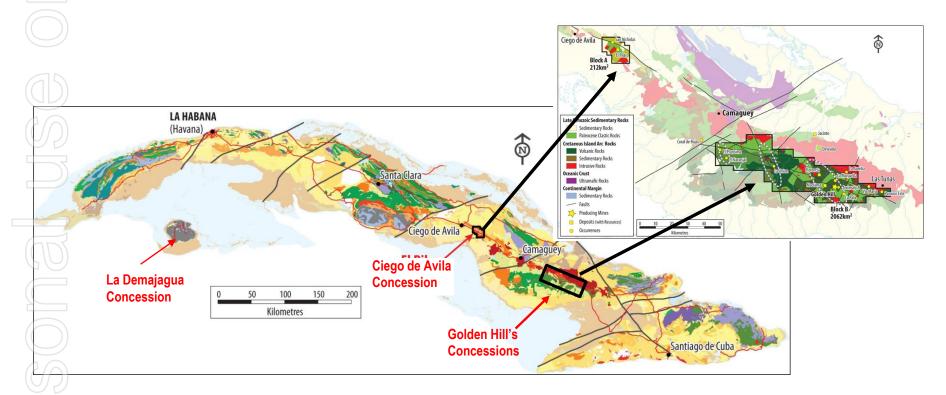




#### **Ciego de Avila Project - Location**

A 212 km2 Mining Concession near the township of Ciego de Avila in Central Cuba hosts a group of three porphyry copper-gold prospects (El Pilar, San Nicholas and Gaspar) that have been previously explored but the potential of a large porphyry system was not recognised.

Existing geological data on these properties has been reviewed and the prospects inspected prior to recommending that the Concession should be included in the Los Llanos International Economic Assessment ("IEA") between subsidiaries of Antilles Gold Limited and GeoMinera SA, because of the collective potential for a large scale open-pit mining operation.

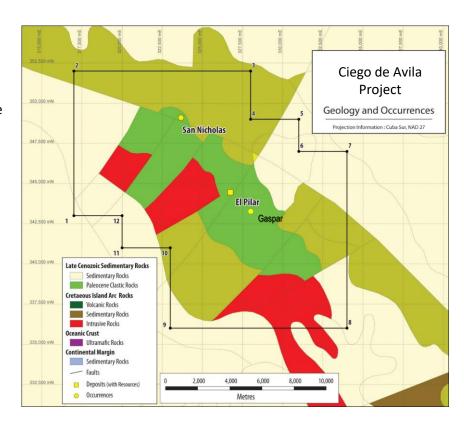






#### **Geology and Mineralization of the Ciego de Avila Project**

- The El Pilar, San Nicholas and Gaspar prospects are located over a 4 km strike corridor in volcaniclastic rocks that are intruded by two individual porphyry clusters
- Both El Pilar and San Nicholas are individual porphyry centres and indicate the potential for multiple porphyry copper-gold discoveries
- Both El Pilar and San Nicholas have undergone shallow drilling confirming the existence of copper-gold mineralization in weathered saprolite near surface
- The surficial hydrothermal alteration noted at both prospects represent a classic porphyry phyllic cap and the dimensions of the phyllic alteration (upper parts of in-situ porphyry systems) are large (>1km) indicating the porphyry intrusions are of large dimensions
- The in-situ copper-gold sulphide mineralization of the target potassic porphyry core is interpreted to be immediately below the surficial phyllic caps and remains untested with deeper drilling
- The target copper-gold potassic porphyry cores (chalcopyrite-bornite-magnetite) could extend down vertically +1,000m from surface and the large porphyry system presents an excellent open-pit exploration opportunity







# **Surface Mineralization at the El Pilar Prospect**



Strong phyllic alteration and porphyry D-veins overprinting a copper-gold porphyry system at surface





# **Surface Mineralization at the El Pilar Prospect in Comparison to Major Porphyry Systems**

Grasberg Cu-Au Porphyry Phyllic Cap, Indonesia

El Pilar Cu-Au Porphyry Phyllic Cap, Cuba







#### Ciego de Avila Project – Unrecognized Outcropping Copper-Gold Porphyry System

- The Ciego de Avila Project was originally discovered in the 1990's and underwent only focussed and shallow surface exploration
- Drilling tested only a very small zone of both the El Pilar and San Nicholas propsects and most drilling (RC drilling) was only to vertical depths of generally less than 75m, targetting oxide gold mineralisation.
- The above drilling however failed to identify the oxide exposures of this system as being a large leached porphyry copper-gold system
  - Copper grades are widespread with the gold mineralization and generally are located at the saprolite/saprock contact as the copper is leached downwards in the wethering profile above fresh rock
- The surface exposures at both El Pilar and San Nicholas are the leached phyllic caps to a cluster of copper-gold porphyry centres
- All porphyry systems, in tropical environments, are leached at surface due to the large amount of pyrite that oxidizes and leaches metals
  downwards in the oxidized saprolite to the fresh rock boundary
  - The target zone of the porphyry system is the in-situ primary sulphide copper-gold potassic core
- Given the size of the phyllic alteration zones at surface at both El Pilar and San Nicholas, the size potential of the mineralized copper-gold porphyry orebodies could easily surpass 500Mt, indicating it as a large porphyry size target and excellent exploration opportunity

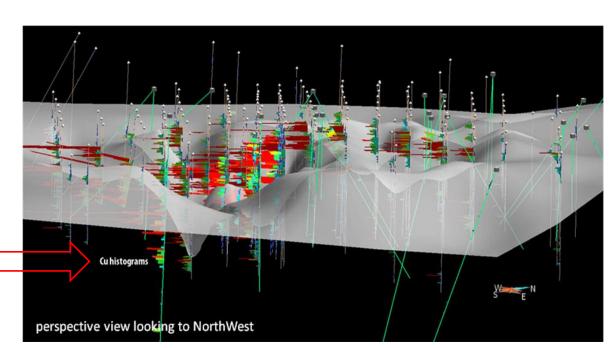




Sulphide coppergold mineralization

in fresh rock

### **Drilling at El Pilar Indicating the Overlooked Porphyry Copper-Gold Potential**



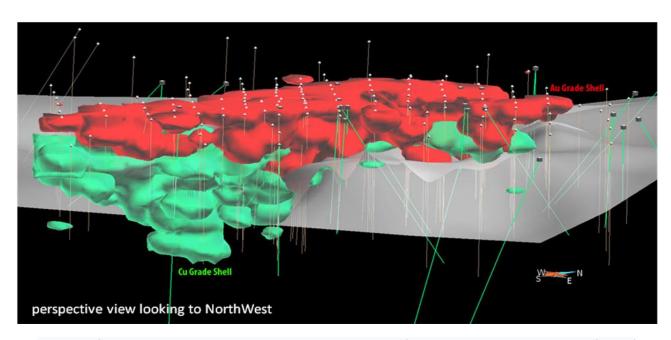
Deeper drilling at El Pilar showing that the copper-gold mineralization continues at depth in sulphides as chalcopyrite in veinlets. This indicates the drilling to date has not located the higher-grade potassic core where chalcopyrite-bornite-magnetite will be present in a vein network





### **Drilling at El Pilar Indicating the Overlooked Porphyry Copper-Gold Potential**

- Shallow drilling at El Pilar has shown oxide mineralization of both gold and copper
- The copper mineralization has been leached and is located below the gold zone and represents a classic leached oxide cap to a porphyry copper-gold system that has not been tested at depth
- A program of ground magnetics and I.P. geophysics will map the intrusive porphyry phases, locate the potassic sulphide core and guide drilling to locate the in-situ sulphide (chalcopyrite-bornitemagnetite) target zone



3D view of the previous drilling at El Pilar with the modeling of the Au and Cu ore bodies. The field of view of the image is about 500 m.





# Remnants of Porphyry Style Veining at the El Pilar Prospect



Porphyry D-veins and weak phyllic alteration overprinting diorite porphyry intrusive



Remnant porphyry B-veins overprinted by phyllic alteration



Remnant porphyry B-veins in diorite overprinted by phyllic alteration



Remnant porphyry A-veins overprinted by phyllic alteration





#### **Summary**

- The Ciego de Avila Project represents a highly recommended opportunity for an advanced exploration project that has multiple copper-gold porphyry targets
- The interpreted porphyry systems are fertile as both copper and gold are abundant in the saprolite at both the El Pilar and San Nicholas prospects
- The porphyry systems are outcropping in an area of excellent access and infrastructure
- The level of erosion of the porphyry systems is low, indicating that the porphyry system(s) should extend vertically over 1,000m, of which only shallow drilling (less than 75m vertical) has taken place historically

Minimal exploration is required to advance the targets to a drill-ready stage that would involve;

- 1. Reinterpretation of existing data
- 2. Detailed geological mapping
- 3. Ground magnetics and I.P. (Induced Polarisation) geophysical programs

